

Insights on Canadian Society

Results from the 2016 Census: Long commutes to work by car



by Tetyana Yaropud, Jason Gilmore and Sébastien LaRoche-Côté

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Results from the 2016 Census: Long commutes to work by car

by Tetyana Yaropud, Jason Gilmore and Sébastien LaRoche-Côté

Today, *Insights on Canadian Society* is releasing a study based on 2016 Census data. This study uses census information on place of work and commuting mode.



Overview of the study

Commuting is a fact of life for millions of Canadians. Using data from the 2016 Census on place of work and commuting, this study examines the characteristics of those who spend at least 60 minutes travelling to work, with a focus on those who commute by car, truck or van (or “car commuters”).

- In 2016, a total 1.5 million Canadians spent at least 60 minutes commuting to work (and are defined as “commuters with a long commuting time” in this study). Of these, 57% (representing 854,000 people) spent at least 60 minutes in a car.
- The average one-way commuting time for long commutes in a car was 74 minutes in 2016, essentially unchanged from 2011. In addition, the average one-way commuting distance to a usual place of work was 57 kilometres.
- The commuting experience of car commuters with a long commuting time was different from that of other car commuters. For example, among those with a long commuting time, 42% left the house between 5 a.m. and 7 a.m., compared with 25% of other car commuters.
- Workers with no fixed place of work had a 14% probability of having a long commute by car, compared with 6% for those with a usual place of work. Workers in natural resource occupations and workers with higher earnings also had a higher probability of having a long commuting time.
- About 60% of workers with a usual place of work and a long commute to work by car worked in one of three largest census metropolitan area (CMAs): Toronto, Montréal or Vancouver.

Introduction

Commuting is a fact of life for millions of Canadians. Since 1996, the number of commuters increased by 3.7 million, or 30%, to 15.9 million in 2016. Three-quarters of Canadian commuters drove to work (74%), and an additional 6% commuted to work as a passenger in a car. Although the proportion of Canadian commuters

using public transit has increased slightly over the past 20 years, travelling by car remains the commuting mode of choice for the vast majority of commuters in Canada.¹

In 2016, commuters spent an average of 26 minutes travelling to their place of work, up almost one minute from 2011 (when the question was first asked in the census). The average commuting time was shorter

Table 1
Number and distribution of commuters, by commuting time and mode of transportation, 2011 and 2016

	2016		2011	
	number	distribution	number	distribution
60 minutes or more				
Car – alone	672,975	45.0	624,370	45.6
Car – with passengers	180,635	12.1	191,400	14.0
Public transit	594,740	39.8	511,985	37.4
Active modes	13,510	0.9	13,180	1.0
Other modes of transportation	32,965	2.2	27,925	2.0
Less than 60 minutes				
Car – alone	10,027,075	69.7	9,552,270	68.1
Car – with passengers	1,736,330	12.1	1,892,150	13.5
Public transit	1,373,475	9.5	1,339,540	9.6
Active modes	1,086,605	7.6	1,069,415	7.6
Other modes of transportation	160,625	1.1	163,700	1.2

Source: Statistics Canada, Census of Population, 2016; National Household Survey, 2011.

for car commuters (24 minutes) than for public transit users (45 minutes). The average duration was typically longer for those who lived in the country's three largest census metropolitan areas (CMAs): 34 minutes in Toronto, and 30 minutes in Montréal and Vancouver (all modes of transportations combined). It was also relatively longer for CMAs that were in close proximity to a larger CMA, such as Oshawa (34 minutes), Barrie (31 minutes) and Hamilton (28 minutes).² In such CMAs, commuters commonly have long commute, which is defined as those who spend at least 60 minutes travelling to work (one way).

Long car commutes can have an impact on commuters' health, their safety and their personal finances. Studies show that longer commutes are associated with poorer physical and mental health outcomes, and also find that those with long commutes in private vehicles are more likely to be negatively impacted than those with long commutes using public transit.³ Long commutes may also put a strain on family relationships

and social capital.⁴ Commuters with a long commuting time and distance by car are also more at risk of a vehicle accident.⁵

In addition to personal factors, long commutes also have a social impact. For example, car use is associated with environmental impacts, especially idling in congested traffic.⁶ At the community level, more time spent in cars means more traffic congestion, which may have an impact on overall productivity. It can also put a strain on physical infrastructure, which comes at a cost for cities and communities. Given the social impacts of long commutes in a car, additional information on this particular type of commute is therefore important, and may prove valuable for provincial and local governments.

This study examines the characteristics of commuters with a long commute to work by car, defined here as those who use a car, truck or van to go to work, and who spend at least 60 minutes travelling to work (see the [Data sources,](#)

[methods and definitions](#) section). The study begins by providing a sense of how many Canadians have a long commuting time, and examines which CMAs have the most people with such a commute. In the second part of the article, the characteristics of commuters are examined, as well as the factors most likely to be associated with a long commute. The article concludes by examining the dynamics of commuters with a long commuting distance whose regular place of work is in Toronto, Montréal or Vancouver.

In 2016, close to 7% of car commuters spent at least 60 minutes travelling to work

In 2016, a total 1.5 million Canadians spent at least 60 minutes commuting to work (Table 1). Of these, about 40% (representing 595,000 people) were public transit users. As a proportion of all public transit users, over 30% spent at least 60 minutes commuting by bus, subway, train, commuter rail or ferry every day to get to work.

The majority of workers with a long commute, however, travelled by car, truck or van to get to work. In 2016, a total of 854,000 people spent at least 60 minutes in a car, truck or van commuting to work, either as driver (673,000) or passenger (181,000), representing 57% of all workers with a long commute. Since 2011, the number of workers with a long commute increased by nearly 5%. In comparison, the number of total car commuters increased by 3% over the same period.

Expressed as a proportion of all car commuters, workers with a long commute represented nearly 7% of all commuters travelling by car,

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truck or van in 2016. This proportion remained essentially unchanged from 2011.

Barrie had the highest proportion of long commutes by car in 2016

In Canada, jobs tend to be concentrated in large metropolitan areas. Census metropolitan areas such as Vancouver, Toronto and Montréal are not only major population centres, but also large employment centres. Because of the size and diversity of their respective economies, these large CMAs attract thousands of workers who often live outside their boundaries, for example, in other CMAs and smaller urban areas such as census agglomerations (CAs) and non-CMA/CA areas. Workers who work in one of these three CMAs but live outside their boundaries may be especially at risk of facing long commutes.

Toronto is one example of a large urban agglomeration with a large number of people and jobs. In 2016, close to 1 in 5 commuters in Canada had a usual place of work in the Toronto CMA. Toronto is also part of a larger urban region, which includes other CMAs (such as Oshawa, Hamilton and Barrie) that have an established commuting relationship with the City of Toronto.

In Barrie for example, nearly 1 in 5 car commuters (18%) had a long commute, the highest proportion of all CMAs in Canada (Table 2). The Barrie CMA has been developed quickly in recent years, and the southern portion of that CMA now shares a border with the Toronto CMA. Barrie also benefits from a direct highway connection to Toronto, and includes numerous residents who commute to Toronto.

Table 2
Proportion of commuters who spend at least 60 minutes getting to work (long commute), by census metropolitan area (CMA), 2016

	Mode of transportation				Proportion of car commuters among long commutes percent
	All modes of transportation		Car commuters		
	number of commuters	proportion who spend 60 minutes or more travelling to work	number of commuters	proportion who spend 60 minutes or more travelling to work	
Total, CMAs	11,666,840	10.2	8,839,205	6.7	49.3
St. John's	97,920	4.2	88,075	3.1	66.1
Halifax	194,805	5.1	151,395	3.0	45.5
Moncton	68,290	2.5	60,960	1.9	67.8
Saint John	55,965	3.2	50,030	2.8	79.3
Saguenay	69,105	2.5	63,690	2.1	75.6
Québec	392,930	3.5	315,945	2.3	53.6
Sherbrooke	93,465	3.0	82,845	2.8	82.7
Trois-Rivières	66,490	4.2	60,885	4.0	88.5
Montréal	1,883,820	11.5	1,312,550	7.2	43.5
Ottawa-Gatineau	627,570	7.5	452,215	4.0	38.2
Kingston	71,985	3.1	59,480	2.8	73.5
Belleville	44,885	4.1	40,600	4.0	88.3
Peterborough	51,375	7.7	44,630	7.9	88.4
Oshawa	174,195	21.3	149,970	17.3	70.0
Toronto	2,747,055	17.2	1,869,155	11.1	44.0
Hamilton	342,515	12.3	288,190	9.6	66.0
St. Catharines-Niagara	174,610	6.0	158,545	5.9	88.6
Kitchener-Cambridge-Waterloo	253,445	6.7	222,260	5.9	77.2
Brantford	61,550	8.6	56,275	8.3	89.1
Guelph	76,090	8.9	65,325	8.5	81.1
London	222,820	4.9	189,720	4.0	69.4
Windsor	136,940	1.9	125,295	1.3	60.7
Barrie	95,540	18.3	86,610	18.0	88.9
Greater Sudbury	74,740	3.4	66,455	2.8	71.5
Thunder Bay	54,635	2.8	48,830	2.0	62.4
Winnipeg	377,845	4.2	298,960	2.3	43.9
Regina	119,570	2.1	106,450	1.4	61.5
Saskatoon	145,810	3.2	128,280	2.3	62.2
Lethbridge	54,830	3.0	49,725	2.5	75.0
Calgary	684,215	6.1	533,105	2.9	37.3
Edmonton	653,740	6.1	539,835	3.7	50.2
Kelowna	87,160	3.5	75,010	2.6	62.7
Abbotsford-Mission	80,900	11.6	74,840	11.6	91.9
Vancouver	1,159,210	11.2	803,855	7.7	47.3
Victoria	170,830	4.4	119,215	3.2	51.1

Table 2
Proportion of commuters who spend at least 60 minutes getting to work (long commute), by census metropolitan area (CMA), 2016

	Mode of transportation				Proportion of car commuters among long commutes percent
	All modes of transportation		Car commuters		
	number of commuters	proportion who spend 60 minutes or more travelling to work	number of commuters	proportion who spend 60 minutes or more travelling to work	
Total, census agglomerations (CAs)	1,867,495	5.6	1,667,225	5.2	82.3
Total, areas outside CMAs and CAs	2,344,610	8.4	2,110,585	8.5	90.8
Strong metropolitan influenced zone	849,705	10.1	794,025	10.1	92.9
Moderate metropolitan influenced zone	885,745	8.4	793,705	8.5	91.0
Weak metropolitan influenced zone	512,420	5.8	450,755	5.7	86.7
No metropolitan influenced zone ¹	96,740	6.8	72,100	7.3	80.1

1. Includes residents of the territories (Yukon, Northwest Territories and Nunavut) who lived outside the Yellowknife and Whitehorse CAs.

Source: Statistics Canada, Census of Population, 2016.

Similarly, in Oshawa, 17% of residents had a long commuting time by car. Located east of Toronto, Oshawa is connected to Toronto via Highway 401 and, like Barrie, shares a border with the Toronto CMA.

Among workers living in the Toronto CMA, 11% of car commuters spent at least 60 minutes travelling to work. Toronto not only is an important population and employment centre, but is also the third-largest CMA in geographical area, at roughly 5,900 square kilometres. In addition to the downtown core, Toronto has several employment clusters within its territory. As a result, numerous residents have to commute to various parts of the city,⁷ which contributes to longer commuting times. Some Toronto residents also work outside their CMA of residence.

Elsewhere in the country, another CMA with a relatively high number of car commuters with a long commuting time was Abbotsford–

Mission, British Columbia (12%). The Abbotsford–Mission CMA shares a border with the Vancouver CMA—the third most populous CMA in the country—and many of its residents commute to Vancouver.

In contrast, the lowest proportions of commuters with a long commuting time were found in smaller, more isolated CMAs. This was generally the case in Atlantic CMAs; smaller Quebec CMAs (such as Saguenay, Sherbrooke and Québec); smaller Ontario CMAs with little or no commuting relationship with other major cities (such as Sudbury, Thunder Bay, Kingston and Windsor); Prairie CMAs such as Winnipeg, Regina, Saskatoon and Lethbridge; and Kelowna and Victoria, the two smaller British Columbia CMAs.

The average one-way commuting time for long commutes in a car was 74 minutes

For long commutes in a car, the average one-way commuting time was 74 minutes, essentially unchanged from 2011. Among these commuters in 2016, one-third had a longer commute than the average: 9% spent 75 to 89 minutes, 14% spent 90 to 119 minutes and 9% spent 120 minutes or more commuting (Chart 1).

For those with a long commute by car, their average one-way commuting distance to a usual place of work was 57 kilometres (km) and the median distance was 40 km (i.e., one-half of these commuters travelled more than 40 km to work and one-half commuted less than 40 km). While the average distance changed little from 2011, the median distance was lower in 2011, at 34 km.

By contrast, among those who took less than 60 minutes to go to a usual place of work in 2016, the average one-way commuting distance was 18 kilometres, and the median distance was 8 km.

Since commuters with a long commuting time spend more time getting to work and have to travel over longer distances, their commuting experience is different from that of other commuters. Specifically, car commuters with a long commuting time were more likely to carpool, were more likely not to have a fixed place of work, and were more likely to leave earlier for work.

Carpooling (i.e., having two or more commuters in a car) is an option for some vehicle owners, and opens up a number of private and public

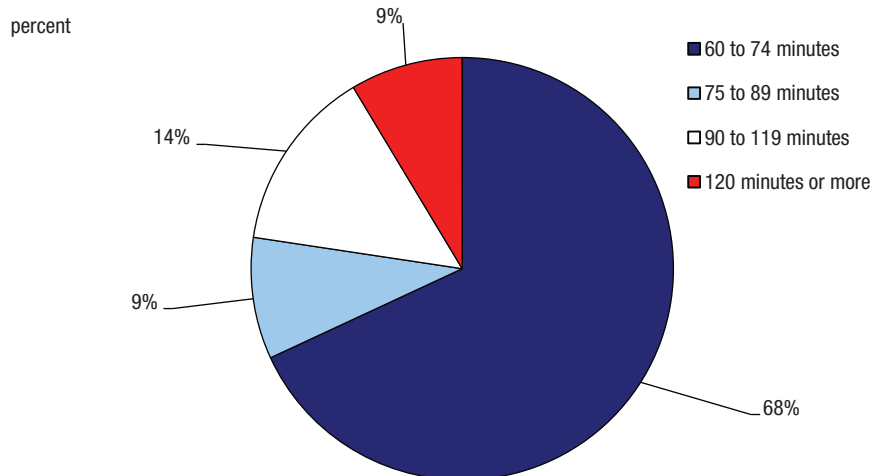
benefits. For example, carpooling not only helps defray some personal expenses related to the commute, but it also results in fewer cars on the road. Certain cities offer advantages like high-occupancy vehicle lanes, which may help reduce the stress associated with long commutes.⁸

In 2016, 21% of car commuters with a commuting time of 60 minutes or more carpoolled to work, compared with less than 15% of car commuters who spent less than 60 minutes travelling to work (Table 3). Despite the advantages mentioned above, carpooling itself can make the commute slightly longer. Among car commuters with a long commuting time, those who travelled alone or with one other person spent an average of 73 to 74 minutes travelling to work; when there were three or more people in the car, travel time was an average of 76 to 78 minutes. This is likely because of the extra time needed to pick up or drop off additional passengers.

In 2016, 31% of all car commuters who spent 60 minutes or more commuting to work had no fixed place of work, compared with less than 13% for those who spent less than 60 minutes commuting. People can have no fixed place of work when the type of work they perform requires them to frequently switch their work location. Examples are construction crews, truck drivers, salespersons, independent contractors and temporary agency employees.

Lastly, whether it is to avoid the busiest rush hour traffic or just to make sure they get to work on time, most car commuters with a long commuting time leave earlier in the morning than other commuters. For example, 42% of commuters with a long commuting time by car left

Chart 1
Distribution of car commuters who spend at least 60 minutes getting to work by length of commuting time, 2016¹



1. Based on car commuters with a usual place of work or no fixed place of work.
Source: Statistics Canada, Census of Population, 2016.

home between 5 a.m. and 7 a.m., compared with 25% of those who spent less than 60 minutes travelling to work.

Workers in natural resource occupations are more likely to have a long commute by car

Aside from geographical factors, there might be other personal factors associated with long commutes.⁹ Previous studies have shown that women, for instance, were less likely than men to have long commutes. Other studies also found that factors such as higher incomes and higher education were associated with longer commuting times, and that differences across occupations were also important, even after accounting for other factors.¹⁰

In order to get a sense of factors most likely to be associated with long commutes among those who commute by car, a logit regression

model was estimated, with the dependent variable taking the value 1 if a car commuter spent 60 minutes or more travelling to work, and 0 otherwise.

Independent variables include personal factors that might be associated with a longer commute such as age, sex and marital status, as well as education, immigration status, income, occupation, and whether the person has a usual place of work (as opposed to not having a fixed place of work). Results are expressed as predicted probabilities, and can be interpreted as the likelihood of being a commuter with a long commuting time when other factors are taken into account (including the CMA of residence).

Two models are used in the analysis. In the first model, the sample is restricted to car commuters with a usual place of work.¹¹ In the second model, all car commuters

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Table 3
Commuting characteristics of car commuters, by commuting time, 2016

	Commuters in a car, truck or van				All commuters
	Total		Less than 60 minutes	60 minutes or more	Total
	number	percent	percent	percent	percent
Total, usual or no fixed place of work	12,617,015	100.0	100.0	100.0	100.0
Usual place of work	10,876,515	86.2	87.5	68.6	87.5
No fixed workplace	1,740,500	13.8	12.5	31.4	12.5
Occupancy status					
Drive alone	10,700,050	84.8	85.2	78.8	...
Two or more people in the vehicle	1,916,965	15.2	14.8	21.2	...
Two people	1,606,505	12.7	12.6	15.0	...
Three or more	310,460	2.5	2.2	6.2	...
Time leaving for work					
Noon to 4:59 a.m.	1,817,945	14.4	14.4	14.2	15.3
5:00 a.m. to 5:59 a.m.	906,365	7.2	6.5	16.7	6.8
6:00 a.m. to 6:59 a.m.	2,338,930	18.5	18.0	25.6	17.7
7:00 a.m. to 7:59 a.m.	3,651,970	28.9	29.2	26.0	28.1
8:00 a.m. to 8:59 a.m.	2,619,395	20.8	21.4	11.9	21.1
9:00 a.m. to 11:59 a.m.	1,282,410	10.2	10.5	5.5	11.1
Commuting into selected census metropolitan areas (usual place of work only)					
Montréal	1,213,915	11.2	10.9	15.1	12.6
Toronto	1,737,660	16.0	14.8	37.0	18.5
Vancouver	680,755	6.3	6.2	8.0	7.2

... not applicable

Source: Statistics Canada, Census of Population, 2016.

are included, including those who do not have a fixed place of work. Results are shown in Table 4.

Consistent with findings from other studies, the results indicate that men are more likely than women to have a long commuting time, even after other factors are taken into account. Other studies have suggested that women are less likely to choose a job with a long commute due to household responsibilities.¹²

In both models, young workers aged 15 to 24 were less likely to have a long commuting time than workers in older age groups. One likely explanation is that many younger people have to juggle studies and work, and therefore prefer to spend a minimum amount of time

commuting. Young people are also more likely to work in low-paying and part-time jobs, making jobs with long commutes less attractive.

The predicted probabilities did not vary considerably across education, family status or immigration status. In the second model, people who were not in a couple but living with young children aged 5 or under appeared more likely than those in other family types to have a long commute by car.

Differences were larger across income and occupational categories. In the second model, for example, the probability of being a car commuter with a long commuting time was 10% for those who earned \$100,000 or more, compared with

5% for those who earned less than \$40,000. One possible explanation for this finding, also reported in other studies¹³, is that people may be willing (or requested) to commute over longer distances for a high paying job.

With regard to occupational differences, workers who were in the category of natural resources, agriculture and related production occupations had a 9% probability of having a long commuting time, compared with 5% for those who were in sales and service occupations. Sales and service occupations can be found everywhere, while natural resource occupations, in contrast, are often located outside urban areas.

Lastly, results from the second model indicate that workers who did not have a fixed place of work had a significantly higher probability of having a long commuting time (14%) relative to those who had a usual place of work (6%) even after other factors were considered. This illustrates the challenges often faced by workers without a fixed place of work, who sometimes have to commute away from their location of residence.

About 60% of car commuters with a long commuting time had a regular place of work in Toronto, Montréal or Vancouver

While this paper has discussed potential demographic, occupational and commuting characteristics of Canada’s car commuters with a long commuting time, it is equally important to understand the origin and destination of these commuters. This study does so by focusing on car commuters with a long commuting time who have a usual place of work in the country’s three largest CMAs (Toronto, Montréal and Vancouver).

A majority of Canadian commuters with a long commuting time had a usual place of work in Toronto, Montréal or Vancouver. Among car commuters with a long commuting time who had a usual place of work, 37% (representing 217,000 workers) worked in Toronto. Another 15% of such car commuters worked in Montréal, and another 8% worked in Vancouver. Altogether, 60% of all car commuters with a long commuting time were heading to one of these three CMAs. What are the dynamics of commuters with a long commuting time in each of these CMAs?

Table 4
Predicted probability to spend at least 60 minutes getting to work among car commuters, 2016¹

	Model 1	Model 2
	predicted probabilities	
Age group		
15 to 24 (ref.)	4.3	5.5
25 to 34	6.0*	7.2*
35 to 44	5.6*	7.0*
45 to 54	5.3*	6.8*
55 to 64	5.1*	6.6*
65 and older	5.0*	6.5*
Sex		
Female (ref.)	4.7	5.7
Male	5.9*	7.4*
Level of education		
Less than high school	4.7*	6.4*
High school diploma (ref.)	5.0	6.3
Postsecondary diploma below university level	5.8*	7.2*
Bachelor’s degree or above	5.3*	6.7*
Immigration status		
Non-immigrant (ref.)	5.3	6.7
Immigrant	5.7*	7.1*
Non-permanent residents	4.8*	6.2*
Family status		
In a couple, with children aged 5 or under	5.6*	6.9*
In a couple, with children aged 6 to 14	5.1*	6.4*
Not in a couple, with children aged 5 or under (ref.)	6.1	7.7
Not in a couple, with children aged 6 to 14	5.2*	6.6*
In a couple, without children	5.4*	6.8*
Not in a couple, without children	5.1*	6.5*
Other family types	5.5*	6.9*
Employment income		
Less than \$40,000 (ref.)	4.1	5.3
\$40,000 to \$59,999	5.3*	6.7*
\$60,000 to \$79,999	6.3*	8.0*
\$80,000 to \$99,999	6.9*	8.8*
\$100,000 or more	7.9*	10.1*
Occupational category		
Management occupations	5.7*	7.2*
Business, finance and administration	6.1*	7.4*
Natural and applied sciences occupations	7.1*	8.9*
Health occupations	4.3*	5.3*
Education, law and social, community and government services	4.7*	5.6*
Art, culture, recreation and sports	6.3*	7.7*
Sales and service (ref.)	4.0	5.2
Trades, transport and equipment operators	6.3*	7.5*
Natural resources, agriculture and related production	7.8*	8.9*
Occupations in manufacturing and utilities	4.5*	5.7*
Usual or no fixed place of work		
No fixed place of work	...	14.3*
Usual place of work (ref.)	...	5.5

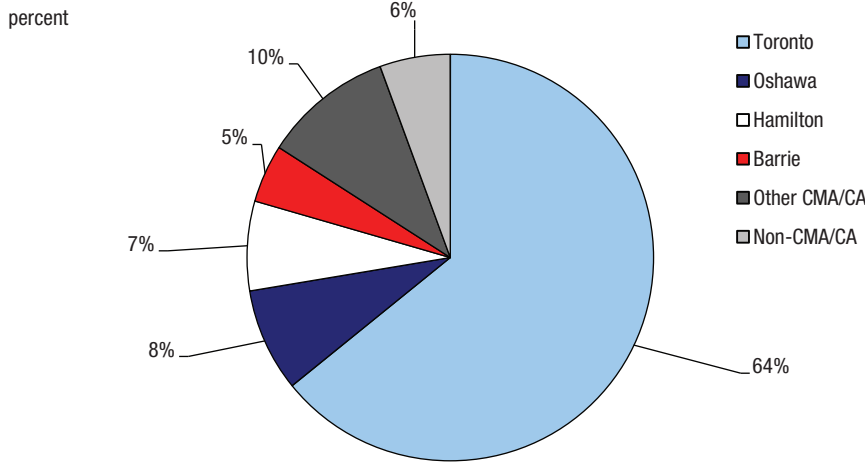
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* significantly different from the reference category (ref.) (p < 0.05)

1. Model 1 includes car commuters with a usual place of work only. Model 2 includes car commuters with a usual place of work or no fixed place of work. In both cases, the model includes the CMA of residence as a control variable (results not shown).

Source: Statistics Canada, Census of Population, 2016.

Chart 2.1
Distribution of car commuters who spend at least 60 minutes getting to work and have a usual place of work in the Toronto census metropolitan area, by census metropolitan area (CMA) or census agglomeration (CA) of residence, 2016

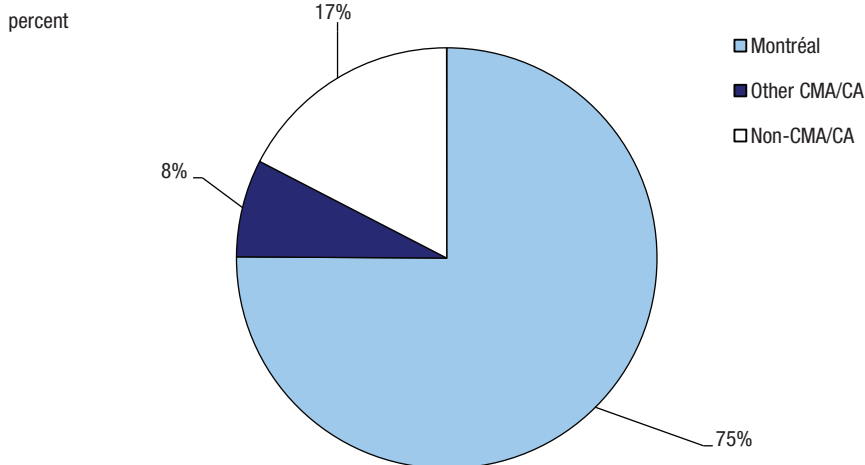


Source: Statistics Canada, Census of Population, 2016.

In 2016, 64% of car commuters who worked in the Toronto CMA and took at least 60 minutes to go to work also lived somewhere in Toronto. However, other commuters came from other CMAs, including Oshawa (8%), Hamilton (7%), and Barrie (5%) (Chart 2.1). Otherwise put, of car commuters with a long commuting time working in the Toronto CMA, more than one-third came from outside Toronto, most often from other CMAs located nearby.

Among those who worked in Montréal, three-quarters of car commuters with a long commuting time also lived within the Montréal CMA. Unlike Toronto, there are no major CMAs located close to Montréal, and therefore a significant number of car commuters with a long commuting time (17%) come from areas too small to qualify as CMAs or even as CAs (Chart 2.2). Some, however, lived in smaller CAs such as Joliette, Granby or Drummondville, and a smaller number lived in the nearest CMAs, such as Trois-Rivières or Sherbrooke. Altogether, these represented about 8% of commuters with a long commuting time in Montréal.

Chart 2.2
Distribution of car commuters who spend at least 60 minutes getting to work and have a usual place of work in the Montréal census metropolitan area, by census metropolitan area (CMA) or census agglomeration (CA) of residence, 2016



Source: Statistics Canada, Census of Population, 2016.

Among those with a regular place of work in Vancouver, over 80% of car commuters with a long commuting time also lived within the Vancouver CMA (Chart 2.3). About 9% commuted from the Abbotsford–Mission CMA, located east of Vancouver, and another 5% came from the Chilliwack CA, located further east along the Fraser Valley. Very few commuters with a long commuting distance came from other CMAs or CAs (such as Squamish)¹⁴ or from areas outside a CMA or CA.

Commuters with a long commuting time who work in Toronto, Montréal and Vancouver but live outside of these CMAs often travel long distances to get to work

Among car commuters with a regular place of work in Toronto, 12% spent at least 60 minutes travelling to work, while that was the case for 7% of those who had a regular place of work in Montreal or Vancouver. What does it mean to be a car commuter with a long commuting time working in one of Canada's three largest CMAs? The answer depends on the starting point of these commuters.

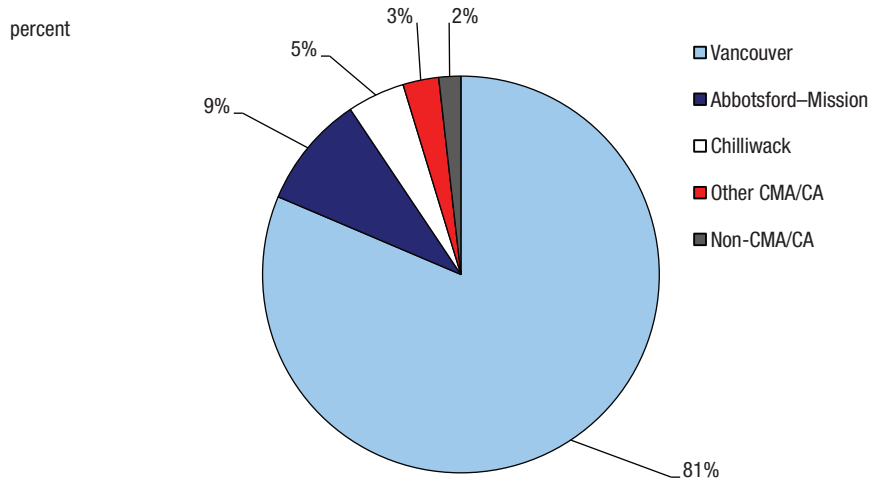
As shown in the previous section, among car commuters who had a regular place of work in the Toronto CMA, many came from Barrie, Oshawa or Hamilton. It is possible to get a sense of the commuting experience of these workers by looking at commuting statistics by area of residence (Table 5) for both car commuters with a long commuting time and for all commuters.

Of all car commuters who had a usual place of work in the Toronto CMA, for example, more than 22,000 came from Barrie. The median distance covered by these commuters was 56 km, and the average commute took 54 minutes.

Of the 22,000 Barrie residents who worked in Toronto, however, 10,000 were commuters with a long commuting time (i.e., they reported that their commute to Toronto took at least 60 minutes). For these workers, the commute from Barrie to Toronto was significantly longer, both in terms of distance and time. Car commuters with a long commuting time living in Barrie typically travelled over 68 km to

Chart 2.3

Distribution of car commuters who spend at least 60 minutes getting to work and have a usual place of work in the Vancouver census metropolitan area, by census metropolitan area (CMA) or census agglomeration (CA) of residence, 2016



Source: Statistics Canada, Census of Population, 2016.

get work, taking an average of 72 minutes. Many Barrie residents who have a long commute by car also typically leave early: more than one-half left their homes between 5 a.m. and 7 a.m. to travel to work.

Similarly, many car commuters living in Oshawa and Hamilton commuted over long distances, and spent a long time in a car. In total, over 108,000 people from these two CMAs commuted by car to a regular place of work in Toronto, and nearly one-third (33,000) were commuters with a long commuting time. As in Barrie, commuters with a long commuting time who lived in Oshawa and Hamilton spent over 70 minutes getting to work (compared with about 45 minutes for all car commuters originating from these two CMAs and working somewhere in the Toronto CMA).

As seen in the previous section, however, the majority of car commuters with a long commuting time live and work in the same CMA. In Toronto, for example, 139,000 of the 1.5 million commuters (9%) who both worked and lived there were commuters with a long commuting time. Among these, even though the median distance to work was just 28 km, the average commuting time was 68 minutes (and therefore was almost as long as for commuters with a long commuting time who lived in Barrie, Oshawa and Hamilton), highlighting the challenges faced by workers who have to commute from one location to another by car within a large metropolitan area. Relative to people living in Barrie, Oshawa or Hamilton, however, a smaller proportion (30%) of car commuters with a long commuting time who lived in Toronto left home between 5 a.m. and 7 a.m.

Results from the 2016 Census: Long commutes to work by car

Table 5
Commuting characteristics of car commuters who have a usual place of work in the Toronto, Montréal and Vancouver census metropolitan areas, by census metropolitan area (CMA) or census agglomeration (CA) of origin, 2016

	All car commuters				Car commuters who spend at least 60 minutes getting to work			
	Number of car commuters	Median distance from home to work	Percentage leaving work	Average commuting time	Number of car commuters	Median distance from home to work	Percentage leaving work	Average commuting time
			between 5 a.m. and 7 a.m.				between 5 a.m. and 7 a.m.	
	number	kilometres	percent	minutes	number	kilometres	percent	minutes
Working in Toronto and residing in...								
Toronto	1,532,780	11	21.2	28.7	138,900	28	29.7	68.0
Oshawa	53,320	35	39.7	46.8	17,845	47	48.1	72.0
Hamilton	55,365	32	34.1	44.4	15,410	47	42.9	71.0
Barrie	22,105	56	47.2	53.6	10,045	68	51.7	72.1
Other CMA/CA	42,220	68	40.1	58.8	22,385	72	45.8	81.1
Non CMA/CA	31,870	50	40.7	49.5	12,050	70	48.6	81.2
Working in Montréal and residing in...								
Montréal	1,117,150	9	25.9	25.6	66,185	23	38.3	67.2
Other CMA/CA	24,210	53	36.3	44.1	6,700	70	43.7	79.9
Non CMA/CA	72,560	34	35.0	39.4	15,225	58	45.3	73.5
Working in Vancouver and residing in...								
Vancouver	649,810	8	22.6	25.7	37,990	24	35.4	66.6
Abbotsford–Mission	19,705	30	42.2	40.5	4,290	50	53.9	69.5
Chilliwack	3,660	62	50.1	61.2	2,195	67	53.7	75.1
Other CMA/CA	4,960	94	35.9	41.4	1,305	55	48.9	80.0
Non CMA/CA	2,620	90	37.3	49.7	875	82	45.6	98.8

Source: Statistics Canada, Census of Population, 2016.

Toronto also had a significant number of people coming from other CMAs (such as Kitchener–Cambridge–Waterloo, St. Catharines–Niagara, Brantford and Guelph) and from non-CMA/CA areas. Nearly one-half of people who lived in these areas and worked in Toronto were commuters with a long commuting time, who reported an average commuting time of at least 80 minutes. They were also more likely to report that they left early (between 5 a.m. and 7 a.m.).

Among those who worked in Montréal, more than 66,000 car commuters with a long commuting time also resided in Montréal (representing 6% of car commuters

who both lived and worked in the Montréal CMA). These workers typically travelled shorter distances than those who were in the same situation in Toronto (23 km), but took about the same number of minutes to get to work (67 minutes). Almost 40% left home between 5 a.m. and 7 a.m. (compared with 30% of their Toronto counterparts).

Since Montréal is not surrounded by many other CMAs or CAs, nearly 73,000 workers who worked in the Montréal CMA came from a non-CMA/CA area. Of these, one-fifth were car commuters with a long commuting time, who spent an

average of 74 minutes travelling to work, and typically had to commute 58 km to get there.

As in Montréal and Toronto, the majority of commuters with a long commuting time who worked in the Vancouver CMA also lived in Vancouver. For these workers, the median distance from home to work was 24 km, with an average commuting time of 67 minutes. These workers, however, represented 6% of the overall number of car commuters who had a usual place of work and lived in Vancouver.

Commuters who resided in Abbotsford–Mission or Chilliwack and worked in Vancouver, however,

faced a different type of commute. Residents of Chilliwack working in Vancouver, in particular, were especially likely to have a long commute (60%), spending an average of 75 minutes travelling to work. A smaller proportion of car commuters with a long commuting time who worked in Vancouver came from other CMA/CAs, or from non-CMA/CA areas, and people originating from these areas spent even more time travelling to work.

Conclusion

In 2016, nearly 16 million Canadians used public transit, cars, or other modes of transportation to commute to work. While the distance and commuting times were relatively low for the majority of them, a significant proportion (7%) spent at least 60 minutes travelling to work. Even though public transit users are more likely to be commuters with a long commuting time than car commuters, the majority of such commuters travelled by car. In total, 854,000 Canadians spend at least 60 minutes in a car commuting to work.

Long commutes have consequences for individuals, the economy and society.

In Canada, long commuting times are a big-city phenomenon. In 2016, about 60% of workers with a usual place of work and a long commute to work by car worked in Toronto, Montréal or Vancouver. Toronto is the largest labour market in the country, and is surrounded by other relatively large population centres, including the Barrie, Oshawa and Hamilton CMAs, which have a close commuting relationship with the Toronto CMA. With regard to Vancouver, the Abbotsford–Mission CMA has many residents working in the Vancouver CMA. These commuters travel long distances and often spend more time commuting to work.

Many car commuters with a long commuting time, however, live and work in the same CMA. These commuters, who travel shorter distances but take almost as long to get to work as those who come from outside the CMA, face different commuting challenges. The impacts of these commutes on the well-

being and quality of life of people living in these cities may also be important factors. More research is needed to understand the issues faced by this particular type of car commuter.

Future analyses should continue to examine trends among car commuters with a long commuting time. Between 2011 and 2016, the number of car commuters with a long commuting time rose by 5%, while the number of total car commuters increased by 3%, adding pressure to the infrastructure of Canada's major cities. Since then, all levels of government have invested in major infrastructure projects, which could change the dynamics of Canadian commuters. The 2021 Census will represent another opportunity to better understand the dynamics of long commuting times in Canada's largest cities.

Tetyana Yaropud is an analyst in the Income Statistics Division, Jason Gilmore is Chief, Census Unit in the Labour Statistics Division and Sébastien LaRochelle-Côté is Editor-in-Chief, Insights on Canadian Society, at Statistics Canada.

Data sources, methods and definitions

Data source and definitions

The data in this analysis are from the 2016 Census of Population. The target population is Canadians aged 15 and over who had a job at the time of the census.

In the census, questions about the journey to work include place of work, commuting mode, distance, the average commuting time, and the time at which the respondent leaves for work. Data on commuting time and on departure time were not collected prior to 2011, and were introduced in 2011 in the National Household Survey (NHS). The questions were therefore part of the long-form census for the first time in 2016.

It is important to note that a small minority of workers may report that they work in a given census metropolitan area (CMA) but have a primary residence located a great distance away from that CMA. This is particularly the case

in large CMAs, where some workers may reside temporarily for business purposes. For these workers, the distance from home to work will be great, but they often commute over comparatively shorter periods of time because they do not commute from their place of residence. The census does not enquire about whether commuters are leaving from their primary residence or from some other location.

Unless otherwise stated in this article, long car commutes and long commuting time refer to commuting to work (i.e., one way) mainly using a car, truck or van, with a commuting time to work of at least 60 minutes. Further information on the census can be found in the [Guide to the Census of Population, 2016](#) (catalogue no. 98-304-X).

For additional information on other census variables, please consult the [Dictionary, Census of Population, 2016](#) (catalogue no. 98-301-X).

Notes

1. See Statistics Canada (2017).
2. See Statistics Canada (2017).
3. See Künn-Nelen (2015); Hoehner et al. (2012); Martin et al. (2014).
4. See Mattisson et al. (2015).
5. See Stutts et al. (2003); Di Milia et al. (2012).
6. See Natural Resources Canada (2016).
7. See Heisz and LaRochelle-Côté (2005).
8. See Novaco and Collier (1994).
9. See Blumen (1994); McQuaid and Chen (2012).
10. See McQuaid and Chen (2012).
11. Within this population, 5% of workers using a private vehicle had long commuting times.
12. See, for example, Turner and Niemeier (1997).
13. See McQuaid and Chen (2012).
14. Readers should keep in mind that some workers may work in a CMA (such as Toronto, Vancouver or Montréal) and report a home address in a CMA or CA located far from their place of work. These workers often do not live in their primary residence, and therefore may have short commutes despite a longer distance from home to work. The census does not ask whether commuters are leaving from their primary residence or from some other location.

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