

Catalogue no. 91-214-X  
ISSN 1920-8154

# Annual Demographic Estimates: Subprovincial Areas, July 1, 2018

by Demography Division

Release date: March 28, 2019



Statistics  
Canada

Statistique  
Canada

Canada

---

## How to obtain more information

For information about this product or the wide range of services and data available from Statistics Canada, visit our website, [www.statcan.gc.ca](http://www.statcan.gc.ca).

You can also contact us by

**Email at** [STATCAN.infostats-infostats.STATCAN@canada.ca](mailto:STATCAN.infostats-infostats.STATCAN@canada.ca)

**Telephone**, from Monday to Friday, 8:30 a.m. to 4:30 p.m., at the following numbers:

- Statistical Information Service 1-800-263-1136
- National telecommunications device for the hearing impaired 1-800-363-7629
- Fax line 1-514-283-9350

### Depository Services Program

- Inquiries line 1-800-635-7943
- Fax line 1-800-565-7757

## Standards of service to the public

Statistics Canada is committed to serving its clients in a prompt, reliable and courteous manner. To this end, Statistics Canada has developed standards of service that its employees observe. To obtain a copy of these service standards, please contact Statistics Canada toll-free at 1-800-263-1136. The service standards are also published on [www.statcan.gc.ca](http://www.statcan.gc.ca) under "Contact us" > "[Standards of service to the public](#)."

## Note of appreciation

Canada owes the success of its statistical system to a long-standing partnership between Statistics Canada, the citizens of Canada, its businesses, governments and other institutions. Accurate and timely statistical information could not be produced without their continued co-operation and goodwill.

Published by authority of the Minister responsible for Statistics Canada

© Her Majesty the Queen in Right of Canada as represented by the Minister of Industry, 2019

All rights reserved. Use of this publication is governed by the Statistics Canada [Open Licence Agreement](#).

**An [HTML version](#) is also available.**

*Cette publication est aussi disponible en français.*

---

## **Notice to readers**

Estimates released in this publication are based on 2016 Census counts adjusted for census net undercoverage and incompletely enumerated Indian reserves to which are added the population change for the period from May 10, 2016 to the date of the estimate.

These estimates are also based on the 2016 Standard Geographical Classification

This analysis is based on preliminary data. Since these data will be revised in the coming year, some trends described in this analysis may change as a result of these revisions. Therefore, this analysis should be interpreted with caution.

Most of the components, used to produce preliminary population estimates, are estimated using demographic models or based on data sources less complete or reliable, albeit more timely, than those used for updated or final estimates.

## **Acknowledgements**

The completion of this publication and the dissemination of the annual demographic estimates for subprovincial areas rest on the assiduous and meticulous work of the members of the Population Estimates Section of the Demography Division.

The contribution of editorial, communications, translation and dissemination services staff of Statistics Canada was essential to the project's achievement and is appreciated.

## Table of contents

Notice to readers.....	3
Acknowledgements.....	4
Highlights .....	6
Section 1: Census metropolitan areas and Census agglomerations .....	7
Section 2 Census divisions.....	26
Section 3: Maps .....	37
Quality of demographic data.....	42
Methodology .....	54
Appendix A: Glossary.....	65
Appendix B: Explanatory notes for the tables.....	71
Appendix C: Sources and remarks .....	74
Related products.....	75

## Highlights

### Census metropolitan areas

- On July 1, 2018, 26,497,722 people, or 7 in 10 Canadians (71.5%), were living in one of the 36 census metropolitan areas (CMAs) in Canada.<sup>1</sup>
- Between July 1, 2017, and July 1, 2018, the five fastest-growing CMAs were located in Ontario. They are: Peterborough (+30.5 per thousand), Kitchener–Cambridge–Waterloo (+25.4 per thousand), Ottawa–Gatineau (Ontario part) (25.0 per thousand), Windsor (+24.8 per thousand) and London (23.9 per thousand). This is a break with recent trends, where the highest growth was generally observed in the CMAs of the western provinces.
- International migration was the main factor in population growth for more than three in four CMAs in 2017/2018.
- None of the CMAs experienced declines in 2017/2018. In addition, St. John's is the only CMA where the population remained relatively stable (+0.5 per thousand).

### Census agglomerations

- In 2017/2018, the three CAs with the largest population increases were located in Ontario: Wasaga Beach (37.3 per thousand), Carleton Place (32.4 per thousand) and Midland (29.9 per thousand).
- The Leamington CA (Ont.) had the highest rate of decline (-20.3 per thousand) of any CA for 2017/2018, followed by Estevan (Sask.) (-18.5 per thousand); Baie-Comeau (Que.) (-12.4 per thousand); Corner Brook (N.L.) (-10.2 per thousand); and Cold Lake (Alta.) (-7.9 per thousand).

### Census divisions

- The fastest growing census division (CD) was Mirabel in Quebec with a population growth rate of 39.8 per thousand between July 1, 2017 and July 1, 2018. The CD with the largest population decrease was Stikine (-27.8 per thousand) in British Columbia.
- On July 1, 2018, Ontario's Haliburton CD had the greatest median age, at 57.8 years, and the highest proportion of people aged 65 years and older, at 33.3% or one third of its population. Nunavut's Keewatin CD had the highest proportion of people aged under 15 years (33.0%) and the lowest median age (24.5 years).

1. The Ottawa–Gatineau CMA is divided into two separate entities to distinguish the Quebec part and the Ontario part.

## Section 1: Census metropolitan areas and Census agglomerations

### Section 1.1: Census metropolitan areas

- On July 1, 2018, 26,497,722 people were living in one of the 36 census metropolitan areas (CMAs) in Canada.<sup>2</sup>
- The proportion of the population living in a CMA continued to increase to 71.5%, or more than 7 in 10 Canadians, up from 2008 (69.7%).
- More than one in three Canadians (35.7%) were living in one of Canada's three largest CMAs—Toronto, Montréal or Vancouver.
- Between July 1, 2017, and July 1, 2018 (the 2017/2018 period), population growth was nearly three times higher in CMAs (+17.5 per thousand) than in areas outside CMAs (+5.7 per thousand).
- In the most recent annual period, the overall growth of CMAs was higher than in 2016/2017 (+14.6 per thousand). This increase was similar to that observed for the entire country.<sup>3</sup>
- Several CMAs in Ontario topped the list of fastest-growing CMAs in 2017/2018. The shift began in 2016/2017. Between 2006/2007 and 2015/2016, at most two Ontario CMAs were among the ten fastest-growing CMAs in Canada, with western provinces being predominantly in the foreground.

The estimates are based on the 2016 Census population counts adjusted for census net undercoverage and incompletely enumerated Indian reserves, to which are added the population change estimates for the period from May 10, 2016, to the date of the estimate.

These estimates are based on the 2016 Standard Geographical Classification. Moreover, new census metropolitan areas emerged with the 2016 Census, namely Belleville, Ontario, and Lethbridge, Alberta. Both were census agglomerations (CAs) in 2011.

For the rest of this analysis, a growth rate higher than -1 per thousand and lower than 1 per thousand is considered to be nil or low. Rates are based on the ratio of the number of events during the period (t, t+x) to the average of the populations at the beginning and end of the period. Five-year rates are annualized.

This analysis covers the period from July 1, 2006 to July 1, 2018 and includes preliminary data. Since these preliminary data will be revised in the coming year, some trends described in this study may change as a result of these revisions. Therefore, this analysis should be interpreted with caution.

### CMA growth unequal from east to west

#### Atlantic provinces

- Halifax (+20.1 per thousand) was the only CMA within the Atlantic provinces with higher population growth than the growth of all CMAs combined (+17.5 per thousand).
- The Saint John CMA posted positive population growth (+4.3 per thousand) for a third consecutive year after four years of population decline.
- With zero growth in 2017/2018, the St. John's CMA was the slowest-growing Canadian CMA. Although positive, St. John's has seen a gradual year over year growth decline starting in 2010/2011.

2. The Ottawa–Gatineau CMA is divided into two separate entities to distinguish the Quebec part and the Ontario part.

3. Statistics Canada. 2019. [Annual Demographic Estimates: Canada, Provinces and Territories, 2018](#). Statistics Canada Catalogue no. 91-215.

## Quebec

---

- The population growth of each of the six Quebec CMAs was lower than for all of Canada's CMAs combined in 2017/2018.
- In 2017/2018, the population growth of the Montréal (15.7 per thousand) and Sherbrooke (13.9 per thousand) CMAs was above that of the province (+11.1 per thousand).
- Despite posting the second-lowest growth in the country (+2.4 per thousand), the population of the Saguenay CMA has been increasing since 2016/2017 following three years of relative stability. An influx of non permanent residents explained the 2017/2018 growth, since the region experienced migratory losses to other parts of the province and other provinces, coupled with a low rate of natural growth.

## Ontario

---

- The five fastest-growing Canadian CMAs in 2017/2018 were located in Ontario (Peterborough, Kitchener–Cambridge–Waterloo, Ottawa–Gatineau (Ontario part), Windsor and London).
- The fifth slowest-growing CMA in Canada (+6.8 per thousand), Thunder Bay continued to rank among the five CMAs with the lowest growth (positive or negative) for a twelfth consecutive year (or since 2006, the beginning of the period covered by the study).
- In 2017/2018, growth in the Greater Sudbury CMA reached 10.8 per thousand; it had never exceeded 4.2 per thousand in the previous 11 years. Greater Sudbury benefited from a significant influx of international migrants in 2017/2018.
- In Ontario's areas outside CMAs and CAs, growth was estimated at 5.2 per thousand, but it was less pronounced than in the entire province (+17.7 per thousand).

## Prairies

---

- Among the Prairie CMAs, three of six were among the 10 fastest-growing CMAs in the country. But contrary to previous years, none of them ranked in the top five.
- Saskatchewan's two CMAs, Regina (+22.5 per thousand) and Saskatoon (+21.8 per thousand), had the highest population growth in the Prairies in 2017/2018, above the growth for all Canadian CMAs combined (+17.5 per thousand).
- Population growth in Alberta CMAs was higher in 2017/2018 (+19.5 per thousand) than a year earlier (+16.8 per thousand), after a marked slowdown from 2014/2015 to 2016/2017. This period coincides with the commodities downturn that began in 2014, which was reflected in the rising unemployment rate in the province beginning at the start of 2015, peaking at the end of 2016 and gradually decreasing thereafter.<sup>4</sup>

## British Columbia

---

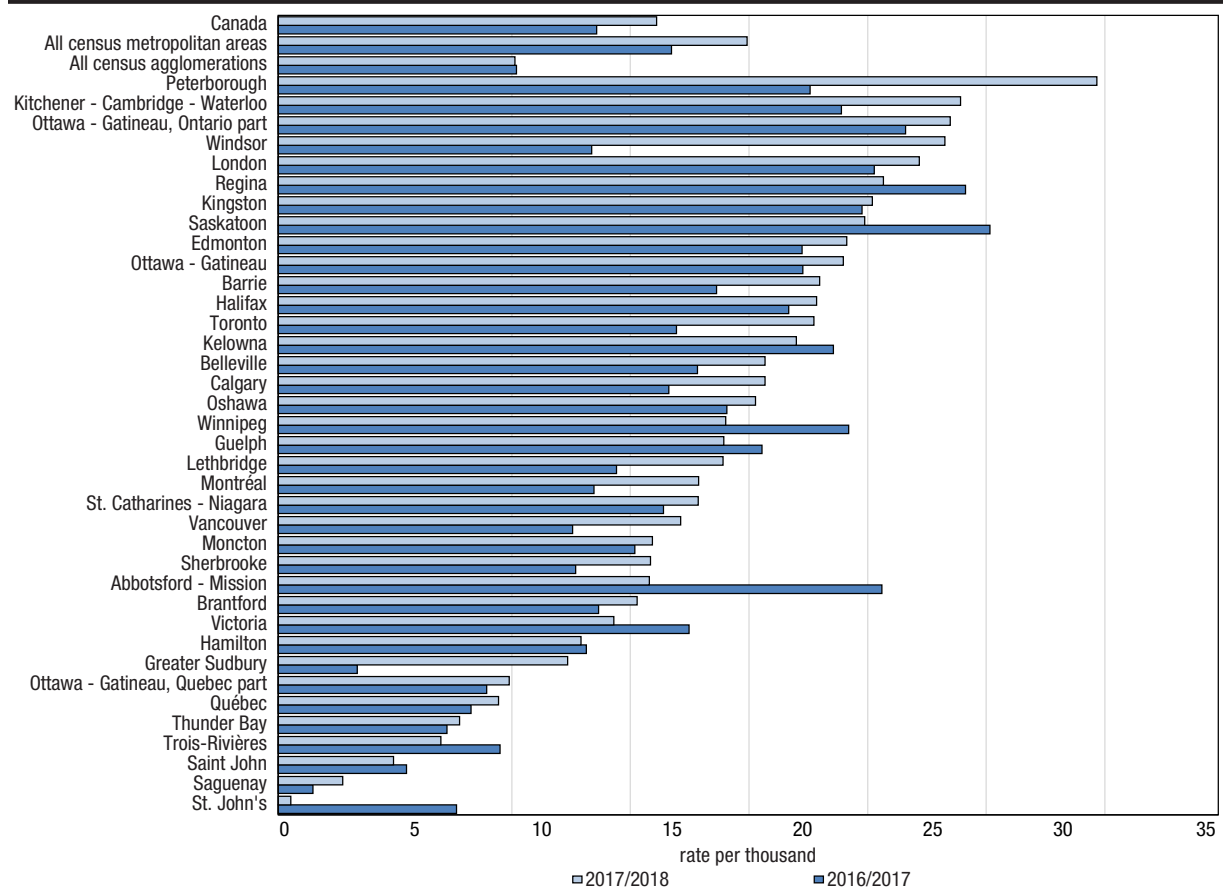
- Only the Kelowna CMA (+19.3 per thousand) posted population growth higher than the growth of all Canadian CMAs combined (+17.5 per thousand).
- Victoria was the slowest-growing CMA in the province, with 12.5 per thousand.

---

4. Statistics Canada. [Table 14-10-0287-01](#) Labour force characteristics, monthly, seasonally adjusted and trend-cycle, last 5 months (accessed February 7, 2019).



**Chart 1.1**  
**Population growth rates by census metropolitan area, Canada**



**Note:** Census metropolitan areas are sorted in descending order of the 2017/2018 population growth rate.  
**Source:** Statistics Canada, Demography Division.

**Table 1.1**  
**Population and demographic factors of growth by census metropolitan area or census agglomeration, Canada**

	2017/2018						Population growth
	Population 2018 (July 1)	Natural increase	International migratory increase	Interprovincial migratory increase	Intraprovincial migratory increase	Total migratory increase	
				number			
<b>Canada</b>	<b>37,058,856</b>	<b>105,841</b>	<b>412,747</b>	<b>0</b>	<b>0</b>	<b>412,747</b>	<b>518,588</b>
<b>All census agglomerations</b>	4,477,961	1,302	24,758	-2,132	18,786	41,412	39,308
<b>All census metropolitan areas</b>	26,497,722	97,691	376,296	3,064	-19,605	359,755	458,501
St. John's	212,501	436	930	-2,294	1,028	-336	100
Bay Roberts	11,361	-10	-1	9	25	33	23
Grand Falls-Windsor	14,313	-56	31	-120	70	-19	-75
Gander	13,609	-28	23	-85	75	13	-15
Corner Brook	32,060	-104	55	-357	79	-223	-327
Charlottetown	76,728	174	2,568	-721	210	2,057	2,231
Summerside	17,325	-24	130	71	27	228	204
Halifax	430,512	978	5,405	1,182	979	7,566	8,544
Kentville	27,301	-21	151	162	30	343	322
Truro	46,432	-130	106	-20	-43	43	-87
New Glasgow	34,869	-106	53	2	-54	1	-105
Cape Breton	99,805	-441	991	-181	-381	429	-12
Moncton	152,604	194	1,400	38	480	1,918	2,112
Saint John	130,107	-129	878	-265	74	687	558
Fredericton	108,054	257	1,529	-497	538	1,570	1,827
Bathurst	31,665	-123	82	33	1	116	-7
Miramichi	27,983	-88	98	76	-72	102	14
Edmundston	24,029	-83	70	4	52	126	43
Campbellton	16,134	-45	42	32	-73	1	-44
Campbellton, Nouveau-Brunswick part	13,170	-77	41	37	-90	-12	-89
Campbellton, Quebec part	2,964	32	1	-5	17	13	45
Matane	17,810	-84	16	7	-54	-31	-115
Rimouski	55,840	-41	117	-27	101	191	150
Rivière-du-Loup	29,458	-68	124	16	147	287	219
Baie-Comeau	27,202	-9	45	-6	-368	-329	-338
Saguenay	162,057	6	612	29	-257	384	390
Alma	32,819	-31	54	-1	-119	-66	-97
Dolbeau-Mistassini	15,529	-43	8	2	45	55	12
Sept-Îles	28,287	140	41	-13	-196	-168	-28
Québec	817,408	1,070	4,588	-696	1,723	5,615	6,685
Sainte-Marie	13,807	53	20	-5	15	30	83
Saint-Georges	33,206	30	116	-17	263	362	392
Thetford Mines	28,729	-136	61	12	170	243	107
Sherbrooke	218,797	332	1,651	-154	1,182	2,679	3,011
Cowansville	14,297	-55	12	6	284	302	247
Victoriaville	50,154	-50	115	-13	435	537	487
Trois-Rivières	159,078	-253	640	-58	631	1,213	960
Shawinigan	54,292	-271	86	24	230	340	69
Drummondville	98,758	114	266	-20	550	796	910
Granby	87,603	106	117	-39	879	957	1,063
Saint-Hyacinthe	60,133	-131	236	-22	39	253	122
Sorel-Tracy	41,566	-271	-10	-5	240	225	-46
Joliette	50,558	-204	137	-13	526	650	446
Montréal	4,255,541	14,150	69,768	-5,559	-12,243	51,966	66,116
Salaberry-de-Valleyfield	41,663	-164	67	12	466	545	381
Lachute	13,063	-104	9	1	249	259	155
Val-d'Or	34,201	91	41	11	-15	37	128
Rouyn-Noranda	42,887	83	142	-15	-150	-23	60
Hawkesbury	12,502	-71	24	61	84	169	98
Hawkesbury, Ontario part	10,691	-80	23	64	80	167	87
Hawkesbury, Quebec part	1,811	9	1	-3	4	2	11
Ottawa - Gatineau	1,414,399	5,016	12,861	5,409	6,174	24,444	29,460
Ottawa - Gatineau, Ontario part	1,074,524	3,619	11,580	5,913	5,438	22,931	26,550
Ottawa - Gatineau, Quebec part	339,875	1,397	1,281	-504	736	1,513	2,910
Cornwall	61,816	-129	197	209	79	485	356

**Table 1.1**  
**Population and demographic factors of growth by census metropolitan area or census agglomeration, Canada**

	Population 2018 (July 1)	2017/2018				Total migratory increase	Population growth
		Natural increase	International migratory increase	Interprovincial migratory increase	Intraprovincial migratory increase		
				number			
Amprior	16,957	6	-7	45	262	300	306
Carleton Place	34,499	11	-10	143	955	1,088	1,099
Brockville	39,968	-206	135	49	262	446	240
Pembroke	23,970	-26	2	17	80	99	73
Petawawa	18,233	227	10	91	-90	11	238
Kingston	173,450	49	1717	557	1,472	3,746	3,795
Belleville	109,932	-102	453	74	1,550	2,077	1,975
Cobourg	20,296	-164	27	-13	422	436	272
Port Hope	17,726	-111	-3	-18	371	350	239
Peterborough	131,283	-244	2,314	-45	1,916	4,185	3,941
Kawartha Lakes	79,667	-273	84	-104	1,473	1,453	1,180
Centre Wellington	30,056	47	-14	-25	547	508	555
Oshawa	405,631	1574	15,33	-193	4,229	5,569	7,143
Ingersoll	13,644	29	-7	-31	284	246	275
Toronto	6,341,935	32,410	133,272	9,374	-49,758	92,888	125,298
Hamilton	786,641	1,089	5,001	126	2,604	7,731	8,820
St. Catharines - Niagara	429,036	-664	4,125	-195	3,392	7,322	6,658
Kitchener - Cambridge - Waterloo	567,740	2,412	8,140	686	3,002	11,828	14,240
Brantford	147,548	99	527	-2	1,334	1,859	1,958
Woodstock	44,319	16	130	-7	1,094	1,217	1,233
Tillsonburg	16,982	-54	26	14	347	387	333
Norfolk	68,681	-116	772	16	995	1,783	1,667
Guelph	162,612	598	688	283	1,106	2,077	2,675
Stratford	33,230	-31	53	16	422	491	460
London	532,984	1,099	6,754	816	3,906	11,476	12,575
Chatham-Kent	105,877	-157	337	104	289	730	573
Leamington	52,202	-8	-222	-565	-276	-1,063	-1,071
Windsor	349,718	512	6,307	978	780	8,065	8,577
Sarnia	99,625	-98	907	147	86	1,140	1,042
Wasaga Beach	22,879	-75	-16	53	875	912	837
Owen Sound	33,199	-140	69	14	345	428	288
Collingwood	23,047	-82	3	0	461	464	382
Barrie	210,800	568	1,770	-156	2,026	3,640	4,208
Orillia	33,136	-225	71	8	702	781	556
Midland	39,191	-177	68	4	1,259	1,331	1,154
North Bay	73,585	-46	131	-46	340	425	379
Greater Sudbury	171,471	-102	1,919	47	-25	1,941	1,839
Elliot Lake	11,305	-152	-6	22	289	305	153
Timmins	42,603	39	208	-52	-274	-118	-79
Sault Ste. Marie	80,031	-285	198	-14	-146	38	-247
Thunder Bay	126,481	-194	995	-59	109	1,045	851
Kenora	15,989	-25	-4	71	90	157	132
Winnipeg	832,186	2,847	16,358	-6,569	1,113	10,902	13,749
Winkler	32,376	343	486	-141	-156	189	532
Steinbach	16,315	170	219	-78	-247	-106	64
Portage la Prairie	13,720	0	186	-26	-13	147	147
Brandon	61,507	332	797	-702	258	353	685
Thompson	14,579	181	279	-280	-85	-86	95
Regina	257,337	1,573	5,877	-2,802	1,087	4,162	5,735
Yorkton	19,527	23	184	-116	-98	-30	-7
Moose Jaw	36,274	-9	253	-114	-83	56	47
Swift Current	19,359	9	150	-85	22	87	96
Saskatoon	322,568	2,213	5,441	-3,112	2,428	4,757	6,970
North Battleford	19,972	130	169	-262	-154	-247	-117
Prince Albert	46,387	321	347	-201	-258	-112	209
Estevan	13,623	56	91	-220	-181	-310	-254
Weyburn	11,329	41	94	-100	9	3	44
Lloydminster	35,805	379	314	-342	-209	-237	142

**Table 1.1**  
**Population and demographic factors of growth by census metropolitan area or census agglomeration, Canada**

	Population 2018 (July 1)	2017/2018					Population growth
		Natural increase	International migratory increase	Interprovincial migratory increase	Intraprovincial migratory increase	Total migratory increase	
				number			
Lloydminster, Alberta part	20,217	115	207	138	-243	102	217
Lloydminster, Saskatchewan part	15,588	264	107	-480	34	-339	-75
Medicine Hat	79,294	134	489	226	-228	487	621
Brooks	24,989	222	350	-112	-587	-349	-127
Lethbridge	124,553	643	752	256	396	1,404	2,047
Okotoks	30,421	196	78	102	94	274	470
High River	14,405	19	105	51	103	259	278
Calgary	1,486,050	11,388	12,866	100	2,338	15,304	26,692
Strathmore	14,214	54	118	32	-80	70	124
Canmore	15,061	84	-1	90	45	134	218
Red Deer	103,759	670	475	-92	-690	-307	363
Sylvan Lake	15,684	150	54	-1	-184	-131	19
Lacombe	13,278	28	92	17	-94	15	43
Camrose	19,100	-29	141	-65	-62	14	-15
Edmonton	1,420,916	10,450	12,898	1,295	5,119	19,312	29,762
Cold Lake	14,962	209	16	-50	-293	-327	-118
Grande Prairie	66,678	828	539	44	-143	440	1,268
Wood Buffalo	73,797	1,189	704	10	-1,831	-1,117	72
Wetaskiwin	13,284	24	69	39	15	123	147
Cranbrook	27,582	-8	243	-86	26	183	270
Nelson	19,371	-14	33	68	-27	74	177
Penticton	46,128	-345	154	293	518	965	606
Kelowna	212,311	-416	1,735	1,412	1,708	4,855	4,057
Vernon	65,294	-205	112	448	446	1,006	800
Salmon Arm	19,307	-122	40	96	298	434	406
Kamloops	112,361	8	2,112	251	812	3,175	1,884
Chilliwack	110,600	151	859	-145	2,485	3,199	1,679
Abbotsford - Mission	196,007	706	3,641	26	838	4,505	2,690
Vancouver	2,650,005	8,027	40,768	869	-13,967	27,670	39,400
Squamish	21,881	165	160	92	67	319	370
Victoria	395,523	-644	1,712	1,666	1,921	5,299	4,910
Duncan	47,630	-124	47	182	590	819	712
Nanaimo	112,881	-211	563	521	1,041	2,125	1,759
Parksville	30,860	-386	-1	241	578	818	392
Port Alberni	26,720	-105	25	28	262	315	463
Courtenay	58,085	-150	305	227	679	1,211	862
Campbell River	40,848	-31	101	260	524	885	682
Powell River	17,626	-108	-22	51	127	156	178
Williams Lake	19,144	21	35	36	-95	-24	117
Quesnel	24,274	-34	23	-4	48	67	140
Prince Rupert	13,354	64	19	14	-49	-16	28
Terrace	16,496	64	204	-26	-118	60	59
Prince George	92,792	284	1,034	24	181	1,239	807
Dawson Creek	13,068	73	232	-101	-96	35	47
Fort St. John	29,957	309	272	-307	-389	-424	73
Whitehorse	31,294	185	371	141	3	515	700
Yellowknife	21,334	216	128	-572	157	-287	71

**Note:** Postcensal population estimates are produced using the component method, with the exception of British Columbia's preliminary estimates. Instead, they are based on the population estimates provided by BC Stats. As a result, the sum of components does not equal the population growth for preliminary estimates of British Columbia's census metropolitan areas.

**Source:** Statistics Canada, Demography Division.

## Population growth of CMAs stimulated by international migration

- International migration was the main factor in the population growth of 28 in 36 CMAs in 2017/2018.
- The number of non permanent residents<sup>5</sup> grew significantly, particularly in the CMAs in Ontario, along with the three biggest CMAs in Canada, showing values rarely or never seen in the 2006-to-2018 period.

### Atlantic provinces

---

- International migration was the main source of growth in the CMAs in the Atlantic provinces, except in the St. John's CMA in Newfoundland and Labrador. It hovered around the peak levels recorded in 2015/2016.
- The Halifax CMA had the highest international migration growth rate in 2017/2018 among the Atlantic CMAs, with 12.7 per thousand.

### Quebec

---

- The Montréal CMA—the second largest CMA in the country—also showed the second largest net number of international migrants (+69,768) among all Canadian CMAs in 2017/2018, an increase not seen in the study period from 2006 to 2018.
- The Montréal CMA has never seen such a large increase in the number of non permanent residents in a single year.
- Montréal was the only Quebec CMA among the top 10 Canadian CMAs with the highest international migration rates, ranking 8th with 16.5 per thousand.

### Ontario

---

- The Toronto CMA continued to be the number one destination for international migrants (+133,272) in 2017/2018. Growth of this magnitude has not been observed during the period from 2006 to 2018. The CMA also had the second highest international migration rate in the country, with 21.2 per thousand.
- The number of non permanent residents who settled in Ontario's CMAs reached levels rarely or never seen during the 2006-to-2018 observation period.
- The Toronto CMA had positive net interprovincial migration (+9,374) for a third consecutive year after four years of losses.
- Intraprovincial migration accounted for most of the population growth in seven Canadian CMAs with populations of under 500,000, five of which are in Ontario (Belleville, Oshawa, Brantford, Guelph and Barrie). Many of these smaller CMAs are near the Toronto CMA, and their migration gains were mainly at the expense of Toronto.

### Prairies

---

- The Regina CMA (+23.1 per thousand) had the highest international migration rate in the country. Winnipeg (+19.8 per thousand) ranked third, after Toronto.
- In Alberta, interprovincial migration was slightly positive in the Calgary (+100) and Edmonton (+1,295) CMAs after two years of losses.

### British Columbia

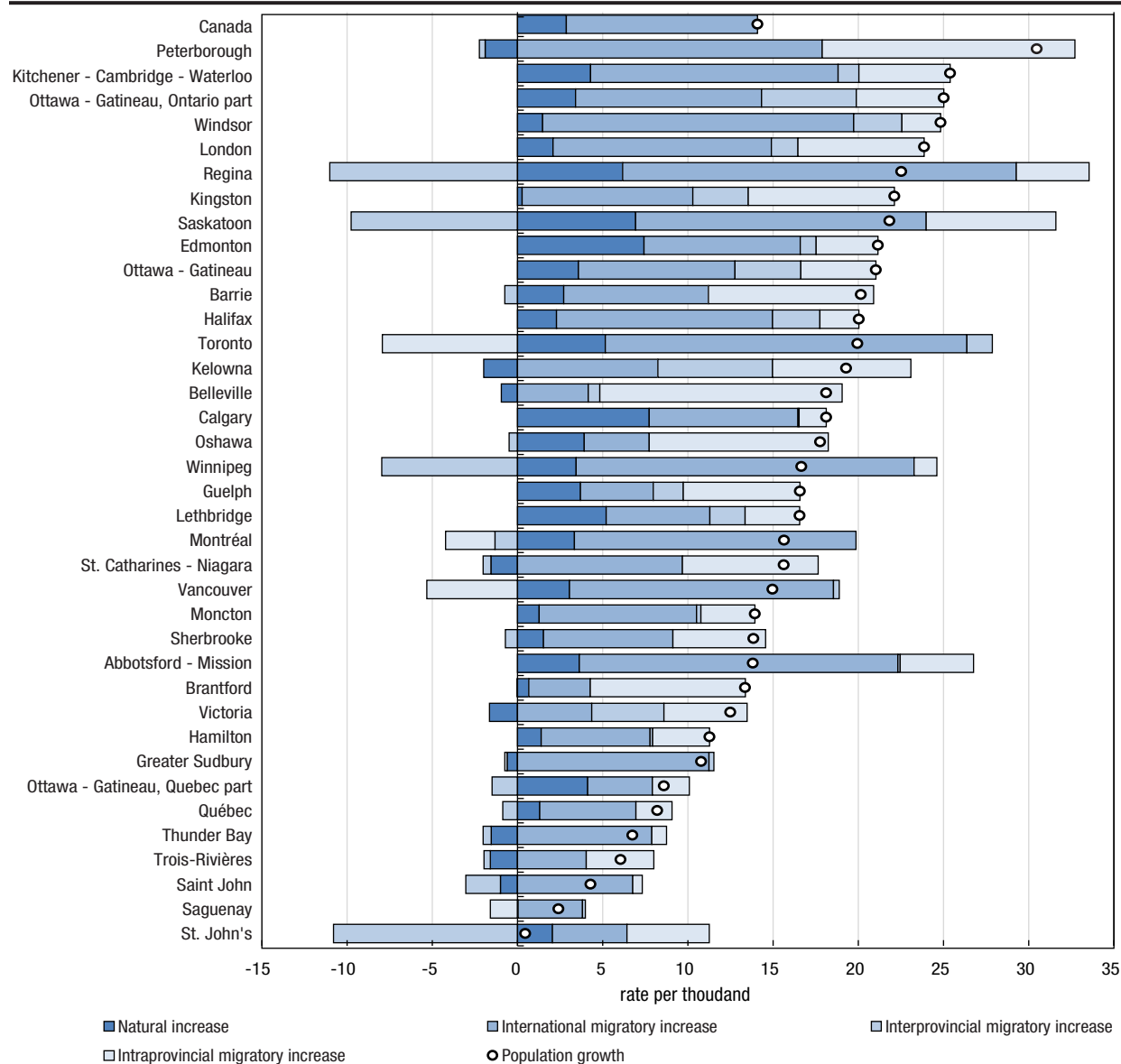
---

- The four British Columbia CMAs (Kelowna, Abbotsford-Mission, Vancouver and Victoria) benefited from an influx of international migrants (+47,856) in 2017/2018.
- The Abbotsford-Mission CMA posted an international migration rate of 18.7 per thousand, the fourth highest rate among all Canadian CMAs in 2017/2018. The CMA recorded an important rise in the number of non permanent residents (+2,635) over the same period.

---

5. Non-permanent residents include work permit holders, study permit holders and refugee claimants from other countries.

**Chart 1.2**  
**Factors of population growth by census metropolitan area, Canada, 2017/2018**



**Notes:** Census metropolitan areas are sorted in descending order of the population growth rate. Postcensal population estimates are produced using the component method, with the exception of British Columbia's preliminary estimates. Instead, they are based on the population estimates provided by BC Stats. As a result, the sum of components does not equal the population growth for preliminary estimates of British Columbia's census metropolitan areas.

**Source:** Statistics Canada, Demography Division.

### Of Canada's three largest CMAs, Toronto had the strongest population growth

- On July 1, 2018, Canada's three largest CMAs had a total combined population of 13.2 million, or more than one in three Canadians (35.7%), up from 2008 (34.9%).
- The proportion of new immigrants who settled in one of the three largest Canadian CMAs increased in the past year, after an almost steady decline in the previous decade. In 2017/2018, 59.0% of immigrants who settled in Canada (+178,891) chose to live in the Toronto, Montréal or Vancouver CMAs, compared with 53.4% in 2016/2017 and 68.0% in 2006/2007.

- A significant proportion of the new immigrants also settled in five of the six Prairie CMAs (Winnipeg, Regina, Saskatoon, Calgary and Edmonton), which received 18.1% of immigrants in 2017/2018, one and a half times the proportion observed in 2006/2007 (11.7%).

### **Montréal CMA**

---

- In 2017/2018, the population in the Montréal CMA grew by 66,116 (+15.7 per thousand) to 4,255,541.
- This growth was almost all due to international migration. The Montréal CMA incurred migration losses of 12,243 people to the rest of Quebec and of 5,559 to other provinces and territories, while benefiting from a positive natural growth (+14,150).
- Intraprovincial migratory losses occurred more often in the 30-39 and 50-64 age groups.

### **Toronto CMA**

---

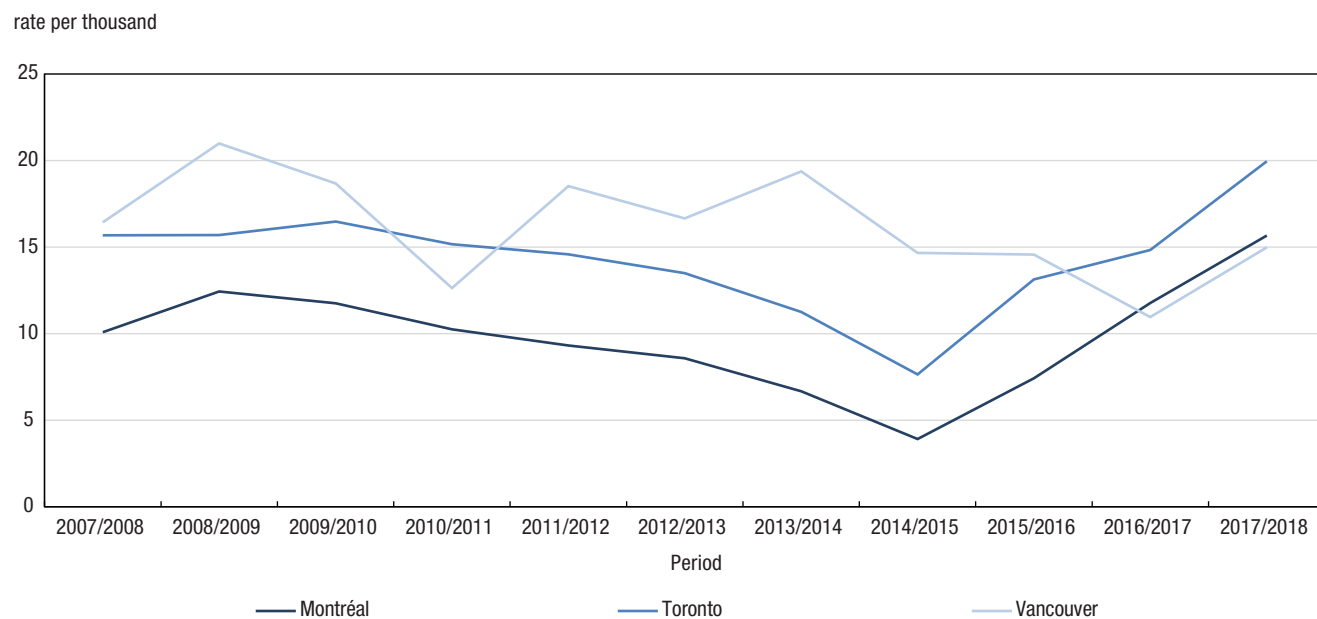
- Of Canada's three largest CMAs, Toronto had the strongest population growth in 2017/2018.
- With an increase of 125,298 (+20.0 per thousand), the population of Canada's largest CMA was 6,341,935. This was the highest annual population growth in Toronto CMA during the study period from 2006/2007 to 2017/2018.
- This increase stemmed mainly from international migration (+21.2 per thousand), particularly because of the positive balance of non permanent residents (+42,679) and new immigrants (+104,470) settling in Toronto in 2017/2018.
- The Toronto CMA lost residents (-49,758) to other regions within the province, especially those located on the outskirts of Toronto. Migration losses were largest among children younger than 5 years of age, persons aged 25 to 39 and those aged 55 to 64.
- Specifically, the Toronto CMA saw migration losses that benefited the outlying CMAs of Oshawa, Hamilton, Barrie and Kitchener–Cambridge–Waterloo.

### **Vancouver CMA**

---

- The population of the Vancouver CMA was 2,650,005 on July 1, 2018, up 39,400 (+15.0 per thousand) from the previous year.
- The Vancouver CMA saw intraprovincial migratory losses of 13,967 residents, mainly to the benefit of the neighbouring CMA of Abbotsford–Mission and areas outside CMAs and CAs.
- Intraprovincial migration losses were the most pronounced among children younger than 5 years of age, persons aged 30 to 34 and those aged 45 to 59.

**Chart 1.3**  
**Population growth rates of the three largest census metropolitan areas, Canada**



Source: Statistics Canada, Demography Division.

For the purposes of this article, various indicators will be used to measure the aging of a population. The distribution of the population aged 0 to 14 and 65 and over and the median age will be the indicators considered. The median age is the age “x” that divides the population into two equal groups, one containing only individuals older than “x” and the other those younger than “x.”

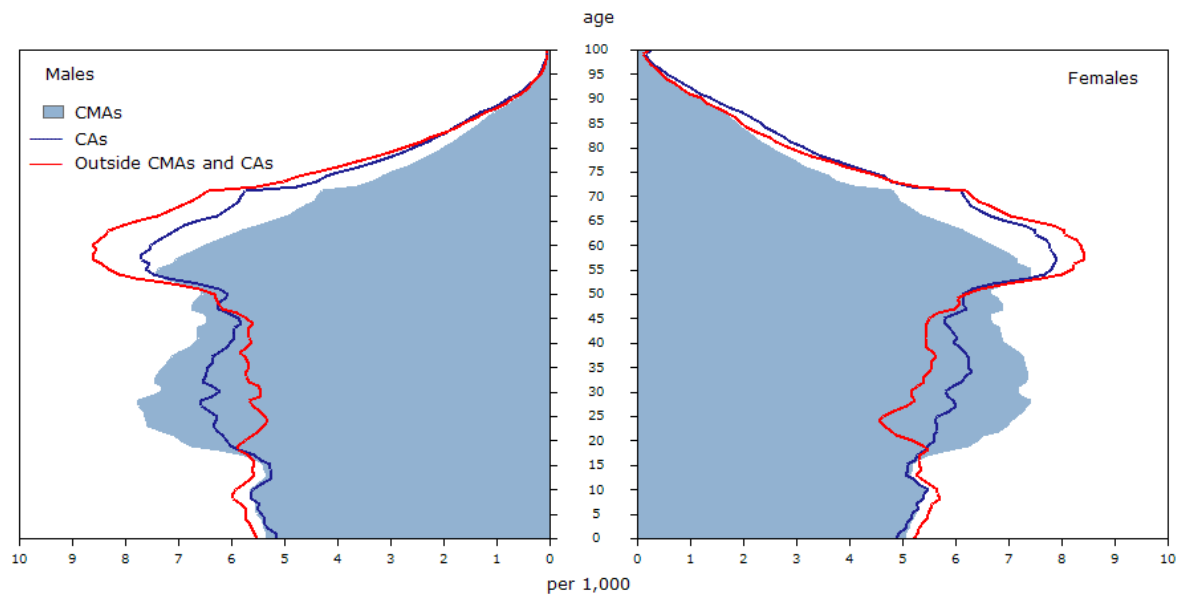
## The population of CMAs younger than in the rest of Canada

### Comparison of age structure between CMAs, CAs and areas outside CMAs and CAs

- On July 1, 2018, the median age of the population residing in a CMA was 39.5 years. By comparison, the median age of the CA population was higher at 43.4 years, whereas it was 45.6 years in the areas outside CMAs and CAs population.
- The age structure of CMA, CA and areas outside CMAs and CAs populations differs mainly in terms of the demographic weight of the age groups starting at 18 years, as the age pyramid in Figure 1.1 shows:
  - On one hand, Figure 1.1 shows that persons aged 20 to 49 represented a larger share of the population of CMAs than of CAs and areas outside CMAs.
  - This is mainly the result of young adults migrating from areas outside CMAs to CMAs, as well as a greater influx of immigrants into CMAs—more than two thirds of the new immigrants who settled in a CMA were aged 20 to 49.
  - On the other hand, the 65 and older group accounted for 20.9% of the areas outside CMAs and CAs population, compared with 20.2% of the population in CAs and 15.8% of the population in CMAs.
- Although the number of persons aged 65 and older exceeded the number of children aged 0 to 14 in Canada in 2015/2016, 14 CMAs (mostly those in the Prairies and some CMAs in Ontario) still had more children than seniors on July 1, 2018, compared with 27 CMAs a decade earlier.



**Figure 1.1**  
Age pyramid for CMAs, CAs and regions outside CMAs and CAs population for July 1, 2018



Source: Statistics Canada, Demography Division

## The CMAs with the youngest populations are in western Canada

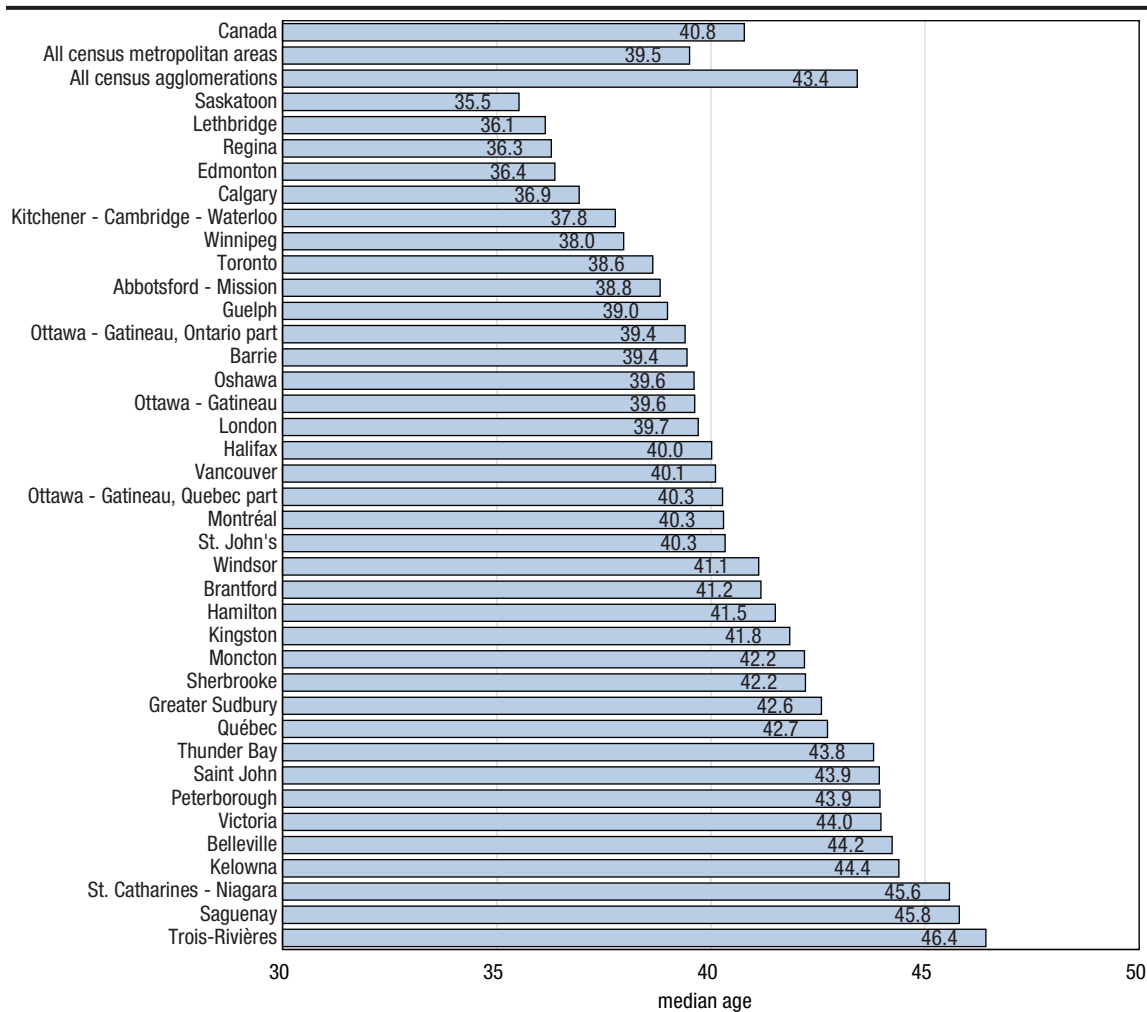
### CMAs with the youngest populations

- On July 1, 2018, the five CMAs with the lowest median ages in Canada were in Alberta and Saskatchewan.
- Saskatoon had the lowest median age, at 35.5 years. This is 5.3 years less than the median age for Canada (40.8 years).
- The Lethbridge, Saskatoon and Regina CMAs stood out for having young populations. These CMAs had the greatest proportions of persons aged 0 to 14 (19.0%, 18.7% and 18.6% respectively).
- The Calgary CMA was also one of the youngest CMAs in Canada. In addition to posting the fourth largest proportion of persons aged 0 to 14 (18.4%), it was the CMA with the smallest proportion of persons aged 65 and older (11.6%).

### CMAs with the oldest populations

- With respect to median age, the oldest population was in the Trois Rivières CMA (46.4 years), followed by the Saguenay CMA (45.8 years) and the St. Catharines–Niagara CMA (45.6 years).
- The Trois-Rivières CMA (23.2%) also had the largest share of persons aged 65 and older among all the CMAs in Canada. The Peterborough CMA and the St. Catharines–Niagara CMA had the second and third highest proportions of persons aged 65 and older, at 22.2% and 22.1% respectively.

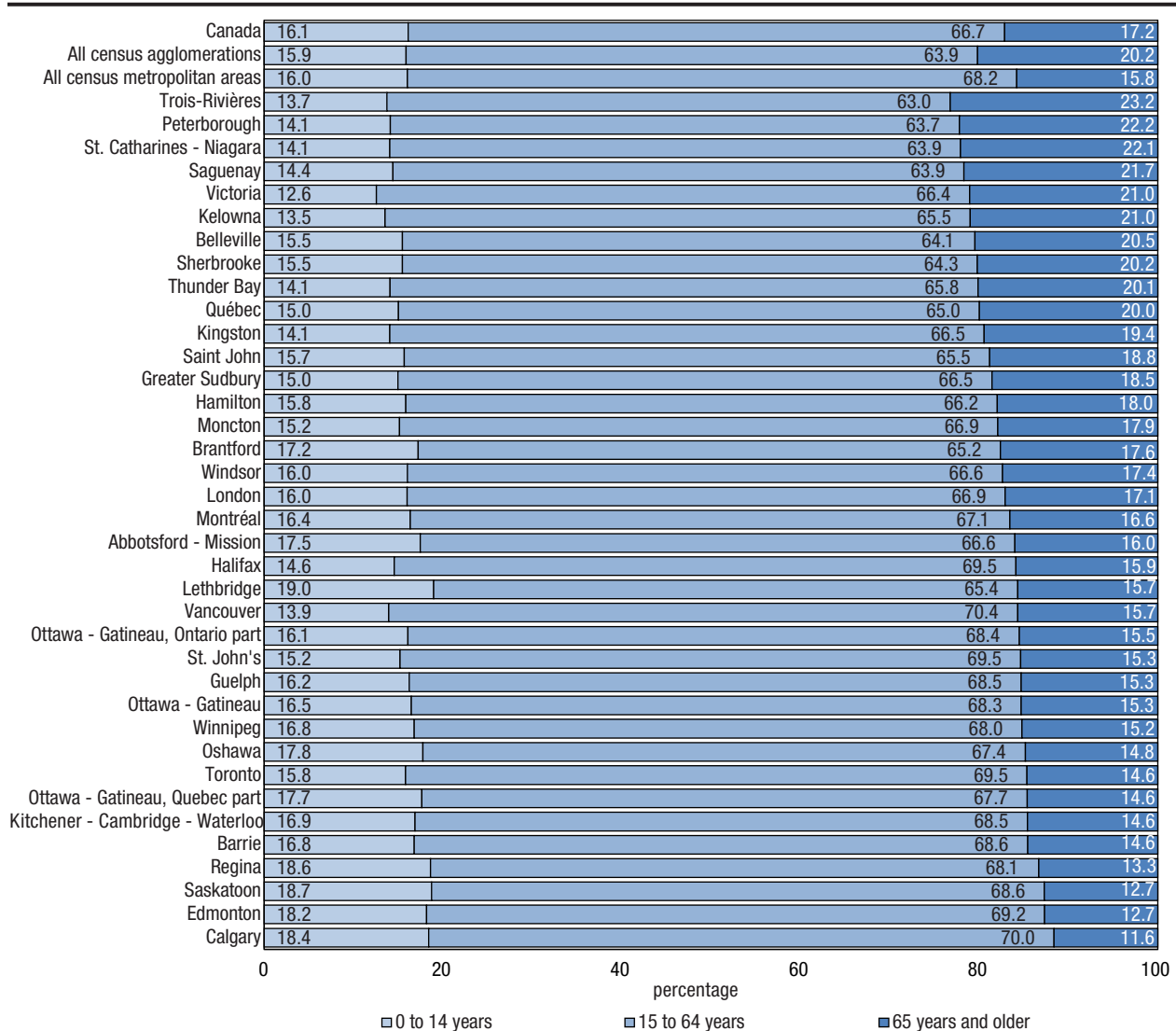
**Chart 1.4**  
**Median age by census metropolitan area, Canada, July 1, 2018**



**Note:** Census metropolitan areas are sorted in ascending order of median age.

**Source:** Statistics Canada, Demography Division.

**Chart 1.5**  
**Distribution of population by age group and census metropolitan area, Canada, July 1, 2018**



**Note:** Census metropolitan areas are sorted in descending order of the 65 years and older population percentage. Figures in percent may not add up to 100% as a result of rounding.  
**Source:** Statistics Canada, Demography Division.

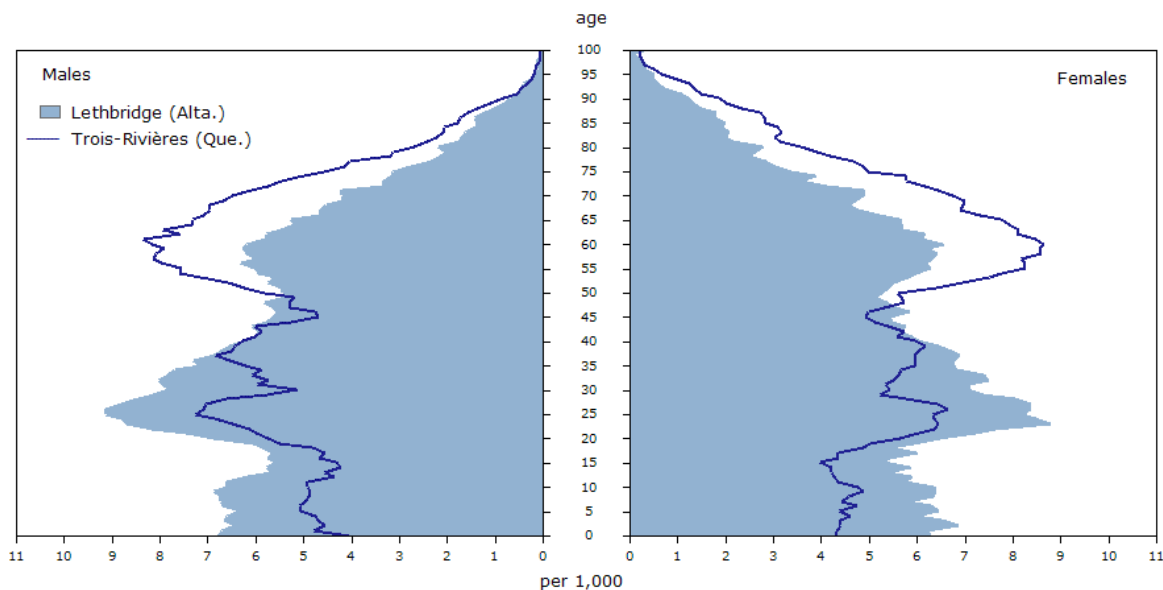
**CMA with the youngest population and CMA with the oldest population**

- Figure 1.2 compares the age pyramid for the Lethbridge CMA, where the share of youth aged 0 to 14 was the largest, with the pyramid for Trois Rivières, which had the highest proportion of persons aged 65 and older:
  - The top of the pyramid, which is wider for Trois Rivières than for Lethbridge, indicates that the age structure is older in the Quebec CMA.
  - The larger share of persons aged 65 and older in Trois Rivières can be attributed to the intraprovincial migration in recent years of persons mainly aged 40 and older, coupled with one of the lowest birth rates in the country.
  - The wider base of the Lethbridge CMA pyramid indicates that children account for a larger share of the population in this CMA.

- The relatively large size of this age group is in part due to a high birth rate—still among the three highest since 2006/2007.

Figure 1.2

Age pyramid for the CMA with the highest proportion of persons aged 65 and older (Trois-Rivières, Quebec) and the CMA with the highest proportion of persons aged 0 to 14 years (Lethbridge, Alberta) for July 1, 2018



Source: Statistics Canada, Demography Division

### The fastest-aging CMAs were in Quebec and Ontario

- Even though the populations of CMAs are younger than in the rest of Canada, these populations are also aging, but not as quickly as in CAs and areas outside CMAs and CAs.
- The median age of the population of CMAs increased 1.1 years between July 1, 2008 and July 1, 2018, compared with 2.2 years for CAs and 3.0 years for areas outside CMAs and CAs.
- As well, the proportion of persons aged 65 and older in CMAs rose from 12.8% to 15.8% during the same period, an increase of 3.0 percentage points. In CAs, the proportion was 20.2% on July 1, 2018, an increase of 4.6 percentage points, which is even greater than the one observed in the CMAs. Areas outside CMAs and CAs aged even faster, as the proportion of persons aged 65 and older was 20.9% on July 1, 2018, an increase of 5.2 percentage points in ten years.
- An increase in the median age combined with an increase in the proportion of persons aged 65 and older was observed in almost all of Canada's CMAs.

### CMAs with the fastest-aging populations

- The biggest increases in the proportion of persons aged 65 and older between 2008 and 2018 were recorded in Quebec CMAs, specifically Saguenay (+6.2 percentage points), Trois Rivières (+5.8 percentage points), Sherbrooke (+5.3 percentage points) and Québec (+5.1 percentage points). Quebec had proportionately more births during the baby boom period (1946-1965) than elsewhere in Canada, these cohorts now reaching the age of 65 in high numbers.
- In addition, the largest increases in median age over the past decade were in the New Brunswick CMAs of Saint John (+3.4 years) and Moncton (+3.0 years), and the Ontario CMAs of St. Catharines–Niagara (+3.0 years), Windsor (+2.7 years), Belleville (+2.6 years) and Barrie (+2.3 years).

## CMA with the slowest-aging populations

- The Prairie CMAs recorded slower population aging than in the rest of Canada.
- Over the past decade, the median age in the Regina and Winnipeg CMAs has decreased 0.7 years and 0.5 years, respectively. In the Edmonton, Saskatoon and Lethbridge CMAs, the change in median age over the same period was 0.5 years at most (compared with +1.4 years for Canada).
- In the Prairie CMAs, the increase in the proportion of the population aged 65 and older between 2008 and 2018 did not exceed 2.6 percentage points (compared with +3.5 percentage points for Canada).

**Table 1.2**  
**Median age and variation of median age for census metropolitan areas and census agglomerations on July 1, 2008 and 2018**

	Median age in 2008	Median age in 2018	Variation 2008 / 2018
	years		
<b>Canada</b>	<b>39.4</b>	<b>40.8</b>	<b>1.4</b>
<b>All census agglomerations</b>	<b>41.3</b>	<b>43.4</b>	<b>2.1</b>
<b>All census metropolitan areas</b>	<b>38.4</b>	<b>39.5</b>	<b>1.1</b>
Abbotsford - Mission	36.7	38.8	2.1
Alma	43.6	47.0	3.4
Arnprior	43.8	47.3	3.5
Baie-Comeau	43.3	47.8	4.5
Barrie	37.1	39.4	2.3
Bathurst	45.3	51.8	6.5
Bay Roberts	42.1	46.8	4.7
Belleville	41.6	44.2	2.6
Brandon	35.8	35.7	-0.1
Brantford	39.2	41.2	2.0
Brockville	44.7	49.7	5.0
Brooks	33.4	36.5	3.1
Calgary	35.5	36.9	1.4
Campbell River	43.2	47.4	4.2
Campbellton	44.4	50.5	6.1
Campbellton. Nouveau-Brunswick part	45.6	52.0	6.4
Campbellton. Quebec part	36.9	42.6	5.6
Camrose	40.8	41.1	0.3
Canmore	37.7	41.2	3.5
Cape Breton	44.8	48.5	3.7
Carleton Place	41.8	45.6	3.8
Centre Wellington	40.7	43.5	2.8
Charlottetown	40.3	40.4	0.2
Chatham-Kent	41.6	45.5	3.9
Chilliwack	39.7	42.2	2.4
Cobourg	47.0	53.7	6.7
Cold Lake	30.8	32.0	1.2
Collingwood	44.8	49.1	4.3
Corner Brook	43.3	47.4	4.0
Cornwall	43.5	45.9	2.5
Courtenay	46.3	51.2	4.9
Cowansville	44.2	47.0	2.8
Cranbrook	42.6	45.3	2.7
Dawson Creek	34.9	33.9	-1.0
Dolbeau-Mistassini	44.8	50.4	5.6
Drummondville	40.9	43.2	2.3
Duncan	44.3	48.7	4.4
Edmonton	35.9	36.4	0.5
Edmundston	45.3	51.0	5.7
Elliot Lake	55.0	57.9	2.8
Estevan	35.9	37.5	1.6
Fort St. John	31.1	33.4	2.3
Fredericton	38.5	40.4	1.9
Gander	40.0	44.2	4.2
Granby	41.9	45.7	3.7
Grand Falls-Windsor	43.3	47.2	4.0

**Table 1.2**  
**Median age and variation of median age for census metropolitan areas and census agglomerations on July 1, 2008 and 2018**

	Median age in 2008	Median age in 2018	Variation 2008 / 2018
	years		
Grande Prairie	29.7	32.7	3.0
Greater Sudbury	41.0	42.6	1.6
Guelph	37.3	39.0	1.7
Halifax	38.9	40.0	1.2
Hamilton	39.9	41.5	1.6
Hawkesbury	46.3	51.4	5.1
Hawkesbury. Ontario part	46.9	52.2	5.3
Hawkesbury. Quebec part	40.4	46.0	5.6
High River	40.4	42.4	2.0
Ingersoll	39.1	40.7	1.7
Joliette	44.8	48.1	3.2
Kamloops	41.0	41.8	0.8
Kawartha Lakes	46.0	50.9	5.0
Kelowna	42.8	44.4	1.5
Kenora	43.1	43.1	0.1
Kentville	42.2	46.4	4.2
Kingston	40.4	41.8	1.4
Kitchener - Cambridge - Waterloo	36.7	37.8	1.1
Lachute	45.4	49.3	3.9
Lacombe	36.1	38.1	2.0
Leamington	38.8	41.8	3.0
Lethbridge	35.8	36.1	0.3
Lloydminster	31.1	33.7	2.6
Lloydminster. Alberta part	33.3	35.7	2.5
Lloydminster. Saskatchewan part	28.1	31.4	3.3
London	38.6	39.7	1.1
Matane	47.2	52.9	5.7
Medicine Hat	37.9	40.1	2.2
Midland	44.4	48.5	4.1
Miramichi	43.4	48.6	5.2
Moncton	39.2	42.2	3.0
Montréal	39.1	40.3	1.2
Moose Jaw	41.1	40.5	-0.5
Nanaimo	43.3	45.6	2.3
Nelson	42.0	45.0	3.0
New Glasgow	43.5	47.5	4.1
Norfolk	43.9	47.3	3.4
North Battleford	37.6	38.3	0.7
North Bay	42.1	44.4	2.3
Okotoks	32.7	37.3	4.6
Orillia	43.1	45.6	2.4
Oshawa	37.7	39.6	1.9
Ottawa - Gatineau	38.3	39.6	1.3
Ottawa - Gatineau. Ontario part	38.3	39.4	1.1
Ottawa - Gatineau. Quebec part	38.4	40.3	1.9
Owen Sound	44.7	48.4	3.7
Parksville	57.0	60.6	3.5
Pembroke	43.4	45.3	2.0
Penticton	48.0	52.8	4.7
Petawawa	30.5	32.2	1.7
Peterborough	43.0	43.9	0.9
Port Alberni	45.4	49.2	3.8
Port Hope	44.5	50.2	5.8
Portage la Prairie	40.0	39.3	-0.6
Powell River	47.9	53.0	5.1
Prince Albert	35.6	35.9	0.3
Prince George	37.3	38.4	1.1
Prince Rupert	38.4	39.7	1.3
Quesnel	41.8	45.8	4.0
Québec	41.6	42.7	1.2
Red Deer	33.3	36.5	3.2

**Table 1.2**  
**Median age and variation of median age for census metropolitan areas and census agglomerations on July 1, 2008 and 2018**

	Median age in 2008	Median age in 2018	Variation 2008 / 2018
	years		
Regina	37.0	36.3	-0.7
Rimouski	44.6	47.2	2.6
Rivière-du-Loup	43.3	45.8	2.5
Rouyn-Noranda	41.0	41.9	0.9
Saguenay	43.9	45.8	1.9
Saint John	40.5	43.9	3.4
Saint-Georges	40.6	44.8	4.2
Saint-Hyacinthe	43.8	46.1	2.2
Sainte-Marie	40.6	42.3	1.7
Salaberry-de-Valleyfield	45.1	47.9	2.8
Salmon Arm	46.0	50.0	4.0
Sarnia	43.0	45.2	2.2
Saskatoon	35.2	35.5	0.3
Sault Ste. Marie	43.8	46.4	2.5
Sept-Îles	39.5	42.0	2.5
Shawinigan	48.1	52.8	4.7
Sherbrooke	40.4	42.2	1.8
Sorel-Tracy	47.9	52.3	4.4
Squamish	35.6	37.8	2.1
St. Catharines - Niagara	42.5	45.6	3.0
St. John's	38.4	40.3	2.0
Steinbach	34.9	34.5	-0.4
Stratford	41.6	44.9	3.4
Strathmore	35.3	38.5	3.2
Summerside	41.9	46.5	4.6
Swift Current	41.5	40.9	-0.6
Sylvan Lake	31.5	34.2	2.7
Terrace	37.5	38.7	1.2
Thetford Mines	48.5	52.4	3.8
Thompson	30.1	30.4	0.3
Thunder Bay	42.2	43.8	1.5
Tillsonburg	44.6	47.5	2.9
Timmins	39.7	41.1	1.4
Toronto	37.5	38.6	1.1
Trois-Rivières	44.1	46.4	2.3
Truro	42.6	46.7	4.1
Val-d'Or	40.2	41.6	1.4
Vancouver	38.9	40.1	1.2
Vernon	44.8	49.1	4.3
Victoria	43.0	44.0	1.0
Victoriaville	42.6	45.8	3.1
Wasaga Beach	49.7	53.9	4.1
Wetaskiwin	40.1	40.1	0.0
Weyburn	41.0	38.0	-3.0
Whitehorse	37.7	38.0	0.4
Williams Lake	39.1	42.4	3.4
Windsor	38.4	41.1	2.7
Winkler	31.3	32.0	0.7
Winnipeg	38.5	38.0	-0.5
Wood Buffalo	31.4	33.7	2.3
Woodstock	39.7	41.1	1.4
Yellowknife	32.1	35.1	3.0
Yorkton	42.0	40.7	-1.3

**Note:** As a result of rounding, the variation may not correspond to the difference of the two median ages.

**Source:** Statistics Canada, Demography Division.

## Section 1.2: Census agglomerations

### Census agglomerations (CAs) with the highest growth rates in the past year

- Between July 1, 2017, and July 1, 2018, the population increased in 93 of Canada's 120 CAs (77.5%), decreased in 19 CAs (15.8%) and remained relatively stable in the others.

For the rest of this analysis, a growth rate higher than -1 per thousand and lower than 1 per thousand is considered to be nil or low. Rates are based on the ratio of the number of events during the period (t, t+x) to the average of the populations at the beginning and end of the period. Five-year rates are annualized. Preliminary postcensal estimates are subject to revision. Future updates could affect trend analysis.

**Table 1.3**

**Population estimates and annual population growth rates for the five census agglomerations with the highest growth, Canada, July 1, 2013 to June 30, 2018 and July 1, 2017 to June 30, 2018**

	Population at July 1			Annual population growth rate	
	2013	2017	2018	2013/2018	2017/2018
	number			per thousand	
Wasaga Beach, Ont.	19,251	22,042	22,879	34.4	37.3
Carleton Place, Ont.	30,771	33,400	34,499	22.8	32.4
Midland, Ont.	36,212	38,037	39,191	15.8	29.9
Charlottetown, P.E.I.	68,136	74,497	76,728	23.7	29.5
Woodstock, Ont.	40,475	43,086	44,319	18.1	28.2

**Note:** Census agglomerations are ranked in descending order of the 2017/2018 annual population growth rate.

**Source:** Statistics Canada, Demography Division.

- In 2017/2018, four of the five CAs with the largest population increases were in Ontario: Wasaga Beach (+37.3 per thousand), Carleton Place (+32.4 per thousand), Midland (+29.9 per thousand) and Woodstock (+28.2 per thousand). The Charlottetown CA in Prince Edward Island ranked fourth (+29.5 per thousand) among the CAs with the highest growth.
- These Ontario CAs mainly benefited from a heavy influx of migrants from other areas within the province. The growth of the Charlottetown CA was largely due to the arrival of international migrants.
- Wasaga Beach (Ont.) had a growth rate of 37.3 per thousand, among the five Canadian CAs with the highest population growth for a fifth consecutive annual period.
- Wasaga Beach's population growth was mainly due to the intraprovincial migration rate of 39.0 per thousand, the highest of any CA in Canada. Most of the intraprovincial net migration for Wasaga Beach came from the Toronto CMA and the nearby CMA of Barrie.
- For a second consecutive year, Carleton Place (Ont.) was among the five CAs with the largest population increases, thanks to a significant influx of migrants from other areas within Ontario. In fact, the intraprovincial migration rate for Carleton Place was the third highest in the country (+28.1 per thousand).
- Carleton Place attracted mainly migrants from areas outside CMAs and CAs, and from the neighbouring CMA of Ottawa–Gatineau (Ontario part), at their expense.
- With an intraprovincial migration rate among the highest in Canada, the Midland CA (Ont.) moved up to third place among the CAs with the largest population increases in 2017/2018.
- Like Wasaga Beach, most of the intraprovincial net migration for Midland came from the Toronto CMA and the nearby CMA of Barrie.
- For the first time since 2006/2007, the start of the study period, the Woodstock CA (Ontario) had one of the five largest population increases in Canada.
- This large growth was due to a notable net inflow of migrants from other areas within the province, particularly the Toronto CMA and the nearby CMA of Kitchener.



- For a third consecutive year, Charlottetown (P.E.I.) was among the five CAs with the highest growth in the country, mainly because of strong international migration (both immigrants and non permanent residents), the highest (+34.0 per thousand) of any CA in 2017/2018.

### Census agglomerations with the highest rates of decline in the past year

- With the exception of Prince Edward Island, the population decreased or remained stable in many CAs in the Atlantic provinces (69.2% of them) and in Saskatchewan (50.0% of CAs). For the other jurisdictions, the proportion varied between 0.0% and 26.7%.
- The Ontario CA of Leamington had the highest rate of decline in the country (-20.3 per thousand).
- The population decline in Leamington CA was attributed to interprovincial migratory losses (decrease in the number of non permanent residents during the period) as well as international migration losses and migration to other areas within the province, and almost non existent gains from natural increase.

**Table 1.4**

**Population estimates and growth rates for the five census agglomerations with the highest decrease, Canada, July 1, 2013 to June 30, 2018 and July 1, 2017 to June 30, 2018**

	Population at July 1			Annual population	
	2013	2017	2018	2013/2018	2017/2018
	number			per thousand	
Leamington, Ont.	49,982	53,273	52,202	8.7	-20.3
Estevan, Sask.	14,154	13,877	13,623	-7.6	-18.5
Baie-Comeau, Que.	28,638	27,540	27,202	-10.3	-12.3
Corner Brook, N.L.	32,337	32,387	32,060	-1.7	-10.1
Cold Lake, Alta.	15,108	15,080	14,962	-1.9	-7.9

**Note:** Census agglomerations are ranked in ascending order of the 2017/2018 annual population growth rate.

**Source:** Statistics Canada, Demography Division.

- The Estevan CA (Sask.) had the second rate of decline (-18.5 per thousand) of any CA for 2017/2018. This is the fourth consecutive year of decline for Estevan.
- This decline was all due to a significant decline in interprovincial migration (-16.0 per thousand) and in intraprovincial migration (-13.2 per thousand).
- The Baie-Comeau CA (Que.) had the third highest rate of decline in the past year (-12.4 per thousand). Low international migration (+1.6 per thousand) could not offset the strong losses from intraprovincial migration (-13.4 per thousand).
- The population of Baie-Comeau has declined for almost the entire past 12 years, except for 2010/2011 and 2011/2012, when it grew slightly (+1.9 per thousand on average).
- The Corner Brook CA (N.L.) was in fourth place with a rate of decline of 10.2 per thousand, mainly attributable to negative interprovincial migration.
- Lastly, Cold Lake (Alta.) had the fifth highest rate of decline in 2017/2018 (-7.9 per thousand). This decline was due to migration losses to other areas within the province and to other provinces and territories.

### Areas outside CMAs and CAs

- In 2017/2018, population decreases were observed in areas outside CMAs and CAs in three provinces and one territory, specifically Newfoundland and Labrador (-2,918), New Brunswick (-677), Saskatchewan (-1,368) and the Northwest Territories (-324).
- For the areas outside CMAs and CAs in Newfoundland and Labrador and New Brunswick, the population decreases were due to a combination of factors: negative intraprovincial migration, negative natural increase (more deaths than births) and negative interprovincial migration in Newfoundland and Labrador.
- In Saskatchewan and the Northwest Territories, population decreases stemmed from migratory losses to other areas within the jurisdiction and to other provinces and territories.

## Section 2 Census divisions

### Census divisions (CDs) with the highest growth rates in the past year

- Between July 1, 2017 and June 30, 2018 (2017/2018), the population increased in 194 of Canada's 293 CDs (66.2%), decreased in 79 CDs (27.0%) and continued to be relatively stable in the remaining 20 (6.8%).
- The CDs which showed growth have a larger population size than those that stayed stable or declined. The average population size for those that increased was 175,608, while the average population size for those CDs that decreased or stayed stable was 30,212.

For the rest of this analysis, a growth rate higher than -1 per thousand and lower than 1 per thousand is considered to be nil or low. Rates are based on the ratio of the number of events during the period (t, t+x) to the average of the populations at the beginning and end of the period. Five-year rates are annualized. Preliminary postcensal estimates are subject to revision. Future updates could affect trend analysis.

**Table 2.1**

**Population estimates and annual population growth rates for the ten census divisions with the highest growth, Canada, July 1, 2013 to June 30, 2018 and July 1, 2017 to June 30, 2018**

	Population at July 1			Annual population growth rate	
	2013	2017	2018	2013/2018	2017/2018
	number			per thousand	
Mirabel, Que.	45,852	53,037	55,189	37.0	39.8
L'Île-d'Orléans, Que.	6,892	7,309	7,573	18.8	35.5
Les Jardins-de-Napierville, Que.	27,102	29,052	29,861	19.4	27.5
Toronto, Ont.	2,755,381	2,878,589	2,956,024	14.1	26.5
Peterborough, Ont.	139,180	144,016	147,853	12.1	26.3
Simcoe, Ont.	471,347	506,053	519,135	19.3	25.5
Baffin, Nvt.	18,658	19,840	20,352	17.4	25.5
Waterloo, Ont.	533,191	564,950	579,145	16.5	24.8
Queens, P.E.I.	81,162	87,411	89,602	19.8	24.8
Middlesex, Ont.	457,447	482,085	493,931	15.3	24.3

**Note:** Census divisions are ranked in descending order of the 2017/2018 annual population growth rate.

**Source:** Statistics Canada, Demography Division.

- Eight of the 10 top growing CDs in 2017/2018 were in Quebec or Ontario, the two largest provinces, which is up from 4 out of the top 10 in 2016/2017. In the last four years, the top ten growing CDs have been increasingly located in either Quebec or Ontario, in contrast with the Prairies CDs the three years before.
- The Mirabel CD (Que.) had the highest growth rate in Canada at 39.8 per thousand in 2017/2018. The Mirabel CD has been the fastest growing CD for three of the past four years. Most of the gains in the Mirabel CD came from intraprovincial migration. Mirabel is located on the outskirts of Montréal, Quebec's most populous CD. Most of the intraprovincial net migration for Mirabel came from the nearby suburban CDs of Thérèse-De Blainville, Laval, Deux-Montagnes and Montréal, which are located around Mirabel.
- The top three fastest growing CDs were in the province of Quebec. Mirabel CD is in the Montreal CMA while Les Jardins-de-Napierville is adjacent to the Montreal CMA. L'Île-d'Orléans CD<sup>6</sup> is in the Quebec CMA. Growth in the Les Jardins-de-Napierville and L'Île-d'Orléans CDs came mostly from an influx of non-permanent residents.<sup>7</sup> Les Jardins-de-Napierville CD also saw an increase in the number of new residents from other parts of the province.

6. L'Île-d'Orléans CD having a smaller population, it is more prone to small-number fluctuations. Therefore, this growth should be interpreted with caution.

7. Most of them are work permit holders in the agriculture sector.

- The only top 10 fastest growing CDs in Canada in 2017/2018 outside Quebec or Ontario were Baffin (Nvt.), the seventh fastest growing CD, and Queens (PEI), the ninth fastest growing CD. In 2016/2017, Queens (PEI) was the second fastest growing CD. In the Baffin CD, which contains Iqaluit, most of the gains came from strong natural increase, or many more births than deaths. It had the third highest rate of growth from natural increase in the country (19.7 per thousand). The Queens CD, which contains the Charlottetown CA, had the fourth highest rate of growth from international migration in the country (29.3 per thousand).
- The Toronto CD, the largest CD in Canada, was the fourth fastest growing in Canada in 2017/2018, despite large losses to intraprovincial migration (-32,567 people), mostly to nearby suburban CDs of York, Peel and Durham. Most of the gains came from international migration: 90,865 people, the second highest rate of international migration in the country (31.2 per thousand).
- As in 2016/2017, only 2 of the 19 CDs in Alberta had a growth rate higher than that for Canada overall (14.1 per thousand). Those were Division No. 11 (20.0 per thousand), containing the Edmonton CMA, and Division No. 6 (17.4 per thousand), containing the Calgary CMA. In both of these CDs, natural increase and international migration were the main causes of population growth.
- For the first time since 2014/2015, Division No. 16, including Wood Buffalo CA (where the Fort McMurray population centre is found), Alta, had low but positive growth in 2017/2018 (0.5 per thousand). This contrasts with the previous three years when the region recorded negative growth (-28.0 per thousand on average). Natural increase (+1,204) and international migration (+703), just offset losses to intraprovincial migration (-1,850) in 2017/2018.
- Population growth and economic trends are often related. For example, population growth in Alberta during the two most recent periods is consistent with Alberta's recent economic trends. From July 2014 to July 2017, the unemployment rate rose 3.2 percentage points to 7.7%. This is in contrast to the most recent year, in which the unemployment rate decreased 1.0 percentage point to 6.7%.<sup>8</sup>

**Table 2.2**

**Population estimates and growth rates for the ten census divisions with the highest decrease, Canada, July 1, 2013 to June 30, 2018 and July 1, 2017 to June 30, 2018**

	Population at July 1			Annual population growth rate	
	2013	2017	2018	2013/2018	2017/2018
	number			per thousand	
Stikine, B.C.	690	730	710	5.7	-27.8
Region 2, N.W.T.	2,542	2,549	2,487	-4.4	-24.6
Division No. 3, N.L.	16,254	15,474	15,194	-13.5	-18.3
Division No. 2, N.L.	21,211	20,330	19,972	-12.0	-17.8
Guysborough, N.S.	8,019	7,607	7,495	-13.5	-14.8
Region 5, N.W.T.	7,405	7,372	7,268	-3.7	-14.2
Division No. 8, N.L.	36,898	35,836	35,362	-8.5	-13.3
Division No. 9, N.L.	16,452	15,622	15,416	-13.0	-13.3
La Haute-Côte-Nord, Que.	11,350	10,732	10,593	-13.8	-13.0
Victoria, N.B.	19,484	18,731	18,496	-10.4	-12.6

**Note:** Census divisions are ranked in ascending order of the 2017/2018 annual population growth rate.

**Source:** Statistics Canada, Demography Division.

- Of the CDs that decreased in size the most, eight were in the Atlantic provinces<sup>9</sup> or the Northwest Territories.
- Stikine (B.C.) was the CD with the largest rate of population loss (-27.8 per thousand), while it had the second highest rate of population loss in 2016/2017 (-49.4 per thousand). Most of the loss in Stikine came from intraprovincial and interprovincial migration. However, the small population of this CD makes the annual growth rate more unstable.

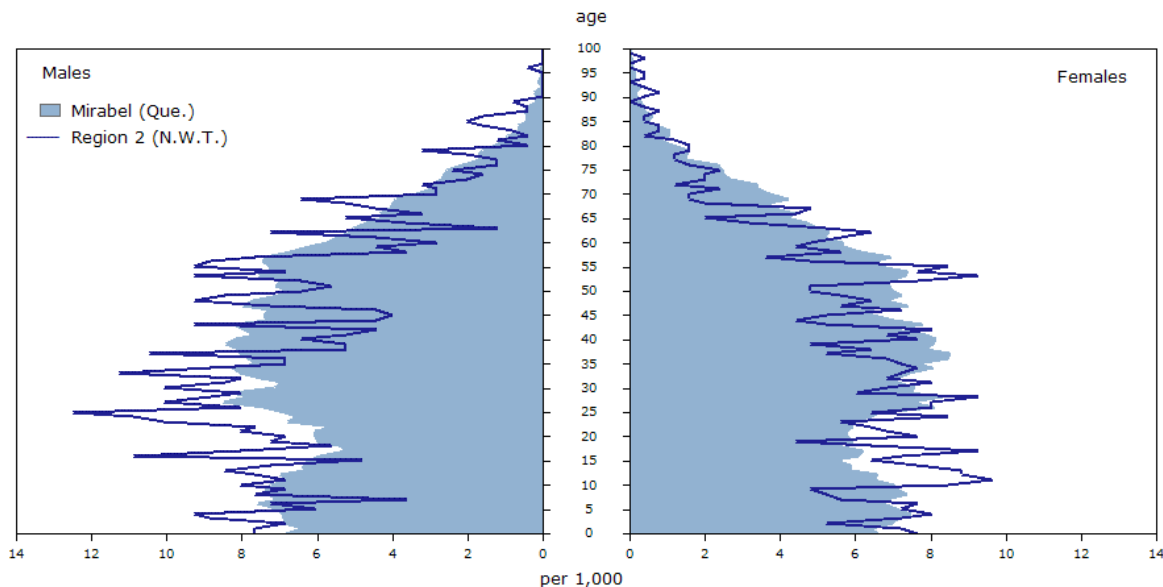
8. Statistics Canada. [Table 14-10-0287](#). Labour force characteristics, monthly, seasonally adjusted and trend-cycle, last 5 months.).

9. Atlantic provinces include Newfoundland and Labrador, Prince Edward Island, Nova Scotia and New Brunswick.

- The losses in the Northwest Territories (Region 2 and Region 5) in 2017/2018 were mainly due to interprovincial migration. Region 2 had the highest rate of population loss to interprovincial migration (-26.2 per thousand) in Canada, while Region 5 had the fourth highest (-18.7 per thousand).
- The losses in Newfoundland and Labrador (Division No. 2, Division No. 3, Division No. 8, and Division No. 9), Guysborough, NS, and Victoria, NB were mainly due to negative natural increase, or more deaths than births, and to intraprovincial migration.
- The losses in La Haute-Côte-Nord (Que.) were due to intraprovincial migration.

Figure 2.1

Age pyramid for the CD experiencing the highest growth (Mirabel, Que.) and the CD experiencing the highest decrease (Region 2, N.W.T.) for July 1, 2018



Source: Statistics Canada, Demography Division

## The youngest and oldest census divisions

- The median age in Canada in 2017/2018 was 40.8 years. Of 47 CDs in the Atlantic provinces, only 4 (8.5%) had a population younger than this: Division No. 10 (37.9 years) and Division No. 11 (33.8 years) in Newfoundland and Labrador, Halifax in Nova Scotia (40.0 years) and Sunbury in New Brunswick (37.2 years).
- In Quebec, 10 out of 98 CDs (10.2%) had a median age younger than Canada's (40.8 years). In Ontario, 1 CD out of 49 (2.0%) had a median age younger than Canada as a whole. In British Columbia, among all 29 CDs, 8 (27.6%) had a median age younger than Canada's. However, in the Prairie provinces,<sup>10</sup> 60.0% of all CDs (or 36 out of 60 CDs) had a median age younger than 40.8 years.
- None of the 10 CDs in the territories had a median age older than Canada's. The highest was Yukon (Y.T.) at 38.9 years.

10. Prairie provinces include Alberta, Saskatchewan and Manitoba.

For the purposes of this article, various indicators will be used to measure the aging of a population. The distribution of the population under 15 years of age, 65 years and older as well as the median age will be the indicators considered. The median age is an age “x” that divides the population into two equal groups, such that one contains only those individuals older than “x” and the other contains only those younger than “x”.

In the table of the 10 youngest CDs, the CDs are presented in decreasing order based on their proportion of people under 15 years. In the table showing the 10 oldest CDs, the CDs are ranked in decreasing order based on their proportion of people aged 65 years and older. Although median age is not used to rank the CDs, this indicator will also be discussed in the rest of the text.

**Table 2.3**  
**Median age, population aged 0 to 14 years, population aged 65 years and over for the ten youngest (0 to 14 years percentage) census divisions, Canada, July 1, 2018**

	Median age	0 to 14 years	65 years and over
	years	percentage	
Keewatin, Nvt.	24.5	33.0	3.8
Division No. 23, Man.	25.6	32.7	5.3
Division No. 22, Man.	25.4	32.6	5.3
Kitikmeot, Nvt.	25.9	31.6	4.7
Division No. 19, Man.	26.6	31.3	7.8
Baffin, Nvt.	27.2	31.2	3.6
Division No. 18, Sask.	26.3	30.6	6.9
Division No. 17, Alta.	30.3	27.9	9.7
Region 3, N.W.T.	27.9	27.7	6.4
Nord-du-Québec, Que.	30.0	26.4	8.2

**Note:** Census divisions are ranked in descending order of the 0 to 14 years percentage.

**Source:** Statistics Canada, Demography Division.

- Each of the top 10 youngest CDs in Canada in 2017/2018 (by percentage aged 0 to 14) were in the Territories, Manitoba, or the northern parts of Saskatchewan, Alberta, and Quebec.
- In these CDs, between 41% and 95% of the population have an Aboriginal identity.<sup>11</sup> People with an aboriginal identity have a higher fertility rate than non-aboriginal Canadians, making the populations younger on average.<sup>12</sup>
- Nine of the 10 youngest CDs in Canada were also among the top ten CDs with the highest rates of natural increase (more births than deaths, except for Region 3 in the Northwest Territories).
- The top 10 youngest CDs in Canada from 2017/2018 were also the top ten youngest in 2016/2017.

11. Statistics Canada, [Census Profile](#), 2016 Census.

12. Statistics Canada, 2015, [Aboriginal Statistics at a Glance](#), 2nd Edition, pg. 11.

**Table 2.4**  
**Median age, population aged 0 to 14 years, population aged 65 years and over for the ten oldest (65 years and over percentage) census divisions, Canada, July 1, 2018**

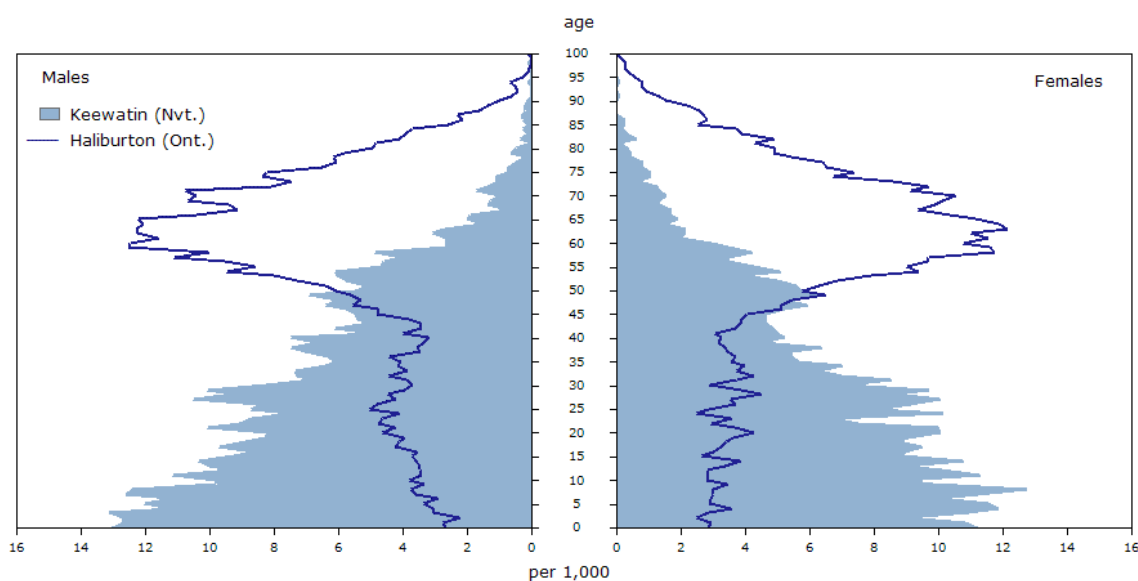
	Median age	0 to 14 years	65 years and over
	years	percentage	
Haliburton, Ont.	57.8	9.4	33.3
Guysborough, N.S.	56.8	10.6	32.9
Les Basques, Que.	56.0	12.6	31.5
Prince Edward, Ont.	55.3	11.3	31.5
Mékinac, Que.	56.4	11.7	31.3
Okanagan-Similkameen, B.C.	54.4	11.3	30.7
Sunshine Coast, B.C.	55.0	11.6	30.5
Queens, N.B.	55.3	10.5	30.3
La Haute-Gaspésie, Que.	54.9	10.9	28.9
Le Rocher-Percé, Que.	54.5	10.5	28.9

**Note:** Census divisions are ranked in descending order of the 65 years and over percentage.

**Source:** Statistics Canada, Demography Division.

- Of the 10 oldest CDs in Canada in 2017/2018 (based on the percentage aged 65 and over), 6 were in Ontario and Quebec.
- The second oldest CD in 2017/2018, Guysborough (N.S.) also had the fifth highest rate of population decrease. It had the third highest rate loss to natural increase (-9.5 per thousand) in Canada.
- Five of the top 10 oldest CDs in Canada (Haliburton, Ont.; Guysborough, N.S.; Okanagan-Similkameen, B.C.; Queens, N.B.; and La Haute-Gaspésie, Que.) were also in the top ten highest losses to natural increase (more deaths than births).
- On July 1 2018, more than one third (33.3%) of Haliburton (Ont.) population were seniors, the highest percentage of people aged 65 years and over among all CDs. This is the first time a CD surpasses the 33% threshold. Haliburton also had the highest median age in Canada (57.8 years) and was the CD with the highest growth rate from intraprovincial migration (27.7 per thousand).

**Figure 2.2**  
**Age pyramid for the CD with the highest proportion of persons aged 65 and older (Haliburton, Ont.) and the CD with the highest proportion of persons aged 0 to 14 years (Keewatin, Nvt.) for July 1, 2018**



**Source:** Statistics Canada, Demography Division

**Table 2.5**  
**Population and demographic factors of growth by census division, provinces and territories**

	Population 2018 (July 1)	2017/2018					Population growth
		Natural increase	International migratory increase	Interprovincial migratory increase	Intraprovincial migratory increase	Total migratory increase	
				number			
<b>Newfoundland and Labrador</b>	<b>525,355</b>	<b>-837</b>	<b>1,281</b>	<b>-3,656</b>	<b>0</b>	<b>-2,375</b>	<b>-3,212</b>
Division No. 1	276,746	103	992	-2,407	838	-577	-474
Division No. 2	19,972	-125	-18	-90	-125	-233	-358
Division No. 3	15,194	-110	-6	-56	-108	-170	-280
Division No. 4	20,322	-101	9	-107	-54	-152	-253
Division No. 5	42,255	-138	66	-407	73	-268	-406
Division No. 6	38,522	-164	58	-285	93	-134	-298
Division No. 7	33,916	-197	23	-20	-103	-100	-297
Division No. 8	35,362	-225	13	7	-269	-249	-474
Division No. 9	15,416	-86	10	46	-176	-120	-206
Division No. 10	24,949	177	134	-329	-184	-379	-202
Division No. 11	2,701	29	0	-8	15	7	36
<b>Prince Edward Island</b>	<b>153,244</b>	<b>257</b>	<b>2,867</b>	<b>-446</b>	<b>0</b>	<b>2,421</b>	<b>2,678</b>
Kings	18,069	14	39	78	-39	78	92
Queens	89,602	201	2,597	-726	119	1,990	2,191
Prince	45,573	42	231	202	-80	353	395
<b>Nova Scotia</b>	<b>959,942</b>	<b>-816</b>	<b>7,419</b>	<b>2,659</b>	<b>0</b>	<b>10,078</b>	<b>9,262</b>
Shelburne	14,108	-63	15	104	-99	20	-43
Yarmouth	24,958	-84	58	144	-20	182	98
Digby	17,611	-67	31	146	-88	89	22
Queens	10,320	-102	37	93	-83	47	-55
Annapolis	21,454	-85	13	224	115	352	267
Lunenburg	48,157	-190	47	192	71	310	120
Kings	62,573	-47	364	290	-103	551	504
Hants	43,637	-11	37	154	16	207	196
Halifax	430,505	978	5,403	1,182	979	7,564	8,542
Colchester	51,293	-142	114	-8	-90	16	-126
Cumberland	30,443	-171	54	116	19	189	18
Pictou	44,108	-156	43	31	-100	-26	-182
Guysborough	7,495	-72	17	29	-86	-40	-112
Antigonish	19,751	-31	116	-4	-26	86	55
Inverness	17,419	-48	15	70	-99	-14	-62
Richmond	9,153	-43	57	54	-28	83	40
Cape Breton	99,806	-441	992	-181	-381	430	-11
Victoria	7,151	-41	6	23	3	32	-9
<b>New Brunswick</b>	<b>770,633</b>	<b>-872</b>	<b>4,702</b>	<b>-49</b>	<b>0</b>	<b>4,653</b>	<b>3,781</b>
Saint John	77,051	-230	871	-170	166	867	637
Charlotte	26,019	-54	108	90	-42	156	102
Sunbury	28,701	154	-21	42	-57	-36	118
Queens	10,464	-105	11	57	-47	21	-84
Kings	69,974	68	74	-140	-165	-231	-163
Albert	29,721	-45	8	15	-7	16	-29
Westmorland	157,873	86	1,580	45	578	2,203	2,289
Kent	31,076	-56	62	85	-52	95	39
Northumberland	45,526	-148	124	155	-196	83	-65
York	105,543	168	1,475	-375	505	1,605	1,773
Carleton	26,463	-74	186	-15	-182	-11	-85
Victoria	18,496	-78	-20	-13	-124	-157	-235
Madawaska	33,247	-82	87	12	-79	20	-62
Restigouche	31,166	-152	55	100	-149	6	-146
Gloucester	79,313	-324	102	63	-149	16	-308
<b>Quebec</b>	<b>8,390,499</b>	<b>16,600</b>	<b>82,943</b>	<b>-6,761</b>	<b>0</b>	<b>76,182</b>	<b>92,782</b>
Les Îles-de-la-Madeleine	12,551	-30	6	-14	97	89	59
Le Rocher-Percé	17,204	-103	43	28	-18	53	-50
La Côte-de-Gaspé	17,528	-45	197	-5	105	297	252
La Haute-Gaspésie	11,106	-82	10	-10	-20	-20	-102
Bonaventure	17,584	-47	5	16	13	34	-13
Avignon	14,736	7	-6	-4	67	57	64
La Matapédia	17,647	-32	11	1	-107	-95	-127



**Table 2.5**  
**Population and demographic factors of growth by census division, provinces and territories**

	Population 2018 (July 1)	2017/2018				Total migratory increase	Population growth
		Natural increase	International migratory increase	Interprovincial migratory increase	Intraprovincial migratory increase		
				number			
Matane	21,069	-88	25	13	-36	2	-86
La Mitis	18,049	-40	24	-7	-81	-64	-104
Rimouski-Neigette	57,133	-36	115	-28	101	188	152
Les Basques	8,651	-27	17	11	-7	21	-6
Rivière-du-Loup	34,546	-63	127	18	144	289	226
Témiscouata	19,315	-79	5	11	-81	-65	-144
Kamouraska	20,974	-66	8	22	-65	-35	-101
Charlevoix-Est	15,366	-36	52	-9	-52	-9	-45
Charlevoix	12,896	-78	32	-4	42	70	-8
L'Islet	17,659	-81	14	2	-50	-34	-115
Montmagny	22,647	-107	16	-5	65	76	-31
Bellechasse	37,478	95	117	-17	-284	-184	-89
L'Île-d'Orléans	7,573	-3	353	-25	-61	267	264
La Côte-de-Beaupré	28,897	50	16	-23	210	203	253
La Jacques-Cartier	45,337	533	-56	-94	356	206	739
Québec	581,020	-29	4,055	-570	735	4,220	4,191
Lévis	146,080	371	179	-34	711	856	1,227
La Nouvelle-Beauce	37,779	194	66	8	86	160	354
Robert-Cliche	19,208	32	18	3	-14	7	39
Les Etchemins	16,463	-27	13	7	-37	-17	-44
Beauce-Sartigan	53,341	151	148	-14	91	225	376
Le Granit	21,432	-26	9	7	-20	-4	-30
Les Appalaches	42,544	-148	56	15	144	215	67
L'Érable	23,420	22	21	8	-129	-100	-78
Lotbinière	32,931	177	0	-1	267	266	443
Portneuf	54,046	78	60	27	282	369	447
Mékinac	12,371	-70	12	6	90	108	38
Shawinigan	49,338	-303	90	24	231	345	42
Francheville	155,897	-274	619	-53	571	1,137	863
Bécancour	20,556	1	48	8	24	80	81
Arthabaska	73,544	30	392	0	368	760	790
Les Sources	14,314	-33	3	2	68	73	40
Le Haut-Saint-François	22,618	75	19	16	10	45	120
Le Val-Saint-François	31,037	54	26	19	-12	33	87
Sherbrooke	166,863	239	1,629	-186	945	2,388	2,627
Coaticook	18,598	63	30	11	-16	25	88
Memphrémagog	51,614	-33	19	37	517	573	540
Brome-Missisquoi	60,380	-90	92	-32	956	1,016	926
La Haute-Yamaska	90,565	97	128	-23	746	851	948
Acton	15,632	12	11	2	31	44	56
Drummond	106,114	159	253	-16	505	742	901
Nicolet-Yamaska	23,699	-11	46	4	110	160	149
Maskinongé	36,639	-22	56	3	16	75	53
D'Autray	43,020	35	81	4	213	298	333
Pierre-De Saurel	51,077	-229	13	-18	284	279	50
Les Maskoutains	88,182	68	398	-5	-40	353	421
Rouville	37,224	148	30	-15	15	30	178
Le Haut-Richelieu	119,590	177	100	-31	469	538	715
La Vallée-du-Richelieu	128,269	448	99	-40	1,026	1,085	1,533
Longueuil	421,842	883	2,291	-431	322	2,182	3,065
Marguerite-D'Youville	79,016	422	54	-3	95	146	568
L'Assomption	126,356	231	240	-72	223	391	622
Joliette	68,201	-100	171	-21	643	793	693
Matawinie	51,498	-85	48	-5	575	618	533
Montcalm	54,937	410	59	-37	490	512	922
Les Moulins	163,935	681	285	-24	1,315	1,576	2,257
Laval	432,858	1,001	3,316	-316	301	3,301	4,302
Montréal	2,029,379	7,610	62,218	-4,035	-24,187	33,996	41,606
Roussillon	188,171	646	464	-72	2,278	2,670	3,316



**Table 2.5**  
**Population and demographic factors of growth by census division, provinces and territories**

	Population 2018 (July 1)	2017/2018					Population growth
		Natural increase	International migratory increase	Interprovincial migratory increase	Intraprovincial migratory increase	Total migratory increase	
				number			
Les Jardins-de-Napierville	29,861	108	446	-13	268	701	809
Le Haut-Saint-Laurent	23,988	-11	-25	-2	99	72	61
Beauharnois-Salaberry	66,068	-98	90	13	735	838	740
Vaudreuil-Soulanges	154,417	681	-136	-192	1,868	1,540	2,221
Deux-Montagnes	102,426	327	173	-39	455	589	916
Thérèse-De Blainville	160,534	336	349	-75	701	975	1,311
Mirabel	55,189	524	204	4	1,420	1,628	2,152
La Rivière-du-Nord	133,927	433	85	-33	1,912	1,964	2,397
Argenteuil	32,974	-100	15	-19	391	387	287
Les Pays-d'en-Haut	43,309	-150	46	24	738	808	658
Les Laurentides	47,158	-101	40	-8	625	657	556
Antoine-Labelle	35,502	-153	24	-2	169	191	38
Papineau	23,030	-97	17	-3	205	219	122
Gatineau	282,596	1,067	1,280	-565	623	1,338	2,405
Les Collines-de-l'Outaouais	50,512	334	8	95	47	150	484
La Vallée-de-la-Gatineau	20,489	-36	2	-4	45	43	7
Pontiac	14,203	-51	-5	18	54	67	16
Témiscamingue	15,846	4	9	16	-85	-60	-56
Rouyn-Noranda	42,889	83	142	-15	-150	-23	60
Abitibi-Ouest	20,589	4	20	-7	39	52	56
Abitibi	24,818	-11	31	-4	-101	-74	-85
La Vallée-de-l'Or	43,366	58	45	10	-112	-57	1
La Tuque	15,087	24	15	5	-22	-2	22
Le Domaine-du-Roy	31,153	-41	92	3	-174	-79	-120
Maria-Chapdelaine	24,634	-21	7	5	22	34	13
Lac-Saint-Jean-Est	52,875	1	67	10	-136	-59	-58
Le Saguenay-et-son-Fjord	168,744	45	635	14	-264	385	430
La Haute-Côte-Nord	10,593	-40	30	-9	-120	-99	-139
Manicouagan	30,540	-14	64	-5	-372	-313	-327
Sept-Rivières--Caniapiscau	38,911	211	50	-19	-312	-281	-70
Minganie--Le Golfe-du-Saint-Laurent	11,169	27	0	10	-103	-93	-66
Nord-du-Québec	45,558	580	27	-8	-101	-82	498
<b>Ontario</b>	<b>14,322,757</b>	<b>40,747</b>	<b>192,679</b>	<b>17,886</b>	<b>0</b>	<b>210,565</b>	<b>251,312</b>
Stormont, Dundas and Glengarry	117,462	-135	408	400	-63	745	610
Prescott and Russell	93,432	188	30	360	357	747	935
Ottawa	1,007,501	3,441	11,573	5,417	2,791	19,781	23,222
Leeds and Grenville	103,798	-279	174	132	481	787	508
Lanark	71,470	-147	-46	77	714	745	598
Frontenac	161,558	5	1,732	497	1,138	3,367	3,372
Lennox and Addington	44,392	-101	-7	42	349	384	283
Hastings	143,834	-227	451	37	1,788	2,276	2,049
Prince Edward	25,282	-156	-10	-49	225	166	10
Northumberland	90,045	-383	15	-95	1,622	1,542	1,159
Peterborough	147,853	-297	2,334	-61	1,861	4,134	3,837
Kawartha Lakes	79,667	-273	84	-104	1,473	1,453	1,180
Durham	683,604	2,839	2,258	-275	4,649	6,632	9,471
York	1,150,956	5,314	7,625	844	-9,071	-602	4,712
Toronto	2,956,024	12,867	90,865	6,270	-32,567	64,568	77,435
Peel	1,477,196	10,098	30,030	2,153	-15,431	16,752	26,850
Dufferin	66,482	283	-9	-160	1,279	1,110	1,393
Wellington	237,028	840	797	165	1,757	2,719	3,559
Halton	580,014	2,328	3,719	486	2,003	6,208	8,536
Hamilton	567,979	896	4,661	148	2,147	6,956	7,852
Niagara	472,448	-577	4,163	-194	3,567	7,536	6,959
Haldimand-Norfolk	117,467	-72	910	-56	1,525	2,379	2,307
Brant	148,291	147	527	7	1,361	1,895	2,042
Waterloo	579,145	2,513	8,141	687	2,854	11,682	14,195
Perth	81,019	158	161	-45	714	830	988
Oxford	118,552	242	303	35	1,888	2,226	2,468

**Table 2.5**  
**Population and demographic factors of growth by census division, provinces and territories**

	Population 2018 (July 1)	2017/2018				Total migratory increase	Population growth
		Natural increase	International migratory increase	Interprovincial migratory increase	Intraprovincial migratory increase		
				number			
Elgin	93,803	223	239	45	894	1,178	1,401
Chatham-Kent	105,877	-157	337	104	289	730	573
Essex	423,236	489	6,184	434	474	7,092	7,581
Lambton	130,895	-214	982	171	185	1,338	1,124
Middlesex	493,931	1,130	6,741	737	3,238	10,716	11,846
Huron	61,835	3	387	4	321	712	715
Bruce	72,212	62	248	63	749	1,060	1,122
Grey	99,455	-119	210	-55	1,543	1,698	1,579
Simcoe	519,135	868	2,393	-546	10,367	12,214	13,082
Muskoka	65,024	-167	95	-31	1,310	1,374	1,207
Haliburton	19,260	-122	-28	-19	529	482	360
Renfrew	106,423	33	-8	233	468	693	726
Nipissing	86,836	-109	198	-50	408	556	447
Parry Sound	44,438	-165	44	-35	488	497	332
Manitoulin	13,604	-100	6	3	110	119	19
Sudbury	22,328	-51	296	40	-65	271	220
Greater Sudbury	168,261	-97	1,915	33	-71	1,877	1,780
Timiskaming	32,990	-30	18	-16	6	8	-22
Cochrane	81,180	16	251	-47	-469	-265	-249
Algoma	117,474	-453	281	75	141	497	44
Thunder Bay	151,101	-171	977	-63	-221	693	522
Rainy River	20,661	-17	26	19	-8	37	20
Kenora	70,299	383	-2	69	-97	-30	353
<b>Manitoba</b>	<b>1,352,154</b>	<b>6,331</b>	<b>19,626</b>	<b>-9,199</b>	<b>0</b>	<b>10,427</b>	<b>16,758</b>
Division No. 1	18,537	-20	31	-4	-1	26	6
Division No. 2	80,779	899	379	-294	379	464	1,363
Division No. 3	58,125	521	601	-127	-250	224	745
Division No. 4	10,166	25	54	-59	-57	-62	-37
Division No. 5	13,259	0	40	-45	-94	-99	-99
Division No. 6	10,445	31	29	-60	-64	-95	-64
Division No. 7	72,987	352	815	-704	369	480	832
Division No. 8	14,239	96	24	-4	36	56	152
Division No. 9	25,384	117	198	-62	-49	87	204
Division No. 10	12,864	106	7	-16	168	159	265
Division No. 11	757,717	2,451	16,266	-6,438	-139	9,689	12,140
Division No. 12	24,827	118	62	-72	226	216	334
Division No. 13	50,864	-22	66	-169	457	354	332
Division No. 14	19,363	72	13	-91	152	74	146
Division No. 15	21,629	-4	471	-351	-160	-40	-44
Division No. 16	9,958	6	53	-69	-30	-46	-40
Division No. 17	22,272	-33	100	-30	-41	29	-4
Division No. 18	24,658	22	58	-53	43	48	70
Division No. 19	17,365	294	4	28	-169	-137	157
Division No. 20	9,846	2	43	-21	-13	9	11
Division No. 21	22,545	223	52	-205	-153	-306	-83
Division No. 22	44,814	872	273	-303	-415	-445	427
Division No. 23	9,511	203	-13	-50	-195	-258	-55
<b>Saskatchewan</b>	<b>1,162,062</b>	<b>6,246</b>	<b>14,117</b>	<b>-9,083</b>	<b>0</b>	<b>5,034</b>	<b>11,280</b>
Division No. 1	32,304	141	189	-289	-321	-421	-280
Division No. 2	23,195	88	97	-154	-228	-285	-197
Division No. 3	12,843	-1	31	3	-128	-94	-95
Division No. 4	11,137	18	62	-40	-68	-46	-28
Division No. 5	32,366	-14	204	-79	-220	-95	-109
Division No. 6	284,336	1,670	5,928	-2,933	1,015	4,010	5,680
Division No. 7	48,818	20	264	-162	-50	52	72
Division No. 8	31,876	44	216	-75	-80	61	105
Division No. 9	36,330	-58	198	-143	-185	-130	-188
Division No. 10	16,727	-24	94	-13	-130	-49	-73
Division No. 11	330,446	2,156	5,546	-3,200	2,089	4,435	6,591

**Table 2.5**  
**Population and demographic factors of growth by census division, provinces and territories**

	2017/2018						Population growth
	Population 2018 (July 1)	Natural increase	International migratory increase	Interprovincial migratory increase	Intraprovincial migratory increase	Total migratory increase	
				number			
Division No. 12	24,613	88	60	-131	-35	-106	-18
Division No. 13	23,444	108	137	-247	-239	-349	-241
Division No. 14	36,803	20	151	-97	-143	-89	-69
Division No. 15	89,723	467	495	-235	-402	-142	325
Division No. 16	38,781	227	236	-291	-257	-312	-85
Division No. 17	49,321	616	173	-923	-128	-878	-262
Division No. 18	38,999	680	36	-74	-490	-528	152
<b>Alberta</b>	<b>4,307,110</b>	<b>30,579</b>	<b>31,098</b>	<b>1,438</b>	<b>0</b>	<b>32,536</b>	<b>63,115</b>
Division No. 1	85,644	209	543	163	-219	487	696
Division No. 2	178,596	1,155	1,135	196	-189	1,142	2,297
Division No. 3	40,189	108	43	157	-145	55	163
Division No. 4	9,763	9	62	63	-107	18	27
Division No. 5	57,593	189	268	9	-67	210	399
Division No. 6	1,596,248	11,748	13,035	69	2,652	15,756	27,504
Division No. 7	41,966	86	95	-46	-381	-332	-246
Division No. 8	218,830	1,395	670	-121	90	639	2,034
Division No. 9	21,116	102	-7	-11	-243	-261	-159
Division No. 10	99,526	228	436	169	-657	-52	176
Division No. 11	1,465,105	10,704	13,012	1,038	4,327	18,377	29,081
Division No. 12	72,306	574	216	-48	-796	-628	-54
Division No. 13	71,584	197	207	-20	-710	-523	-326
Division No. 14	29,911	169	150	-124	-190	-164	5
Division No. 15	40,468	170	-400	185	-192	-407	-237
Division No. 16	74,396	1,204	703	-23	-1,850	-1,170	34
Division No. 17	63,784	974	248	-36	-728	-516	458
Division No. 18	14,578	125	40	-76	-175	-211	-86
Division No. 19	125,507	1,233	642	-106	-420	116	1,349
<b>British Columbia</b>	<b>4,991,687</b>	<b>6,279</b>	<b>55,457</b>	<b>7,799</b>	<b>0</b>	<b>63,256</b>	<b>69,535</b>
East Kootenay	64,042	19	264	8	9	281	831
Central Kootenay	62,880	-190	284	270	31	585	562
Kootenay Boundary	32,965	-218	73	171	215	459	158
Okanagan-Similkameen	87,880	-709	861	500	949	2,310	910
Fraser Valley	321,176	801	4,512	-168	3,464	7,808	4,633
Greater Vancouver	2,650,011	8,034	40,767	869	-13,967	27,669	39,394
Capital	411,784	-743	1,702	1,708	2,027	5,437	5,147
Cowichan Valley	89,800	-161	143	325	923	1,391	1,504
Nanaimo	166,925	-675	530	938	1,844	3,312	2,455
Alberni-Clayoquot	33,131	-55	20	63	231	314	574
Strathcona	48,039	-36	81	304	557	942	779
Comox Valley	71,294	-191	311	314	755	1,380	1,057
Powell River	21,080	-119	-3	58	116	171	216
Sunshine Coast	31,613	-152	81	71	301	453	343
Squamish-Lillooet	47,138	320	-259	244	-141	-156	785
Thompson-Nicola	142,766	-114	2,143	281	988	3,412	2,188
Central Okanagan	212,316	-416	1,735	1,412	1,708	4,855	4,061
North Okanagan	89,745	-241	126	548	663	1,337	1,032
Columbia-Shuswap	55,436	-145	45	404	356	805	1,073
Cariboo	65,086	-61	117	61	230	408	376
Mount Waddington	11,598	12	-9	17	17	25	81
Central Coast	3,493	-3	2	-3	27	26	9
Skeena-Queen Charlotte	19,069	82	21	34	-93	-38	-41
Kitimat-Stikine	39,079	130	230	-8	-199	23	133
Bulkley-Nechako	39,720	194	85	5	-313	-223	254
Fraser-Fort George	101,094	302	1,042	33	106	1,181	886
Peace River	66,484	586	538	-525	-620	-607	191
Stikine	710	-1	4	-10	-17	-23	-20
Northern Rockies	5,333	29	11	-125	-167	-281	-36
<b>Yukon</b>	<b>40,476</b>	<b>213</b>	<b>429</b>	<b>206</b>	<b>0</b>	<b>635</b>	<b>848</b>

**Table 2.5**  
**Population and demographic factors of growth by census division, provinces and territories**

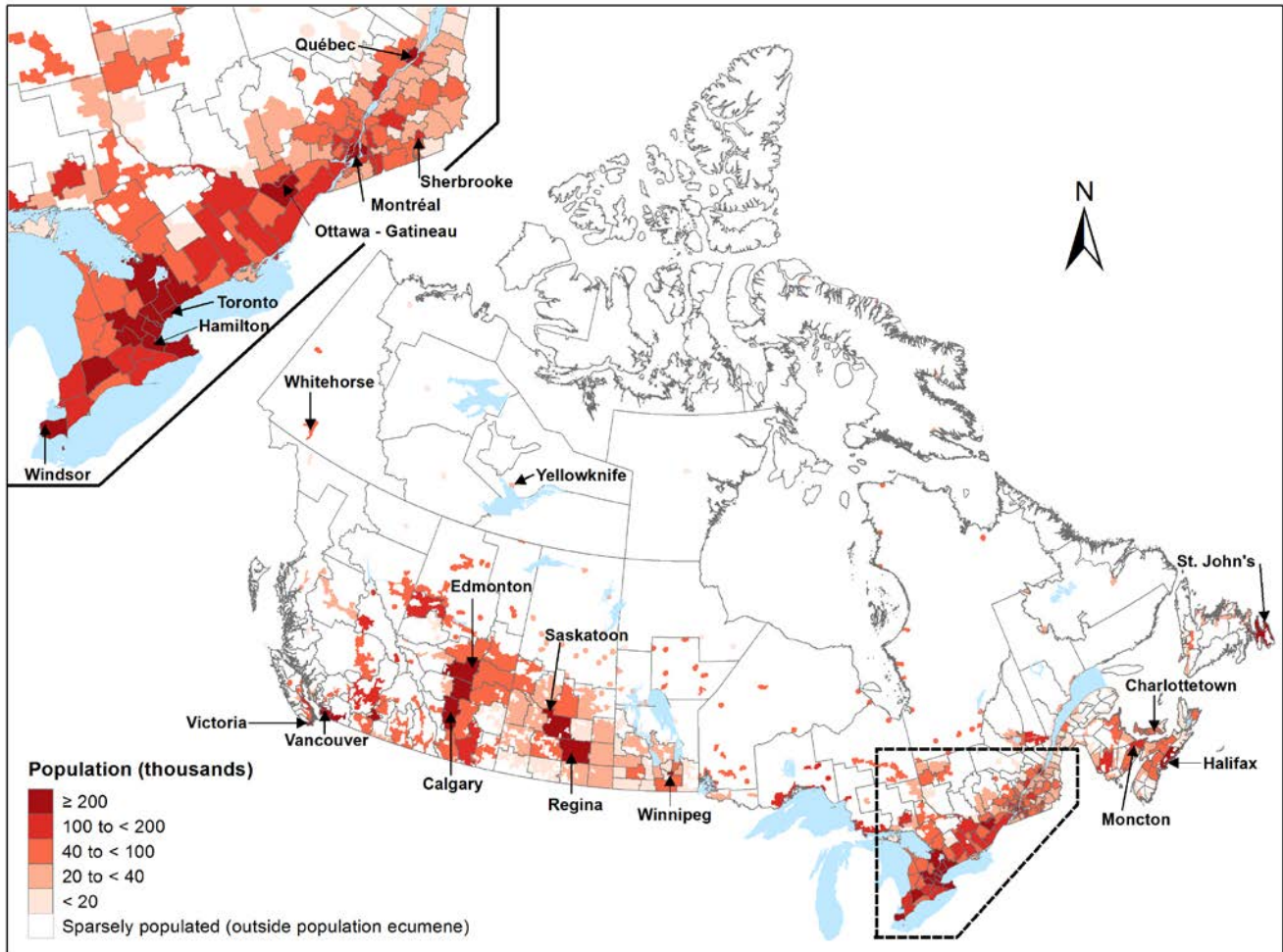
	Population 2018 (July 1)	2017/2018				Total migratory increase	Population growth
		Natural increase	International migratory increase	Interprovincial migratory increase	Intraprovincial migratory increase		
				number			
Yukon	40,476	213	429	206	0	635	848
<b>Northwest Territories</b>	<b>44,541</b>	<b>383</b>	<b>133</b>	<b>-911</b>	<b>0</b>	<b>-778</b>	<b>-395</b>
Region 1	6,685	64	-3	-114	-15	-132	-68
Region 2	2,487	27	-3	-66	-20	-89	-62
Region 3	2,923	31	0	-6	-26	-32	-1
Region 4	3,343	21	-2	-19	-37	-58	-37
Region 5	7,268	30	27	-137	-24	-134	-104
Region 6	21,835	210	114	-569	122	-333	-123
<b>Nunavut</b>	<b>38,396</b>	<b>731</b>	<b>-4</b>	<b>117</b>	<b>0</b>	<b>113</b>	<b>844</b>
Baffin	20,352	395	-2	95	24	117	512
Keewatin	11,142	233	-1	16	-13	2	235
Kitikmeot	6,902	103	-1	6	-11	-6	97

**Note:** Postcensal population estimates are produced using the component method, with the exception of British Columbia's preliminary estimates. Instead, they are based on the population estimates provided by BC Stats. As a result, the sum of components does not equal the population growth for preliminary estimates of British Columbia's census divisions.

**Source:** Statistics Canada, Demography Division.

## Section 3: Maps

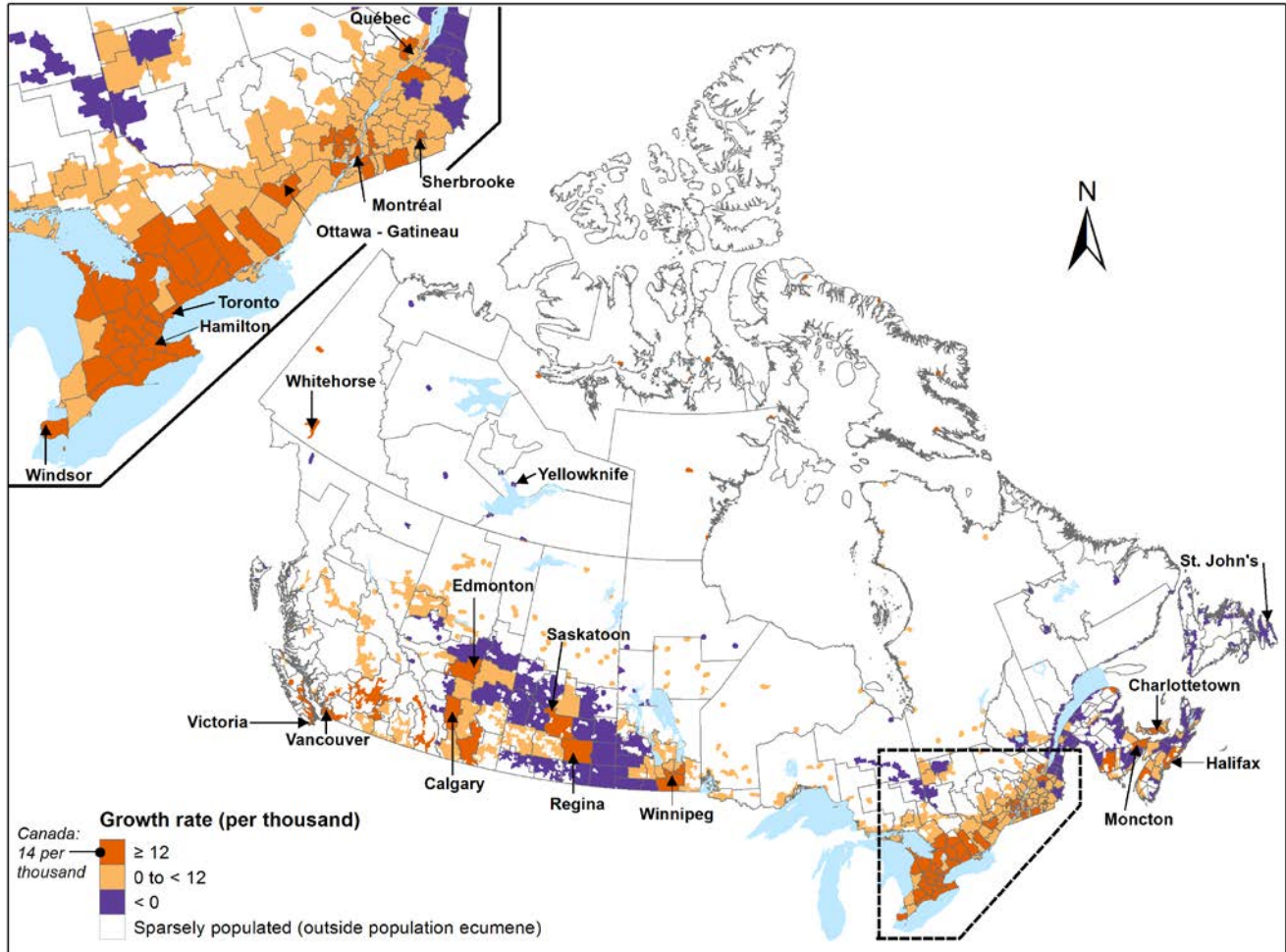
**Map 3.1**  
**Population distribution as of July 1, 2018, by census division, Canada**



Source: Statistics Canada, Demography Division.

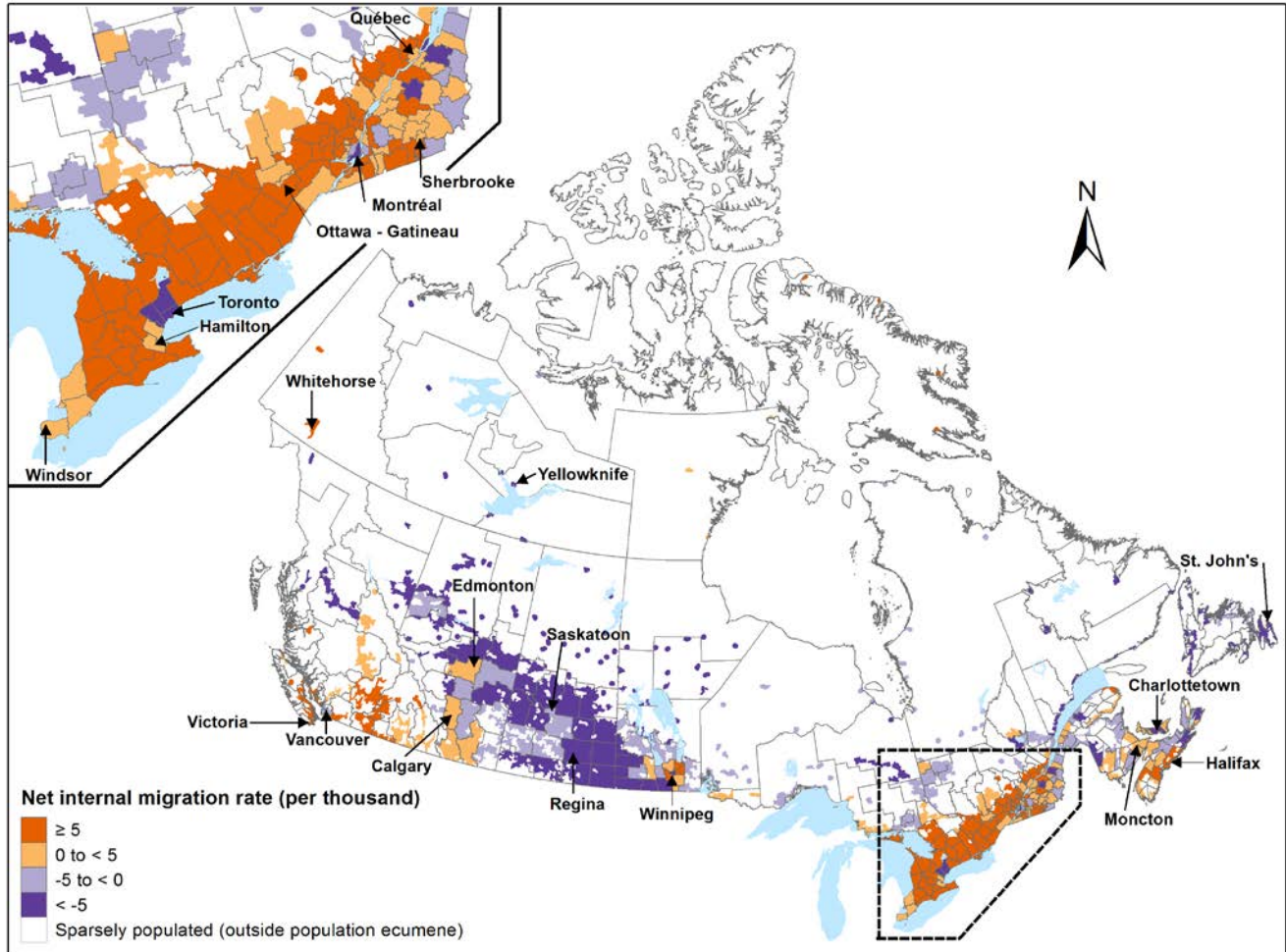


**Map 3.2**  
**Population growth rate, July 1, 2017 to June 30, 2018, by census division, Canada**



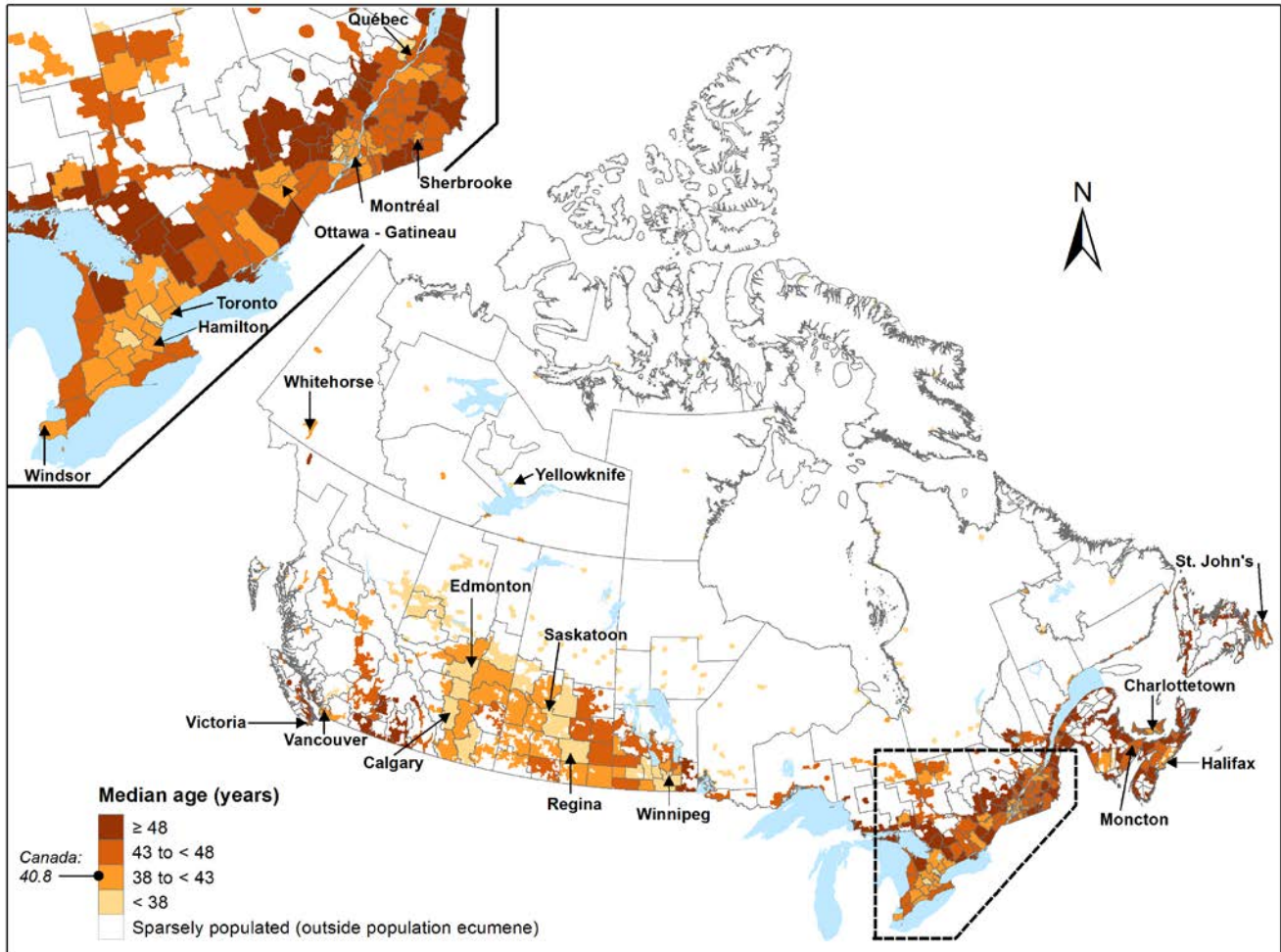
Source: Statistics Canada, Demography Division.

**Map 3.3**  
**Net internal migration rate, July 1, 2017 to June 30, 2018, by census division, Canada**



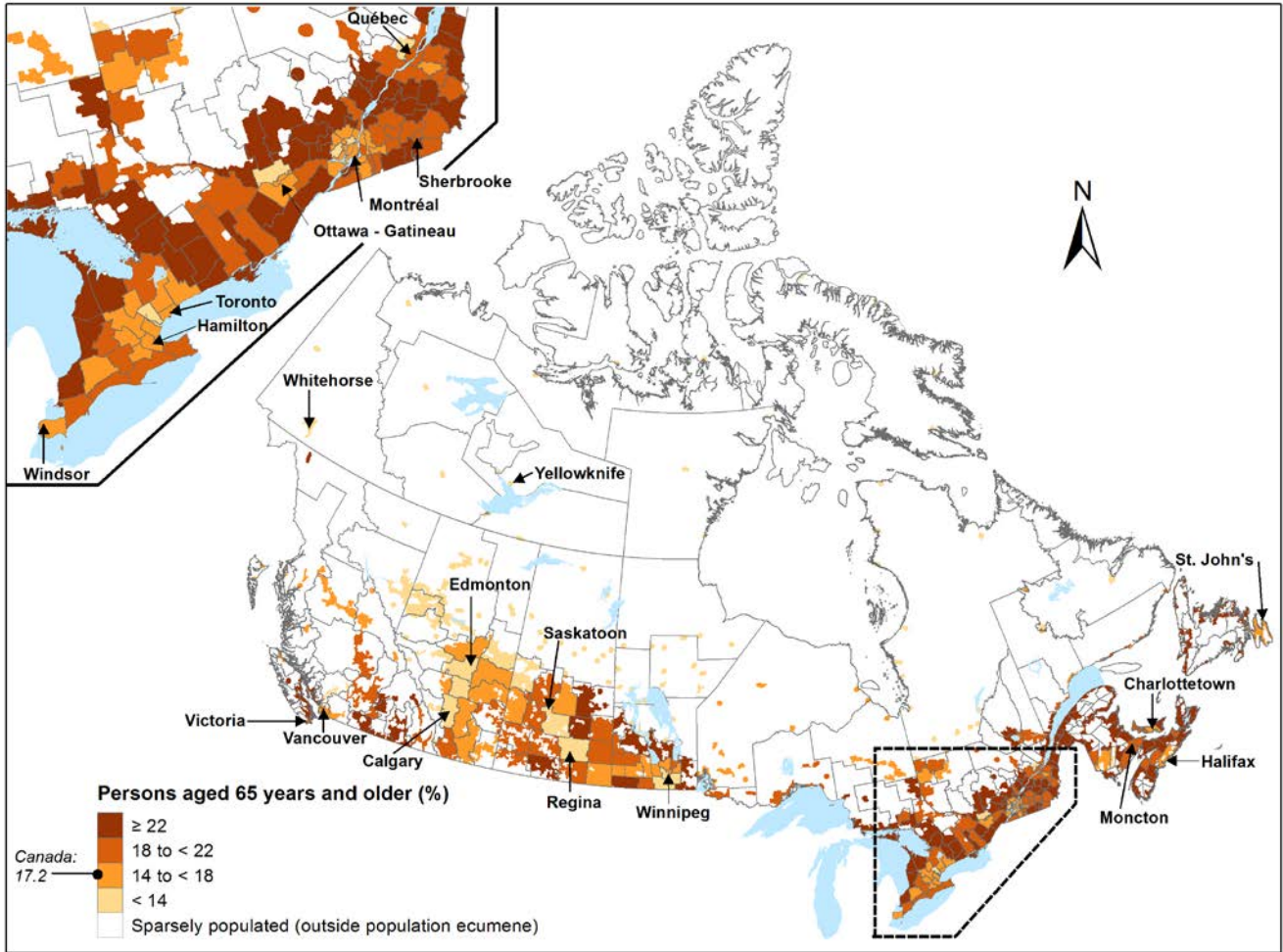
Source: Statistics Canada, Demography Division.

**Map 3.4**  
**Median age as of July 1, 2018, by census division, Canada**





**Map 3.5**  
**Proportion of persons aged 65 years and older as of July 1, 2018, by census division, Canada**



Source: Statistics Canada, Demography Division.

## Quality of demographic data

### Notes related to the quality of demographic estimates

In this case, the adjustment for the census net undercoverage (CNU) also includes the incompletely enumerated Indian reserves.

Unless otherwise noted, the term preliminary includes both preliminary and updated estimates.

The estimates contain certain inaccuracies stemming from two types of errors:

- errors in the Census data;
- imperfections in other data sources and the method used to estimate the components.

## Census Data

### Coverage, response and imputation errors

The errors attributable to census data can be divided into two groups: Response and processing errors, and coverage errors. The first group implies non-response error, misinterpretation by respondents, incorrect coding and non-response imputation. Errors in the second group primarily result from census undercoverage and, to a lesser extent, overcoverage. It should be noted that both types of errors are intrinsic to any survey data.

Coverage errors occur when individuals are missed, enumerated more than once or enumerated while not being part of the census universe (this last aspect is not estimated because it is deemed negligible). Following each census, Statistics Canada undertakes coverage studies to measure these errors. The main studies are the *Reverse Record Check Survey (RRC)* and the *Census Overcoverage Study (COS)*. Based on these studies, estimates of undercoverage and overcoverage are produced for each province and territory. Demography Division adjusts the population enumerated in the census by province and territory using these estimates. At the subprovincial level these rates are applied to all geographic regions in the province or territory by age and sex.

**Table 1**  
**Estimated census net undercoverage, Canada, provinces and territories, 2001 to 2016 censuses**

	Census population	Census net undercoverage	Incompletely enumerated Indian reserves	Adjusted population	Rate
	A	B	C	D=A+B+C	(B+C)/D*100
	number				percent
<b>2016</b>					
<b>Canada</b>	<b>35,151,728</b>	<b>849,727</b>	<b>27,790</b>	<b>36,029,245</b>	<b>2.44</b>
Newfoundland and Labrador	519,716	9,774	0	529,490	1.85
Prince Edward Island	142,907	3,464	0	146,371	2.37
Nova Scotia	923,598	17,809	0	941,407	1.89
New Brunswick	747,101	15,735	0	762,836	2.06
Quebec	8,164,361	35,191	11,985	8,211,537	0.57
Ontario	13,448,494	381,542	11,640	13,841,676	2.84
Manitoba	1,278,365	31,895	0	1,310,260	2.43
Saskatchewan	1,098,352	34,844	0	1,133,196	3.07
Alberta	4,067,175	115,968	4,043	4,187,186	2.87
British Columbia	4,648,055	197,267	122	4,845,444	4.07
Yukon	35,874	2,370	0	38,244	6.20
Northwest Territories	41,786	2,939	0	44,725	6.57
Nunavut	35,944	929	0	36,873	2.52
<b>2011</b>					
<b>Canada</b>	<b>33,476,688</b>	<b>759,125</b>	<b>37,392</b>	<b>34,273,205</b>	<b>2.32</b>
Newfoundland and Labrador	514,536	10,192	0	524,728	1.94

**Table 1**  
**Estimated census net undercoverage, Canada, provinces and territories, 2001 to 2016 censuses**

	Census population	Census net undercoverage	Incompletely enumerated Indian reserves	Adjusted population	Rate
	A	B	C	D=A+B+C	(B+C)/D*100
	number				percent
Prince Edward Island	140,204	3,386	0	143,590	2.36
Nova Scotia	921,727	21,911	0	943,638	2.32
New Brunswick	751,171	3,930	0	755,101	0.52
Quebec	7,903,001	73,240	16,882	7,993,123	1.13
Ontario	12,851,821	369,874	14,926	13,236,621	2.91
Manitoba	1,208,268	21,698	608	1,230,574	1.81
Saskatchewan	1,033,381	29,580	768	1,063,729	2.85
Alberta	3,645,257	128,584	4,094	3,777,935	3.51
British Columbia	4,400,057	91,280	114	4,491,451	2.03
Yukon	33,897	1,356	0	35,253	3.85
Northwest Territories	41,462	1,977	0	43,439	4.55
Nunavut	31,906	2,117	0	34,023	6.22
<b>2006</b>					
<b>Canada</b>	<b>31,612,897</b>	<b>868,658</b>	<b>40,115</b>	<b>32,521,670</b>	<b>2.79</b>
Newfoundland and Labrador	505,469	5,046	0	510,515	0.99
Prince Edward Island	135,851	1,903	0	137,754	1.38
Nova Scotia	913,462	24,558	0	938,020	2.62
New Brunswick	729,997	16,059	0	746,056	2.15
Quebec	7,546,131	60,751	16,600	7,623,482	1.01
Ontario	12,160,282	465,824	15,391	12,641,497	3.81
Manitoba	1,148,401	34,330	0	1,182,731	2.90
Saskatchewan	968,157	22,594	739	991,490	2.35
Alberta	3,290,350	111,353	7,272	3,408,975	3.48
British Columbia	4,113,487	121,551	113	4,235,151	2.87
Yukon	30,372	1,805	0	32,177	5.61
Northwest Territories	41,464	1,620	0	43,084	3.76
Nunavut	29,474	1,264	0	30,738	4.11
<b>2001</b>					
<b>Canada</b>	<b>30,007,094</b>	<b>924,430</b>	<b>34,539</b>	<b>30,966,063</b>	<b>3.10</b>
Newfoundland and Labrador	512,930	9,401	0	522,331	1.80
Prince Edward Island	135,294	1,325	0	136,619	0.97
Nova Scotia	908,007	24,521	0	932,528	2.63
New Brunswick	729,498	20,095	0	749,593	2.68
Quebec	7,237,479	140,232	12,648	7,390,359	2.07
Ontario	11,410,046	436,349	15,960	11,862,355	3.81
Manitoba	1,119,583	30,903	110	1,150,596	2.70
Saskatchewan	978,933	21,231	581	1,000,745	2.18
Alberta	2,974,807	69,857	4,977	3,049,641	2.45
British Columbia	3,907,738	164,542	263	4,072,543	4.05
Yukon	28,674	1,423	0	30,097	4.73
Northwest Territories	37,360	3,295	0	40,655	8.10
Nunavut	26,745	1,256	0	28,001	4.49

**Note:** The levels and rates are based on the Reverse Record Check (RRC) and the Overcoverage Study and include non-permanent residents.

**Source:** Statistics Canada, Demography Division.

When creating base populations, the Demographic Estimates Program (DEP) corrects the census populations only for coverage errors. This correction, which is based on the findings of coverage studies, is primarily subject to sampling errors, and to a lesser extent, processing errors. Statistical tests indicate that coverage adjustments improve the quality of census data. The DEP uses the estimates from coverage studies for the provinces and territories. However, given the size of the samples in these studies, estimates by age and sex are modeled. Furthermore, it is assumed that the coverage rates estimated for a province or territory apply to the regions within that geographic area. With respect to the coverage studies, statistical analysis concluded that the adjustment, although not without errors itself, improved the quality of census data (Royce, 1993). They were deemed to be consistent over time and across geographical areas, and to provide logical results. Users should also be aware

that when calculating census net undercoverage (CNU) rates for small areas, it is likely that the underlying assumptions may be violated. If this is true, the resulting CNU rate would be misleading. Errors associated with these assumptions are, however, very difficult to quantify.

The corrections to the census data due to CNU improved, in general, the quality of the estimates by compensating for the differential undercoverage by age, sex and by province/territory across censuses.

The adjustment also incorporates the results of a study on the estimates of the number of people living on incompletely enumerated Indian reserves to complete the corrections for coverage errors in the census. The results of the coverage studies contain mainly sampling errors.

These adjustments have a direct impact on:

- The error of closure and its distribution by age and sex within a province or a territory as well as by province/territory as the CNU and its distribution vary from one census to another;
- within-cohort consistency of population estimates. If for example, the male cohort in age group 0 to 4 in 1981 was tracked up to the 2001 Census (unadjusted for CNU) the age group 20 to 24 would be noticeably smaller in 2001 than the age group 15 to 19 in 1996. Since Canada receives many immigrants within these age groups, the opposite would be expected. However, only after adjustment for CNU, the cohort size increases from 1996 to 2001.

For further information regarding the main coverage studies, please see the following document on Statistics Canada's web site: 1996, 2001, 2006, and 2011 Census Technical Report on Coverage.

## Components

Errors due to estimation methodologies and data sources other than the census can also be significant.

### A. Births and deaths

Since the law requires the recording of vital statistics, the final estimates for births and deaths data meet very high quality standards. Nevertheless, since preliminary estimates are derived, they can be slightly different from final estimates.

### B. Immigration and non-permanent residents

With respect to immigrants and non-permanent residents (NPRs), *Immigration, Refugees and Citizenship Canada* (IRCC) administers special data files on both of these components. Since immigration is controlled by law, data on immigrants and NPRs are compiled upon arrival in Canada. These data represent only "legal" immigration and exclude illegal immigrants. Thus, for the "legal" part of international movement into Canada, the data are considered to be of high quality. However, some biases such as the difference between the stated province of intended residence at the time of arrival and the actual province of residence, may persist. Finally, since information provided by the *Visitor Data System* (VDS) from IRCC is not complete (age and sex of dependents, province of residence for certain groups of permit holders), estimates of NPRs are more prone to error than data on immigrants.

### C. Emigration, returning emigration and net temporary emigration

Of all the demographic components that are used in the DEP, emigration, returning emigration and net temporary emigration are the most difficult to estimate with precision. Canada does not have a complete border registration system. While immigration and non permanent residents (NPRs) are well documented by the federal government, Statistics Canada has always used indirect techniques for the estimation of the number of persons leaving the country. For this reason, available statistics regarding these three components have historically been of a lower quality than other components.

Estimates of the number of emigrants and returning emigrants are both derived using *Canada Child Benefit* (CCB) data provided by *Canada Revenue Agency* (CRA). Data are adjusted to take into account the incomplete coverage of the program and to derive the emigration and returning emigration of adults.

These adjustments and the delay in obtaining the data are the two main sources of errors. As current information on the number of persons living temporarily abroad does not exist, estimates are based on the *Reverse Record Check* (RRC) and the census. Estimates for the intercensal period are distributed equally among the five years. Moreover, assumptions were made to allow for the distribution of provincial/territorial data by subprovincial regions. Any geographical or quarterly variation may introduce error in the estimation of these components.

#### **D. Interprovincial migration and intraprovincial migration**

Since July 1993, preliminary interprovincial migration estimates have been based on *Canada Child Benefit* (CCB) files. Since this program only covers children, several adjustments must be made to derive adult migration. Consequently, preliminary CCB based estimates are subject to larger error than final estimates derived from *Canada Revenue Agency* (CRA) tax files.

Moreover, as no preliminary data is available for intraprovincial migration, we assume the same level of migration as the previous year (with the exception of Quebec's subprovincial areas).<sup>13</sup> The last two years are therefore identical for this component. Nevertheless, it is possible for data of the last two years to be different, because of some adjustments that are performed to correct negative populations.

#### **E. Level of detail of components**

As a more detailed breakdown of the data introduces a greater risk of inaccuracy into the estimates, the possibility of error in the components is augmented by the method used to distribute the estimates by age and sex. It seems that, in general, the initial errors should be minimal where the distribution of annual estimates of births, deaths and immigrants is concerned, and more significant with regard to the distribution of other components (non-permanent residents, emigrants, returning emigrants, net temporary emigrants and interprovincial and intraprovincial migrants). Finally, the size of error due to the age and sex distribution may vary by period and errors in some components may have a greater impact on a given age group or sex.

### **Geographical changes**

Subprovincial geographical boundaries may change from one census to another. In order to facilitate chronological studies, population estimates for CDs, CMAs and ERs were produced for the 2006 to 2018 period according to the Standard Geographical Classification (SGC) 2016.

In order to clarify the demographic significance of geographical boundary changes, the 2011 population Census counts are converted in SCG 2016. Afterward, we compare the converted counts with the population counts of the 2011 Census in SGC 2011. Data presented here apply to population enumerated in the 2011 Census without adjustment for census net undercoverage.

### **Census metropolitan areas (CMAs)**

With the adoption of the SGC 2016, Belleville (Ont.) and Lethbridge (Alta.), which were both a census agglomeration (CA) with the SGC 2011, became census metropolitan areas (CMAs). Among the 33<sup>14</sup> CMAs as defined in the SGC 2011, 13 have undergone geographical boundary changes in the SGC 2016. Had the latter been applied in 2011, population in all 33 CMAs would have reached 23,123,441 instead of 23,280,726 representing an increase of 157,285 persons or 0.7%.

In all CMAs, the demographic repercussion of boundary changes was relatively small (under 5%), for St. John's, Moncton, Saint John, Saguenay, Québec, Sherbrooke, Montréal, Ottawa – Gatineau, Kitchener - Cambridge – Waterloo, Greater Sudbury / Grand Sudbury, Regina, Saskatoon and Victoria.

---

13. See sub-section K of the section on Methodology.

14. Excluding Belleville and Lethbridge CMAs, created in 2016, and grouping the two parts of Ontario and Quebec from the Ottawa-Gatineau CMA.



## Census Agglomerations (CAs)

With the transition from the CGT 2011 to the CGT 2016, eight new CAs have been created: Gander (N.L.), Sainte-Marie (Que.), Arnprior (Ont.), Carleton Place (Ont.), Wasaga Beach (Ont.), Winkler (Man.), Weyburn (Sask.) and Nelson (B.C.). As well, the CAs of Amos (Que.) and Temiskaming Shores (Ont.) were removed because their core population dropped below 10,000 in 2011. By applying the new boundaries to the 2011 data, the AR<sup>15</sup> population would have been 4,007,306, not 3,989,935, an increase of 17,371 (0.4%).

Of the 109 ARs, 32 experienced border changes. In 10 cases, these changes exceeded  $\pm 5\%$ .

## Economic Regions (ERs)

Seven ERs out of the 76 have undergone geographical boundary changes between the 2011 and the 2016 Census. As ERs cover the entire country and because their number did not change, changes are rather simple. In Manitoba, there were boundary changes between Southeast and South Central, as well as between South Central and North Central. In British Columbia, the ER of Lower Mainland–Southwest received part of the Thompson–Okanagan ER. The differences are around 1%.

## Census divisions (CDs)

Boundary changes affected 25 of the 293 CDs in Canada and population in 11 CDs was only slightly affected with relative gains/losses not exceeding 0.1%.

In New Brunswick, the boundary between Gloucester and Northumberland was changed so that the former received part of the population of the second, resulting in a population gain of 2.8%. Manitoba experienced three boundary changes in its census divisions. Division No. 2 and Division No. 3 had boundary modifications resulting in a 1.0% population growth in Division No. 2. The impact of the boundary change between Divisions No. 4 and 8 resulted in a 7.3% population growth in Division No. 4. Similarly, the population of Division No. 7 increased by 1.2% due to a boundary change with Division No. 15. Lastly, two CDs have undergone a change in their boundaries in the Northwest Territories, Region 5 and Region 6, the latter having gained 1.4% of its population to the detriment of Region 5.

## Quality assessment

In order to assess the quality of our estimates, two evaluation measures are used: precocity errors and errors of closure.

15. Excluding Amos (Que.) and Temiskaming Shores (Ont.) CAs, retired in 2016.

## A. Precocity errors

The quality of preliminary estimates of components is evaluated using precocity errors. Precocity error is defined as the difference between preliminary and final estimate of a particular component in terms of its relative proportion of the total population for the relevant geographical area. It can be calculated for both population and component estimates. The precocity error measures the impact of the trade-off of accuracy in favour of timeliness on the estimated population. The precocity error is calculated as:

$$PE_{(t-1,t)} = \frac{N_{(t-1,t)}^{preliminary} - N_{(t-1,t)}^{final}}{P_{(t-1)}^{postcensal}} \times 1,000$$

where:

- $PE_{(t-1,t)}$  = the precocity error for the period from t-1 to t;
- $N_{(t-1,t)}^{preliminary}$  = the preliminary estimate of a component of demographic change;
- $N_{(t-1,t)}^{final}$  = the final estimate of a component of demographic change;
- $P_{t-1}^{postcensal}$  = postcensal estimates of population for the relevant geographical area at time t-1.

The precocity error of a component gives us information on the size of the error between the preliminary and the final population estimate. Analysis of precocity errors allows for useful comparisons between components, as well as between geographical areas of different population size. Precocity error can either be positive or negative. A positive precocity error denotes that the preliminary estimate is larger than the final estimate while a negative precocity error indicates the opposite. Note that when compared to the total population for an area, the differences between preliminary and final estimates of the components are quite small. However, this type of error has a different impact on each component and geographical area.

Generally speaking for subprovincial estimates, net interprovincial and intraprovincial migration yields the greatest precocity errors. This is likely the result of the use of different data sources for preliminary and final estimates. In most years and for most provinces/territories, births, deaths and immigration estimates yielded the smallest precocity errors. For immigration estimates, this reflects the completeness of the data source and the availability of data for the more timely preliminary estimates. In the case of births and deaths, small precocity errors can be explained by the use of short-term projections for preliminary estimates.

According to the analysis of the most recent precocity errors and assuming that the quality of the basic data remains constant, the present postcensal estimates should have an acceptable degree of reliability.

## B. Errors of closure

The error of closure measures the exactness of the final postcensal estimates. It is defined as the difference between the final postcensal population estimates on Census Day and the enumerated population of the most recent census adjusted for census net undercoverage (CNU). A positive error of closure means that the postcensal population estimates have overestimated the population.

The error of closure comes from two sources: errors primarily due to sampling when measuring census coverage and errors related to the components of population growth over the intercensal period. For each five-year intercensal period, the error of closure can only be calculated following the release of census data and estimates of CNU. The error of closure can be calculated for the total population of each province and territory as well as by age and sex.

By dividing the error of closure by the census population adjusted for CNU the differences are relatively small at the national level (0.2% for 2001, 0.1% for 2006, 0.4% for 2011 and 0.3% for 2016). At the provincial and territorial level, as at the subprovincial level, differences are understandably larger, since the estimates are also affected by errors in estimating interprovincial and intraprovincial migration. Nevertheless, the provincial/territorial final postcensal estimates generally fall within 1% of the adjusted census population, except for the territories and a few other exceptions.

For census metropolitan areas (CMAs), population estimates overestimated the total CMA population (0.5%) and the population of 25 out of 35 CMAs. The difference between population estimates and adjusted census counts was higher than 2% for 2 CMAs: Kingston (4.0%) and Halifax (2.7%).

For census agglomerations (CAs), population estimates overestimated the population of 48 out of 120 CAs in the country. The most pronounced errors of closure are in Campbellton (Quebec part) (14.3%), Kenora (7.1%), High River (6.6%) and Canmore (6.1%). In the case of Campbellton, the population of the CA is less than 3,000.

Population estimates overestimated the population of 40 out of 76 economic regions (ERs). The difference between population estimates and adjusted census counts was higher than 3% for a single ER: Northern, Saskatchewan (+3.2%).

Population estimates overestimated the population of 146 out of 293 census divisions (CDs). For 129 of the CDs, the difference between population estimates and adjusted census counts was less than 1%. The error of closure of 255 CDs, that is 87% of all CDs, was comprised between -3% and 3%. The most important errors of closure were observed in Stikine, British Columbia (-38.3%), in Sudbury, Ontario (-8.0%), in Central Coast, British Columbia (-7.8%) and in Division No. 1 of Manitoba (-7.7%). For the CD of Stikine, the population was less than 1,000 people and for the CD of Central Coast, less than 4,000.

**Table 2**  
**Error of closure of the estimates of population, Canada, provinces and territories, 2001 to 2016**

	2001		2006		2011		2016	
	number	rate in percent	number	rate in percent	number	rate in percent	number	rate in percent
<b>Canada</b>	<b>49,948</b>	<b>0.2</b>	<b>32,129</b>	<b>0.1</b>	<b>144,554</b>	<b>0.4</b>	<b>110,310</b>	<b>0.3</b>
Newfoundland and Labrador	11,381	2.2	-1,641	-0.3	-11,106	-2.1	975	0.2
Prince Edward Island	1,483	1.1	-8	0.0	2,169	1.5	2,745	1.9
Nova Scotia	9,005	1.0	-4,328	-0.5	4,819	0.5	6,673	0.7
New Brunswick	4,587	0.6	2,681	0.4	1,446	0.2	-6,100	-0.8
Quebec	-222	0.0	21,219	0.3	-24,472	-0.3	86,265	1.1
Ontario	11,288	0.1	16,311	0.1	108,846	0.8	60,683	0.4
Manitoba	-1,035	-0.1	-5,987	-0.5	21,425	1.7	3,644	0.3
Saskatchewan	16,017	1.6	-3,784	-0.4	-7,871	-0.7	11,960	1.1
Alberta	1,604	0.1	-51,338	-1.5	-3,378	-0.1	44,099	1.1
British Columbia	-4,347	-0.1	61,367	1.5	52,356	1.2	-100,403	-2.1
Yukon	-360	-1.2	-1,031	-3.2	103	0.3	-317	-0.8
Northwest Territories	497	1.2	-924	-2.1	700	1.6	-58	-0.1
Nunavut	50	0.2	-408	-1.3	-483	-1.4	144	0.4

**Note:** The error of closure is equal to the postcensal estimate (at the census date) minus the census count adjusted for census net undercoverage (including adjustment for incompletely enumerated Indian reserves). The percentage is: error of closure, divided by the census count adjusted for census net undercoverage and incompletely enumerated Indian reserves, multiplied by 100.

**Source:** Statistics Canada, Demography Division.



**Table 3**  
**Error of closure of estimates of population by census metropolitan area (CMA) and census agglomeration (CA), Canada,**  
**May 10, 2016**

	Error of closure	
	number	percent
<b>All census metropolitan areas and census agglomerations</b>	<b>157,641</b>	<b>0.5</b>
<b>Newfoundland and Labrador</b>		
St. John's	3,601	1.7
Bay Roberts	117	1.0
Grand Falls-Windsor	-43	-0.3
Gander	48	0.4
Corner Brook	-549	-1.7
<b>Prince Edward Island</b>		
Charlottetown	2,255	3.2
Summerside	-400	-2.4
<b>Nova Scotia</b>		
Halifax	11,024	2.7
Kentville	810	3.0
Truro	796	1.7
New Glasgow	452	1.3
Cape Breton	-1,212	-1.2
<b>New Brunswick</b>		
Moncton	1,238	0.8
Saint John	-265	-0.2
Fredericton	1,681	1.6
Bathurst	-1,021	-3.2
Miramichi	-649	-2.3
Campbellton (New Brunswick part)	-16	-0.1
Edmundston	-727	-3.0
<b>Quebec</b>		
Campbellton (Quebec part)	417	14.3
Matane	46	0.3
Rimouski	912	1.6
Rivière-du-Loup	814	2.8
Baie-Comeau	-107	-0.4
Saguenay	100	0.1
Alma	545	1.7
Dolbeau-Mistassini	161	1.0
Sept-Îles	-254	-0.9
Québec	2,955	0.4
Sainte-Marie	176	1.3
Saint-Georges	-114	-0.3
Thetford Mines	266	0.9
Sherbrooke	2,246	1.1
Cowansville	-404	-2.9
Victoriaville	-201	-0.4
Trois-Rivières	1,084	0.7
Shawinigan	-197	-0.4
Drummondville	-246	-0.3
Granby	399	0.5
Saint-Hyacinthe	-1,131	-1.9
Sorel-Tracy	37	0.1
Joliette	-77	-0.2
Montréal	59,291	1.4
Salaberry-de-Valleyfield	83	0.2
Lachute	-79	-0.6
Val-d'Or	376	1.1
Rouyn-Noranda	-84	-0.2
Hawkesbury (Quebec part)	-80	-4.7
Ottawa - Gatineau (Quebec part)	1,761	0.5
<b>Ontario</b>		
Cornwall	-1,258	-2.1
Hawkesbury (Ontario part)	334	3.2
Ottawa - Gatineau (Ontario part)	8,782	0.9

**Table 3**  
**Error of closure of estimates of population by census metropolitan area (CMA) and census agglomeration (CA), Canada,**  
**May 10, 2016**

	Error of closure	
	number	percent
Arnprior	-498	-3.0
Carleton Place	-1,791	-5.6
Brockville	221	0.6
Pembroke	-286	-1.2
Petawawa	-1,104	-6.2
Kingston	6,584	4.0
Belleville	-711	-0.7
Cobourg	-984	-5.0
Port Hope	-127	-0.7
Peterborough	922	0.7
Kawartha Lakes	-584	-0.8
Centre Wellington	48	0.2
Oshawa	4,912	1.3
Ingersoll	-422	-3.2
Toronto	77,500	1.3
Hamilton	7,387	1.0
St. Catharines - Niagara	-1,899	-0.5
Kitchener - Cambridge - Waterloo	180	0.0
Brantford	1,594	1.1
Woodstock	-1,741	-4.1
Tillsonburg	-644	-4.0
Norfolk	889	1.4
Guelph	-1,368	-0.9
Stratford	-100	-0.3
London	5,088	1.0
Chatham-Kent	815	0.8
Leamington	-1,002	-2.0
Windsor	-425	-0.1
Sarnia	487	0.5
Wasaga Beach	-2,298	-10.9
Owen Sound	253	0.8
Collingwood	-533	-2.4
Barrie	3,845	1.9
Orillia	-340	-1.1
Midland	424	1.2
North Bay	1,295	1.8
Greater Sudbury	-525	-0.3
Elliot Lake	343	3.1
Timmins	62	0.1
Sault Ste. Marie	-98	-0.1
Thunder Bay	502	0.4
Kenora	1,098	7.1
<b>Manitoba</b>		
Winnipeg	9,278	1.2
Winkler	-409	-1.3
Steinbach	-4,423	-27.2
Portage la Prairie	-871	-6.4
Brandon	603	1.0
Thompson	496	3.5
<b>Saskatchewan</b>		
Regina	1,133	0.5
Yorkton	-5	0.0
Moose Jaw	416	1.2
Swift Current	-558	-2.9
Saskatoon	3,210	1.0
North Battleford	-45	-0.2
Prince Albert	2,228	4.9
Estevan	1	0.0
Weyburn	488	4.4
Lloydminster (Saskatchewan part)	-168	-1.1

**Table 3**  
**Error of closure of estimates of population by census metropolitan area (CMA) and census agglomeration (CA), Canada,**  
**May 10, 2016**

	Error of closure	
	number	percent
<b>Alberta</b>		
Medicine Hat	809	1.0
Brooks	9	0.0
Lethbridge	749	0.6
Okotoks	-603	-2.0
High River	920	6.6
Calgary	12,271	0.9
Strathmore	-609	-4.3
Canmore	883	6.1
Red Deer	2,693	2.6
Sylvan Lake	31	0.2
Lacombe	-767	-5.7
Camrose	-297	-1.5
Edmonton	20,793	1.5
Lloydminster (Alberta part)	-50	-0.2
Cold Lake	-879	-5.7
Grande Prairie	-1,199	-1.8
Wood Buffalo	1,637	2.2
Wetaskiwin	432	3.3
<b>British Columbia</b>		
Cranbrook	-974	-3.6
Nelson	-534	-2.8
Penticton	-444	-1.0
Kelowna	-2,473	-1.2
Vernon	-1,691	-2.7
Salmon Arm	-432	-2.3
Kamloops	-2,902	-2.7
Chilliwack	-1,257	-1.2
Abbotsford - Mission	-445	-0.2
Vancouver	-51,920	-2.0
Squamish	-78	-0.4
Victoria	-6,394	-1.7
Duncan	-682	-1.5
Nanaimo	-4,350	-4.0
Parksville	633	2.1
Port Alberni	-452	-1.7
Courtenay	-917	-1.6
Campbell River	-1,161	-3.0
Powell River	-738	-4.3
Williams Lake	-366	-1.9
Quesnel	-846	-3.5
Prince Rupert	-34	-0.3
Terrace	-449	-2.7
Prince George	-2,002	-2.2
Dawson Creek	-378	-3.0
Fort St. John	17	0.1
<b>Yukon</b>		
Whitehorse	-573	-1.9
<b>Northwest Territories</b>		
Yellowknife	624	3.0

**Note:** The error of closure is equal to the postcensal estimate (at the census date) minus the census count adjusted for census net undercoverage (including adjustment for incompletely enumerated Indian reserves). The percentage is: error of closure, divided by the census count adjusted for census net undercoverage and incompletely enumerated Indian reserves, multiplied by 100.

**Source:** Statistics Canada, Demography Division.

**Table 4**  
**Error of closure of the estimates of population by economic region (ER), May 10, 2016**

	Error of closure	
	number	percent
<b>All economic regions</b>	<b>110,310</b>	<b>0.3</b>
<b>Newfoundland and Labrador</b>		
Avalon Peninsula	3,876	1.4
South Coast–Burin Peninsula	-592	-1.6
West Coast–Northern Peninsula–Labrador	-1,247	-1.2
Notre Dame–Central Bonavista Bay	-1,062	-1.0
<b>Prince Edward Island</b>		
Prince Edward Island	2,745	1.9
<b>Nova Scotia</b>		
Cape Breton	-1,977	-1.5
North Shore	89	0.1
Annapolis Valley	-1,416	-1.1
Southern	-1,034	-0.9
Halifax	11,011	2.7
<b>New Brunswick</b>		
Campbellton–Miramichi	-4,786	-3.0
Moncton–Richibucto	321	0.2
Saint John–St. Stephen	-222	-0.1
Fredericton–Oromocto	209	0.1
Edmundston–Woodstock	-1,622	-2.1
<b>Quebec</b>		
Gaspésie–Îles-de-la-Madeleine	1,119	1.2
Bas-Saint-Laurent	2,866	1.4
Capitale-Nationale	3,623	0.5
Chaudière-Appalaches	2,510	0.6
Estrie	3,300	1.0
Centre-du-Québec	159	0.1
Montérégie	2,801	0.2
Montréal	51,980	2.7
Laval	926	0.2
Lanaudière	4,935	1.0
Laurentides	6,150	1.0
Outaouais	2,041	0.5
Abitibi-Témiscamingue	872	0.6
Mauricie	1,421	0.5
Saguenay–Lac-Saint-Jean	1,227	0.4
Côte-Nord	-15	0.0
Nord-du-Québec	350	0.8
<b>Ontario</b>		
Ottawa	-1,811	-0.1
Kingston–Pembroke	3,411	0.7
Muskoka–Kawartha	-340	-0.1
Toronto	68,193	1.1
Kitchener–Waterloo–Barrie	-4,116	-0.3
Hamilton–Niagara Peninsula	3,058	0.2
London	2,124	0.3
Windsor–Sarnia	-1,696	-0.3
Stratford–Bruce Peninsula	-3,444	-1.1
Northeast	-4,159	-0.7
Northwest	-537	-0.2
<b>Manitoba</b>		
Southeast	-3,695	-3.1
South Central	-331	-0.5
Southwest	114	0.1
North Central	-684	-1.3
Winnipeg	8,779	1.2
Interlake	-89	-0.1
Parklands	-1,407	-3.3
North	957	1.0
<b>Saskatchewan</b>		
Regina–Moose Mountain	4,826	1.5

**Table 4**  
**Error of closure of the estimates of population by economic region (ER), May 10, 2016**

	Error of closure	
	number	percent
Swift Current–Moose Jaw	-580	-0.6
Saskatoon–Biggar	5,448	1.5
Yorkton–Melville	-946	-1.1
Prince Albert	1,966	0.9
Northern	1,246	3.2
<b>Alberta</b>		
Lethbridge–Medicine Hat	-242	-0.1
Camrose–Drumheller	-991	-0.5
Calgary	14,689	1.0
Banff–Jasper–Rocky Mountain House	2,060	2.3
Red Deer	977	0.5
Edmonton	23,369	1.7
Athabasca–Grande Prairie–Peace River	2,343	0.9
Wood Buffalo–Cold Lake	1,894	1.3
<b>British Columbia</b>		
Vancouver Island and Coast	-19,360	-2.3
Lower Mainland–Southwest	-55,061	-1.9
Thompson–Okanagan	-12,472	-2.2
Kootenay	-6,207	-4.0
Cariboo	-4,946	-3.0
North Coast	-417	-0.7
Nechako	-555	-1.4
Northeast	-1,385	-0.8
<b>Yukon</b>	<b>-317</b>	<b>-0.8</b>
<b>Northwest Territories</b>	<b>-58</b>	<b>-0.1</b>
<b>Nunavut</b>	<b>144</b>	<b>0.4</b>

**Note:** The error of closure is equal to the postcensal estimate (at the census date) minus the census count adjusted for census net undercoverage (including adjustment for incompletely enumerated Indian reserves). The percentage is: error of closure, divided by the census count adjusted for census net undercoverage and incompletely enumerated Indian reserves, multiplied by 100.

**Source:** Statistics Canada, Demography Division.

**Table 5**  
**Distribution of census divisions (CDs) by error of closure, Canada, provinces and territories, May 10, 2016**

	Error of closure					Total of census divisions	Average absolute error	Census divisions with positive error
	Less than 1.0%	1.0% to 1.9%	2.0% to 2.9%	3.0% to 3.9%	4.0% and over			
	number							
<b>Canada</b>	<b>129</b>	<b>77</b>	<b>49</b>	<b>23</b>	<b>15</b>	<b>293</b>	<b>1.7</b>	<b>146</b>
Newfoundland and Labrador	5	3	2	1	0	11	1.4	3
Prince Edward Island	1	1	0	1	0	3	1.8	2
Nova Scotia	8	7	2	0	1	18	1.3	4
New Brunswick	1	6	5	3	0	15	2.0	3
Quebec	54	25	15	2	2	98	1.1	78
Ontario	29	12	4	3	1	49	1.2	17
Manitoba	7	6	4	3	3	23	2.3	9
Saskatchewan	7	6	4	1	0	18	1.5	10
Alberta	7	6	1	4	1	19	1.7	14
British Columbia	4	5	10	5	5	29	3.9	2
Yukon	1	0	0	0	0	1	0.8	0
Northwest Territories	3	0	1	0	2	6	2.6	2
Nunavut	2	0	1	0	0	3	1.0	2

**Note:** The error of closure is equal to the postcensal estimate on census day minus the census count adjusted or net undercount. The percentage is error of closure, divided by the census count adjusted or net undercount, multiplied by 100. The absolute values of these percentages are used for the distribution in this table.

**Source:** Statistics Canada, Demography Division.

## Methodology

### Related methodology notes

The two-way raking method is also referred to as the “Deming method”, the “method of iterative proportions”, and calibration (see Shryock, Siegel et al., 1976: 547-549).

Unless otherwise noted, the term preliminary includes both preliminary and updated estimates.

The T1 family file (T1FF) is derived from the Canada Revenue Agency (CRA) T1 file by Income Statistics Division of Statistics Canada.

This document describes the concepts, data the sources and the methodology used to produce the population estimates. Population estimates are produced to measure the population counts according to various characteristics and geographies between two censuses. The demographic estimates are the official population estimates at the national, provincial, territorial and subprovincial levels.

Postcensal estimates are based on the 2016 Census.

## Population Estimates

### Types of estimates

Population estimates can either be intercensal or postcensal. Intercensal estimates are produced using counts from two consecutive censuses adjusted for census net undercoverage (CNU)<sup>16</sup> (including adjustment for incompletely enumerated Indian reserves (IEIR)) and postcensal estimates. The production of intercensal estimates consists of updating the postcensal estimates using the counts from a new census adjusted for CNU.

Postcensal estimates are produced using data from the most recent census adjusted for CNU and the components of population growth. In terms of timeliness, postcensal estimates are more up-to-date than data from the most recent census adjusted for CNU, but as they get farther from the date of that census, they become less reliable.

### Levels of estimates

Updating population estimates between censuses requires the use of data from administrative files or surveys. The quality of population estimates therefore depends on the availability of a number of administrative data files that are provided to Statistics Canada by Canadian and foreign government departments. Since some components are not available until several months after the reference date, three kinds of postcensal estimates are produced: preliminary postcensal (PP), updated postcensal (PR) and final postcensal (PD). The time lag between the reference date and the release date is three months for preliminary estimates and two to three years for final estimates. Though it requires more vigilance on the part of users, the production of three successive series of postcensal estimates is the strategy that best satisfies the need for both timeliness and accuracy of the estimates.

### Calculation of postcensal population estimates

Population estimates – preliminary, updated and final – are produced using the component method. This method consists in taking the population figures from the most recent census, adjusted for CNU (undercoverage minus overcoverage), and adding or subtracting the number of births, deaths, and components of international and internal migration.

16. In this case, the adjustment for the census net undercoverage also includes the incompletely enumerated Indian reserves.

## A. Subprovincial estimates

### Population estimates for census metropolitan areas, census agglomerations and census divisions

The component method is used to produce estimates for census metropolitan areas (CMAs), census agglomerations (CAs) and census divisions (CDs) by age and sex. The method is applied to each age-sex cohort in the base population.

The component method formulas for estimating the population of CMAs, CAs and CDs by age and sex are as follows:

For age 0:

$$P_{(t+1)}^0 = B_{(t,t+1)} - D_{(t,t+1)}^{-1} + I_{(t,t+1)}^{-1} - (E_{(t,t+1)}^{-1} + \Delta TE_{(t,t+1)}^{-1}) + RE_{(t,t+1)}^{-1} + NPR_{(t+1)}^0 + \Delta Ninter_{(t,t+1)}^{-1} + \Delta Nintra_{(t,t+1)}^{-1} + Resid_{(t,t+1)}^{-1}$$

For ages 1 to 89:

$$P_{(t+1)}^{a+1} = P_{(t)}^a - D_{(t,t+1)}^a + I_{(t,t+1)}^a - (E_{(t,t+1)}^a + \Delta TE_{(t,t+1)}^a) + RE_{(t,t+1)}^a - NPR_{(t)}^a + NPR_{(t+1)}^{a+1} + \Delta Ninter_{(t,t+1)}^a + \Delta Nintra_{(t,t+1)}^a + Resid_{(t,t+1)}^a$$

For age group 90 and over:

$$P_{(t+1)}^{90+} = P_{(t)}^{89+} - D_{(t,t+1)}^{89+} + I_{(t,t+1)}^{89+} - (E_{(t,t+1)}^{89+} + \Delta TE_{(t,t+1)}^{89+}) + RE_{(t,t+1)}^{89+} - NPR_{(t)}^{89+} + NPR_{(t+1)}^{90+} + \Delta Ninter_{(t,t+1)}^{89+} + \Delta Nintra_{(t,t+1)}^{89+} + Resid_{(t,t+1)}^{89+}$$

#### where, for each subprovincial region

$(t,t+1)$	=	interval between times t and t+1
$P_{(t+1)}$	=	population estimates at time t+1
$P_t$	=	base population at time t (census counts adjusted for net census undercoverage or the most recent estimate)
B	=	number of births
D	=	number of deaths
I	=	number of immigrants
E	=	number of emigrants
$\Delta TE$	=	net temporary emigration
RE	=	number of returning emigrants
NPR	=	number of non-permanent residents
$\Delta Ninter$	=	net interprovincial migration
$\Delta Nintra$	=	net intraprovincial migration
Resid	=	residual deviation (for intercensal estimates).

To ensure concordance between the subprovincial estimates and the provincial and territorial estimates by age and sex, two-way raking is used.

## Population estimates for economic regions

A different method is used to produce population estimates for economic regions (ERs). In this case the census division's (CD) aggregate method is used. First, the ERs are defined in terms of CDs using the most recent Standard Geographical Classification (SGC) specifications. When the geographic delineation of the CDs and ERs are the same, no adjustment is required; the population estimates for the CDs that make up the ER are simply added together.

However, when the geographic delineation of the CD does not match that of the ER, i.e., when a CD is in more than one ER, distribution of the CD's demographic components are allocated on the basis of its demographic weight in each ER in question. The proportions are referred to as conversion factors. They are calculated using the most recent census counts.

Thus, demographic components (births, deaths and migration) initially measured at the CD level can be allocated to each ER. Using the census division's aggregate method by the ERs' geographic delineation, the population and demographic components of ERs can be estimated.

However, the census division's aggregate method cannot be used to estimate the number of intraprovincial in-migrants and out-migrants, since it overestimates those figures. In-migrants to a given CD from another CD in the same ER should not be counted since the migration occurred within the ER's boundaries. These are false in-migrants. The same is true for out-migrants from one CD to another CD in the same ER: they are false out-migrants. However, the net intraprovincial migration calculated with the CD aggregate method is correct because the false in-migrants and out-migrants cancel each other out. As a result, only the net intraprovincial migration of ERs can be estimated accurately using the CD aggregate method. This is why the estimates for intraprovincial in-migrants and out-migrants are not available at the ER level.

## Special treatment for postcensal estimates for British Columbia and Quebec

British Columbia's preliminary postcensal population estimates by age and sex at the CMA, CA and CD levels are obtained using a different method. They are calculated by applying the total population growth rates provided by BC Stats, British Columbia's statistical agency, to the previous year's estimates produced by the Demography Division. The total preliminary postcensal estimates are then distributed by age and sex using the Demography Division's component method. The British Columbia population estimates used to calculate the rates are produced using a regression model based on data from residential Hydro services and Ministry of Health Client Registry data as symptomatic indicators.

For Quebec, postcensal population estimates of census divisions (CDs), census metropolitan areas (CMAs) and census agglomerations (CAs) are calculated in accordance with the equations of the component method presented above, but some components are directly taken from the Institut de la statistique du Québec (ISQ) estimates. Special treatment specific to those components is explained in sections D and K.

To ensure concordance between the subprovincial estimates and the provincial totals by age and sex, two-way raking is used.

### B. Levels of estimates

For subprovincial regions in British Columbia, the specific method described in the previous section is used only for preliminary postcensal estimates. For updated and final postcensal estimates, the component method is used.

For the subprovincial regions in other provinces and territories, the difference between preliminary and final postcensal population estimates lies in the timeliness of the components. When all the components are preliminary, the population estimate is deemed preliminary postcensal (PP). When all the components are final, the population estimate is deemed final postcensal (PD). Any other combination of levels is considered updated postcensal (PR).



## C. Base population and components of population growth

### Base population

The base populations are derived from the quinquennial censuses. The population universe of the 2016 Census includes the following groups:

- Canadian citizens (by birth or by naturalization) and immigrants with a usual place of residence in Canada;
- Canadian citizens (by birth or by naturalization) and immigrants who are abroad, either on a military base or attached to a diplomatic mission;
- Canadian citizens (by birth or by naturalization) and immigrants at sea or in port aboard merchant vessels under Canadian registry or Canadian government vessels;
- Non-permanent residents:
  - persons with a usual place of residence in Canada who are claiming refugee status and the family members living with them;
  - persons with a usual place of residence in Canada who hold study permits and the family members living with them;
  - persons with a usual place of residence in Canada who hold work permits and the family members living with them.

The population universe of the 2016 Census does not include foreign residents but, since 1991, non-permanent residents are included in the population universe.

Foreign residents have not been enumerated since the 1991 Census. Foreign residents are persons who belong to the following groups:

- government representatives of another country attached to the embassy, high commission or other diplomatic body of that country in Canada, and members of their families living with them;
- members of the Armed Forces of another country who are stationed in Canada, and family members living with them;
- residents of another country visiting Canada temporarily (for example, a foreign visitor on vacation or on business, with or without a visitor's permit).

These base populations are adjusted as follows:

- adjustment of the population for census net undercoverage (CNU);
- addition of independent estimates for incompletely enumerated Indian reserves;
- Integration of population count amendments<sup>17</sup>
- at the provincial level, the first postcensal population estimate is July 1 of the census year. This is obtained by addition or subtraction of the components of growth between Census Day and June 30. At the subprovincial level, the estimate of the July 1 population estimate is obtained by applying to the annual components of growth, a fraction of the year that corresponds to the period between Census Day and June 30. These are adjusted to the appropriate provincial and territorial components.

### Adjustment for census net undercoverage (CNU)

The adjustment for CNU is important. The CNU is the difference between the number of persons who should have been enumerated but were missed (undercoverage) and the number of persons who were enumerated but should not have been or who were counted more than once (overcoverage).

---

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

To estimate census net undercoverage (CNU) at the subprovincial level, provincial and territorial CNU rates by age and sex are applied to census subdivisions (CSDs), which are aggregated to create the base population of higher subprovincial levels (census metropolitan areas (CMAs), census agglomerations (CAs), and census divisions (CDs) in the province).

#### **D. Births and deaths**

The numbers of births and deaths for census divisions (CDs), census metropolitan areas (CMAs) and census agglomerations (CAs) are derived directly from the vital statistics database of Statistics Canada's Health Statistics Division. Although Statistics Canada manages the National system of vital statistics, the central vital statistics registries of the provinces and territories are responsible for collecting and processing the information from those administrative files. Under provincial / territorial vital statistics statutes (or similar legislation), all live births and all deaths must be registered, and all provinces and territories provide the information to Statistics Canada.

The vital statistics universe closely parallels the census universe. Both universes include births and deaths of all Canadians, immigrants and non-permanent residents (NPR) and exclude foreign residents.

Vital statistics by province or territory of residence are used to produce our final estimates of births and deaths.

When there are no vital statistics, the number of births is estimated using fertility rates by mother's age. The number of deaths is estimated using mortality rates by age and sex. These methods are used to calculate preliminary estimates at the provincial and territorial levels.

#### **Levels of estimates**

Estimates of births and deaths are categorized as final when they are directly taken from the Health Statistics Division's vital statistics. They are then adjusted to the provincial and territorial totals using a two-way raking process to ensure their concordance.

When no birth or death data are available, preliminary provincial or territorial estimates are broken down, using the most recent known subprovincial distribution derived from Health Statistics Division's vital statistics, to produce estimates by region. In that case, estimates of births and deaths are categorized as preliminary. They are then adjusted to the provincial and territorial totals using a two-way raking process to ensure their consistency.

#### **Special treatment for preliminary and updated postcensal estimates for Quebec and British Columbia**

For birth and death components of Quebec's subprovincial areas, the estimates by age and sex of *Institut de la statistique du Québec* (ISQ) are used as a distribution for preliminary and updated estimates. It has been decided to use those data because they are available in a more timely manner. Final estimates of births and deaths for Quebec's subprovincial areas are derived from the vital statistics database of Statistics Canada's Health Statistics Division.

A special case is also relevant to the provincial totals on which subprovincial estimates are prorated. Quebec and British Columbia provide their most recent estimates of births and deaths at the provincial level. These estimates are used for the preliminary and updated estimates. However, the final estimates of births and deaths for these provinces are derived directly from the vital statistics database of Statistics Canada's Health Statistics Division.

#### **E. Immigration**

Like the numbers of births and deaths, Canadian immigration statistics must be kept by law. In Canada, immigration is regulated by the *Immigration and Refugee Protection Act* (IRPA) of 2002. This statute superseded the *Immigration Act*, which was passed in 1976 and amended more than 30 times in the years thereafter. *Immigration, Refugees and Citizenship Canada* (IRCC) collects and processes administrative files of immigrants. IRCC then provides Statistics Canada with information from *Global Case Management System* (GCMS) files. The information is used to estimate the number and characteristics of people granted permanent resident status by the federal government on a given date. For Demography Division, the terms immigrant and permanent resident are equivalent.

An immigrant is a person who is not a Canadian citizen by birth, but has been granted the right to live in Canada permanently by Canadian immigration authorities. The number of immigrants does not include persons born abroad to Canadian parents who are only temporarily outside the country.

Immigrants are usually counted on or after the date on which they are granted permanent resident status or the right to live in Canada.

To determine the subprovincial areas where immigrants settle, the information of their intended municipality of residence is used, as collected by IRCC. Making use of this variable to measure the subprovincial distribution of immigrants is key to ensuring the best possible consistency with provincial and territorial estimates.<sup>18</sup>

To ensure their consistency, subprovincial estimates are then adjusted to the provincial and territorial totals using two-way raking.

### Levels of estimates

The difference between preliminary and final estimates lies in the timeliness of the sources used to estimate this component. Since the subprovincial estimates of immigrants are adjusted to provincial and territorial estimates, the level of subprovincial estimates will be the same. Immigration estimates are preliminary the first year and final the following year.

### F. Net non-permanent residents

Like the numbers of births and deaths, Canadian immigration statistics must be kept by law. In Canada, the non-permanent residents (NPR) are regulated by the *Immigration and Refugee Protection Act* (IRPA) of 2002. This statute superseded the *Immigration Act*, which was passed in 1976 and amended more than 30 times in the years thereafter. *Immigration, Refugees and Citizenship Canada* (IRCC) collects and processes the administrative files of NPRs in Canada. It then provides Statistics Canada with information from *Global Case Management System* (GCMS) files. The information is used to estimate the number and characteristics of people granted NPR status by the federal government.

NPRs are persons who are lawfully in Canada on a temporary basis under the authority of a temporary resident permit, along with members of their family living with them. Non-permanent residents include foreign workers, foreign students, the humanitarian population and other temporary residents. The humanitarian population includes refugee claimants and temporary residents who are allowed to remain in Canada on humanitarian grounds and are not categorized as either foreign workers or foreign students. For Demography Division, the terms non-permanent resident and temporary resident are equivalent.

NPR estimates are based on the number of NPRs, not on the net. The number of people in IRCC's administrative system is estimated for specific dates in each period of observation. First, the end-of-period number of NPR is estimated, and then the start-of-period number of NPR is subtracted from that estimate. That yields the net number of NPRs.

Anyone who received non-permanent resident status prior to the observation date is counted. For the refugee claimants we use the date of their demand. Permit holders and refugee claimants can be excluded for different reasons and those criteria are different for each category. Permit holders and refugee claimants are excluded from the population if their permit has expired, if they receive permanent resident status, or if they are deported. In addition, refugee claimants are excluded if their file has been inactive for two years.

As with immigrants, to determine the subprovincial areas where NPRs settle, the information of their intended municipality of residence is used, as collected by IRCC. When this information is missing, auxiliary files from IRCC are used to determine NPRs' subprovincial region of destination, on the basis of their address's postal code. Making use of IRCC microdata to measure the subprovincial is key to ensuring the best possible consistency with provincial and territorial estimates.<sup>19</sup>

---

18. Demographic estimates from previous vintages, which were not based on the Standard Geographical Classification (SGC) 2016, were derived from the T1FF.

19. Demographic estimates from previous vintages, which were not based on the Standard Geographical Classification (SGC) 2016, were modelled according to the distribution from the most recent census (or NHS).

To ensure their consistency, subprovincial estimates are then adjusted to the provincial and territorial totals using two-way raking.

### Levels of estimates

The difference between preliminary and final estimates lies in the timeliness of the source used to estimate this component. Since the subprovincial estimates of the net number of NPRs are adjusted to provincial and territorial estimates, the level of the subprovincial estimates will be the same. NPR estimates are preliminary the first year and updated the following year. They become final two to three years after the reference year, when all other components are also final.

### G. Emigration

The number of emigrants at provincial or territorial level is estimated using data from the *Office of Immigration Statistics, U.S. Department of Homeland Security* data collected by the *Canada child benefit (CCB)* program, and data from the T1 Family File (T1FF). The first source is used to estimate emigration to the United States. CCB data are used to estimate emigration to other countries. The estimates of the number of child emigrants have to be adjusted because the CCB is not universal and does not provide direct information on the number of adult emigrants. As a result, four adjustment factors are used to take into account:

- the incomplete coverage due to a delay in the receipt and processing of the files of children *eligible* for the CCB. Since it takes four years after the reference period for CCB administrative files to become complete, the adjustment is made if the estimates are finalized after two years. The factor is derived from the two-year ratios of emigrant children based on two versions of the CCB files;
- the program's partial coverage, that is, people who do not apply for the CCB or are not *eligible*. This factor is obtained by comparing the estimated number of children in the population with the number of children in CCB files;
- the differential propensity to emigrate between children who are eligible for the CCB and children who are not. This factor is obtained by comparing the emigration rates of CCB-eligible children with the rates for all children (aged 0-17). This factor is calculated for each province and territory and is based on the last three available years of T1FF;
- the differential propensity to emigrate between adults and children. This factor generates the emigration rate for the population aged 18 and over. It is obtained by (1) calculating the average ratio over three years of the adult and child emigration rates based on T1FF data, (2) calculating the average ratio over three years of the adult and child emigration rates based on data from the *Office of Immigration Statistics, U.S. Department of Homeland Security*, and (3) taking the average of the two rates. This factor is calculated for Canada only.

The adult emigration rate is applied to the adult population. Adult emigration is distributed by province and territory using data from the T1FF file. We calculate a ratio of the number of emigrant adults to the number of emigrant children from the T1FF file. We then apply this ratio to the number of emigrant children from the CCB by province, which yields the number of adult emigrants whose provincial distribution will differ from that of the children.

The number of adult emigrants combined with the number of child emigrants (once adjusted for the coverage and differential emigration factors) generate the number of emigrants for the entire population.

Emigration is disaggregated by province and territory based on the number of child emigrants adjusted for coverage and differential emigration.

The distribution of emigrants at the subprovincial level is derived from the T1FF. Because the estimates are available only by broad age groups (0-17, 18-24, 25-44, 45-64, 65+), they are broken down by age and sex based on the provincial or territorial distribution. They are then adjusted to the provincial and territorial totals using two-way raking to ensure their consistency.

## Levels of estimates

The difference between preliminary and final estimates lies in the timeliness of the sources used to estimate this component. Since the subprovincial estimates of emigrants are adjusted to provincial and territorial estimates, the level of the subprovincial estimates will be the same.

## H. Net temporary emigration

Some people leave Canada to live temporarily in another country; others who were temporarily outside Canada return. The net result of those departures and returns is the component known as “net temporary emigration”. Estimates of the number of departures are derived from the Reverse Record Check (RRC), the most important census coverage study. The RRC provides an estimate of the number of people who left Canada temporarily during an intercensal period and are still out of the country at the end of the period. Estimates of the number of returns are based on two sources: the Census and Demography Division’s estimates of returning emigrants. The census provides the number of people who were outside Canada at the time of the previous census and returned during the intercensal period. That number includes all returning emigrants. Then Demography Division’s estimate of the returning emigrants’ component is subtracted to produce the number of returning temporary emigrants. The estimated numbers of departures (RRC) and returns (Census and Demography Division) yield an estimate of net temporary emigration.

This estimate is for the whole intercensal period; it is disaggregated into estimates for each of the five years in the period and then into monthly estimates using a seasonal adjustment that is an average between zero seasonality and the seasonality of emigration.

Net temporary emigration is calculated first for the national level. It is then disaggregated by province or by groups of provinces based on the RRC estimates of temporary emigration. For the Atlantic provinces and the territories, the estimate for the group is disaggregated on the basis of each province / territory’s proportion of the group’s total population.

Net temporary emigration can be estimated only for the intercensal period preceding the most recent census. Net temporary emigration in the current period is assumed to be the same as in the previous period for each province and territory.

At the subprovincial level, provincial and territorial net temporary emigration estimates by age and sex are broken down based on the subprovincial distribution of emigrants. They are then adjusted to the provincial and territorial totals using two-way raking to ensure their consistency.

## Levels of estimates

The difference between preliminary and final estimates lies in the timeliness of the net temporary emigration estimates. Since the subprovincial estimates of the net temporary emigration are adjusted to provincial and territorial estimates, the level of the subprovincial estimates will be the same.

## I. Returning emigrants

A returning emigrant is a person who returns to Canada after having been classified as an emigrant. In a manner similar to the procedure used to calculate the number of emigrants, data from the *Canada child benefit* (CCB) file of *Canada Revenue Agency* (CRA) and from the T1FF are used to estimate the number of returning emigrants at provincial or territorial level. Adjustment factors are applied to compensate for the fact that the CCB program is not universal, and an adult/child ratio is used to estimate the number of adult returning emigrants. As a result, four adjustment factors are used to take into account:

- the incomplete coverage due to a delay in the receipt and processing of the files of children eligible for the CCB. Since it seems to take four years after the reference period for CCB administrative files to become complete, the adjustment is made if the estimates are finalized after two years. The factor is derived from the two-year ratios of returning emigrant children based on two versions of the CCB files;

- the program's partial coverage, that is, people who do not apply for the CCB or who are not eligible. This factor is obtained by comparing the estimated number of children in the population with the number of children in CCB files;
- the differential propensity to emigrate between children who are eligible for the CCB and children who are not. This factor is obtained by comparing the emigration rates of CCB-eligible children with the rates for all children (aged 0 to 17). This factor is calculated for each province and territory and is based on the last three available years of T1FFs;
- the adult/child ratio, which is based on the census by age and sex.

As with emigrants, the distribution of returning emigrants at the subprovincial level is derived from the T1FF. Because the estimates are available only by broad age groups (0-17, 18-24, 25-44, 45-64, 65+), they are broken down by age and sex based on the provincial or territorial distribution. They are then adjusted to the provincial and territorial totals using two-way raking to ensure their consistency.

### Levels of estimates

The difference between preliminary and final estimates lies in the timeliness of the sources used to estimate this component. Since the subprovincial estimates of returning emigrants are adjusted to provincial and territorial estimates, the level of the subprovincial estimates will be the same.

## J. Interprovincial migration

Interprovincial migration represents movements from one province or territory to another, involving a change in usual place of residence. As is the case for emigration, there is no provision for recording interprovincial migration in Canada. Consequently, such movements have to be estimated using data from the Canada child benefit (CCB) of Canada Revenue Agency (CRA) and T1FF.

Final estimates of interprovincial migration are obtained by comparing addresses indicated on personal income tax returns over two consecutive tax years, by making use of the T1FF. However, the migration status of tax filers' dependants has to be imputed. An adjustment is also required to take into account migrants who do not file income tax returns.

The estimates by broad age groups and sex are broken down by age based on distributions stemming from the most recent census or NHS (for 2011) mobility question on place of residence one year ago. Since 2011/2012, NHS and census distributions have been modelled to minimize the impact of outliers found in some subprovincial regions, mostly for smaller geographies. Subprovincial estimates are then adjusted to the provincial and territorial totals using two-way raking to ensure their consistency.

Subprovincial estimates are then adjusted to the provincial and territorial totals using two-way raking to ensure their consistency.

### Levels of estimates

The difference between preliminary and final estimates lies in the timeliness of the sources used to estimate this component.

Because income tax returns are not available at the time preliminary estimates are produced, the method to estimate preliminary interprovincial migration is different. For subprovincial areas, CCB administrative files are used to determine the preliminary migration of children (aged 0 to 17), while the preliminary migration of adults is derived by using rates from the previous year, calculated with final data.

Since the subprovincial estimates of interprovincial migrants are adjusted to provincial and territorial estimates, the level of the subprovincial estimates will be the same.



## K. Intraprovincial migration

Intraprovincial migration represents movement from one region to another within the same province or territory, involving a change in usual place of residence. As is the case for emigration and interprovincial migration, there is no provision for recording intraprovincial migration in Canada. Consequently, such movements have to be estimated using data from the Canada child benefit (CCB) of Canada Revenue Agency (CRA) and T1FF.

Final estimates of intraprovincial migration are obtained by comparing addresses indicated on personal income tax returns over two consecutive tax years, by making use of the T1FF. However, the migration status of tax filers' dependants has to be imputed. An adjustment is also required to take into account migrants who do not file income tax returns.

The components of intraprovincial migration derived from the T1FF for each subprovincial region are produced by broad age groups and sex. They are then broken down by age based on distributions stemming from the most recent census or NHS (for 2011) mobility question on place of residence one year ago. Since 2011/2012, NHS and census distributions have been modelled to minimize the impact of outliers found in some subprovincial regions, mostly for smaller geographies.

### Levels of estimates

The difference between preliminary and final estimates lies in the timeliness of the sources used to estimate this component.

Because income tax returns are not available at the time preliminary estimates are produced, the method to estimate preliminary intraprovincial migration is different. For subprovincial areas, CCB administrative files are used to determine the preliminary migration of children (aged 0 to 17), while the preliminary migration of adults is derived by using rates from the previous year, calculated with final data.

### Special treatment for Quebec's estimates

In the case of the component of intraprovincial migration for Quebec's subprovincial areas, ISQ data are used for preliminary, updated and final estimates. These estimates are based on data from the *Fichier d'inscription des personnes assurées* (FIPA), the health-insured persons register, from the *Régie de l'assurance-maladie du Québec* (RAMQ). It has been decided to use those data because the provincial data source is more complete and is available in a more timely manner.

## L. Intercensal population estimates

Intercensal estimates – population estimates for reference dates between two censuses – are produced following each census. They reconcile previous postcensal estimates with the new census counts.

There are three main steps in the production of intercensal estimates:

- the correspondence of the geographic boundaries between the two censuses
- calculation of the error of closure
- linear distribution of the error of closure (residual deviation).

To ensure geographical concordance, the base populations and components of population growth must be adjusted according to geographical boundaries at the time of the most recent census. For areas whose geographical boundaries changed between the two censuses (as measured by the SGC), historical conversion factors are used based on population transfers at the census subdivision level during the most recent intercensal period. In general, corrections to CDs, CMAs, CAs and ERs are minor (see the "Quality of demographic data" section).

Error of closure is defined as the difference between the postcensal population estimates on census day and the population enumerated in that census adjusted for census net undercoverage (CNU<sup>20</sup>). The error of closure is spread evenly over the intercensal period, based on the number of days in each month. Intercensal estimates by age and sex are adjusted the same way (i.e., by distributing the error of closure evenly across the age and sex cohorts). As with postcensal estimates, the intercensal subprovincial estimates by age and sex are adjusted to provincial and territorial estimates using two-way raking to ensure their consistency.

---

20. In this case, the adjustment for the census net undercoverage also includes the incompletely enumerated Indian reserves.



## Appendix A: Glossary

### Age

Age as of July 1.

### Ageing (of a population)

An increase in the number of old persons as a percentage of the total population.

### Average absolute error of closure

Defined as the mean of the absolute differences between the **postcensal estimates** on Census Day and the results of the **Census adjusted for the census net undercoverage**.

### Average age

The average age of a population is the average age of all its members.

### Census coverage

**Census net undercoverage:** Difference between undercoverage and overcoverage.

**Overcoverage:** Number of persons who should not have been counted in the census or who were counted more than once.

**Undercoverage:** Number of persons who were intended to be enumerated in a census but were not.

### Census division (CD)

Census division (CD) is the general term for provincially legislated areas (such as county, municipalité régionale de comté and regional district) or their equivalents. Census divisions are intermediate geographic areas between the province level and the municipality (census subdivision).

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

### Cohort

Represents a group of persons who have experienced a specific demographic event during a given year. In the case of births, persons born within a specified year are referred to as a generation.

### Census agglomeration (CA)

A census agglomeration (CA) is formed by one or more adjacent municipalities centred on a population centre (known as the core). A CA must have a core population of at least 10,000 based on data from the previous Census of Population Program. To be included in the CA, other adjacent municipalities must have a high degree of integration with the core, as measured by commuting flows derived from data on place of work from the previous Census Program.

If the population of the core of a CA falls below 10,000, the CA is retired from the next census. All areas inside the CA that are not population centres are rural areas.

When a CA has a core of at least 50,000, based on data from the previous Census of Population, it is subdivided into census tracts. Census tracts are maintained for the CA even if the population of the core subsequently falls below 50,000.

## Census metropolitan area (CMA)

A census metropolitan area (CMA) is formed by one or more adjacent municipalities centred on a population centre (known as the core). A CMA must have a total population of at least 100,000 of which 50,000 or more must live in the core. To be included in the CMA, other adjacent municipalities must have a high degree of integration with the core, as measured by commuting flows derived from census place of work data.

Once an area becomes a CMA, it is retained as a CMA even if its total population declines below 100,000 or the population of its core falls below 50,000. Small population centres with a population count of less than 10,000 are called fringe. All areas inside the CMA that are not population centres are rural areas.

All CMAs are subdivided into census tracts.

The CMA of Ottawa-Gatineau (Ontario-Quebec) crosses provincial boundaries. When the geographic level selected is all of Canada, the totals include the CMA on both sides of the provincial border. If a province has been selected, only the part of the CMA in the province chosen is included in the totals.

## Components of demographic growth

Any of the classes of events generating population movement variations. Births, deaths and migrations are the components responsible for the variations since they alter either the total population or the age and sex distribution of the population.

## Demographic dependency ratio

The ratio of the combined population aged between 0 to 14 years old and the population aged 65 years and over to the population aged between 15 and 64 years old.

## Economic region (ER)

An economic region is a grouping of complete **census divisions** (with one exception in Ontario) created as a standard geographic unit for analysis of regional economic activity.

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

## Emigrant

Canadian citizen or **immigrant** who has left Canada to establish a residence in another country, involving a change in usual place of residence. Emigration may be either temporary or permanent. Where the term is used alone, it references to a person’s permanent emigration which involves severing residential ties with Canada and acquiring permanent residency in another country.

## Error of closure

Difference between the **postcensal estimate** at the census date and the results of the census adjusted for **census net undercoverage** (including adjustment for incompletely enumerated Indian reserves).

## Generation

Unless otherwise specified, refers here to a group of persons born within a given period. The 2006 generation represents people born during the year 2006.

## Immigrant

Within the framework of this publication, the terms immigrant, landed immigrant and permanent resident are equivalent. An immigrant refers to a person who is or has ever been a landed immigrant (permanent resident) and who has been granted the right to live in Canada permanently by immigration authorities. Immigrants are either Canadian citizens by naturalization (the citizenship process) or permanent residents under Canadian legislation. Some immigrants have resided in Canada for a number of years, while others have arrived recently. Most immigrants are born outside Canada, but a small number are born in Canada. Also, children born in other countries to parents who are Canadian citizens that reside temporarily in another country are not included in the category as they become Canadian citizens at birth.

## Internal migration

Internal migration represents all movements of persons within Canada's geographical boundaries, involving a change in usual place of residence. Internal migration denotes movement from one province or territory to another (i.e., **interprovincial migration**) and movements from some other smaller defined geographical unit to another (i.e., **intraprovincial migration**).

## International migration

International migration represents movement of population between Canada and a foreign country which involves a change of the usual place of residence. A distinction is made with regard to **immigrants, emigrants, returning emigrants, net temporary emigration and net non-permanent residents**.

## Interprovincial migration

Interprovincial migration represents all movement from one province or territory to another involving a change in the usual place residence. A person who takes up residence in another province or territory is an **out-migrant** with reference to the province or territory of origin and an **in-migrant** with reference to the province or territory of destination.

## Intraprovincial migration or subprovincial migration

Intraprovincial migration or subprovincial migration represents all movement from one region to another within the same province or territory involving a change of the usual place residence. A person who takes up residence in another region is an **out-migrant** with reference to the region of origin and an **in-migrant** with reference to the region of destination.

## Median age

The median age is an age "x", such that exactly one half of the population is older than "x" and the other half is younger than "x".

## Natural increase

Variation of the **population** size over a given period as a result of the difference between the numbers of births and deaths.

## Net internal migration

Sum of **net intraprovincial** and **net interprovincial migration**.

## Net international migration

Net international migration is obtained according to the following formula: **Immigrants + returning emigrants + net non-permanent residents – (emigrants + net temporary emigrants)**.

## Net interprovincial migration

Net interprovincial migration represents the difference between **in-migrants** and **out-migrants** for a given province or territory.

## Net intraprovincial migration

Net intraprovincial migration represents the difference between **in-migrants** and **out-migrants** in a given region. A region can be defined as a **census division**, an **economic region** or a **census metropolitan area**.

## Net non-permanent residents

Net non-permanent residents represent the variation in the number of **non-permanent residents** between two dates.

## Non-permanent residents

A non-permanent resident is a person who is lawfully in Canada on a temporary basis under the authority of a valid document (work permit, study permit, Minister's permit or refugee) issued for that person along with members of his family living with them. This group also includes individuals who seek refugee status upon or after their arrival in Canada and remain in the country pending the outcome of processes relative to their claim. Note that *Immigration, Refugees and Citizenship Canada* (IRCC) uses the term temporary resident rather than non-permanent resident.

## Net temporary emigration

Net temporary emigration represents the variation in the number of temporary emigrants between two dates. Temporary emigration includes Canadian citizens and **immigrants** living temporarily abroad who have not maintained a usual place of residence in Canada.

## Population

Estimated population and population according to the census are both defined as being the number of Canadians whose usual place of residence is within that area, regardless of where they happened to be on census Day. Also included are any Canadians staying in a dwelling in that area on census Day and having no usual place of residence elsewhere in Canada, as well as those considered **non-permanent residents**.

## Population estimate

**Postcensal:** Population estimate produced by using data from the most recent available census adjusted for **census net undercoverage** (including adjustment for incompletely enumerated Indian reserves) and estimate of the **components of demographic growth** since that last census. This estimate can be preliminary, updated or final.

**Intercensal:** Population estimate derived by using **postcensal estimates** and data adjusted for **census net undercoverage** (including adjustment for incompletely enumerated Indian reserves) of censuses preceding and following the year in question.

## Population growth or total growth

Variation of population size between two dates. It can also be obtained by summing the **natural increase**, **total net migration** and if possible, subtract **residual deviation**. It can be positive or negative.

## Precocity error

Difference between preliminary and final estimate in terms of its relative proportion of the total population for the relevant geographical area. It can be calculated for either population estimates or components of population growth.

## Rate

Refers to the ratio of the number of events estimated in a year ( $t, t+1$ ) to the average populations at the beginning and the end of the period. In this regard, births, deaths, immigration rates, etc are calculated. Generally, the rates are expressed in per 1,000.

**Demographic growth or population growth:** Ratio of population growth between the year  $t$  and  $t+1$ , to the average **population** of both these years. The rate is generally expressed in per 1,000.

**Census net undercoverage of population:** Difference between **undercoverage rate** and **overcoverage rate**.

**Overcoverage of population:** The ratio of the number of persons who should not have been counted in the census or who were counted more than once to the total number of persons that should have been enumerated in the census. Generally, the rate is expressed in percentage.

**Undercoverage of population:** The ratio of the estimated number of persons not enumerated in the census (who were intended to have been enumerated) to the total number of persons that should have been enumerated in the census. Generally, the rate is expressed in percentage.

## Residual deviation

Difference between demographic **population growths** calculated using **intercensal estimates** of **population** between two dates and that obtained by the sum of the components for the same period. This deviation results from the distribution of the **error of closure** (by using the number of days) over the five-year period concerned.

## Returning emigrant

Canadian citizen or **immigrant** having previously emigrated from Canada and subsequently returned to the country.

## Sex ratio

The ratio of the number of men to the number of women. This is not to be confused with the sex ratio at birth, which is the ratio of the number of live-born boys to the number of live-born girls. This ratio is usually expressed as an index, with the number of females taken to be a base of 100.

## Sprague coefficients

Series of factors which, when multiplied to a population distributed by multiples age groups, give a distribution of the same population by single years of age.

## Total net migration

Sum of **net international** and **net internal migration**.

## **Vital statistics**

Vital Statistics includes all the demographic events (that is to say births, deaths, marriages and divorces) for which there are a legal requirement to inform the Provincial or Territorial Registrar's Office.

## **Year**

Unless otherwise specified, the term "year" refers to the period beginning July 1 of a given year and ending June 30 of the following year.

## **Appendix B: Explanatory notes for the tables**

### **Annual population estimates, July 1, subprovincial perspective**

#### **Population**

Population estimates for July 1 are final intercensal for 2006 to 2015, final postcensal for 2016, updated postcensal for 2017 and preliminary postcensal for 2018

### **Annual estimates of demographic components**

#### **Births**

The numbers of births are final up to 2015/2016, updated for 2016/2017 and preliminary for 2017/2018.

#### **Deaths**

The numbers of deaths are final up to 2015/2016, updated for 2016/2017 and preliminary for 2017/2018.

#### **Immigrants**

The numbers of immigrants are final up to 2016/2017 and preliminary for 2017/2018.

#### **Emigrants**

The numbers of emigrants are final up to 2015/2016, updated for 2016/2017 and preliminary for 2017/2018.

#### **Returning emigrants**

The numbers of returning emigrants are final up to 2015/2016, updated for 2016/2017 and preliminary for 2017/2018.

#### **Net temporary emigrants**

The numbers of net temporary emigrants are final up to 2015/2016, updated for 2016/2017 and preliminary for 2017/2018.

#### **Net non-permanent residents**

The numbers of net non-permanent residents are final up to 2015/2016, updated for 2016/2017 and preliminary for 2017/2018.

#### **Interprovincial in-migrants**

The numbers of interprovincial in-migrants are final up to 2016/2017 and preliminary for 2017/2018.

#### **Interprovincial out-migrants**

The numbers of interprovincial out-migrants are final up to 2016/2017 and preliminary for 2017/2018.

#### **Intraprovincial in-migrants**

The numbers of intraprovincial in-migrants are final up to 2016/2017 and preliminary for 2017/2018.

#### **Intraprovincial out-migrants**

The numbers of intraprovincial out-migrants are final up to 2016/2017 and preliminary for 2017/2018.

## Annual population estimates and factors of growth

### Natural increase

Natural increase is final up to 2015/2016, updated for 2016/2017 and preliminary for 2017/2018.

### Net international migration

Net international migration numbers are final up to 2015/2016, updated for 2016/2017 and preliminary for 2017/2018.

### Net interprovincial migration

Net interprovincial migration numbers are final up to 2016/2017 and preliminary for 2017/2018.

### Net intraprovincial migration

Net intraprovincial migration numbers are final up to 2016/2017 and preliminary for 2017/2018.

### Total net migration

Total net migration numbers are final up to 2015/2016, updated for 2016/2017 and preliminary for 2017/2018.

### Total growth

Numbers for total growth are final up to 2015/2016, updated for 2016/2017 and preliminary for 2017/2018.

**Table 1**  
**Summary of levels**

	2015 and before	2016	2017	2018
Population	ID	PD	PR	PP
ID Final Intercensal				
PD Final Postcensal				
PR Updated Postcensal				
PP Preliminary Postcensal				

**Source:** Statistics Canada, Demography Division.



**Table 2**  
**Summary of levels**

	2015/2016 and before	2016/2017	2017/2018
<b>Natural increase</b>			
Births	D	R	P
Deaths	D	R	P
<b>Net international migration</b>			
Immigrants	D	D	P
Emigrants	D	R	P
Returning emigrants	D	R	P
Net temporary emigrants	D	R	P
Net non-permanent residents	D	R	P
<b>Net interprovincial migration</b>			
Interprovincial in-migrants	D	D	P
Interprovincial out-migrants	D	D	P
<b>Net intraprovincial migration</b>			
Intraprovincial in-migrants	D	D	P
Intraprovincial out-migrants	D	D	P

D Final  
R Updated  
P Preliminary

**Source:** Statistics Canada, Demography Division.

## Appendix C: Sources and remarks

### Base population

May 10, 2016 Census of Population adjusted to July 1 and corrected for census net undercoverage (including incompletely enumerated Indian reserves and population reviews).

2016 Census: Statistics Canada, Census of Canada, 2016, Catalogue no. [98-501-X](#).

Census net undercoverage: See The Daily, September 27, 2018.

Incompletely enumerated Indian reserves: See The Daily, September 27, 2018.

### Births and deaths

Statistics Canada, Health Statistics Division. For Quebec, preliminary and updated births and deaths were provided by l'Institut de la Statistique du Québec.

### Immigration

Estimates are based on the immigrant files provided by Immigration, Refugees and Citizenship Canada (IRCC) received by October 16, 2018.

### Non-permanent residents

The estimates are produced by Demography Division using the Global Case Management System (GCMS) files from IRCC. These files, received by October 16, 2018, document the number of persons holding permits/authorizations or claiming refugee status.

### Emigration and returning emigrants

For the subprovincial areas, the components (emigration and returning emigrants) are extracted from tax files by broad age groups and sex. They are calculated using the T1 Family File (T1FF) provided by the Income Statistics Division of Statistics Canada. The data is then broken down by single year of age and sex based on the provincial and territorial distribution. To ensure their consistency, the estimates are subsequently controlled to the provincial and territorial totals.

### Net temporary emigrants

Statistics Canada, Demography Division – based on data from the Reverses Record Check (RRC) for the 2016 Census, and the 2016 Census. Data were broken down by region, single year of age and sex according to the emigrants' distribution.

### Net interprovincial migration and net intraprovincial migration

For the subprovincial areas, the components (in- and out-migrants for interprovincial and intraprovincial migration) are extracted from tax files by broad age groups and sex. They are calculated using the T1FF provided by the Income Statistics Division of Statistics Canada as well as data from Canada Revenue Agency (CRA) Canada child benefit files (CCB) program. The data is then broken down by single year of age and sex based on the mobility information from the 2016 Census. To ensure their consistency, the components for interprovincial migration are subsequently controlled to the provincial and territorial totals.

For Quebec, intraprovincial migration data were provided by l'Institut de la Statistique du Québec.

## Related products

### Selected publications from Statistics Canada

---

91-002-X	Quarterly Demographic Estimates
91-003-X	Canadian Demographics at a Glance
91-209-X	Report on the Demographic Situation in Canada
91-215-X	Annual Demographic Estimates: Canada, Provinces and Territories
91-520-X	Population Projections for Canada, Provinces and Territories
91-528-X	Population and Family Estimation Methods at Statistics Canada

---

### Selected tables from Statistics Canada

#### Tables 17-10-0135 to 17-10-0141 contain data referring to this publication.

---

17-10-0135	Population estimates, July 1, by census metropolitan area and census agglomeration, 2016 boundaries
17-10-0136	Components of population change by census metropolitan area and census agglomeration, 2016 boundaries
17-10-0137	Population estimates, July 1, by economic region, 2016 boundaries
17-10-0138	Components of population change by economic region, 2016 boundaries
17-10-0139	Population estimates, July 1, by census division, 2016 boundaries
17-10-0140	Components of population change by census division, 2016 boundaries
17-10-0141	Interprovincial and intraprovincial migrants, by census metropolitan area and census agglomeration of origin and destination, 2016 boundaries
17-10-0005	Population estimates on July 1st, by age and sex
17-10-0006	Estimates of deaths, by age and sex, annual
17-10-0008	Estimates of the components of demographic growth, annual
17-10-0009	Population estimates, quarterly
17-10-0014	Estimates of the components of international migration, by age and sex, annual
17-10-0015	Estimates of the components of interprovincial migration, by age and sex, annual
17-10-0016	Estimates of births, by sex, annual
17-10-0020	Estimates of the components of interprovincial migration, quarterly
17-10-0021	Estimates of the components of interprovincial migration, annual
17-10-0022	Estimates of interprovincial migrants by province or territory of origin and destination, annual
17-10-0040	Estimates of the components of international migration, quarterly
17-10-0045	Estimates of interprovincial migrants by province or territory of origin and destination, quarterly
17-10-0059	Estimates of the components of natural increase, quarterly
17-10-0060	Estimates of population as of July 1st, by marital status or legal marital status, age and sex

---

### Selected surveys from Statistics Canada

---

3601	Estimates of Total Population, Canada, Provinces and Territories
3604	Estimates of Population by Age and Sex for Canada, Provinces and Territories
3605	Estimates of Population by Marital Status, Legal Marital Status, Age and sex for Canada, Provinces and Territories
3608	Estimates of Population by Age and Sex for Census Divisions, Census Metropolitan Areas and Economic Regions (Component Method)

---