

Getting to work

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How people get to their place of work depends, among other things, on where they live, where they work and what type of transportation is available to them. Traditionally, the majority of people have commuted from their residence in the suburbs to their place of work in the city. Consequently, public transit systems transport most commuters from suburbs to the urban core.

In recent years, however, commuting patterns have become more complex as employment has grown more rapidly in the suburbs than in city core areas. While the city centre still dominates as location of work, its relative importance has declined. Faced with few convenient public transit options, the increasing numbers of people who now commute cross-town to jobs in these suburbs overwhelmingly drive to work.

Using data from the Census of Population, this article examines commuting patterns between 1996 and 2001 as they relate to recent job growth in the suburbs. It briefly looks at the demographic characteristics of commuters and explores some of the implications that changing work locations and commute patterns have for infrastructure in Canadian cities.

GST What you should know about this study

Data in this article come from the 1996 and 2001 Censuses of Population. The Census is administered to the entire population of the country, but more detailed questions were sent to one in five Canadian households. These questions covered information about place of work and mode of transportation respondents most frequently use to commute from home to work. This study focuses primarily on the population aged 15 and over who reported a specific place of work. Individuals working at home, working outside the country or with no fixed workplace address were excluded from the analysis.

Census metropolitan area (CMA): the area formed by one or more municipalities centred on a large urban area (known as the urban core) with a population of at least 100,000. To be included in the CMA, other adjacent municipalities must have a high degree of integration with the central urban area, as measured by urban flows. The following is the list of CMAs as of 2001: St. John's, Halifax, Saint John, Saguenay, Québec, Sherbrooke, Trois Rivières, Montréal, Ottawa-Gatineau, Kingston, Oshawa, Toronto, Hamilton, St. Catharines-Niagara, Kitchener, London, Windsor, Sudbury, Thunder Bay, Winnipeg, Regina, Saskatoon, Calgary, Edmonton, Abbotsford, Vancouver and Victoria.

CMA workers: respondents who worked in a CMA, but did not necessarily live in the same CMA. They could have lived in another CMA or in a non-CMA area. For example, many individuals working in Toronto actually live in Oshawa or Hamilton.

City centre: defined in relation to the location of city hall in the core municipality.

Employment cluster: areas of high employment concentration. Employment clusters are a group of census tracts or a single census tract where employment is greater than the population. Each tract has a place of work of at least 5,000 workers. This article focuses specifically on primary clusters, which have at least one tract with 15,000 or more workers.

Driving is by far the most popular way of getting to work

For most workers, the commute is a basic fact of life. In virtually all census metropolitan areas (CMAs), more than half of all workers commuted more than 5 km to get to work, and for some, the commute was longer than 25 km. In Oshawa and Hamilton, 31% and 19% of commuters, respectively, travelled more than 25 km to work, probably to jobs in the nearby CMA of Toronto.

The vast majority of commuters drive a car to work. While Ottawa–Gatineau, Montréal and Toronto have the best records for diverting commuters to something other than a “car as driver” mode of transport, nearly two-thirds of commuters in these CMAs still drive to work. In at least 10 CMAs, the proportion of commuters travelling to work by driving a car is 80% or higher.¹

Employment growth concentrated in suburbs

In most urban centres, jobs are still heavily concentrated in downtown core areas. Between 1996 and 2001, however, the relative economic importance of these downtown locations declined, as the number of jobs in the suburbs increased more than four times faster than in the core areas. As a result, more and more people are commuting cross-town to these suburban areas.

In Toronto, for example, where more of the job growth was in the suburbs, 208,300 more workers commuted to workplaces farther than 20 km from the city centre in 2001 than in 1996. Nearly 90% of these commuters travelled by car, increasing the number of car commuters both within the CMA of Toronto (12%) and to locations more than 20 km from the city centre (26%).

One of the characteristics of growing suburban employment was the shifting of manufacturing activities to the suburbs. In Toronto, the proportion of manufacturing workers in areas at least 20 km from

	Location of job	
	Within 5 km of city centre	More than 5 km from city centre
	Change in the number of jobs, 1996-2001	
	('000)	
All CMAs	156	733.2
St. John's	-1.8	6.9
Halifax	-0.2	15.1
Saint John	-1.1	4.4
Saguenay	-0.1	1.5
Québec	-2.2	15.2
Sherbrooke	1.6	4.3
Trois Rivières	-2.2	1.4
Montréal	31.9	102.5
Ottawa–Gatineau	11.9	51.7
Kingston	-3.4	6.0
Oshawa	0.8	10.3
Toronto	72.7	237.2
Hamilton	-2.3	14.7
St. Catharines–Niagara	0.5	9.4
Kitchener	2.3	20.1
London	2.9	15.5
Windsor	4.6**	7.2**
Greater Sudbury	-3.4	1.6
Thunder Bay	-2.4	-0.3
Winnipeg	-3.3	21.8
Regina	2.4	1.8
Saskatoon	3.8	4.7
Calgary	29.7	52.7
Edmonton	4.2	51.3
Abbotsford	4.1	2.4
Vancouver	4.8	68.8
Victoria	0.2	5.0

Note: Includes all individuals aged 15 and over working at a usual place of work within CMAs.
 * City centre is defined as the census tract where the city hall of the core municipality is located.
 ** Windsor values are “within 10 km of” and “more than 10 km from” city centre.
 Source: Statistics Canada, Censuses of Population, 1996 and 2001.

the city centre rose from 51% in 1996 to 57% in 2001. Retail trade, as well as lower skilled and lower paid jobs, also shifted towards more suburban locations. In contrast, city centre jobs were more likely to be high paid, high skilled and in producer services. For example, in Vancouver, workers employed within 5 km of the city centre earned \$51,300 on average in 2001. In comparison, individuals who

worked between 10 and 15 km from downtown had average earnings of \$46,500 that same year.

Access to public transit varies with location of work

Because public transit systems are centrally-focused, it is not surprising to find that those who work in city centres are most likely to commute via public transit. For these people,

public transit is often available and convenient. Some 59% of workers heading for the central business district (CBD)² in Toronto, 55% in Montréal and 38% in Ottawa–Gatineau used public transit for their commute. In Winnipeg, the proportion of CBD workers commuting on public transit was only 27% but this was still more than twice the rate of those in other employment clusters (12%).

In contrast, relatively small shares of commuters travelling to suburban jobs take public transit to work. For instance, 28% of workers in the Montréal North cluster (the intersection of Highways 15 and 40) arrive by public transit, while in Montréal East (Anjou) the figure is only 18%. The situation in other CMAs is similar with relatively few commuters travelling to employment clusters outside CBDs by public transit.

According to some researchers, suburban employers encourage non-transit commuting through the locations they favour and their patterns of land-use. Employment locations are often chosen for their accessibility to major expressways, airports or other transportation nodes, rather than their proximity to local labour markets or public transit centres. Abundant land zoned for employment purposes allows companies to build low-lying warehouses, large factory floors and sprawling parking lots, which together contribute to low employment densities in such areas. In turn, these low densities impede the efficient transportation of workers to these sites on public transit.

Commute patterns are becoming more complex

Over recent years, commute patterns have become more complex. Compared to past decades, commutes are occurring more often within or between suburban locations, or have their origin in the city centre and their destination in the suburbs.³

Commutes can be divided into five different categories: (1) *within the city centre*, that is, both residence and job are located within 10 km of the city centre; (2) *traditional commutes*, where

the job is within 10 km of the city centre and the residence is further than 10 km from the city centre; (3) *reverse commutes*, where job location is more than 10 km from the city centre and the residence within 10 km of the city centre; (4) *short suburban (or within-suburb) commutes*, where both the residence and job locations are farther than 10 km from the city centre, and the commute distance is less than 10 km; and (5) *long suburban (or between-suburb) commutes*, where both the residence and job locations are over 10 km from the city centre, and the commute distance is more than 10 km.⁴

As the three largest CMAs, Toronto, Montréal and Vancouver have smaller shares of commutes within the city centre zone and along the “traditional” commuting pattern of suburb to downtown, and larger shares within and between suburbs than other CMAs. However, Québec, Montréal, Ottawa–Gatineau, Toronto, Winnipeg, Calgary, Edmonton and Vancouver (the eight largest CMAs) all have similar shares of workers travelling reverse commutes.

Non-traditional commutes are on the rise

The years between 1996 and 2001 saw substantial increases in the proportion of non-traditional commutes. For example, in Ottawa–Gatineau the number of reverse commuters grew by nearly 40%, probably reflecting fast employment growth in the west-end cluster of Kanata. Calgary, likewise, saw reverse commuters grow by 42%. Long suburban commutes became more common in most CMAs, with the number of commuters travelling more than 10 km to work rising by 38% in Calgary, 19% in Ottawa–Gatineau, 17% in Toronto, and 13% in Edmonton.

In Ottawa–Gatineau, 19% of new commuters joining the rush hour between 1996 and 2001 were reverse commuters, 22% were short-suburban commuters, and 19% were long suburban commuters. In Toronto, the lion’s share of the new commuters were travelling outside the downtown core (36% short suburban commutes and 37% long suburban commutes).

In all CMAs, the percentage of workers taking public transit was lower on non-traditional than on

	Types of commutes					
	All	City centre* to city centre	Traditional (outside to inside city centre)	Reverse (inside to outside city centre)	Within suburb (less than 10 km)	Between suburbs (more than 10 km)**
	% growth, 1996 to 2001					
Québec	4	3	1	11	18	2
Montréal	9	9	2	10	15	9
Ottawa–Gatineau	13	7	7	40	33	19
Toronto	14	11	12	3	18	17
Winnipeg	6	8	-6	29	12	5
Calgary	20	6	25	42	77	38
Edmonton	14	8	10	24	46	13
Vancouver	9	10	12	-3	11	5

* For this table, the city centre is defined as being within 10 km of the central municipality’s city hall.
 ** Includes commutes from outside CMA to inside CMA.
 Source: Statistics Canada, Censuses of Population, 1996 and 2001.

traditional commuter routes. This is not surprising, given the city centre focus of public transit systems in the largest urban areas. Whether or not public transit is a feasible option for between-suburb commuters, some individuals may prefer to drive to work because of cost, timeliness or convenience.

Distance between home, job and city centre linked to how people commute

Several geographic characteristics are also associated with commuting behaviour: commuting distance or the distance from home to job; residence distance, or the distance from home to the city centre (which reflects the degree of suburbanization of the worker); and employment distance, or the distance between the job and the city centre (which reflects the degree of suburbanization of the job). As the commuting distance grows longer, public transit may become less available or less convenient than the car. For example, travelling longer distances generally involves transfers which, in turn, imply more time spent in transit, a situation that encourages driving to work instead.

Not surprisingly, then, commuters who lived farther away from work in 2001 were more likely to drive than those who lived closer. Nevertheless, 57% of those living less than 5 km from work also used their car to get to their job. All in all, workers who lived 5 to 10 km from work were the most likely to take public transit, individuals who lived farther preferred driving, and a significant share of those living closer to work walked.

Commuting patterns were similar when location of work relative to the downtown core was examined: those who worked and lived close to the city centre tended to take public transit, while individuals working and living farther away were more likely to drive.

Summary

The vast majority of commuters drive to work. However, location of home and work also influence the choice of transportation. The public transit system is not very popular for individuals working in the increasing number of relatively new suburban work locations. Therefore, people who work in city centres are most likely to commute on public transit, while those whose jobs are in the

suburbs overwhelmingly drive to work. As commute patterns become more complex with the creation of new work places in the suburbs, cities will face the challenging task of encouraging their residents to make more use of public transit.



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1. These CMAs are Saguenay, Sherbrooke, Trois Rivières, Oshawa, St. Catharines–Niagara, Kitchener, Windsor, Thunder Bay, Regina and Abbotsford.
 2. The central business district is an area of high-employment concentration located in the downtown core of the CMA, and is made of a group of contiguous census tracts in which employment is greater than the population and in which each tract is the place of work of at least 5,000 workers.
 3. Statistics Canada. 2003. *Where Canadians Work and How They Get there, 2001 Census* (Statistics Canada Catalogue no. 96F0030XIE2001010).
 4. This last category also includes those who work in the CMA but live outside the CMA.