



Report: PDL-CPL-20-11

**Region of Waterloo**  
**Planning, Development and Legislative Services**  
**Community Planning**

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**To:** Chair Sean Strickland and Members of Council

**Date:** April 14, 2020

**File Code:** D15-60 (A)

**Subject: Year-End 2019 Population and Household Estimates for Waterloo Region**

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**Recommendation:**

For Information.

**Summary:**

This report highlights key aspects of Waterloo Region's population and household growth and how recent growth compares to long term trends. The total year-end population and household estimates are used by many Regional and Area Municipal departments, agencies, boards and community groups to plan for growth, support infrastructure and service programs, develop municipal benchmarks and performance indicators, calculate service costs per resident, assess housing need and track population-related trends.

The total population of Waterloo Region is estimated at 617,870 as of year-end 2019, including university and college students temporarily residing in the Region. Previous population estimates for Waterloo Region for 2016 to 2018 have been revised. As a result, last year's population has been restated at 610,390 people (substantially higher than the previous estimate of 601,220). Similarly, 2017 and 2016 estimates have risen from previously published figures.

The reason for the revised population estimates from 2016 to 2018 is primarily due to recently available data indicating a substantial increase in post-secondary institution

enrollment of international students. Since 2016, Canada has experienced unprecedented growth in international students across its post-secondary institutions. With Waterloo Region being home to three post secondary institutions, the Region has seen significant increases in this population. Enrollment of international students has an effect on the Region's population as most require housing within the Region.

Between 2018 and 2019, the population grew by 8,240 residents, a growth rate of 1.35 per cent. The estimated number of households was 218,920, representing a one-year growth rate of 1.25 per cent, or 2,690 more households than in 2018.

Further details on the population and household growth in the Region and Area Municipalities are contained in the following report and summarized in Attachment 1: Planning Information Bulletin. The Planning Information Bulletin will be distributed to Area Municipalities and other parties, as well as being posted on the Region's website for broader community access.

## **Report:**

### **Population and Household Estimates**

The total population of Waterloo Region is estimated at 617,874 as of year-end 2019 including university and college students temporarily residing in the Region. This number represents an increase of 7,488 people (1.23 per cent) over the revised 2018 population estimate of 610,390. Of the Area Municipalities, Kitchener experienced the highest population growth at 3,230 people.

The estimated number of households in Waterloo Region in 2019 was 218,900. Growth in households from the previous year was 2,690 (1.25 per cent).

The overall persons per unit (PPU) had tapered from 2.75 people per unit in 2006 to 2.70 in 2016, but is currently estimated to have risen to 2.73 in 2019. The change in PPU trend is a result of a number of factors. Increasing proportions of non-permanent residents (including international students and visa-holding workers) requiring housing, together with increasing housing costs is resulting in denser living arrangements. Recent population growth has also occurred from migration from GTHA municipalities, largely concentrated in those aged 25-39. That age group has the highest rate of family formation. As Waterloo attracts families, the average occupancy overall increases as a result. While historical declines in PPU was largely attributed to the aging of the population, the increases in student enrollment mixed with larger proportions of those aged 25-39 moving to Waterloo Region is believed to have increased the Region's overall PPU for 2019.

Further detail on year-end 2019 population and household estimates for all Area Municipalities, along with 2018 comparators are shown in Table 1. A detailed description of the methodology used to create the year-end population and household estimates is contained in Attachment 2 to this report.

**Table 1 - Year-end 2019 Population and Household Estimates for Waterloo Region**

	Region of Waterloo**	Cambridge	Kitchener	North Dumfries	Waterloo	Wellesley	Wilmot	Woolwich
Total Population Year-end 2019*	617,870	139,350	261,610	10,790	146,010	11,590	21,810	26,720
Population in Regular Households	598,250	136,930	257,260	10,660	134,290	11,560	21,500	26,080
Population in Collective Dwellings***	19,620	2,430	4,360	130	11,720	30	320	640
Total Population Year-end 2018*	610,390	137,910	258,930	10,710	143,500	11,550	21,600	26,190
Additional Population	7,490	1,440	2,680	80	2,510	40	210	520
Population Change 2018-2019 (%)	1.23%	1.0%	1.0%	0.7%	1.7%	0.3%	1.0%	2.0%
Households Year-end 2019*	218,920	50,420	98,820	3,690	45,570	3,420	7,850	9,150
Households Year-end 2018*	216,230	49,920	97,830	3,640	44,710	3,400	7,780	8,950
Additional Households	2,690	500	990	50	860	20	70	200
Household Change 2018-2019 (%)	1.24%	1.0%	1.0%	1.4%	1.9%	0.6%	0.9%	2.2%
Persons per Unit+	2.73	2.72	2.60	2.89	2.95	3.38	2.74	2.85

\* Based on available data from the 2016 Census, includes adjustments for recent residential development, students and other foreign/temporary residents, net Census undercount, and vacancy rates. Due various corrections and adjustments, direct comparison to previous years estimates are not valid.

\*\* Municipal totals may not add due to independent rounding.

\*\*\* Collective dwellings include student residences, nursing homes, group homes, hospitals, larger lodging houses, etc.

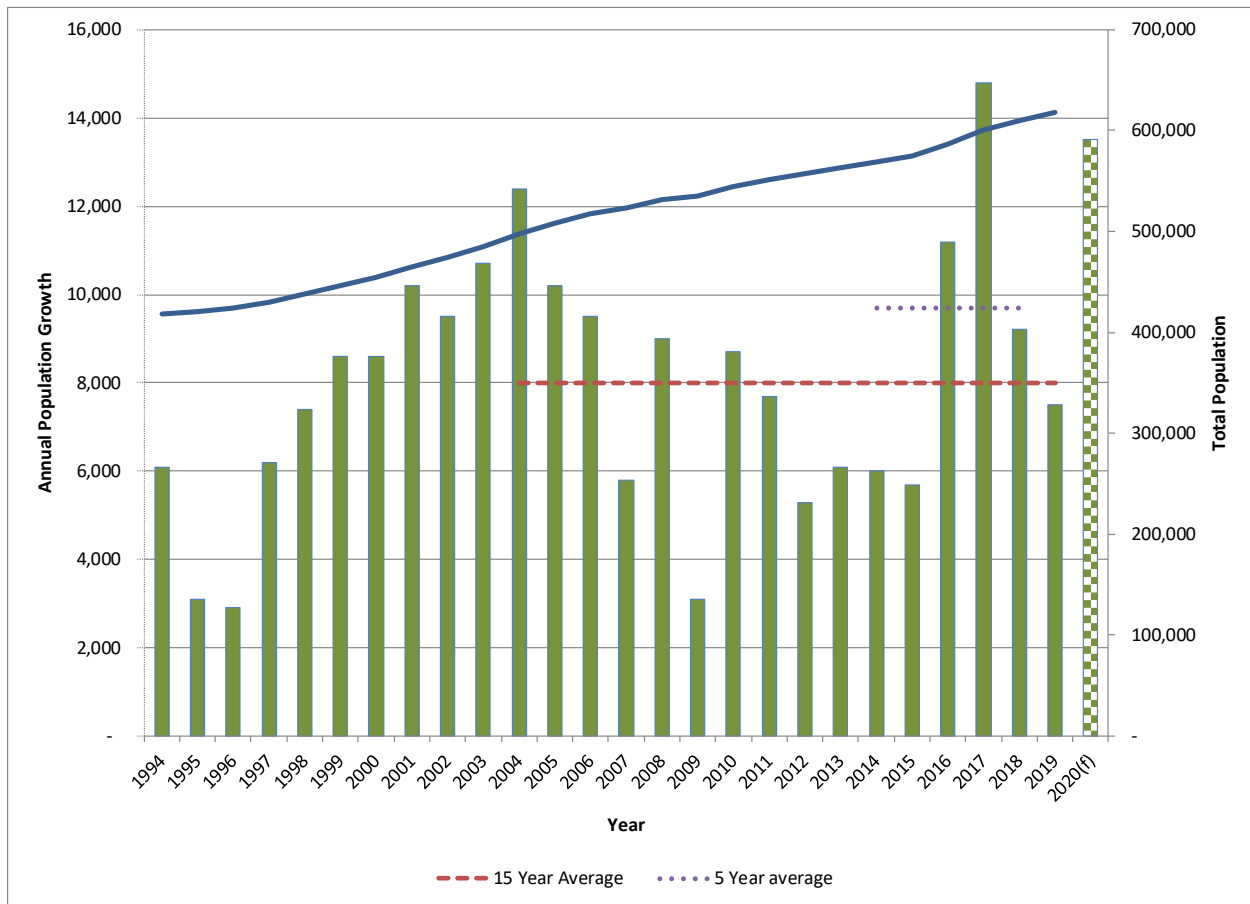
+ 'Persons per Unit' (PPU) calculation is based on the 'Population in Regular Households', not on 'Total Population'.

## Population and Household Trends

Recent population estimates supplied by Statistics Canada's annual components of population growth has shown a steady growth of population in Waterloo Region primarily through intraprovincial migration, as well as non-permanent population. Intraprovincial growth represents individuals who move to Waterloo Region from within Ontario. Non-permanent residents are individuals who reside in Waterloo Region on a work or study permit.

A forecast of growth for 2020 anticipates the Region's population could rise to over 630,000 people based on recent building permit activity. Throughout 2019 over 6,000 building permits were issued throughout the Region. The time from building permit issuance to completion and occupancy is different for every project, but that figure provides an indication of how many housing units may be occupied during 2020.

**Figure 1 - Population Growth for Waterloo Region, 1994 to 2020**



**Estimates of Post-Secondary Students**

The temporary student population contributes substantially to the total population of Waterloo Region. Estimates of the post-secondary student population and housing is based on recent data acquired from the University of Waterloo, Wilfrid Laurier University and Conestoga College.

As of November 2019, there were 72,505 post-secondary students enrolled in full-time programs of Conestoga College, the University of Waterloo, and Wilfrid Laurier University, on the campuses that are located in Waterloo Region (Table 2). Overall enrollment increases at Wilfred Laurier University and University of Waterloo have been consistent with historical trends. Enrollment at Conestoga College has increased dramatically since 2016 with the opening of new facilities. Conestoga’s enrollment increases have primarily consisted of increased attraction of international students/ non-permanent residents.

Prior to 2016, growth in international student enrollment was minimal. In 2016, international students accounted for 16 per cent of all enrollment in Waterloo’s three

post secondary institutions. However, by 2019, international students accounted for 24 per cent of overall enrollment. The increase in the number of international students has an effect on Waterloo Region's population since most require housing within the Region, compared to domestic students, many of whom commute from other jurisdictions or already live within the Region.

Of the full-time students studying on local campuses, it is estimated that over 59,500 reside in Waterloo Region, and the remaining 13,000 students live outside the Region but commute to the local colleges and universities. These estimates are based on historical student commuting patterns.

**Table 2 - University and College Enrolment by Institution (Fall 2018)**

	Conestoga	Waterloo	Laurier	Total
Full-time Local Enrolment	20,505	37,550	14,450	72,505
Commuters, co-op work term, etc.	5,630	6,720	590	12,940
Resident in Region	14,870	30,830	13,855	59,555

Due to the increase in student enrollment, some Area Municipalities are now seeing a net increase in the number of students, as shown in Table 3. The cities of Kitchener and Cambridge which previously experienced a small net loss (350 and 950 respectively) are now estimated to have over 4,000 and 780 net students arriving to live within the city while studying. This population increase has had implications for service provision, most notably, transit services which has been responding to the increased need.

**Table 3 – Temporary Student Population Estimates for Waterloo Region**

	Region of Waterloo*	Cambridge	Kitchener	North Dumfries	Waterloo	Wellesley	Wilmot	Woolwich
Temporary Student Population (included above)	33,950	780	4,030	20	29,490	(40)	(180)	(160)
Students Arriving	42,070	2,620	8,020	170	31,030	50	70	120
Living in Student Residences	10,430	-	530	-	9,900	-	-	-
Living in Other Accommodations	31,640	2,620	7,480	170	21,130	50	70	120
Students Leaving++	(8,130)	(1,840)	(3,990)	(150)	(1,530)	(80)	(260)	(280)

++ These are students who leave home to attend school. They represent the reverse flow of the temporary students arriving in the Region from elsewhere.

### **Municipal Consultation/Coordination**

This report has been circulated to all Area Municipalities.

### **Corporate Strategic Plan:**

Tracking and reporting population and household growth contributes to Strategic Focus Area 1: Thriving Economy. However, many of the objectives and actions contained throughout all five Focus Areas in the Corporate Strategic Plan rely on estimates of population and households.

### **Financial Implications:**

Nil.

### **Other Department Consultations/Concurrence:**

Nil.

### **Attachments:**

Attachment 1 - Year-end 2019 Population and Housing Estimates Bulletin

Attachment 2 - Methodology for Estimation of Regional Year-end Population

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**Approved By:** **Rod Regier**, Commissioner, Planning, Development and Legislative Services

**Attachment 1****Year-end 2019 Population and Housing Estimates Bulletin**

Planning, Housing and Community Services produces year-end estimates of population and households (equivalent to occupied dwelling units) for the Region of Waterloo and its constituent municipalities. The base for these estimates is the 2016 Census of Canada. Building Permit activity as reported by the municipalities was used to update this base. Vacancy rates (extrapolated from CMHC data), demolitions, university/college student enrollment, and assumptions about the average number of persons per dwelling unit (PPU) also influence the numbers. Although based on the best information available, population and household numbers should always be regarded as estimates, not statements of fact.

**Year-End 2019 Population and Household Estimates for the Region of Waterloo**

	Region of Waterloo**	Cambridge	Kitchener	North Dumfries	Waterloo	Wellesley	Wilmot	Woolwich
Total Population Year-end 2019*	617,870	139,350	261,610	10,790	146,010	11,590	21,810	26,720
Population in Regular Households	598,250	136,930	257,260	10,660	134,290	11,560	21,500	26,080
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Total Population Year-end 2018*	610,390	137,910	258,930	10,710	143,500	11,550	21,600	26,190
Additional Population	7,490	1,440	2,680	80	2,510	40	210	520
Population Change 2018-2019 (%)	1.23%	1.0%	1.0%	0.7%	1.7%	0.3%	1.0%	2.0%
Households Year-end 2019*	218,920	50,420	98,820	3,690	45,570	3,420	7,850	9,150
Households Year-end 2018*	216,230	49,920	97,830	3,640	44,710	3,400	7,780	8,950
Additional Households	2,690	500	990	50	860	20	70	200
Household Change 2018-2019 (%)	1.24%	1.0%	1.0%	1.4%	1.9%	0.6%	0.9%	2.2%
Persons per Unit+	2.73	2.72	2.60	2.89	2.95	3.38	2.74	2.85
Temporary Student Population (included above)	33,950	780	4,030	20	29,490	(40)	(180)	(160)
Students Arriving	42,070	2,620	8,020	170	31,030	50	70	120
Living in Student Residences	10,430	-	530	-	9,900	-	-	-
Living in Other Accommodations	31,640	2,620	7,480	170	21,130	50	70	120
Students Leaving++	(8,130)	(1,840)	(3,990)	(150)	(1,530)	(80)	(260)	(280)

\* Based on available data from the 2016 Census, includes adjustments for recent residential development, students and other foreign/temporary residents, net Census undercount, and vacancy rates. Due various corrections and adjustments, direct comparison to previous years estimates are not valid.

\*\* Municipal totals may not add due to independent rounding.

\*\*\* Collective dwellings include student residences, nursing homes, group homes, hospitals, larger lodging houses, etc.

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**Long-term Trends in Population and Households: Waterloo Region**

Year-end	Population			Households		
	Total Population	Annual Growth	Change %	total Households	Annual Growth	Change %
1994	418,000	6,100	1.48%	146,280	3,190	2.23%
1995	421,100	3,100	0.74%	148,080	1,800	1.23%
1996	424,000	2,900	0.69%	149,640	1,560	1.05%
1997	430,200	6,200	1.46%	152,010	2,370	1.58%
1998	437,600	7,400	1.72%	154,950	2,940	1.93%
1999	446,200	8,600	1.97%	158,270	3,320	2.14%
2000	454,800	8,600	1.93%	161,590	3,320	2.10%
2001	465,000	10,200	2.24%	164,600	3,010	1.86%
2002	474,500	9,500	2.04%	167,530	2,930	1.78%
2003	485,200	10,700	2.26%	170,820	3,290	1.96%
2004	497,600	12,400	2.56%	175,080	4,260	2.49%
2005	507,800	10,200	2.05%	178,780	3,700	2.11%
2006	517,300	9,500	1.87%	182,200	3,420	1.91%
2007	523,100	5,800	1.12%	185,130	2,930	1.61%
2008	532,100	9,000	1.72%	188,800	3,670	1.98%
2009	535,200	3,100	0.58%	189,820	1,020	0.54%
2010	543,900	8,700	1.63%	193,230	3,410	1.80%
2011	551,600	7,700	1.42%	196,490	3,260	1.69%
2012	556,900	5,300	0.96%	198,480	1,990	1.01%
2013	563,000	6,100	1.10%	200,830	2,350	1.18%
2014	569,000	6,000	1.07%	203,660	2,830	1.41%
2015	574,700	5,700	1.00%	205,990	2,330	1.14%
2016	585,900	11,200	1.95%	209,240	3,250	1.58%
2017	600,700	14,800	2.53%	213,220	3,980	1.90%
2018	610,400	9,700	1.61%	216,220	3,000	1.41%
2019	617,900	7,500	1.23%	218,900	2,680	1.24%
2020(f)	630,900	13,000	2.10%	225,060	6,160	2.81%
5-year average		9,780	1.63%		3,078	1.44%
15-year average		8,020	1.59%		3,027	1.62%

*f* - Forecast



## Attachment 2

### Methodology for Estimation of Regional Year-end Population

An estimate of the current population and households in the Region is prepared by Planning, Development and Legislative Services staff each year. The estimate is primarily based on the most recent Census of Canada, which was May 2016, and provided a count of 535,154 people and 203,832 occupied dwellings. Given the high degree of uncertainty around the specific estimate of net undercoverage, together with the disruptive effect of making historical changes, the current practice is to use a 4 per cent addition to Census values to estimate the actual population. Retaining the 4 per cent undercoverage rate also maintains consistency with the assumptions used in the Places to Grow forecasts.

The Region's population and household estimates are anchored to 2016 Census estimates, and in the subsequent years they are extrapolated from building activity. Building permits are received from the Area Municipalities, and an estimated occupancy date is assigned to each permit. The estimated lag between building permit issuance and occupancy varies by dwelling type. These sources are supplemented by data from the Municipal Property Assessment Corporation (MPAC), correlated with a visual inspection of recent aerial photography, and data such as vacancy rates published by Canada Mortgage and Housing Corporation (CMHC). As a result, the growth in households cannot be directly compared to building activity in each year.

Although the Census population and household counts provide the foundational data, the estimate of population contained in this report differs from the population reported by the Census in several important ways. To best reflect the total number of people consuming services at year-end within the Region, adjustments are made to include:

- the Census net undercoverage (people who were missed or double counted by the Census);
- temporary residents in the Region, most notably students who study at our post-secondary institutions, as well as those who leave to study elsewhere;
- growth during the time period from mid-May to year-end; and
- adjustments for long-term trends in 'Persons Per Unit' by type of dwelling, as reflected in changing household sizes.

Non-Permanent population is captured through annual population counts released by Statistics Canada which obtains permit holder information from the I.R.C.C. Figures reported by Statistics Canada represent total non-permanent population. Through discussions with Statistics Canada and Ministry of Finance staff we have established that 30% of the total non-permanent population is considered to be on a work permit while 70% are at the Region on a study permit. Those in the Region on a study permit

are captured though post secondary enrollment data.

Similarly , the household estimates contained in this report are based on the 2016 Census, updated with building permit data, and with the following adjustments:

- vacancy rates in rental accommodations, which have dropped slightly from 2.4 to 2.2 per cent as reported by Canada Mortgage and Housing Corporation;
- student households; and
- growth during the time period from mid-May to year-end.

Due to the recent changes in enrollment at the post secondary institutions, the population estimates have been re-adjusted from 2016-2018. Those changes are reflected in Figure 1 as well as Attachment 1. Restrictions in data availability have limited the ability to adjust population figures for years before 2015. While there is a mix in approach between population figures pre 2015 and post 2015, the large majority of international student growth occurred after 2016. International students in Waterloo on study visas are captured in the Census population counts through administrative datasets supplied by the I.R.C.C.