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Features

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The following standard symbols are used in Statistics Canada publications:

.	not available for any reference period
..	not available for a specific reference period
…	not applicable
0	true zero or a value rounded to zero
0^s	value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded
^{p}	preliminary
^{r}	revised
x	suppressed to meet the confidentiality requirements of the *Statistics Act*
^{E}	use with caution
F	too unreliable to be published

Migration from central to surrounding municipalities in Toronto, Montréal and Vancouver

by Martin Turcotte and Mireille Vézina

Introduction

After the Second World War, and over the next several decades, the demographic growth of North American residential suburbs occurred as a result of the relocation of individuals and families from city centres or other areas. In society today, many of those who were born in the suburbs may never leave their original area, or may relocate, but continue to reside in a suburb to raise their families.[1] At the same time there continues to be a migration of many young adults and families from central municipalities to surrounding municipalities, while few move in the opposite direction. These intrametropolitan migratory movements are one of the reasons for the discrepancy between the the cities and suburbs with respect to family representation. In fact, the 2006 Census data show, that households consisting of a couple with children continued to be more strongly represented in outlying areas than in city centres in practically all of the country's urban areas.[2] This discrepancy in family composition is particularly noticeable between central and surrounding municipalities in the Toronto, Montréal and Vancouver metropolitan areas (for a definition of the concepts of central and surrounding municipalities, see "What you should know about this study").

Various large metropolitan municipalities vie for residents by advertising the attractions and services their environments offer. Additionally, many central municipalities try to reverse the current migratory trend and encourage young adults and their families, particularly those with children, to settle there. For example, the city of Montréal has put a community family action plan in place to attract young families to locate there.[3] The cities of Toronto and Vancouver have developed programs focused on child care services to attract new migrants.[4]

Currently, there is little detailed information available about the social and economic characteristics of young adults who move from central municipalities to surrounding municipalities. To fill this gap, this article looks at the intrametropolitan migration of persons aged 25 to 44 (in 2006) in the country's three largest metropolitan areas—Toronto, Montréal and Vancouver.[5] This group is of particular interest because they are significantly more likely to move from downtown to a surrounding municipality, and they are at an age where they are establishing families and buying first homes. As a result, they are a particularly sought-after 'clientele' for all municipalities, both central and outlying.

This article uses the 2006 Census of Population data (for more details on the data and concepts, see "What you should know about this study"). Geographic maps are included to clarify the distinction between central municipality and surrounding municipality for each of the three metropolitan areas studied.[6]

For every person who moved from a municipality outside Toronto to Toronto, 3.5 made the opposite move

Numerous demographic studies have shown that age is one of the factors most strongly associated with the probability of migrating. In fact, migration is most frequent in early adulthood when people are experiencing transitions such as pursuing postsecondary studies, entering the labour market and family formation.[7] The tendency to migrate decreases considerably once these stages have been completed.

What you should know about this study

The data used come from the full 2006 Census questionnaire (completed by 20% of Canadians). People living in collective dwellings (hotels, hospitals, military bases, etc.) in 2006 are excluded from the study.

Definitions

Census metropolitan area

A census metropolitan area (CMA) is formed by one or more adjacent municipalities located around a large urban area (known as the urban core). A CMA must have a total population of at least 100,000 of which 50,000 or more must live in the urban core.

Central municipality and surrounding municipalities

The central municipality or downtown gives its name to a census metropolitan area. It is generally the historic city, around which the suburbs have developed (with some more remote villages joined by urbanization). In this study, the territory included in central municipalities is bound by the administrative or political boundaries of the cities of Toronto, Montréal or Vancouver. The term 'surrounding municipality' is used to refer to all other municipalities in the metropolitan area (in other sources, these are sometimes called suburban or peripheral municipalities).

Migration and population studied

Migrants are identified by comparing their current place of residence to the one they had five years earlier (as reported in the 2006 Census). Since this study concerns intrametropolitan migration, only persons who resided in the same metropolitan area in 2001 and 2006 were included.

The main group of interest consists of persons who resided in the central municipality of their metropolitan area (i.e. the cities of Toronto, Montréal or Vancouver) in 2001. These persons are considered migrants if they resided in any municipality adjacent to the metropolitan area in 2006. They are considered non-migrants if they still resided in the central municipality (a change of address within the central municipality is not considered migration).

Likewise, persons who resided in any municipality adjacent to the central municipality of the three metropolitan areas were studied.

In addition to municipality of residence five years earlier, the census includes information on place of residence one year earlier. The analyses performed in preparing this article were replicated using mobility over a one-year period rather than five. This results in smaller proportions of persons moving from the central municipality to a surrounding municipality (since using this methodology, residents 'risk' moving in a single year rather than five). However, the conclusions are the same whether a one- or five-year reference period is used. Thus, the subgroups with the greatest probability of migrating from the central municipality were essentially the same in all 3 CMAs. The advantage of using a five-year period is that analysis can be based on larger samples, thus allowing for more details on the various characteristics of persons who do or do not migrate (Tables A.1, A.2 and A.3), and the destinations chosen by migrants (Table A.6).

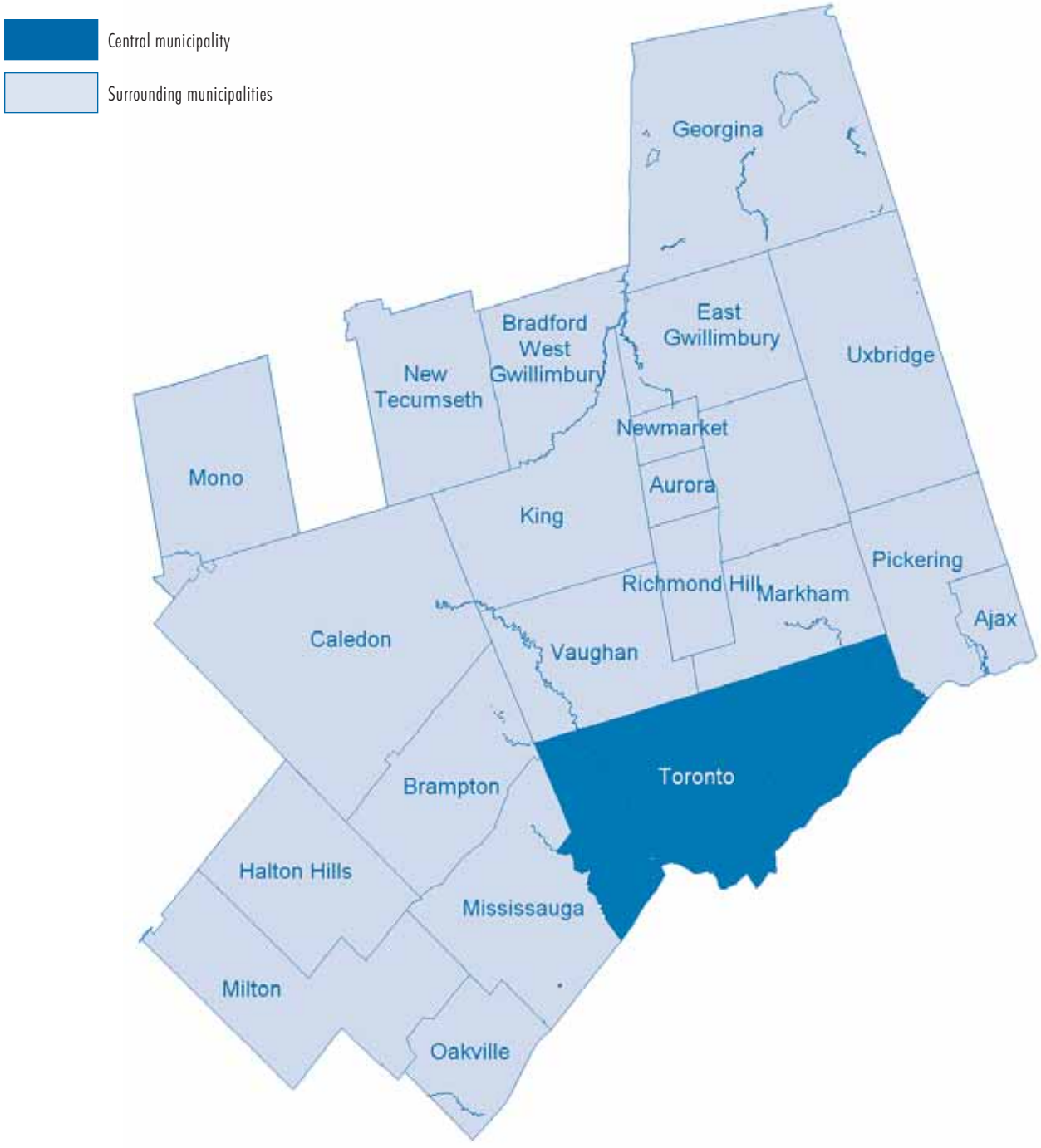
That being said, whether a one-or five-year reference period is used, care must be taken in interpreting certain results. The characteristics of persons were measured in 2006 while the decision to move (or not) was made before the census date. Thus, some personal characteristics might have changed. For example, their income might have been higher or lower when they left the central municipality than when income was measured in 2006.

Exchange ratio

The exchange ratio (Tables A.1, A.2 and A.3) is the number of persons who moved from a central municipality to a surrounding municipality divided by the number of persons who moved in the opposite direction. For example, if, for a given group of persons, 5,000 moved from the central municipality to a surrounding municipality and 2,500 others moved in the opposite direction, the exchange ratio would be 2 (5,000/2,500). In this case, the exchange ratio may be interpreted as follows: for each person who moved from a surrounding municipality to a central municipality, two persons moved in the opposite direction.

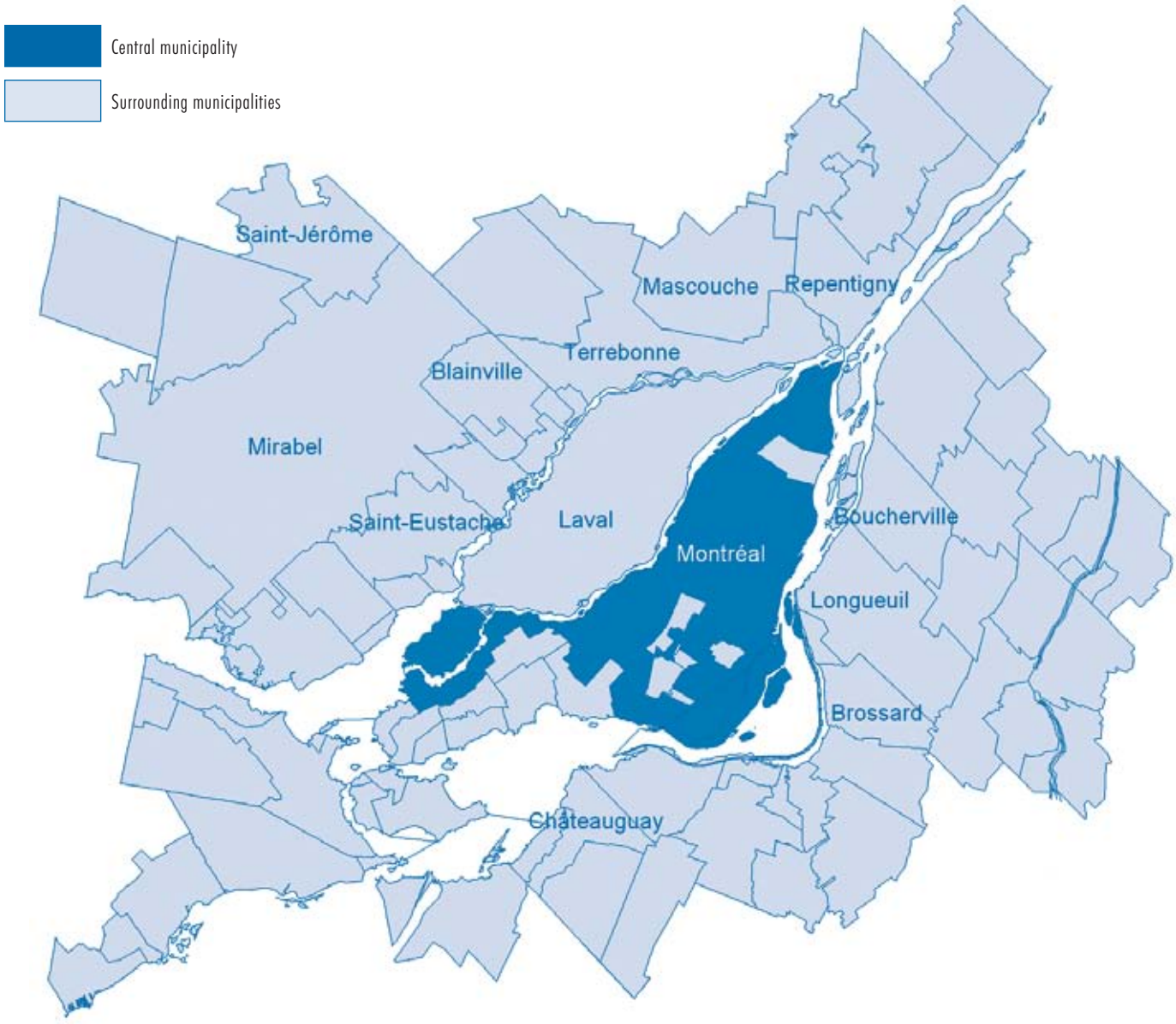
Exchange ratios may be affected by the population size of the two regions being compared (in this case, the central municipality of three metropolitan areas and the surrounding municipalities). For that reason, they must be interpreted with care. In particular, it is not recommended that the exchange ratios of the three metropolitan areas be compared to each other.

Map 1 Municipality of Toronto and outlying municipalities



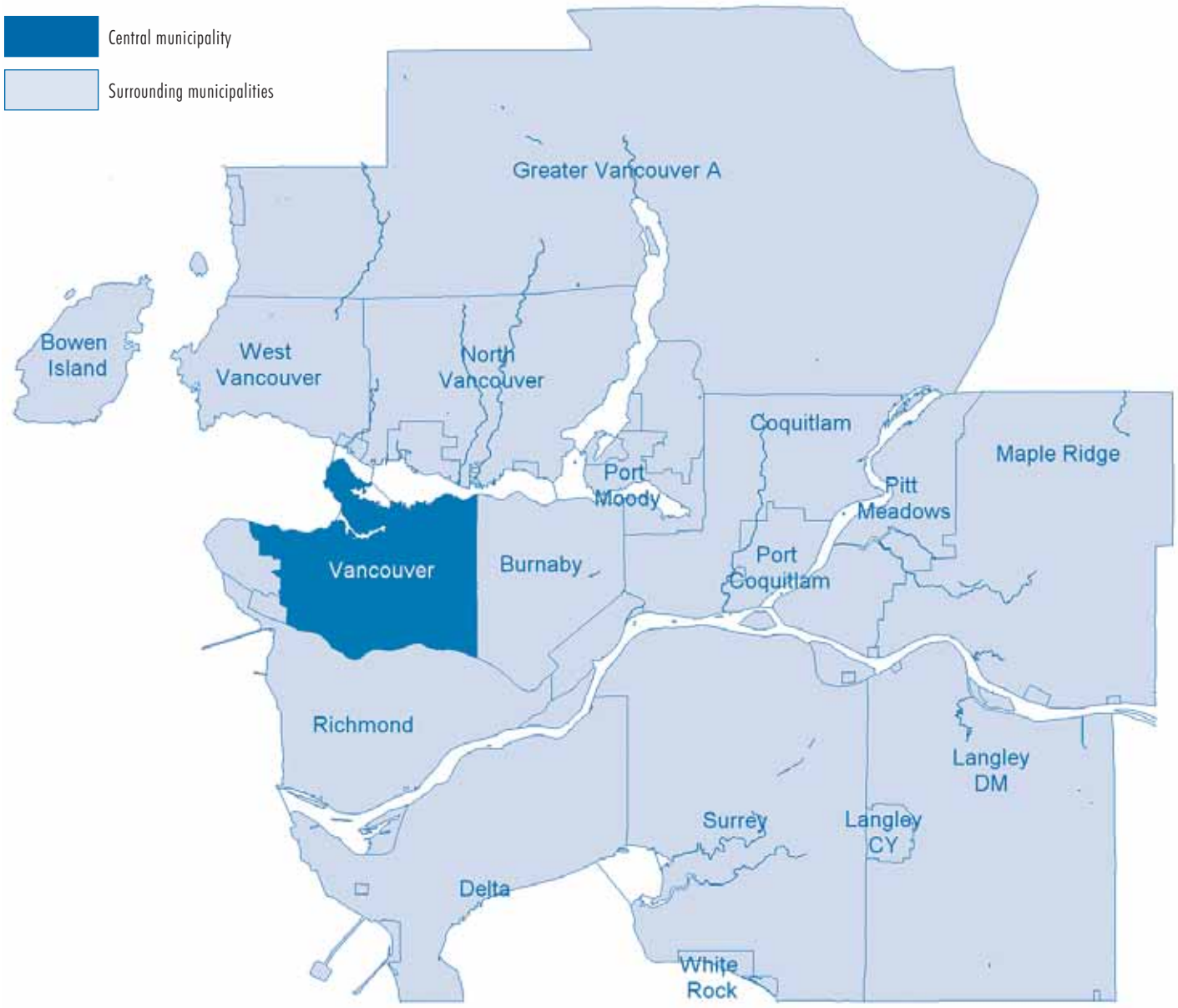
Source: Statistics Canada, Census of Population, 2006.

Map 2 Municipality of Montréal and outlying municipalities



Source: Statistics Canada, Census of Population, 2006.

Map 3 Municipality of Vancouver and outlying municipalities



Source: Statistics Canada, Census of Population, 2006.

It is not surprising that age was observed to be strongly linked to the possibility of moving from the municipalities of Toronto, Montréal or Vancouver to a surrounding municipality. Examination of the adult population aged 20 and over showed that the propensity to move to a surrounding municipality increases up to age 34 and then decreases in the older age groups (Chart 1).

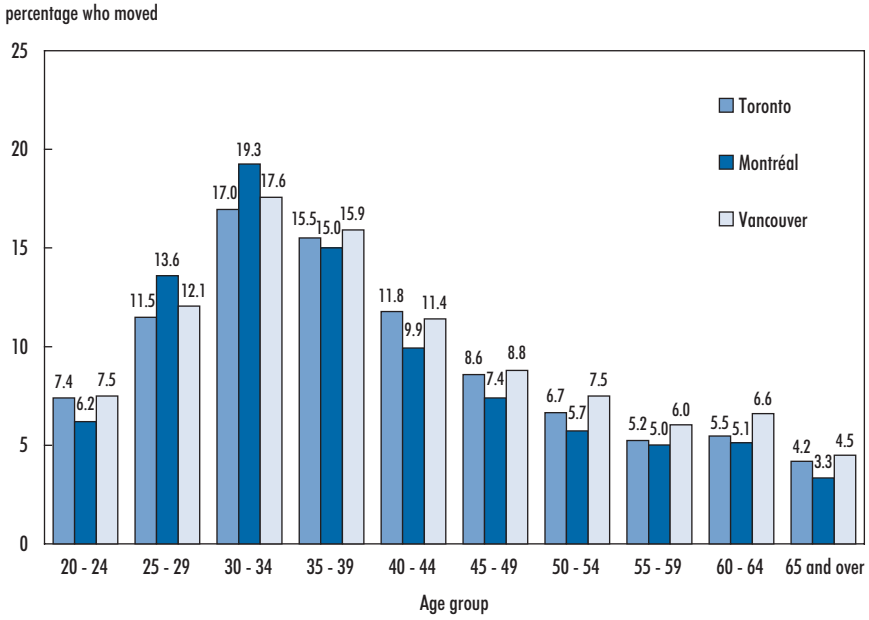
In all three regions, the population aged 25 to 44 was more likely than any other age group to move from a central municipality to a surrounding municipality. According to a recent survey, single homes located in low-density residential neighbourhoods continued to be the type of housing most sought after by persons aged 25 to 44.[8] The supply of this type of housing is greater in surrounding municipalities than downtown (see, for example, Table A.4).

The three CMAs studied differ significantly from each other with respect to their geography, size of population aged 25 to 44 and distribution of that population between the central municipality and surrounding municipalities. In 2006, 1.6 million persons aged 25 to 44 were enumerated in the Toronto metropolitan area (51% resided in the central municipality), 1.1 million in the Montréal metropolitan area (48% resided in the central municipality) and 630,000 in the Vancouver metropolitan area (32% resided in the central municipality).

Despite these differences, the proportion of 25- to 44-year-olds who moved from the central municipality to a surrounding municipality was the same in all three regions (i.e., 14%) (Tables A.1, A.2 and A.3). The proportion of persons in this age group who moved in the opposite direction—that is, from a surrounding municipality to the central municipality—was about three times lower: 5% in Toronto and Montréal, and 4% in Vancouver.

A comparison of moves in the two directions found that the three central municipalities suffered a net loss of 25- to 44-year-olds to surrounding municipalities. For example, in the Toronto region, for each person who left any of the surrounding municipalities to settle in the central municipality, 3.5 persons made the opposite move (see exchange ratio, Table A.1).

Chart 1 People aged 30 to 34 are the most likely to have moved from one of the three central municipalities to a surrounding municipality



Source: Statistics Canada, 2006 Census of Population.

New parents are among those most likely to leave the central municipality

Previous research has shown that family structure is a crucial factor in the decision to migrate.[9] Among the various factors considered in this study, family status was among those that most strongly affected the probability of leaving a central municipality (Tables A.1, A.2 and A.3). The finding held even when the effects of age, income and other factors were taken into consideration.

In all three CMAs, individuals who became parents for the first time between 2001 and 2006 were among those most likely to have left a central municipality. For example, over this period in the Vancouver region, between 27% and 29% of new parents left the city of Vancouver to settle in a surrounding municipality. In comparison, only 8% of persons living alone relocated to surrounding municipalities—about three times less. In the Montréal region, the difference was more pronounced: 34% of persons who became parents of two or more children between 2001 and 2006 left the central municipality compared to 7% of persons living alone (Table A.2).

Several reasons might help explain why parents of young children were more likely to leave the central municipalities. For example, according to previous studies, it is often the desire for more space to accommodate a new family situation that persuades new parents to move to areas where larger houses are more readily available and cost less.[10] In addition to a need for space, many new parents choose a

residential neighbourhood farther from downtown because they want to live close to other families (who have needs similar to theirs)[11] and because they perceive these areas as being safer, better suited to raising children and, in some cases, less noisy.[12]

Lone parents are more inclined to remain in the central municipality

When children get older and the family is complete, the probability of moving, whether a short or long distance, decreases considerably. The results show that persons who were already parents in 2001, but did not have other children during that period, were less likely than new parents to move from a central municipality to a surrounding municipality (Tables A.1, A.2 and A.3).

One type of family stands out from the others: single-parent families. These families were less likely than average to move from a central municipality to a surrounding municipality. This lower propensity to migrate was not explained by lower incomes. In fact, even at similar income levels (taking other factors like education into account), single-parent families continued to be less likely to have left a central municipality (Tables A.1, A.2 and A.3).[13] According to a study conducted in the Toronto, Montréal and Vancouver regions, lone parents were more interested in living in denser neighbourhoods than two-parent families.[14] One possible explanation for this may be that single-parent families may have less time available for commuting or maintaining a house or garden.

According to one classic economic theory, persons and households vote with their feet—i.e., they choose to live in a municipality that offers them the type of environment they want with the best price-quality ratio (the desired service levels and types at a cost deemed satisfactory, in municipal taxes).[15] Different family situations can create different needs, thus leading to some of the differences between family types in the propensity to leave central municipalities.

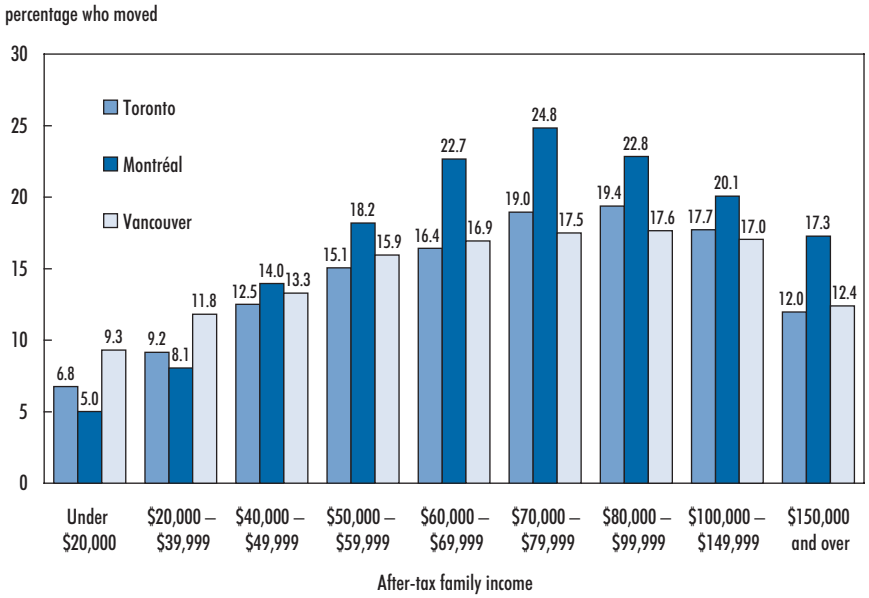
Lowest-income and highest-income persons were less likely to have migrated to a surrounding municipality

Apart from age and family status, family income is a key factor affecting the decision to move: higher incomes allow households and families to choose the type of housing they prefer and where they want to live.[16] Conversely, having too low an income makes it difficult to buy a vehicle, which is often essential to living in low-density suburbs.[17] Whether in Toronto, Montréal or Vancouver, persons with the lowest incomes (less than $20,000 after taxes)[18] were the least likely of all to have moved from the central municipality to a surrounding municipality (Chart 2). In Vancouver, for example, only 9% of persons in the lowest income category migrated from the downtown area. In comparison, the proportion was twice as high, 18%, for those with after-tax incomes between $80,000 and $99,999 (Table A.3).

In each of the three CMAs, the highest proportion of moves to surrounding municipalities occurred in families having after-tax incomes between $70,000 and $99,999. In Montréal, for example, persons in this income bracket were about five times more likely to have moved to a surrounding municipality than those who had after-tax incomes of $20,000 or less.

Despite the positive correlation between income and the probability of leaving the central municipality, this trend reversed at the top of the income scale. That is, those with the highest incomes were *less* likely to move to a surrounding municipality. For example, in Toronto and Vancouver, those with the highest after-tax incomes were less likely to have migrated to a surrounding municipality than were, on average, all 25- to 44-year olds residing in the central municipality in 2001.

Chart 2 People with a family income less than $40,000 are less likely to move from a central municipality to a surrounding municipality



Source: Statistics Canada, 2006 Census of Population.

This reversal at the top end of the income scale may be because these individuals and families are more likely to be able to afford housing in more central areas where properties of equivalent size generally cost more.[19] For most households, a compromise must be made between distance from downtown and desired residence size. For wealthier families, this compromise can be avoided since they can more easily purchase relatively spacious housing close to downtown. Additionally, persons with incomes at the top of the scale may place a higher premium on the possibility of access to certain 'luxury' services and consumer goods (restaurants, clothing, etc.) that are often found in densely populated central areas.[20]

If the analysis is restricted to only new parents (i.e., those who had a first child or more between 2001 and 2006), the impacts that 'family status' and 'income' have on the probability of leaving a central municipality are evident. For example, in Montréal, among new parents who had their first two (or more) children between 2001 and 2006 and who had an after-tax income between $50,000 and $99,999 more than 40% moved from the municipality of Montréal to a surrounding municipality (Chart 3).

Those who had completed college or had a bachelor's degree more likely to leave a central municipality

In each of the three metropolitan areas, persons who completed their college or bachelor's studies (Tables A.1, A.2 and A.3) were more likely to leave the central municipality. The finding was the same when the effect of other factors—income, age and family status—was taken into account. The many benefits of postsecondary education are well known—higher income, greater job security, better working conditions and, in general, better health.[21] The migration of those with diplomas or undergraduate degrees to surrounding municipalities is likely a result of them having more stable incomes, since much of the housing available in suburban municipalities requires a stable income.[22]

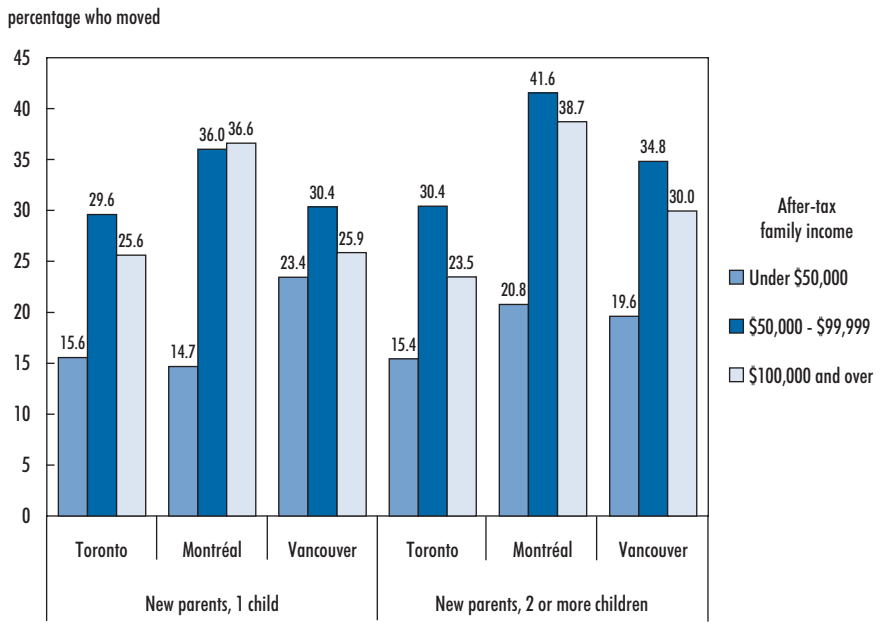
On the other hand, whether in Toronto, Montréal or Vancouver, the most educated were slightly less likely to leave the central municipality. For example, in Montréal, when other factors were kept constant in the logistic regression, the odds of moving to a surrounding municipality were 49% lower for persons with a master's degree or doctorate than for those with a college diploma. This might be because those with the highest levels of education may place a premium on the amenities typically found in city centres such as museums, concert halls, and a wide variety of restaurants, and are more willing to pay more or live in lower-quality housing in order to be close to them.[23]

Artists and the university professors more likely to remain in central municipalities

According to some urban affairs experts, large cities and metropolitan areas should do everything they can to train, attract and retain members of a certain "creative class", i.e., scientists, engineers, artists and knowledge industry workers, because their presence would improve quality of life and possibly increase the variety and number of well-paid jobs.[24] Influenced by this idea, many large cities have developed marketing strategies aimed at attracting these workers by highlighting the cultural vitality and cosmopolitan nature of their cities.[25]

As shown in Table A.5, artists who were living in a central municipality were likely to remain there. Whether in Toronto, Montréal or Vancouver, creative and performing (musicians, dancers, actors) arts professionals were among those least inclined to migrate to a surrounding municipality (6%). Interestingly, arts, culture, sports and recreation managers were also less likely to leave the central municipality (7% in Montréal, for

Chart 3 New parents with incomes over $50, 000 are particularly likely to have moved from a central municipality to a surrounding municipality



Source: Statistics Canada, 2006 Census of Population.

example), which was not the case for senior managers in other industries (19% in the Montréal metropolitan area). It should be noted that in all three metropolitan areas, significantly more artists aged 25 to 44 resided in the central municipality than in a surrounding municipality. For example, in 2006, in the Toronto CMA, 76% of creative and performing arts professionals resided in the central municipality (results not shown).

University professors also stood out from other professions. In fact, in all three CMAs, less than 7% moved between 2001 and 2006. In comparison, their colleagues at the college, secondary and elementary levels were almost three times more likely to move to the suburbs, possibly partly because of the location of the institutions where they worked (since many colleges and secondary schools are found in surrounding municipalities, while many universities are in the central municipality).

In the Montréal CMA, francophones are more likely to leave the city of Montréal than anglophones and allophones

Francophones—i.e., persons whose mother tongue is French—represented about two-thirds of the total population of Montréal's metropolitan area (65.7%) in 2006.[26] However, their relative weight was not the same everywhere. While they were a slight minority on Montréal Island, they were clearly in the majority on the northern and southern tips.

This situation is partly explained by the fact that francophone Montrealers aged 25 to 44 have a greater tendency than anglophones and allophones to leave the city of Montréal (17% for francophones compared to 11% for anglophones and allophones, Table A.2). Moreover, when they left the city of Montréal, francophones were more likely to move to municipalities off Montréal Island, such as Longueuil, Terrebonne or Repentigny. Thus, while only 3% of persons whose mother tongue was French who left the city of Montréal chose a municipality on Montréal Island, 26% of anglophones and 11% of allophones did so (data not shown).

When mother tongue is taken into account along with family status and income, the differences among the groups are more pronounced. Almost one-half of all new francophone parents with incomes between $50,000 and $99,999 left the city of Montréal for a surrounding municipality between 2001 and 2006 (45%). The corresponding proportions were 26% for allophones and 30% for anglophones.

In the Montréal and Vancouver CMAs, persons born in Canada are more likely to leave the central municipality

In general, the reasons why members of certain immigrant communities are attracted to suburban residential areas are very similar to those of non-immigrants: the possibility of becoming a home owner, lower housing prices and areas perceived to be safer for children.[27] Access to ownership is also considered by many as a mark of social integration and economic success in the host society.[28]

Historically, non-immigrants were more closely associated with the exodus to the suburbs. That view still quite accurately describes the situation in Montréal, where non-immigrants were more likely to leave than immigrants, regardless of their place of birth. For example, in that CMA, 18% of non-immigrants aged 25 to 44 left the central municipality compared to only 6% of immigrants from South Asia.

On the other hand, in Toronto, immigrants, particularly those from South Asia (22%) and the Middle East (18%), had the greatest propensity to move from the city of Toronto to a surrounding municipality (only 11% of Torontonians born in Canada had become 'ex-Torontonians' in 2006).

Finally, in Vancouver, the propensity of non-immigrants to move approached that of immigrants born in certain specific regions (South America, Middle-East, South Asia), but exceeded that of immigrants of other origins.

In the Toronto and Vancouver regions, several municipalities outside the central municipality have large immigrant populations (both in number and proportion).[29] This has an effect on the propensity to move from the central municipality, since immigrants are more likely to choose municipalities where immigrant groups already constitute a large part the population.

Data on the municipalities chosen by persons who relocated from a central municipality gives a better understanding of this situation (Table A.6). For example, in the Toronto CMA, 21% of immigrants who moved from the municipality of Toronto to a surrounding municipality chose the municipality of Brampton (compared to only 9% of non-immigrants). Similarly, the municipality of Markham was chosen by 19% of immigrants who moved from the city of Toronto, compared to 7% non-immigrants who relocated from the city of Toronto.

In Vancouver, proportionally more immigrants chose the municipalities of Richmond and Burnaby, two the municipalities with the highest immigrant populations in Canada.

Finally, in the Montréal region, the municipality of Laval was significantly more popular with immigrants who moved from the city of Montréal (41% chose Laval) than among non-immigrants also who decided to leave the central municipality (16% chose Laval).

While new immigrants (those who arrived in Canada between 2001 and 2006) were not included in this study, it should be noted that about 7 out of 10 new immigrants choose to settle in the Toronto, Montréal and Vancouver CMAs. Additionally, a majority of new immigrants settle in the central municipality of these

three CMAs, despite the growing popularity of the surrounding municipalities.[30] Moreover, these newcomers contribute greatly to maintaining demographic growth in these central municipalities.

Childless couples are more likely to migrate to a central municipality

Up to this point, emphasis has been placed on the characteristics of persons who were more likely to move from a central municipality to a surrounding municipality. But it is equally interesting to examine those individuals who move in the opposite direction—that is from the surrounding areas to the central municipality.

In each of the three municipalities examined here, between 4% and 5% of persons living in a surrounding municipality in 2001 relocated to a central municipality in 2006 (Tables A.1, A.2 and A.3). Generally speaking, the people least inclined to move from their municipality to a central municipality were those aged 40 to 44, those who were already parents in 2001 (and thus had children aged 5 or over in 2006) and those who also worked in a non-central municipality.

New parents living in a surrounding municipality in 2001 were also less inclined than average to migrate to the central municipality. For that reason, in central municipalities,

Profile of the population of central municipalities and surrounding municipalities in the Montreal, Toronto and Vancouver metropolitan areas

Previous research has repeatedly shown that the populations of North American suburbs have never been as homogeneous as is commonly believed.[1] This homogeneity has decreased even more so in recent decades because these populations are rapidly diversifying in terms of demographic, economic and cultural points of view.[2] The stereotypical image of suburbanites—i.e, young, non-immigrant, middle or upper class families consisting of married couples with two kids — corresponds less and less to reality. Despite this diversification, differences remain in the demographic and socioeconomic profile of the populations of central municipalities and their surrounding municipalities.

First, in the three metropolitan areas, the population aged 0 to 19 is slightly underrepresented in the central municipality compared to surrounding municipalities. For example, in 2006, 22% of residents of the municipality of Toronto were under 20 years of age compared to 28% in the surrounding municipalities (data not shown).

Among the 25- to 44-year old group, fewer parents were observed in central municipalities than in surrounding municipalities. For example, in Toronto, 38% of persons aged 25 to 44 lived as couples with children. The corresponding proportion was 57% in the surrounding municipalities (Table A.4). Conversely, a larger percentage of those living alone or with roommates were found in the central municipalities with roommates. For example, in 2006, 29% of persons aged 25 to 44 residing in the city of Montréal lived alone or roomed with others compared to 13% in surrounding municipalities.

In all three metropolitan areas, persons born in Canada to parents also born in Canada (non-immigrants) were less represented in central municipalities than in surrounding municipalities. The gap was particularly large in the Montréal area where non-immigrants represented less than one-half of the central municipality's population (45%). In comparison, non-immigrants represented 74% of the population in Montréal's surrounding municipalities. The corresponding proportions in the Vancouver CMA were 29% in the central municipality and 34% in the surrounding municipalities.

Central municipality residents were more likely to have finished university (but slightly less likely to have finished college and just as likely to have finished high school) (Table A.4). Paradoxically, residents of central municipalities were more likely to have low income after-tax than those in surrounding municipalities.

In terms of housing, central municipality residents were much more likely to rent, more inclined to live in an apartment building and more likely to live in apartments with two or fewer rooms. Finally, those living in the central municipality were more likely to also work in the central municipality and were much more likely to use public transit or walk to work (Table A.4).

1. For example, Jackson, K. T. (1985). Crabgrass Frontier: *The Suburbanization of the United States*. New York: Oxford University Press.
2. Smith, P. J. (2007). "Suburbs." *Canadian Cities in Transition*. Third Edition. Don Mills: Oxford University Press. Katz, B. et Lang, R. E. (2003). *Redefining urban and suburban America: evidence from the Census* 2000. Washington: Brookings Institution Press.

   Jackson, K. T. (1985). *Crabgrass Frontier: The Suburbanization of the United States*. New York: Oxford University Press.

the departure of new parents far outweighed the arrival of parents from surrounding municipalities. The exchange ratios (last columns in Tables A.1, A.2 and A.3) illustrate this. In the Montréal area, for example, for every new parent of two or more children who left a surrounding municipality for downtown, 17 moved to the suburbs.

Non-family persons (mostly those living alone), younger people and childless couples were more likely to move from a surrounding municipality to a central municipality. After leaving their parents' home, but before becoming parents themselves, many people choose to live near downtown to finish their education or start a first job. For them, the city might represent a place of transition.[31] Single people might prefer downtown life for all kinds of reasons, one of which is that this environment allows them to meet other people more easily.[32] Also, people living alone might more easily find housing that suits their financial situation and lifestyle in a central municipality since more rental housing is available in the core than in most neighbouring municipalities (Table A.4).

In the three CMAs, those in the lowest income bracket, (under $20,000) were more likely than others to move from a surrounding municipality to a central municipality. In Montréal and Vancouver, the number of persons with incomes under $20,000 who migrated from a surrounding municipality to a central municipality was slightly higher than the number of those moving in the opposite direction (exchange ratio less than 1).

More generally, there are many other reasons why residents of surrounding municipalities move to a central municipality such as shorter commuting distances or a desire to change lifestyles. In fact, many people like urban living and its cultural offerings, as well as the street culture found in certain neighbourhoods with their public spaces, cafes and greatly diversified populations.[33] These factors help attract new residents and also may encourage people already living in the central areas to remain.

Summary

The migration of individuals and families from central municipalities to the suburbs is an important issue for urban planers. From the central municipalities' point of view, it is important to clearly understand the characteristics of people moving to surrounding municipalities in order to better target action aimed at countering such movements. From the surrounding municipalities' point of view, it is useful to understand the characteristics of the residents in order to better plan for the appropriate infrastructure and services that may be required.

In Toronto, Montréal and Vancouver, this study has shown that among people living in a central municipality in 2001, those aged 25 to 44 were particularly likely to move to a surrounding municipality. In all three metropolitan areas, almost 1 person in 6 in this age group left downtown and moved to a surrounding municipality. There was a significantly lower likelihood of moving from a surrounding municipality to a central municipality, with no more than 5% of people doing so in the three metropolitan areas studied.

The propensity to move to a surrounding municipality varied considerably depending on individual's social and economic characteristics. Those most likely to move were new parents, people with a college diploma or bachelor's degree, and those with after-tax incomes between $70,000 and $99,999. In Montréal, non-immigrants were more likely than immigrants to leave the central municipality, while the opposite was true in Toronto. In Montréal, more francophones than anglophones or allophones left the central municipality for the one of the surrounding municipalities.

Those who relocated to the centre were more likely to be younger, live alone or with room-mates and have low incomes.

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Table A.1 Factors associated with the probability of moving from the municipality of Toronto to a surrounding municipality in the metropolitan area between 2001 and 2006 for persons aged 25 to 44

	Moved from the municipality of Toronto to a surrounding municipality		Moved from a surrounding municipality to the municipality of Toronto		Net intrametropolitan migration between the central municipality and other municipalities
	percentage	adjusted odds ratio	percentage	adjusted odds ratio	exchange ratio
Characteristics					
Total	14	...	5	...	3.5
Sex					
Women †	14	1.00	4	1.00	3.7
Men	14	0.89*	5	1.18*	3.3
Age group					
25 to 29 †	11	1.00	8	1.00	1.6
30 to 34	17	1.07*	6	0.67*	3.7
35 to 39	16	0.87*	4	0.49*	5.0
40 to 44	12	0.64*	2	0.33*	5.3
Family status					
Childless persons					
Adult child living with parents	7	0.67*	2	0.10*	4.2
Non-family (person living alone or with roommates) †	6	1.00	17	1.00	0.8
Persons in a couple	16	1.97*	10	0.75*	2.5
Persons with children					
Lone parents	10	1.57*	5	0.36*	2.9
Married or common-law parents					
Were parents in 2001, no other children since	17	2.30*	1	0.16*	9.5
Were parents in 2001, at least one new child since	21	2.72*	2	0.15*	10.5
Had their first child between 2001 and 2006	25	3.18*	4	0.29*	7.0
Had their first children between 2001 and 2006 (2 or more children)	24	3.29*	3	0.19*	8.5
Highest level of education attained					
No high school diploma	11	0.68*	4	1.03	4.0
High school diploma	13	0.82*	4	0.95	3.7
College or vocational school diploma †	15	1.00	4	1.00	3.8
University degree, bachelor's	15	0.90*	7	1.73*	3.0
University degree, master's or doctorate (including medical studies)	14	0.77*	7	2.32*	3.7
After-tax family income					
Under $20,000	7	0.45*	11	2.57*	1.4
$20,000 to $39,999	9	0.49*	9	2.48*	1.9
$40,000 to $49,999	13	0.64*	7	2.15*	2.5
$50,000 to $59,999	15	0.75*	5	1.70*	3.4
$60,000 to $69,999	16	0.84*	4	1.21*	4.6
$70,000 to $79,999 †	19	1.00	3	1.00	5.9
$80,000 to $99,999	19	1.04	3	0.91	5.4
$100,000 to $149,999	18	1.03	2	0.71*	6.2
$150,000 and over	12	0.68*	3	0.79*	4.3

Table A.1 Factors associated with the probability of moving from the municipality of Toronto to a surrounding municipality in the metropolitan area between 2001 and 2006 for persons aged 25 to 44 (continued)

	Moved from the municipality of Toronto to a surrounding municipality		Moved from a surrounding municipality to the municipality of Toronto		Net intrametropolitan migration between the central municipality and other municipalities
	percentage	adjusted odds ratio	percentage	adjusted odds ratio	exchange ratio
Low-income status after-tax					
No	15	...	4	...	3.7
Yes	8	...	8	...	2.2
Place of birth					
Canada[1] †	11	1.00	4	1.00	2.3
Canada, with at least one immigrant parent	12	1.10*	5	1.12*	2.3
South America	14	1.33*	5	1.27*	4.4
Europe	16	1.40*	4	0.96	5.1
Africa	11	1.10	5	1.06	4.3
Middle East	18	1.93*	5	1.17	4.8
East Asia	16	1.37*	5	0.95	6.0
Southeast Asia	13	1.04	6	1.55*	4.0
South Asia	22	1.74*	3	0.92	7.1
United States, Oceania and others	9	0.76*	5	1.25	2.4
Place of work					
City of Toronto †	9	1.00	11	1.00	2.3
Other municipalities in the CMA	34	5.09*	2	0.17*	6.1
Outside the CMA	20	2.90*	3	0.25*	4.1
No fixed place of work	13	1.83*	4	0.29*	4.0
No place of work	10	1.30*	4	0.39*	4.0

† reference group

* difference statistically significant compared to the reference group at $p < 0.05$

1. Includes persons born outside Canada but who are nevertheless Canadian by birth.

Source: Statistics Canada, 2006 Census of Population.

Table A.2 Characteristics associated with the probability of moving from the municipality of Montréal to a surrounding municipality in the metropolitan area between 2001 and 2006 for persons aged 25 to 44

	Moved from the municipality of Montréal to a surrounding municipality		Moved from a surrounding municipality to the municipality of Montréal		Net intrametropolitan migration between the central municipality and other municipalities
	percentage	adjusted odds ratio	percentage	adjusted odds ratio	exchange ratio
Characteristics					
Total	14	...	5	...	2.7
Sex					
Women †	15	1.00	5	1.00	2.9
Men	14	0.91*	5	1.09*	2.6
Age group					
25 to 29 †	14	1.00	11	1.00	1.4
30 to 34	19	1.12*	6	0.59*	4.0
35 to 39	15	0.87*	3	0.37*	4.3
40 to 44	10	0.58*	2	0.30*	3.0
Family status					
Childless persons					
Adult child living with parents	6	0.52*	2	0.16*	2.8
Non-family (person living alone or with roommates) †	7	1.00	15	1.00	0.8
Persons in a couple	19	1.73*	10	1.00	2.2
Persons with children					
Lone parents	8	1.27*	5	0.46*	1.8
Married or common-law parents					
Were parents in 2001, no other children since	14	1.67*	1	0.23*	6.1
Were parents in 2001, at least one new child since	19	2.24*	1	0.17*	11.8
Had their first child between 2001 and 2006	28	3.11*	4	0.37*	7.7
Had their first children between 2001 and 2006 (2 or more children)	34	4.08*	2	0.19*	16.9
Highest level of education attained					
No high school diploma	9	0.76*	3	0.82*	2.6
High school diploma	12	0.89*	4	0.95	2.6
College or vocational school diploma †	16	1.00	5		2.9
University degree, bachelor's	16	0.79*	7	1.78*	2.7
University degree, master's or doctorate (including medical studies)	13	0.51*	10	2.61*	2.4
After-tax family income					
Under $20,000	5	0.25*	12	4.32*	0.9
$20,000 to $39,999	8	0.33*	10	3.40*	1.2
$40,000 to $49,999	14	0.52*	6	2.38*	2.4
$50,000 to $59,999	18	0.66*	4	1.69*	3.8
$60,000 to $69,999	23	0.85*	3	1.28*	5.3
$70,000 to $79,999 †	25	1.00	2	1.00	6.9
$80,000 to $99,999	23	0.92	2	1.00	5.7
$100,000 to $149,999	20	0.88*	2	0.89	5.8
$150,000 and over	17	0.75*	2	0.99	4.0

Table A.2 Characteristics associated with the probability of moving from the municipality of Montréal to a surrounding municipality in the metropolitan area between 2001 and 2006 for persons aged 25 to 44 (continued)

	Moved from the municipality of Montréal to a surrounding municipality		Moved from a surrounding municipality to the municipality of Montréal		Net intrametropolitan migration between the central municipality and other municipalities
	percentage	adjusted odds ratio	percentage	adjusted odds ratio	exchange ratio
Low-income status after-tax					
No	16	...	5	...	3.0
Yes	5	...	10	...	1.2
Mother tongue					
English	11	0.85*	6	0.92	2.1
French †	17	1.00	5	1.00	2.4
Other	11	0.82*	6	0.91	5.0
Place of birth					
Canada[1] †	18	1.00	5	1.00	2.4
Canada, with at least one immigrant parent	11	0.65*	7	1.14*	2.6
South America	11	0.79*	8	1.81*	5.0
Europe	13	0.87*	6	1.50*	4.5
Africa	11	0.76*	8	1.40*	5.8
Middle East	13	1.06	4	0.75	6.5
East Asia	11	0.86	5	0.77	5.8
Southeast Asia	7	0.47*	9	2.19*	2.8
South Asia	6	0.44*	7	1.49	5.6
United States, Oceania and others	12	0.66*	6	1.35	2.4
Place of work					
City of Montréal †	11	1.00	10	1.00	2.1
Rest of the Island of Montréal	18	1.73*	6	0.55*	2.9
Other area municipalities outside the Island of Montréal	44	5.95*	2	0.13*	5.7
Outside the CMA	21	2.26*	3	0.24*	3.5
No fixed place of work	14	1.46*	5	0.36*	2.5
No place of work	7	1.03	4	0.32*	3.0

† reference group

* difference statistically significant compared to the reference group at $p < 0.05$

1. Includes persons born outside Canada but who are nevertheless Canadian by birth.

Source: Statistics Canada, 2006 Census of Population.

Table A.3 Characteristics associated with the probability of moving from the municipality of Vancouver to a surrounding municipality in the metropolitan area between 2001 and 2006 for persons aged 25 to 44

	Moved from the municipality of Vancouver to a surrounding municipality		Moved from a surrounding municipality to the municipality of Vancouver		Net intrametropolitan migration between the central municipality and other municipalities
	percentage	adjusted odds ratio	percentage	adjusted odds ratio	exchange ratio
Characteristics					
Total	14	...	4	...	1.8
Sex					
Women †	14	1.00	4	1.00	1.8
Men	14	0.94	4	1.11*	1.7
Age group					
25 to 29 †	12	1.00	7	1.00	0.9
30 to 34	18	1.13*	5	0.72*	2.0
35 to 39	16	0.98	3	0.50*	2.7
40 to 44	11	0.75*	2	0.37*	2.2
Family status					
Childless persons					
Adult child living with parents	7	0.75*	1	0.09*	2.6
Non-family (person living alone or with roommates) †	8	1.00	11	1.00	0.6
Persons in a couple	19	2.44*	7	0.73*	1.8
Persons with children					
Lone parents	13	1.90*	2	0.34*	1.8
Married or common-law parents					
Were parents in 2001, no other children since	12	1.85*	1	0.24*	2.4
Were parents in 2001, at least one new child since	19	3.01*	1	0.22*	4.4
Had their first child between 2001 and 2006	27	4.21*	3	0.33*	4.9
Had their first children between 2001 and 2006 (2 or more children)	29	4.72*	2	0.24*	6.3
Highest level of education attained					
No high school diploma	12	0.78*	3	0.98	1.8
High school diploma	13	0.83*	3	0.95	1.8
College or vocational school diploma †	16	1.00	3	1.00	2.1
University degree, bachelor's	14	0.85*	7	2.10*	1.5
University degree, master's or doctorate (including medical studies)	13	0.62*	6	2.70*	1.7
After-tax family income					
Under $20,000	9	0.82	7	2.28*	0.9
$20,000 to $39,999	12	0.88*	6	1.88*	1.1
$40,000 to $49,999	13	0.84*	5	1.58*	1.5
$50,000 to $59,999	16	0.94	3	1.31*	2.1
$60,000 to $69,999	17	0.97	3	1.12	2.6
$70,000 to $79,999 †	17	1.00	3	1.00	2.7
$80,000 to $99,999	18	0.96	2	1.01	2.7
$100,000 to $149,999	17	1.01	2	0.93	3.4
$150,000 and over	12	0.75*	3	1.20	2.0

Table A.3 Characteristics associated with the probability of moving from the municipality of Vancouver to a surrounding municipality in the metropolitan area between 2001 and 2006 for persons aged 25 to 44 (continued)

	Moved from the municipality of Vancouver to a surrounding municipality		Moved from a surrounding municipality to the municipality of Vancouver		Net intrametropolitan migration between the central municipality and other municipalities
	percentage	adjusted odds ratio	percentage	adjusted odds ratio	exchange ratio
Low-income status after-tax					
No	15	...	4	...	1.9
Yes	11	...	5	...	1.2
Place of birth					
Canada[1] †	17	1.00	4	1.00	1.7
Canada, with at least one immigrant parent	13	0.75*	5	1.19*	1.4
South America	15	0.82	5	1.44*	1.8
Europe	14	0.73*	4	1.13	1.6
Africa	14	0.82	3	1.01	1.9
Middle East	15	1.01	5	1.45*	1.1
East Asia	13	0.72*	5	1.34*	2.2
Southeast Asia	13	0.63*	4	1.20	2.5
South Asia	16	0.67*	1	0.37*	4.0
United States, Oceania and others	13	0.67*	2	0.64*	3.5
Place of work					
City of Vancouver †	9	1.00	11	1.00	1.1
Other municipalities in the CMA	26	3.93*	2	0.18*	2.8
Outside the CMA	14	2.34*	2	0.19*	2.3
No fixed place of work	13	1.76*	4	0.30*	1.5
No place of work	11	1.54*	2	0.23*	2.2

† reference group
* difference statistically significant compared to the reference group at $p < 0.05$
1. Includes persons born outside Canada but who are nevertheless Canadian by birth.
Source: Statistics Canada, 2006 Census of Population.

Table A.4 Profile of population aged 25 to 44 in 2006, by place of residence, 2006

	Place of residence					
	Toronto CMA		Montréal CMA		Vancouver CMA	
	Surrounding municipalities	Central municipality	Surrounding municipalities	Central municipality	Surrounding municipalities	Central municipality
	percentage					
Characteristics						
Family status	**100**	**100**	**100**	**100**	**100**	**100**
Childless persons	38	56	38	59	44	67
Adult child living with parents	15	14	9	10	12	11
Non-family (person living alone or with roommates)	9	23	13	29	15	33
Persons in a couple	15	19	16	20	18	24
Persons with children	62	44	62	41	56	33
Lone parents	5	6	7	7	6	4
Married or common-law parents (total)	57	38	55	34	50	29
Were parents in 2001, no other children since	29	18	30	15	26	13
Were parents in 2001, at least one new child since	13	8	11	8	11	6
Had their first child between 2001 and 2006	10	8	9	8	9	7
Had their first children between 2001 and 2006 (2 or more children)	5	3	5	3	4	3
Highest level of education attained	**100**	**100**	**100**	**100**	**100**	**100**
No high school diploma	8	9	11	10	8	7
High school diploma	23	20	18	16	24	19
College or vocational school diploma	35	29	45	36	37	30
University diploma, bachelor's	27	31	21	26	23	33
University diploma, master's or doctorate (including medical studies)	8	11	5	11	7	11
After-tax family income	**100**	**100**	**100**	**100**	**100**	**100**
Under $20,000	6	15	7	21	11	18
$20,000 to $39,999	13	22	17	30	18	23
$40,000 to $49,999	9	11	12	12	10	11
$50,000 to $59,999	10	10	13	10	10	9
$60,000 to $69,999	10	8	12	7	10	8
$70,000 to $79,999	10	7	10	6	9	7
$80,000 to $99,999	17	10	14	7	13	9
$100,000 to $149,999	19	11	11	5	13	10
$150,000 and over	7	6	3	2	5	4
Low-income status after-tax	**100**	**100**	**100**	**100**	**100**	**100**
No	90	81	91	75	85	80
Yes	10	19	9	25	15	20
Place of birth	**100**	**100**	**100**	**100**	**100**	**100**
Canada[1]	24	21	74	45	34	29
Canada, with at least one immigrant parent	26	23	11	15	21	23
South America	7	9	3	9	2	3
Europe	10	10	4	9	7	7
Africa	3	4	2	8	2	1
Middle East	3	4	2	4	2	2

Table A.4 Profile of population aged 25 to 44 in 2006, by place of residence, 2006 (continued)

	Place of residence					
	Toronto CMA		Montréal CMA		Vancouver CMA	
	Surrounding municipalities	Central municipality	Surrounding municipalities	Central municipality	Surrounding municipalities	Central municipality
	percentage					
Place of birth (continued)						
East Asia	7	11	1	3	14	20
Southeast Asia	5	7	1	3	6	9
South Asia	13	11	1	3	9	3
United States, Oceania and others	1	1	1	1	3	3
Place of work	**100**	**100**	**100**	**100**	**100**	**100**
Downtown	25	62	32	63	16	53
Surrounding municipality	53	14	48	13	58	24
Outside the CMA	3	2	4	2	3	2
No fixed place of work	10	10	8	7	12	10
No place of work	9	13	8	15	11	11
Tenure	**100**	**100**	**100**	**100**	**100**	**100**
Renter	15	47	24	68	28	54
Owner	85	53	76	32	72	46
Type of housing	**100**	**100**	**100**	**100**	**100**	**100**
Single house	59	25	63	7	44	19
Semi-detached or row house	23	15	10	7	14	5
Apartment	18	60	27	86	42	77
Number of rooms in dwelling	**100**	**100**	**100**	**100**	**100**	**100**
2 or less	17	54	30	65	35	64
3	39	28	45	27	30	14
4 or more	44	18	25	8	35	22
Mode of transportation to get to work	**100**	**100**	**100**	**100**	**100**	**100**
Car	85	52	84	51	80	54
Public transit	13	37	12	36	15	26
Walking, cycling or other	3	11	4	12	6	20
Median distance between place of work and place of residence (in km)	12	7	12	6	9	4

1. Includes persons born outside Canada but who are nevertheless Canadian by birth.
Source: Statistics Canada, 2006 Census of Population.

Table A.5 Selected occupations and percentage of persons aged 25 to 44 who moved to or from a central municipality between 2001 and 2006

	Moved from a central municipality to a surrounding municipality			Moved from a surrounding municipality to a central municipality		
	Toronto	Montréal	Vancouver	Toronto	Montréal	Vancouver
	percentage					
Occupations						
All persons aged 25 to 44 (including those without an occupation)	**14**	**14**	**14**	**5**	**5**	**4**
Senior management occupations	13	19	15	4	4	4
Business, finance and administrative occupations[1]	16	18	17	5	4	4
Managers in art, culture, recreation and sport	9	7	11	11	5	11
Business, finance and administrative occupations	15	20	16	6	7	6
Professional occupations in natural and applied sciences and similar occupations	20	18	15	6	7	7
Technical occupations related to natural and applied sciences	19	18	16	5	6	5
Health occupations	12	17	13	6	6	8
Nurse supervisors and registered nurses and technical and similar health sector personnel	16	18	17	4	4	4
Judges, lawyers and Quebec notaries	6	18	16	13	11	14
Postsecondary and university professors and assistants	5	6	7	13	26	12
College, secondary and elementary school teachers and support personnel	15	18	16	5	5	5
Writing, translation and public relations professionals	8	11	11	12	11	8
Creative and performing artists	5	6	9	14	12	12
Photographers, graphic arts technicians and technical and coordinating occupations in motion pictures, broadcasting and performing arts	6	10	11	12	11	9
Creative designers and craftpersons	10	10	12	9	11	6
Other occupations related to arts and culture	6	12	4	7	12	8

1. This category excludes managers in art, culture, recreation and sport.

Source: Statistics Canada, 2006 Census of Population.

Table A.6 Destination of persons aged 25 to 44 who moved from a central municipality to a surrounding municipality

	Immigrant status and country of birth			
		Canada[1]	Canada	Autres pays
	Total	Parents born in Canada	With at least one immigrant parent	Immigrants
	percentage			
Destination				
From the city of Toronto to…	**100**	**100**	**100**	**100**
Mississauga	20	18	18	21
Brampton	17	9	11	21
Markham	15	7	11	19
Vaughan	12	6	17	12
Richmond Hill	8	5	6	9
Ajax	6	9	7	5
Oakville	5	10	6	3
Pickering	5	7	5	4
Others	13	28	19	7
From the city of Montréal to…	**100**	**100**	**100**	**100**
Rest of the Island	7	4	12	11
Laval	25	16	41	41
Longueuil	9	10	6	10
Terrebonne	7	8	6	5
Repentigny	5	7	3	3
North Shore (others)	24	29	18	13
South Shore (others)	23	27	14	17
From the city of Vancouver to …	**100**	**100**	**100**	**100**
Burnaby	22	16	23	26
Richmond	16	9	15	22
Surrey	17	16	13	20
Coquitlam	8	8	9	7
Delta	7	9	7	5
New Westminster	6	10	6	4
Others	24	32	28	16

1. Persons born outside Canada but who are nevertheless Canadian by birth.
Source: Statistics Canada, 2006 Census of Population.

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2. Statistics Canada. (2008a). *Family Portrait: Continuity and Change in Canadian Families and Households in 2006, 2006 Census*. Statistics Canada Catalogue no. 97-553. Ottawa: Minister of Industry.
3. City of Montreal. (2007). 2008-2009 *Family Action Plan*. Strategies adopted to retain and attract families include tax benefits that might be granted to young couples when they become first-time homeowners, free public transit for children or measures aimed at promoting an increased feeling of safety among residents, particularly young parents.
4. For the city of Vancouver, see http://vancouver.ca/commsvcs/socialplanning/initiatives/childcare/ccgrants1.htm. For the city of Toronto, see http://www.toronto.ca/children/subsidy.htm.
5. In the country's other large metropolitan areas such as Ottawa-Gatineau, Calgary or Edmonton, surrounding municipalities are much less numerous and densely populated than in the three largest CMAs. Consequently, the question of moves from the central municipality to surrounding municipalities is a bit less relevant there.
6. It should be noted that this article does not deal directly with urban sprawl. In fact, the boundaries between central and surrounding municipalities do not allow the various elements to be taken into account in studies on urban sprawl (population densities, usage mixing, etc.) to be adequately measured.

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Making fathers "count"

by Pascale Beaupré, Heather Dryburgh and Michael Wendt

Introduction

Once considered the "forgotten parent"[1], fathers have been the focus of numerous studies in recent decades. This shift has taken place against a backdrop of major social and economic changes: more people spending more time pursuing higher levels of education; weaker marital ties (with common-law unions becoming more common and marriage losing popularity); and increased participation of women in the labour force. As women have been encouraged to enter the public sphere, men have been occupying a greater place in the domestic sphere. Once confined to the role of breadwinner, today's fathers are more likely to be involved in the day-to-day care giving of children (see "Fathers involvement").

Until quite recently studies on the family focused mainly on mothers. However, many national surveys interview men and women and data on fathers are available, yet few studies examine parenthood from the father's perspective. There are several reasons for this. First, the field of sociology of the family maintains that the family sphere and care of children are mainly the concern of women. Second, the notion that men's family experiences merely mirror those of women, albeit with a two to three year time lag, has led researchers to study parental and family paths almost exclusively from the female perspective.[2]

Of the studies that have been done on fatherhood, most have examined paternal involvement or compared the maternal and paternal behaviours and the needs of particular subgroups of fathers (especially lone-parent fathers). In these studies, researchers stress that statistics specifically relating to fathers are rare.[3,4,5] Although there is information that can be used to draw a detailed portrait, more often than not fatherhood is examined from the perspective of the census family or the marital relationship.[6]

This article fills the gap identified by researchers by describing the situation of fathers in Canada. Using data from the 1995 and 2006 General Social Survey (GSS) on the family, this article describes changes in the profiles of fathers during this period. In particular, it examines the sociodemographic, conjugal and family characteristics of fathers. The article focuses on the overall situation of fathers; it does not seek to analyse the more specific realities of some types of fathers (immigrant, gay, teenage or inmate fathers) (see "What you should know about this study").[7]

Fathers: an overview

The 1995 General Social Survey estimated that there were 4,167,000 fathers with at least one child aged 18 or under. Slightly more than ten years later, there were 4,266,000, an increase of 2.3%. In comparison, the total population grew by 11.2% during the same period.

The average age of fathers is rising

Effects of the overall population aging are reflected in the age distribution of fathers. Several factors—young people leaving the parental home at older ages, men forming conjugal unions at older ages, becoming parents at later ages, and forming new unions, and thus second families, sooner after a previous union breaks down—all contribute to the rising age of fathers.

The average age of fathers now exceeds 40: it was 41.6 years in 2006, compared to 39.8 in 1995 (Table 1) — an increase of 1.8 years over the study period.

Although the age distribution of fathers reveals that slightly more than three-quarters were between 30 and 49 years of age in both 1995 and 2006, this masks major changes over the period. In 1995, nearly 44% of fathers were in their thirties and 36% were in their forties. Some ten years later, the situation was reversed: 33% were aged 30 to 39 and 44% were in their forties. Additionally, the proportion of fathers in their fifties increased from 10% in 1995 to 15% in 2006.

On the other hand, the distribution of fathers according to the age of the youngest child shows that the

What you should know about this study

Before drawing a portrait of fathers in Canada, it is necessary to specify what is meant by "father." At first glance, this seems quite simple, but over time the paternal sphere has become increasingly complex.[1,2,3,4,5] A look to the past reveals that the word "father" has had various meanings, depending on the period. Beyond a simple biological bond between a child and an adult male, the current meaning of fatherhood also has a social construction. As Dubeau and her colleagues put it, "To be a father, it takes more than to be a procreator!"[6]

The data in this article are drawn from two different GSS cycles on the family: cycle 10, conducted in 1995, and cycle 20, conducted in 2006. The target population includes all non-institutionalized persons 15 years of age or older living in the ten provinces. In 1995, 10,749 persons were interviewed by telephone. Of them, slightly more than 4,800 were males. In the 2006 survey, just over 23,600 persons, including slightly more than 10,350 males, were interviewed.

Fathers interviewed by the GSS are identified in two stages. First, all the links among the members of each household contacted were determined. This allows for the identification of men who were living in a household that included their own or other children. The children in the household may have been the man's biological or adopted children, his spouse's children or the children of another member of the household with whom he is living (co-tenant, friend or other related member).[7]

The GSS also includes a section on the respondent's children. In addition to validating the information collected on household composition, this section identifies fathers according to whether or not they are living with their biological or adopted children.

With these two steps, the fathers for this study were identified. Fathers were defined as between age 18 to 65 at the time of the survey who were living with or reported having fathered, adopted or reared a child who was 18 years of age or under at the time of the survey. The resulted in a sample of 1,749 fathers in 1995 and 3,080 in 2006, and includes fathers, stepfathers and fathers who do not necessarily live with their children.

The information presented illustrates the distribution of fathers according to various characteristics. To evaluate the statistical significance of the variations observed, the proportions were first estimated using the weights from the GSS survey; then the estimate of variance of these estimates was verified using the bootstrap method. Statistical significance was calculated according to a threshold of 5% ($p < 0.05$). In this article, only statistically significant results are commented on.

The statistics outlined in this article provide a snapshot of fatherhood at a specific point in time. Following the example of Desrosiers and her colleagues, it would be useful to adopt a more dynamic perspective on fatherhood by tracing men's conjugal and parental paths.[8]

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Table 1 Distribution of fathers by different age indicators, Canada, 1995 and 2006

	Fathers	
	1995 †	2006
	percentage	
Age of father		
18 to 29	10.1	8.1
30 to 39	43.5	33.4*
40 to 49	35.9	43.6*
50 to 65	10.4	14.9*
Age of youngest child		
0 to 4	38.5	32.7*
5 to 12	36.0	39.2*
13 to 18	25.4	28.1*
	years	
Average age of father	39.8	41.6*
Average age of youngest child	7.6	8.3*

† reference group
* statistically significant difference from the reference group at $p < 0.05$
Source: Statistics Canada, General Social Survey, 1995 and 2006.

proportion of fathers with preschool-age children declined between 1995 and 2006. Whereas 39% of fathers had a child less than 5 years of age in 1995, this was the case for 33% of fathers roughly ten years later. By 2006, fathers whose youngest child was between 5 and 12 years of age (39%) or between 13 and 18 years of age (28%) were proportionally more numerous than in 1995 (Table 1).

A larger proportion of fathers living common-law

Forty years ago, marriage was the norm and it was through marriage that most people formed couples and integrated into family networks. Almost all children were born to married parents and grew up with them. Today, many children either are born outside of marriage or experience the divorce of their parents while they are still young.

Despite these changes, the majority of fathers are married. While the proportions of married and divorced fathers declined, the proportion of unmarried fathers, either in common-law unions or without a spouse, increased. This increase was largely due to the growing popularity of common-law unions, both for forming a union and for creating a family (especially in Quebec). Nearly 18% of fathers were living in a common-law union in 2006, compared to 13% in 1995.

In 2006, the region of residence continued to be a factor in the type of conjugal relationship: common-law unions were more widespread among Quebec fathers, while marriage was the predominant type of union for fathers in the provinces outside of Quebec.

Between 1995 and 2006, GSS data show a marked change in the types of conjugal relationships formed in Quebec, where the attractiveness of marriage declined in favour of common-law unions. For example in 2006 less than half of Quebec fathers were married. The gap that had previously existed between married fathers and fathers in common-law unions had narrowed substantially: by 2006 nearly 40% of Quebec fathers were living in common-law unions (Table 2). Elsewhere in Canada, the proportion of married fathers did not change significantly, but the proportion of fathers in common-law unions was up slightly.

Finally, the proportion of fathers without spouses remained fairly stable, ranging between 10% and 12% depending on the period and region.

In 2006 fathers more likely than in 1995 to be the head of a lone-parent family

The complexity of Canadians' marital histories has led to a diversification in the types of families (see "Definitions"). While there has been a decline in the number of families with two parents who have only ever been married to each other, other types of families, such as step and lone-parent families, have emerged. Consequently, there are a growing number of men entering unions that include children from a partner's previous relationship.

Despite this, a majority of fathers live in an intact two-parent situation: in 2006 just over 3,169,000 fathers were living with their spouse and children (birth or adopted).

Separations and divorces, which have become increasingly common, result in an increase in the number of lone parents. From 1995 to 2006, the proportion of fathers who were lone-parents rose from 5% to 8% (Table 3). The number of lone-parent fathers stood at more than 338,000 in 2006. With the growing popularity of common-law unions, the number of never-married lone-parent fathers has increased, while the number of divorced or separated lone-parent fathers declined. Compared to the children of fathers living in an intact two-parent situation, the children of lone-parent fathers tended to be older: in 2006, half of fathers heading a lone-parent family were living with children aged 5 to 12. When dad and mom lived together, the proportion of dads with children aged 5 to 12 was 38%.

Table 2 Distribution of fathers by marital status, Quebec and other provinces, 1995 and 2006

	Fathers			
	Quebec		Other provinces	
	1995 †	2006	1995 †	2006
	percentage			
Marital status				
Married	61.8	48.4*	81.4	79.0
Common-law	26.4	39.7*	8.6	10.8*
No spouse	11.8	11.9	10.0	10.1

† reference group
* statistically significant difference from the reference group at $p < 0.05$
Source: Statistics Canada, General Social Survey, 1995 and 2006.

Table 3 Distribution of fathers by family type, Canada, 1995 and 2006

	Fathers	
	1995 †	2006
	percentage	
Family type		
Intact family	76.0	74.3
Lone-parent family	5.3	7.9*
Stepfamily	11.5	13.4*
With no children in household	7.2	4.4*

† reference group
* statistically significant difference from the reference group at $p < 0.05$
Source: Statistics Canada, General Social Survey, 1995 and 2006.

Some fathers do not live with their children (birth or adopted) and their children live with the mother or elsewhere. The proportion of fathers without any children in their home declined significantly, going from 7% in 1995 to 4% some ten years later (Table 3). In 2006, there were slightly more than 186,000 fathers with this living arrangement. The increasing number of fathers with custody of their children reflects an increase in lone-parent fathers and the decrease in fathers who are living without their children and is mainly due to the fact that mothers are less frequently being awarded sole custody of children following a union breakdown.[8]

The average age of fathers who were not living with their children was 44.5 years in 2006. As was the case for lone-parent fathers, fathers without children in their household had older children: in 2006, 34% of these fathers had children between 5 and 12 years of age, while 55% had children between 13 and 18 years of age.

As a result of marital instability, the number of stepfamilies has grown: in 2006, approximately 572,000 fathers (13%) lived in a stepfamily. This was up slightly from 1995 (12%). Among fathers in stepfamilies, there was an even split between those in marriages and those in common-law unions.

In most cases, stepfamilies are what is known as "simple": they include the children of just one of the spouses. For fathers living in a stepfamily, two family statuses are considered: a) the men were childless or their children were not living with them when the stepfamily was created; and b) the men were already living with children when they formed the union (either children born outside of a union or children born in a union since dissolved). Data show that it was more common for men to form a union that includes only the children of the female partner.

Simple stepfamilies become complex following a birth of another child.[9] Among fathers living in a blended family with children born or adopted within the new union, the majority were raising the children of just one sibling relationship, usually the woman's child. The distribution of fathers in stepfamilies by the age of their children was similar to the distribution of fathers in intact families. In 2006, 30% of fathers in stepfamilies had children aged 0 to 4, 44% had children aged 5 to 12, and 27%, children aged 13 to 18.

Although families have changed and there are more types of family structures, most dads lived with their children full-time. Indeed in 2006, eight-in-ten fathers lived full-time with their children—about the same as in 1995 (Table 4).

Shared custody is increasingly common.[10,11] As a result, fathers whose children lived with them part-time were more common than were fathers whose children did not live with them. In 2006, 11% of fathers had at least one child living part-time in their household, while a smaller proportion (5%) did not live with any of their children. In comparison, in 1995, 8% had at least one child living under their roof part-time and 7% did not live with any of their children (Table 4).

Table 4 Distribution of fathers by residence status of children in the household, Canada, 1995 and 2006

	Fathers	
	1995 †	2006
	percentage	
Residence status of children in father's household		
All children live there full-time	81.8	80.6
At least 1 child lives there part-time[1]	7.6	11.4*
At least 1 child lives elsewhere[2]	3.4	3.5
All children live elsewhere	7.2	4.5*

† reference group
* statistically significant difference from the reference group at $p < 0.05$
1. May include a mixture of situations, with some children living elsewhere and some children living in the household full-time or part-time.
2. May include a mixture of situations, with some children living elsewhere and some children living in the household full-time, but no child living in the household part-time.

Source: Statistics Canada, General Social Survey, 1995 and 2006.

Fatherhood is beginning later in life

The most common path to fatherhood is biological: slightly more than nine in ten fathers become fathers with the birth of their first child. However, a man can also become a parent by other means such as adoption[12] or by becoming a stepfather. From 1995 to 2006, the proportion of men whose first parental experience occurred as the result of family blending changed very little: in 2006, for about 9% of fathers the first experience of fatherhood was as a stepfather, in 1995 the corresponding proportion was 8%.

In Canada, the age at which people become parents is rising. A number of studies emphasize that during the past 20 years, there has been a decline in the fertility rate of Canadian women in their twenties, while the rate for women in their thirties has risen steadily.[13,14] Following the upward trend in the average age of women at the time of their first birth, the average age[15] of fathers at the time of their entry into fatherhood increased significantly from 27.8 to 29.1 between 1995 and 2006.

A growing proportion of fathers are employed

Obviously, the social condition of fathers in Canada varies according to their family type. Whether they are alone or are part of a two-parent family, fathers are stakeholders in the economic realities of their families: they are subject to job insecurity and unemployment, and they are exposed to income insecurity, indebtedness and the conditions linked with these situations. Studies on the economic conditions of fathers as a group are few or non-existent. Studies that have been done focus mainly on the economic condition of lone fathers.[16,17]

The GSS provides information on employment status[18] and income and how these change over time. The vast majority of all fathers in Canada are gainfully employed. While about 90% of fathers had a job in 1995, in 2006 the proportion was 94%. Research out of the United States has stressed that fathers living with at least one child under 18 years of age assign more importance to participating in the labour force and devote more hours to their labour market participation per week than men who have older children or who have never experienced fatherhood.[19] Fathers living with minor children recognize that they have obligations and responsibilities and have taken on the role of a "good provider."

During the study period, the unemployment rate among males aged 15 and over dropped substantially—from 9.8% in 1995 to 6.5% in 2006. As a result, it is not surprising that all types of fathers saw their employment status stabilize or improve. Fathers heading a lone-parent family registered the largest advance in employment status, with the proportion employed increasing from 77% in 1995 to 87% in 2006. This improvement in employment status may be related to the fact that increasing numbers of fathers are awarded sole custody of their children following a union breakdown. These fathers may not be able to count on financial support from the other parent and must have a regular job to support their family and ensure its wellbeing.

Among all types of fathers, the highest proportion with employment was found among fathers in two-parent families (intact or step): slightly more than 9 in 10 had a job. Conversely, a smaller proportion (80%) of fathers without children in the household had a job. During the study period, the employment status of fathers not living with their children remained stable.

Almost 6 in 10 fathers have a personal income of $50,000 or more

The GSS collects information on income,[20] both personal and household. This article focuses on personal income, as it is the situation of fathers and not the situation of their households (which may include the income of other household members) being described. For some fathers, household income is equal to personal income. This is the case with lone-parent fathers, most fathers with no children in their household and fathers whose spouse is unemployed.[21]

Father's involvement

Some research on parental involvement with children has been conducted in Canada in recent years, leading to the belief that fathers of today are more involved with their children than their own fathers were with them. Today fathers are involved during the pregnancy, they are present at ultrasounds, they help with the labour and birth, and are present and involved in the lives of their young children.[1]

One explanation for the increasing active participation of fathers is a result of women's increased participation in the labour force.[2] This, coupled with the less traditional division of family roles and responsibilities by mothers and fathers as well as the desire of fathers themselves to be closer to their children are factors that may explain this growing role for fathers. Given the growing diversity of families in Canada,[3] and the known importance of fathers' involvement with their children, it is important to understand the level of involvement of fathers for each family type – lone fathers, fathers in reconstituted families, or fathers who do not live with their children – compared with fathers in intact families.

Father involvement can vary depending on the age of the child and their level of dependence.[4] The 2006 GSS data show that fathers who had a child in the year prior to the survey were more likely to take paid or unpaid leave at the time of the child's birth than were fathers who had a child 5 years prior to the survey.[5] However, when the data are disaggregated by father type it is clear that fathers in intact families were significantly more likely to take paid or unpaid parental leave than were lone-parent fathers or fathers whose children did not live with them.

Work responsibilities can affect the amount of time parents spend with their children throughout their early years. However, in the 2006 GSS when fathers were asked how often in the past 12 months it had been difficult to fulfill their family responsibilities because of the amount of time they spent on their job, there was no difference between fathers in the four family arrangement types. About 85% of fathers in each type of family arrangement indicated they experienced this difficulty either never or sometimes. Similarly, when fathers were asked whether they found it difficult to concentrate or fulfill their work responsibilities because of their family responsibilities over 92% of fathers in each family arrangement type said 'never' or 'sometimes.'

One factor related to father involvement in families where there is a separation or divorce is the existence of a legal agreement on the amount of time the child spends with each parent. According to 2006 data, lone fathers who were living with their children and had separated or divorced in the previous 5 years were much more likely than fathers not living with their children to have an agreement with their ex-spouse or partner related to the time the child spends with each parent as well as an agreement on who makes the major decisions for the child. This, and the fact that lone fathers have custody of their children, may account for the significantly higher likelihood that lone fathers reported being involved 'all of the time' with their children's regular care (such as school, daycare or social activities) and decision-making over the 12 months prior to the survey, compared with fathers not living with their children.

There were no significant differences between lone fathers, fathers in reconstituted families or fathers not living with their children in their satisfaction with the amount of time they spent with their children. Between two-thirds and three-quarters of fathers in these family types were satisfied or very satisfied with the time they spent with their child or children.

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From 1995 to 2006, the personal income of all types of fathers increased.[22] In 1995, about 29% of fathers reported a personal income of less than $30,000. The proportion fell to 16% in 2006 (in constant dollars). There was also a reduction, although not as large, in the proportion of fathers with personal incomes of between $30,000 and $50,000: 26% in 2006 compared to 37% in 1995. There was a much greater change, in a positive direction, in the proportion of fathers with a personal income of $50,000 or more—from 35% in 1995 to 58% in 2006 (Table 5).

The personal financial situation of fathers in intact families was the opposite of fathers not living with their children: in 2006, 60% of fathers without children in the home had a personal income of less than $50,000, while about the same proportion of fathers in intact families had an income of $50,000 or more (Table 5).

Table 5 Distribution of fathers by family type and personal income,[1] Canada, 2006

	Fathers with personal income of	
	Less than $50,000	$50,000 and more†
	percentage	
Family type		
Intact family	38.5*	61.5
Lone-parent family	49.8*	50.2
Stepfamily	48.1*	51.9
With no children in household	60.1*	39.9
Total	**41.6***	**58.4**

† reference group
* statistically significant difference from the reference group at $p < 0.05$
1. Expressed in constant dollars, according to 2002 Consumer Price Index.
Source: Statistics Canada, General Social Survey, 2006.

Table 6 Distribution of fathers by family type and living in a dwelling owned by a member of the household, Canada, 1995 and 2006

	Fathers	
	1995 †	2006
	percentage	
Family type		
Intact family	81.5	87.0*
Lone-parent family	59.2	66.5
Stepfamily	67.2	80.1*
With no children in household	50.1	61.4*
Total	**76.4**	**83.4***

† reference group
* statistically significant difference from the reference group at $p < 0.05$
Source: Statistics Canada, General Social Survey, 1995 and 2006.

The personal income of fathers living in stepfamilies was close to that of fathers of lone-parent families. However, fathers of lone-parent families were proportionally more likely have a personal income of $30,000 or less (data not shown).

A link can be established between education and income. Overall, the vast majority of fathers had finished high school: in 2006, 88% of dads had a high school diploma. The proportion of dads who had completed postsecondary studies increased from 48% in 1995 to 60% in 2006. Compared to fathers in intact families, fathers without children in the home and fathers in stepfamilies were more likely not to have finished high school – the same fathers that were more likely to have incomes of $30,000 or less.

Most fathers lived in a home owned by someone in their household

Income differences across various family types are likely associated with diverse lifestyles: people with more income tend to have more lifestyle choices than people with less income. How a family is housed is one of the revealing indicators of its lifestyle. Between 1985 and 2006, the proportion of Canadians who lived in dwellings owned by a member of the household increased gradually from approximately 70% to 78%.[23] The same trend emerges for fathers between 1995 and 2006: the number of fathers living in a dwelling owned by a member of the household rose from 76% to 83%.

Between 1995 and 2006, apart from lone-parent fathers, the proportion of all groups of fathers whose residence was owned by a member of the household increased. The increase was the largest among fathers in stepfamilies (from 67% to 80%) and fathers with none of their children in the household (from 50% to 61%) (Table 6).

The data show a few variations among father groups as to access to ownership. Of all fathers, those

living in intact families had the greatest access to ownership, with nearly 90% of them in 2006 living in a dwelling owned by a member of the household. They were followed by fathers in stepfamilies (80%). Fathers in lone-parent families and those with no children in the home had comparable access to ownership: of the fathers in these two groups, more than 60% in 2006 lived in a dwelling owned by a member of the household. This lower incidence may be related to the fact that these two groups of fathers had the lowest personal incomes among the groups.

Summary

Major social transformations resulting from the growing fragility of conjugal unions and the two-fold movement of the liberation of women and their entry into the labour force, have changed both the representation of fatherhood and how it is practised in daily life. Once considered only an authority figure and a breadwinner, today's fathers actively participate in the day-to-day care giving and emotional support of their children.

In 2006, there were an estimated 4,266,000 fathers with at least one child under 18 years of age, up from 4,167,000 in 1995. The aging of the overall population is reflected in the age distribution of fathers—in 2006, the average age of fathers was over 40. The proportion of fathers with preschool-aged children declined between 1995 and 2006. Conversely, the proportion of fathers whose youngest child was between 5 and 12 or between 13 and 18 years of age grew over the same period.

While the proportion of married or divorced fathers declined between 1995 and 2006, the proportion of unmarried fathers rose. This increase was mainly due to the growing popularity of common-law unions. Despite this, the majority of fathers were married. However, there were regional differences: marriage was the predominant type of union for fathers outside Quebec, while common-law unions were more prevalent for Quebec fathers.

Definitions

Intact two-parent family: refers to a man who lives with a female spouse/partner and the children (biological or adopted) born of their relationship.

Lone-parent family: refers to a man, without a spouse/partner, who lives with at least one of his children (biological or adopted).

Stepfamily: refers to a man who lives with a spouse/partner and at least one child who is not born or adopted of their relationship. A stepfamily may bring together children born or adopted outside the current union, with these being children of one or both partners, sometimes supplemented by children common to the couple.

With no children in the household: refers to a man who has fathered or reared one or more children and who does not live with any of his children (biological or adopted) at the time of the survey.

Children: refers to blood, step or adopted sons or daughters aged 18 or under at the time of the survey. These children may or may not live (either full-time or part-time) with their father.

The majority of fathers lived in an intact two-parent situation. However other paternal situations have emerged. The proportion of fathers as lone parents or within stepfamilies has risen since 1995. Conversely, the proportion of fathers not living with their children has declined over time.

Whether they are on their own or in a two-parent family, the vast majority of fathers in Canada were employed. All groups of fathers saw their employment status stabilize or improve between 1995 and 2006. Fathers in lone-parent families experienced the largest increases in employment status. Additionally, all groups of fathers registered an increase in personal income. The personal financial situation of fathers living in intact families was the most favourable. Conversely, lone-parent fathers and fathers without children in the home had the most vulnerable financial situation.

Of all fathers, those living in intact families had greater access to home ownership. In contrast, fathers in lone-parent families and fathers not living with their children were less likely to own their own homes.

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10. Institut de la Statistique du Québec (2006). La situation interne de 55 à 65 ans au cours de la décennie 1995-2005. *La situation démographique du Québec: Bilan 2006*. Government of Quebec, 340 p.

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12. Only a very small number of fathers first experience fatherhood through adoption.

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15. For men who experience fatherhood through adoption or formation of a blended family, it is their age when the child (or children) arrive in the household that marks the beginning of parenthood.

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18. Based on the respondent's main labour force activity during the twelve months preceding the survey. The main activity is defined as the activity to which the respondent devoted the most time. This can be work (in paid employment or self-employment), job-seeking, pursuing an education, etc.

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20. Respondents were asked to provide their most accurate estimate of total income before deductions, from all sources, in the past twelve months.

21. Note that household income is likely to be less accurately estimated than personal income, since it is provided by one person, who does not necessarily know the income of all members of the household.

22. Expressed in constant dollars (according to the 2002 Consumer Price Index).

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Foreign nationals working temporarily in Canada

by Derrick Thomas

Introduction

Like many countries, Canada grants foreign nationals the right to remain and work here temporarily. The number of individuals admitted annually on a temporary basis has been growing faster than the number of permanent immigrants. Some of these non-permanent residents are admitted under the Temporary Foreign Worker Program expressly to fill jobs in Canada. Others are admitted temporarily in order to study in Canada, as refugee claimants or under special temporary resident permits. Students and youth on exchange programs, claimants and holders of other permits are sometimes permitted to work while in Canada in order to support themselves or gain practical experience in their field of study.

Many non-permanent resident workers are restricted to a particular occupation, location or employer. Working in a specified job or location is often a condition of their admission. They may not be able to pursue other opportunities or react to changes in labour market conditions. There is some concern that the inability to change employment may adversely affect their working conditions or remuneration vis-à-vis those of other workers.[1] For instance, issues have been raised with respect to female temporary migrants who perform domestic and caregiving work outside their country of origin.[2]

This article explores the characteristics of non-permanent resident workers who were enumerated in the 2006 Census of Canada (see "What you should know about this study" for more information). It looks at the countries from which non-permanent resident workers came and the skills they brought to Canada. This article also examines how these workers were involved in the Canadian economy and determines if the compensation they received for their work was commensurate with the compensation received by comparable permanent residents.

What you should know about this study

While over 112,000 of the non-permanent residents enumerated worked in Canada at the time of the 2006 Census, the primary focus of this article is the over 94,000 enumerated non-permanent residents who worked full time (more than 30 hours per week). Comparisons are made with Canadian-born workers, established immigrants or foreign-born permanent residents (arrived before 2001 or more than 5.5 years before the 2006 Census), and recently arrived immigrants (arrived in 2001 or later, i.e., within 5.5 years of the census).

Reference is made to each of the last four census periods reflecting approximately 15 years of Canadian workforce history. The focus is on the past decade and especially on the most recent census in 2006. Demographic and human capital characteristics are compared across groups and over time. Special emphasis is placed on occupations, industries of employment and earnings.

Differences in age, gender, education and weeks worked, among other things, could easily explain any difference in earnings between non-permanent residents and other workers. Thus, a multivariate human capital model is used to ensure that all measurable factors are considered when earnings per week are compared. Since the census asks only about earnings in the previous calendar year, earnings information pertains only to those who also worked full time in 2005. Weekly earnings are computed by dividing annual earnings by the number of weeks worked. Earnings information is available for about 73,000 non-permanent residents.

Although there is some undercounting of the non-permanent resident population, the census is the only source of comprehensive socio-economic information about what temporary residents are doing and earning in Canada (see "Coverage of temporary residents in the Census of Canada"). It is also the only data source that allows for comparisons with permanent residents.

More non-permanent residents enumerated in 2006 than in any previous census

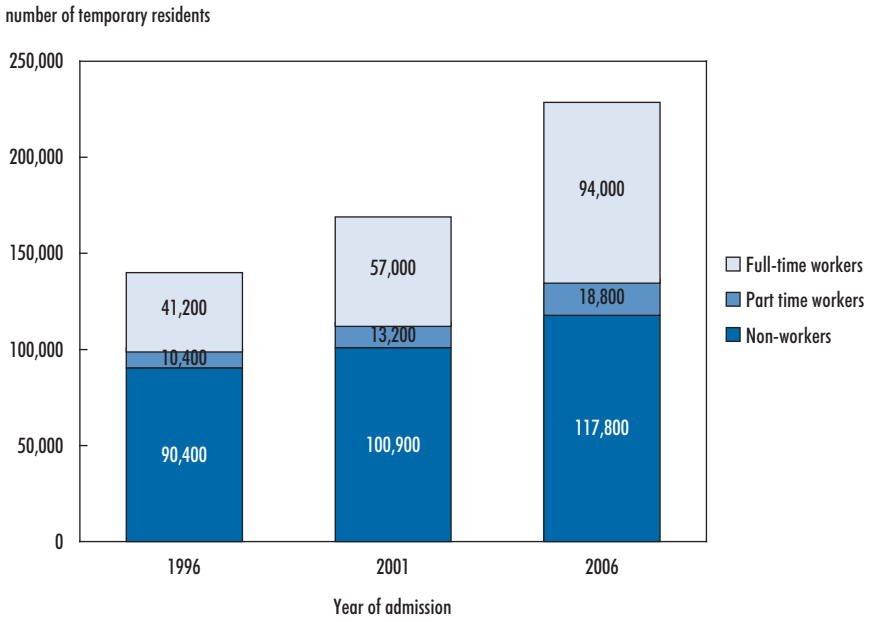
In 2006, the census enumerated about 265,000 non-permanent residents—more than in any previous census. About 230,000 were 15 years of age or older—an increase of nearly 60% between 1996 and 2006 (Chart 1). Among the adult non-permanent resident population, over 112,000 were working in Canada on Census Day, an increase of 118% from 1996. Of these, about 94,000 were working full time (30 hours a week or more)[3]. While they constitute less than 1% of all full-time workers in Canada, non-permanent residents play an important role in the labour market in some regions, sectors and occupations.

Census data are supported by data from Citizenship and Immigration Canada (CIC), which show that the number of persons who come temporarily to Canada to work is the fastest growing segment of the temporary resident population (Chart 2).[4]

Temporary workers are admitted to the country in order to address specific labour shortages in Canada, to facilitate the transfer of staff within multinational companies and to fulfil Canada's obligations under international trade agreements.[5] While administrative data from Citizenship and Immigration Canada are not strictly comparable to census data, both indicate that there are a growing number of non-permanent residents working in Canada.[6]

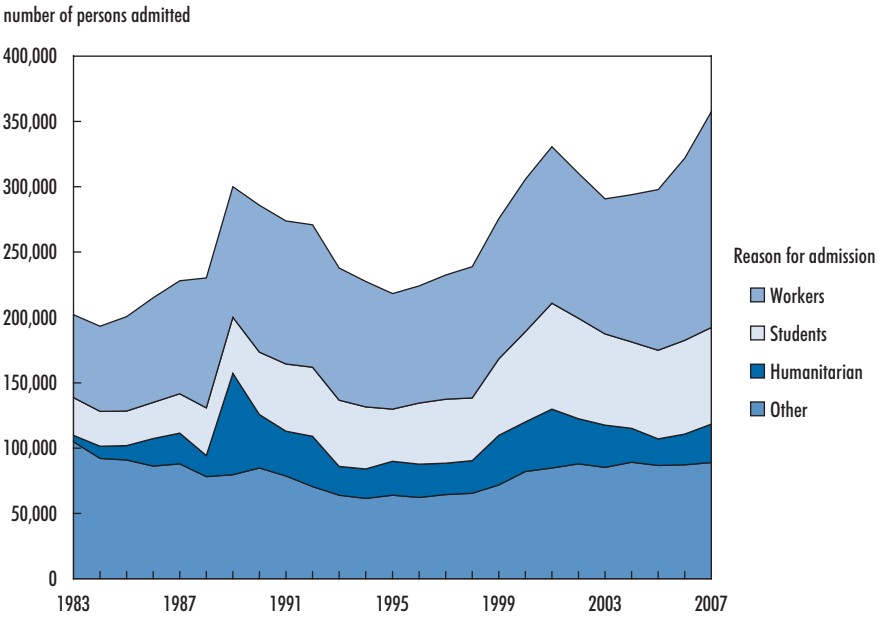
The increase in the number non-permanent residents working in

Chart 1 According to the census, full-time workers are the fastest growing segment of the temporary resident population



Source: Statistics Canada, Census of Population, 1996, 2001 and 2006.

Chart 2 The number of temporary foreign workers admitted to Canada has been rising faster than the number of people admitted temporarily for other reasons



Source: Citizenship and Immigration Canada, Facts and Figures, 2007.

Canada may be a result of increased labour market requirements during the economic expansion which ended in the latter part of 2008. According to CIC data, the number of non-permanent residents who entered Canada in 2008 (399,523) exceeded the number of permanent immigrants of all types landed that year (247,243).[7] The Temporary Foreign Worker Program was the fastest growing component of non-permanent admissions. CIC data indicate that there have been three consecutive years of double-digit growth.[8] Recent figures indicate numbers have continued to increase modestly even into the recent economic downturn.[9]

Part of a global trend

Canada is not alone in relying on temporary residents to address some of its labour market requirements. There has been global growth in temporary worker programs in many Organisation for Economic Co-operation Development (OECD) countries.[10] For instance, the admission of temporary workers, treaty traders and intra-company transferees to the United States more than doubled between 1996 and 2006. Including family members, it stood at 2.3 million in 2006, larger than the number of permanent immigrants landed in that year.[11] Temporary admissions now outnumber permanent resettlements in Australia as well.[12] Among all OECD countries, the temporary migration of foreign workers has increased by 4% to 5% per year since 2000.[13] Associated with this trend has been a movement toward migration driven by employer requests or job offers as opposed to government macro-policy.[14]

Temporary worker programs are attractive because they enable countries to quickly address labour market needs in an expanding economy without the increased costs associated with maintaining unemployed workers during a downturn[15]—the costs associated with social and economic integration are also reduced. Additionally, temporary programs for workers and students can serve as a way of screening and selecting permanent immigrants.

There are also benefits for countries that supply this labour. For example, temporary worker programs may help deal with excess labour supply and provide capital in the form of funds sent back to the home country. These programs also help workers gain human capital and help with the transfer of technology.[16] Employers are also keen on temporary worker programs.[17] These programs allow companies access to wider labour markets and give multinationals more flexibility to transfer staff from country to country.

Non-permanent resident workers also benefit through the money and experience they acquire. Some may qualify to immigrate to Canada permanently. Their willingness to participate in the programs is evidence of the anticipated benefits. Temporary worker programs are often described as 'win-win' strategies.[18] In 2005, the Global Commission on International Migration recommended, "…carefully designed temporary migration programmes as a means of addressing the economic needs of both countries of origin and destination."[19]

Canada is a signatory to several agreements that allow for the freer movement of temporary workers. They include the North American Free Trade Agreement (NAFTA), the General Agreement on Trade in Services (GATS), and the Asia-Pacific Economic Cooperation Forum. Under NAFTA, traders and investors, intra-company transferees, business visitors and specific categories of professionals are processed more easily. The GATS provides for liberalized trade in services including the movement of professionals and technical experts. The Seasonal Agricultural Workers Program (SAWP) between Canada, Mexico and a number of Caribbean countries provides for the expeditious movement of farm workers. Canada's Live-in Caregiver Program provides for the temporary movement of caregivers and child care workers to Canada from abroad.

Access to the labour market is conditional for most temporary residents

An effort is made to ensure that temporary workers do not compete with permanent residents for jobs. Employers are often required to have a positive Labour Market Opinion (LMO) from a local office of Human Resources and Skills Development Canada (HRSDC) before recruiting a temporary worker from abroad. The LMO attests to the fact that no permanent resident is available for the job, that fair market wages are paid, and that provincial labour standards are met.[20] Employers are exempt from obtaining an LMO if they are recruiting persons in certain occupations that are covered by NAFTA and GATS.[21] Additionally, in some regions the process is expedited for certain occupations known to be in high demand.

Some non-permanent residents, notably refugee claimants, obtain open work permits allowing them to move about in Canada and accept virtually any job without restriction. Other non-permanent residents, usually those coming from abroad specifically to work, receive closed permits that may restrict the type of job they hold, the location where they work and/or the specific employer for whom they work. Students may also be confined to work on campus or in areas related to their studies. About two-thirds of temporary residents with the right to work in Canada between January 2006 and December 2008 were restricted in some way as to their occupation, location and/or employer.[22]

Non-permanent residents admitted to Canada under the Temporary Worker Program can bring spouses and close family members with them provided they can demonstrate the financial capacity to support these

family members while in Canada. However, non-permanent residents working in low-wage jobs may not be able to meet this requirement. Some domestic workers and live-in caregivers are, moreover, explicitly prevented from bringing dependants with them.

Non-permanent residents who have permits to work in Canada have the same labour rights and access to health and social programs as other workers in Canada. However, labour standards, employee rights and access to social programs differ according to the province or territory of work[23] and most social programs and many jurisdictions require a minimum period of work or residence in order to qualify for benefits. As a result, some non-permanent residents may not qualify for unemployment, health and social assistance benefits.

Finally, a fundamental difference for non-permanent residents working in Canada is that these workers do not have the right to live permanently in Canada. Work permits and other temporary residence permits are issued for specific reasons and for a fixed period of time. Permit holders may have to leave the country if their reasons for being in Canada are no longer valid or their permits have expired.

Table 1 Full-time workers by immigration status and place of birth, 2006

	Full-time workers		
	Established immigrants	Recent immigrants	Non-permanent residents†
	percentage		
Place of birth			
United States	4.0*	2.5*	9.1
Mexico/Central America	2.5*	2.1*	6.2
Caribbean	6.5*	3.4*	4.4
South America	4.6*	5.6	5.3
United Kingdom/Republic of Ireland	9.9*	2.9*	6.2
West Europe	15.2*	4.5*	10.7
East Europe	10.1*	11.2*	4.7
Africa	5.8*	10.0*	8.1
West Asia	5.1	7.2*	4.9
South Asia	10.9*	21.3*	9.9
South East Asia	11.6*	11.0*	15.9
East Asia	12.5*	17.1*	11.5
Other	1.5*	1.4*	3.0

† reference group
* statistically significant difference from reference group at $p < 0.05$
Source: Statistics Canada, Census of Population, 2006.

Non-permanent residents working full time come from Asia, the United States and the United Kingdom

Many non-permanent residents who worked full time in Canada and were enumerated in the Census of 2006 came from Asian countries (Table 1) and were not unlike permanent immigrant workers who also often came from Asia. However, the countries of origin within Asia differed slightly. While the Peoples Republic of China and India were the top two source countries for Canada's permanent immigrants, the Philippines supplied the greatest number of enumerated non-permanent residents who worked in Canada (Chart 3).

According to census data, the proportion of non-permanent residents working full time in Canada whose country of birth was in South East Asia, Latin America or South Asia increased over the 10 years leading up to 2006. While they remain important source areas, the United States, Europe and the Caribbean have declined in relative importance (Table 4).

Many temporary residents who worked in Canada came from developing countries. Around 63% of those enumerated in the 2006 Census came from countries with a per capita Gross Domestic Product (GDP) of less than half that of Canada's (Table 2).[24]

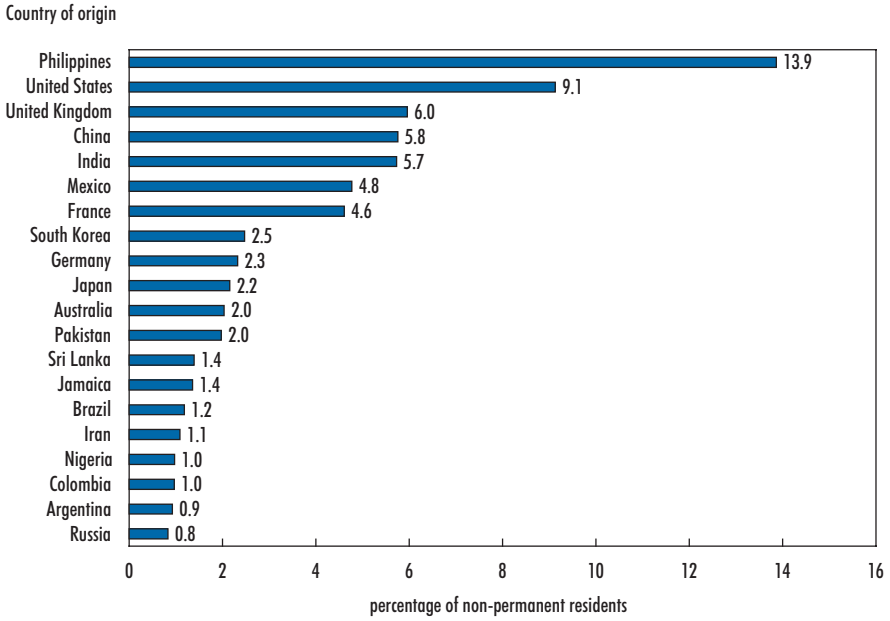
Many non-permanent workers were members of a visible minority group. In all, over 62% were members of at least one visible minority group. Almost 14% of non-resident workers indicated that they were Filipino, 11% indicated they were South Asian, 9.7% indicated they were Latin American and 9.6% indicated they were Black (Table 3).[25]

Non-permanent residents just as likely to speak an official language as newly arrived immigrants

The 2006 Census data indicate that non-permanent residents who worked full time in Canada were less likely to speak an official language than were the Canadian-born or established immigrant workers (those who arrived prior to 2001). They were very similar to recent immigrants in terms of official language ability. However, non-permanent residents were a little more likely to speak English than were recent immigrants (Table 1).

Unlike recent immigrants, many non-permanent resident workers reported English as their mother tongue. Tagalog and Spanish were frequently mentioned by non-permanent resident workers as their mother tongue.

Chart 3 The Philippines, followed by the United States and the United Kingdom, were the most common countries of origin for non-permanent residents



Source: Statistics Canada, Census of Population, 2006.

Table 2 Select characteristics of full-time workers, by resident status, 2006

	Full-time workers			
	Canadian-born	All immigrants	Recent immigrants	Non-permanent residents†
	in years			
Select characteristics				
Mean age	40.4*	43.6*	36.3*	35.1
	percentage			
Female	43.1*	42.4*	40.3	41.0
Visible minority	2.9*	55.4*	73.1*	62.7
Born in low GDP country	0.0*	60.0*	83.6*	62.8
Married	64.2*	73.2*	75.4*	59.6
City or town dweller	77.3*	94.3*	97.2*	92.1
University degree	20.6*	29.7*	51.0*	46.1
Postsecondary certificate	40.0*	36.4*	24.6*	26.7
Speaks English	86.9*	95.2*	90.5*	91.2
Speaks French	35.4*	16.3*	16.9	17.5
No official language	0.0*	2.3*	5.6	5.7
Works in non-official language	1.3*	15.0*	21.0	21.2
	in hours			
Mean hours worked per week	43.7*	43.8*	43.1*	44.8

† reference group
* statistically significant difference from reference group at $p < 0.05$
Source: Statistics Canada, Census of Population, 2006.

In 2006, both non-permanent residents and recent immigrants who held full-time jobs were more likely than established immigrants to use a language other than French or English regularly or most of the time at work.

Most reside in towns and cities

Non-permanent resident workers live in the most populous areas and in the largest markets. According to the 2006 Census almost half (47%) lived in Ontario, about 18% lived in Quebec, 16% lived in British Columbia and 12% lived in Alberta. The proportion that lived in Alberta doubled between 1991 and 2006, such that by 2006 non-permanent resident workers comprised 1% of the full-time workforce in that province (Table 5). According to CIC, the number of temporary work permits issued to persons in or destined for Alberta increased fourfold between 2001 and 2007. The very low unemployment rate in Alberta in 2006 (3.4% or half the national rate in 2006) may have been a factor in the demand for these workers.

Almost one-third of non-permanent resident workers lived in the census metropolitan area of Toronto in 2006, about 15% lived in Montreal, 12.5% lived in Vancouver, 5.5% in Calgary and 3.7% in Edmonton (Chart 4).

While the majority of enumerated non-permanent resident workers lived in towns and cities in Canada, they were slightly more likely to live in less populated settings than were immigrants (Table 2). This likely reflects the influence of special programs for temporary agricultural workers.[26]

Interestingly, some smaller cities have a relatively large proportion of temporary workers. For example, in Leamington, a well-known vegetable growing area in Ontario, almost 1 in 10 full-time workers were non-permanent residents. In Canmore, a growing resort area in Alberta, just over 2% of the full-time workforce was made up of non-permanent resident workers.

Some non-permanent resident workers have an ongoing connection to Canada

Temporary work permits issued by Citizenship and Immigration Canada vary in their duration. The average validity period for all the work visas valid on Census Day 2006 was about 16 months. CIC guidelines indicate that visas allowing holders to work for up to 3 years can be issued to intra-company transferees and professionals covered under the NAFTA and GATS agreements. Refugee claimants can be issued work visas valid for up to 2 years. Many workers have permits that are limited to 1 year. Youth on exchange programs are often limited to 6 months. Extensions can be granted, however, and 2006 Census data indicate that 29% of enumerated non-permanent resident workers resided in Canada 5 years before the census date. Over 77% had been in the country at least 1 year (Chart 5).

While it is possible that some of these full-time workers could have left and returned to Canada at some point during the 5 years, the data indicate an ongoing connection to Canada.

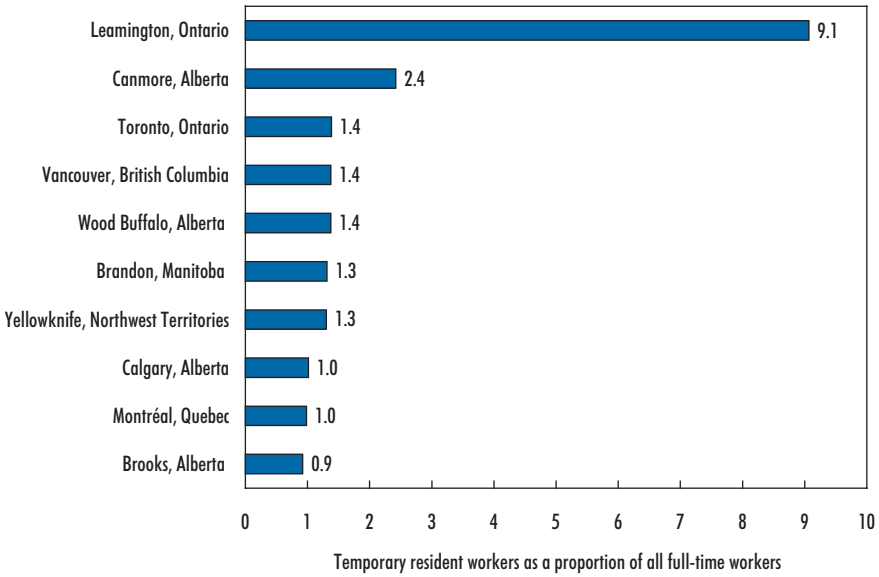
Many non-permanent residents change status, becoming permanent residents. In fact some programs are explicitly designed to facilitate the permanent immigration of persons admitted temporarily to work or study. The recently established Canadian Experience Class[27] is one example. Refugee claimants may also become permanent residents if their claims are accepted. According to 2006 Census data, over 30% of the workers who became landed immigrants between 2001 and 2006 had lived in Canada before the 2001 Census.

They are younger than permanent residents

Temporary residents who work full time have been younger than Canadian-born and immigrant workers in every census since they were first identified in 1991 (Table 4).

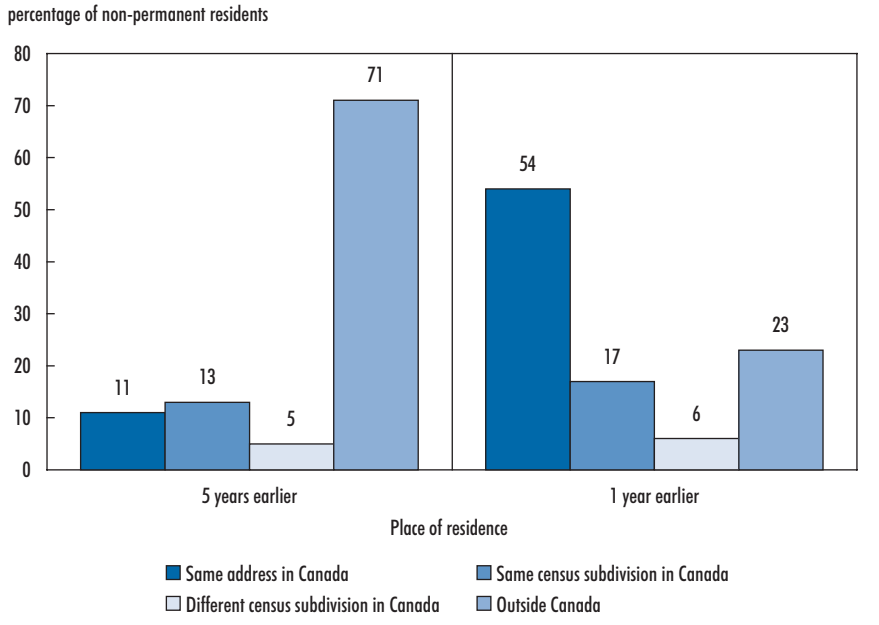
The mean age for temporary residents who worked full time in

Chart 4 Non-permanent residents working full time made up 9% of all full-time workers in Leamington, Ontario in 2006



Note: Includes only temporary residents working full time.
Source: Statistics Canada, Census of Population, 2006.

Chart 5 Almost 30% of non-permanent residents have been in Canada at least 5 years



Source: Statistics Canada, Census of Population, 2006.

the census reference week was just over 35 years. They were, on average, about 5 years younger than the Canadian-born population working full time and about 8 years younger than all immigrant workers. Female temporary residents who worked full time in 2006 were younger than their male counterparts.

While the majority of full-time workers in Canada are male, female participation rates have been rising steadily. By 2006, 43% of all full-time workers in Canada were female. In the same year, 40% of temporary residents working full time were female (Table 4). On the whole, women are not overrepresented among temporary workers, although they dominate certain occupations.

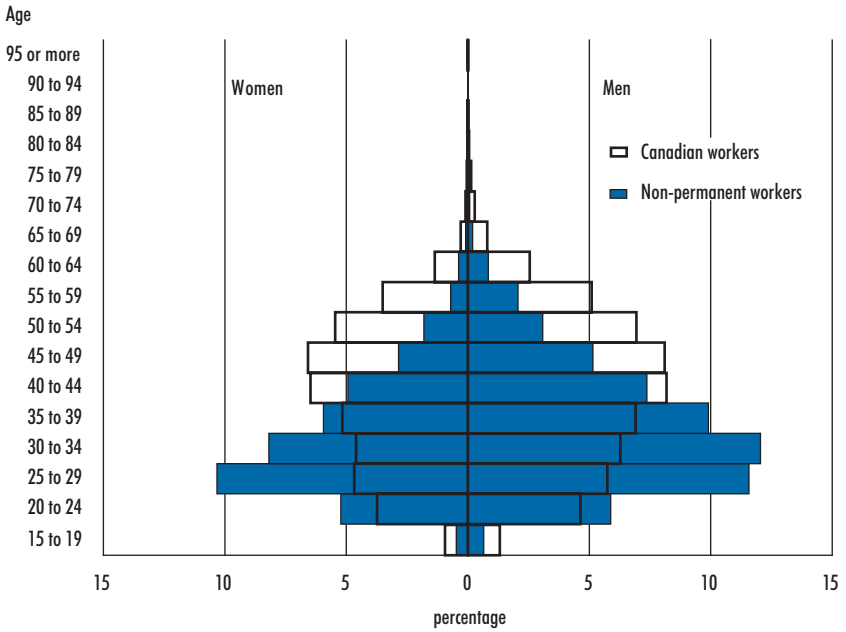
Many are university-educated

In 2006, non-permanent resident workers enumerated in the census had higher levels of education than Canadian-born and established immigrant workers. While non-permanent resident workers were more likely to have postsecondary education in general, they were also more likely to have a bachelor's degree or a degree above the bachelor level (Chart 7). Over the long term, there has been an increase in the educational qualifications of non-permanent residents working in Canada. The percentage of non-permanent residents with degrees increased from 24% in 1991 to 46% in 2006 (Table 4).

According to the 2006 Census, over one-third (38%) of permanent residents who worked full-time in Canada had no postsecondary training. This was true for 27% of non-permanent residents who worked full time.

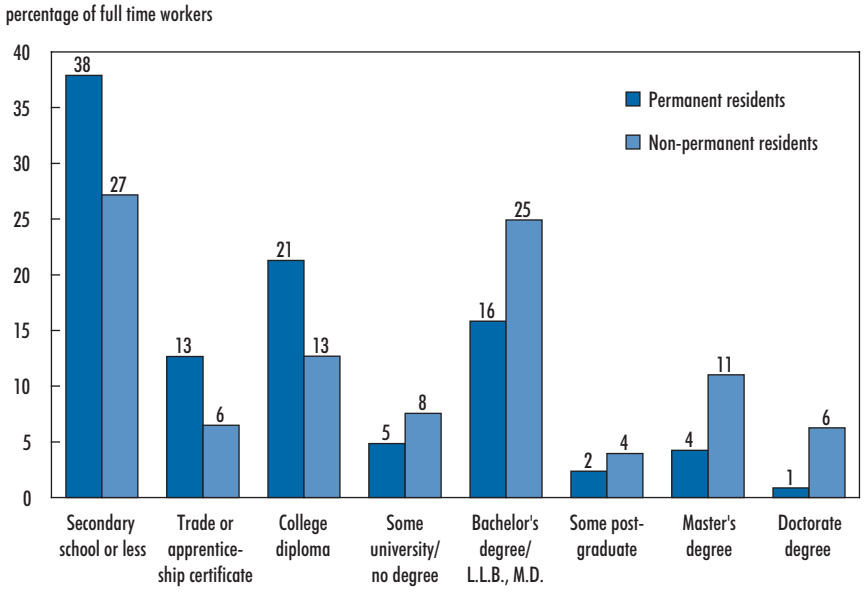
While non-permanent resident workers were more likely to have higher levels of education than Canadian-born or established immigrants in the labour force, they were not quite as well educated as Canada's most recent immigrants. About one-half (50.9%) of full-time workers who had become permanent

Chart 6 Non-permanent resident workers are younger than the workforce as a whole



Source: Statistics Canada, Census of Population, 2006.

Chart 7 Non-permanent residents working full-time are more likely to have a university degree than permanent residents working full time



Source: Statistics Canada, Census of Population, 2006.

Table 3 Full-time workers by population group and immigration status, 2006

	Full-time workers			
	Canadian-born	All immigrants	Recent immigrants	Non-permanent residents†
	percentage			
Population group				
Arab	14.0*	64.1*	18.8*	3.1
Black	24.3*	61.3*	11.4*	3.1
Chinese	15.6*	69.7*	13.2*	1.5
White	88.7*	9.9*	1.1*	0.3
West Asian	3.9*	71.8*	22.0*	2.4
East Asian	12.1*	67.2*	18.7	2.1
Latin American	9.2*	67.5*	17.1*	6.2
Korean	10.3*	63.5*	20.8*	5.4
Japanese	60.9*	24.9*	7.5*	6.7
Filipino	9.5*	65.9*	18.2*	6.5

† reference group
* statistically significant difference from reference group at $p < 0.05$
Source: Statistics Canada, Census of Population, 2006.

Table 4 The proportion of non-permanent residents who work full time, by select characteristics, select years

	Non-permanent residents who work full time			
	1991	1996	2001	2006†
	in years			
Characteristics				
Mean age	32.9*	34.4*	35.3	35.1
	percentage			
Female	44.6*	38.2*	36.8*	41.0
City or town dweller	94.4*	92.5*	91.7*	92.1
University degree	24.5*	36.8*	40.5*	46.1
Married	50.8*	57.5*	61.2*	59.6
Speaks English	90.9*	89.8*	88.7*	91.2
Speaks French	13.1*	17.4*	18.5*	17.4
No official language	5.8*	6.2*	7.2*	5.7
Visible minority	68.1*	54.6*	52.6*	62.7
	in hours			
Mean hours worked per week	43.2*	45.3*	45.0	44.8

† reference group
* statistically significant difference from reference group at $p < 0.05$
Source: Statistics Canada, Census of Population, 1991, 1996, 2001, 2006.

residents within the five years preceding the 2006 Census held a university degree, compared with 46% of temporary resident workers.

Reflecting the countries from which they came, temporary workers were more likely to have received their education outside Europe, the United States, Australia or New Zealand. They were very like recent immigrants in this respect.

They worked in a variety of jobs

Non-permanent residents enumerated in the census were found in a wide variety of occupations. The jobs they held were, in part, a reflection of the particular temporary foreign worker program under which many entered the country. As a consequence, the occupations held by non-permanent residents differ from those of other full-time workers.

The most common occupations held by non-permanent residents reflect a combination of skilled occupations which typically require a great deal of formal training and comparatively unskilled occupations which do not require such training. For example the occupation 'nannies and parents' helpers' has accounted for the largest single share of non-permanent resident workers since 1991. In 2006, over 9% of all non-permanent residents who worked full time were occupied as nannies and parents' helpers compared to less than 1% of full-time workers in general (Chart 8). Farm workers, housekeepers and cleaners were also common occupations for non-permanent residents.

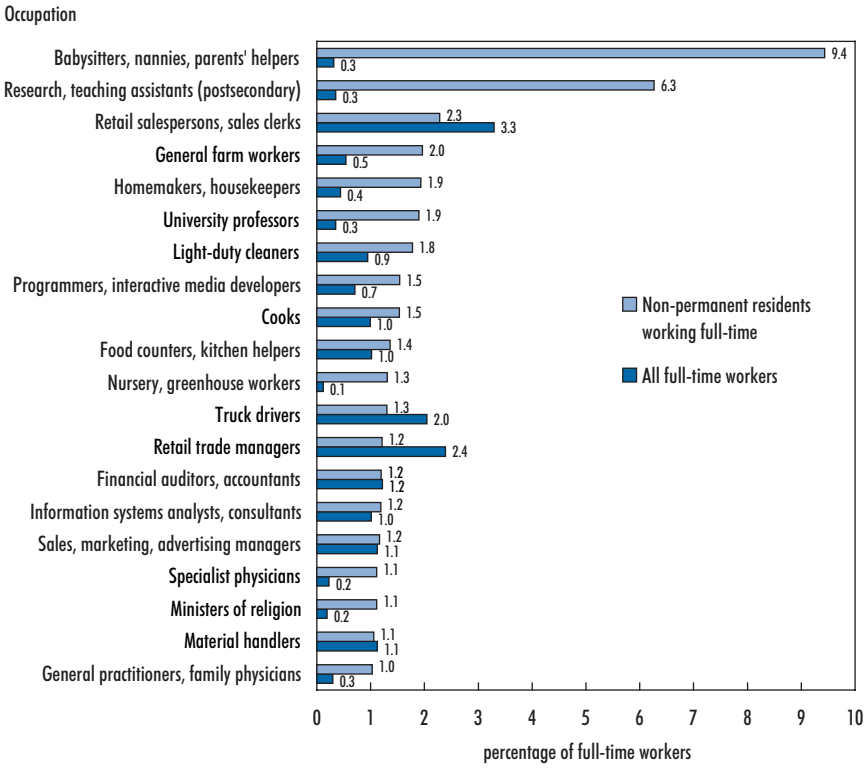
Conversely, non-permanent residents were also frequently employed as postsecondary teaching and research assistants. Over 6% held these jobs in 2006, more than twice the proportion recorded in 1991. Many of these individuals were in Canada to study as well as work. Almost two-thirds of the non-permanent residents working full time as teaching or research assistants indicated in the 2006 Census that they had attended an educational

Table 5 Percentage of non-permanent residents working full time in the provinces and territories, select years

	Non-permanent residents working full time			
	1991	1996	2001	2006†
	percentage			
Province and territories				
Newfoundland and Labrador	0.3*	0.7*	0.5*	0.4
Prince Edward Island	0.1*	0.1*	0.2*	0.1
Nova Scotia	0.6*	0.9*	1.1*	0.8
New Brunswick	0.6*	0.9*	0.8*	0.8
Quebec	16.3*	20.1*	18.6*	17.8
Ontario	60.1*	45.8*	48.5*	47.3
Manitoba	1.5*	2.1*	2.2*	2.4
Saskatchewan	1.1*	1.7*	1.5*	1.5
Alberta	6.9*	8.0*	10.9*	12.6
British Columbia	12.4*	19.5*	15.6*	16.0
Territories	0.6*	0.2*	0.2*	0.3

† reference group
* statistically significant difference from reference group at $p < 0.05$
Source: Statistics Canada, Census of Population, 1991, 1996, 2001, 2006.

Chart 8 Non-permanent residents working full time were more likely to be nannies or teaching and research assistants than all full-time workers



Source: Statistics Canada, Census of Population, 2006.

institution at some point since September 2005.

The number of non-permanent residents employed as computer programmers, university professors, scientists and medical doctors has also grown. While most non-permanent residents continue to be employed in low-skilled work, the proportion employed in more skilled occupations has increased somewhat. This may be a result of international trade agreements such as NAFTA and GATS, which allow for the easier movement of professionals.

Education is an important determinant of occupation for all workers, but the jobs of non-permanent residents do not always reflect their training. As expected, almost all non-permanent residents who worked as professors, research assistants and teaching assistants had a university degree. The same was true for over 72% of computer programmers. Not surprisingly, 85% of general farm workers had no education beyond high school.

Less predictably, about 82% of non-permanent residents who worked as nannies had a postsecondary certificate of some type and about 43% had a university degree. In 2006, 85% of non-permanent resident housekeepers and 55% of cleaners had completed postsecondary training. Comparatively few permanent residents employed in these occupations had postsecondary training. For example, about 6% of full-time nannies born in Canada had a university degree.

There were differences in occupations between men and women. The jobs held by men tended more often to be commensurate with their educational qualifications. Over 94% of the non-permanent residents who worked as nannies and parents' helpers were women, while almost 92% of farm workers were men. About 75% of those who worked as cleaners and 88% of housekeepers were women. At the same time, 71% of university professors and 86% of computer programmers were men.

While non-permanent residents make up a small percentage of the overall full-time workforce, they constitute a large proportion of certain occupations. As of the census reference week in 2006, over one in five of those employed full time as a nanny or parent's helper was a non-permanent resident (Chart 9). Over 13% of postsecondary teaching and research assistants, 9% of harvesting labours, 8% of nursery workers and 6% of physicists and astronomers were non-permanent residents.

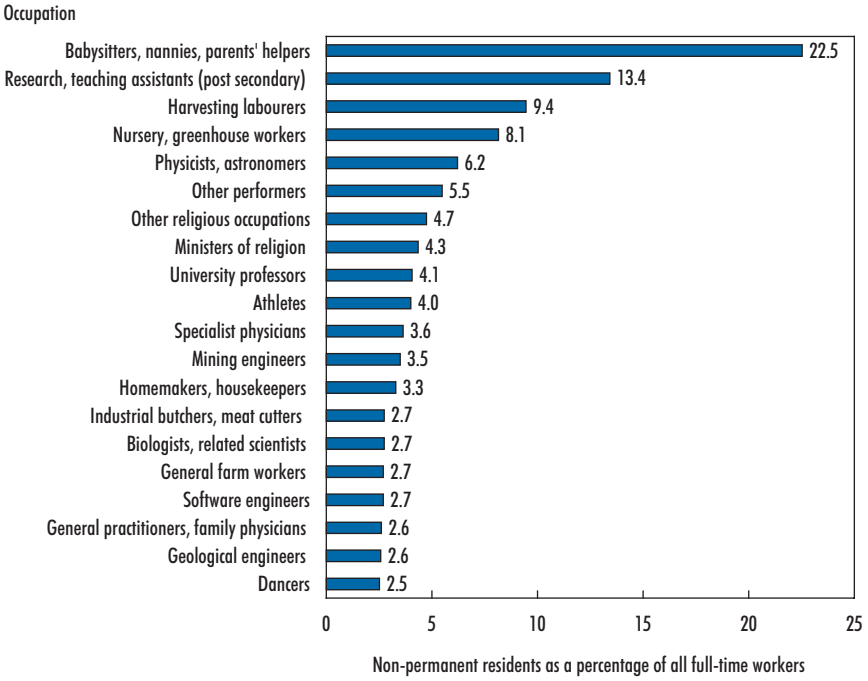
A larger proportion of non-permanent resident workers are employed in private households and universities and on farms

The industries in which they work are related to the occupations held by non-permanent residents. They were much more likely to work in private households, universities and on farms than other full-time workers. They were also employed by religious organizations more often. Both non-permanent residents and recent immigrants were overrepresented compared to other workers in restaurants, hospitals, computer services, architecture and engineering services, the accommodation industry and in meat processing plants.

According to census data, about 22% of workers employed full time by private households were non-permanent residents in 2006 (Chart 10). Along with recent immigrants, they also made up a large proportion of the relatively small number of workers employed by international and foreign governments and institutions based in Canada (each made up about 13% of those working in these industries).

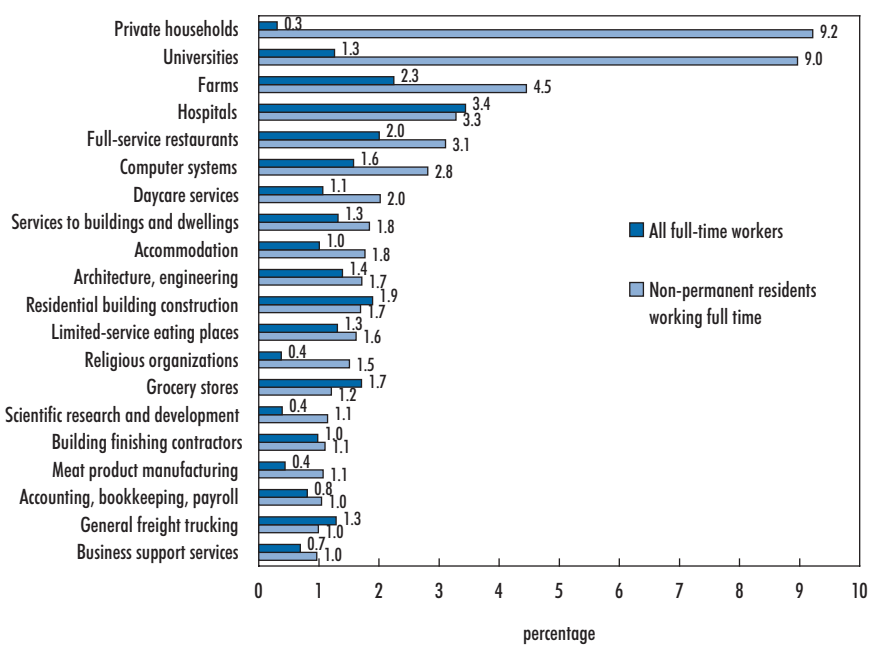
Non-permanent residents enumerated in the census were more likely to work at the location where they live. Almost 12% worked and lived in the same place compared to 6% of other workers. Live-in caregivers probably account for a large share of those who work and reside in the same place.

Chart 9 More than one in five full-time babysitters or nannies were non-permanent residents



Source: Statistics Canada, Census of Population, 2006.

Chart 10 Private households and universities were the top two industries for non-permanent residents



Source: Statistics Canada, Census of Population, 2006.

Non-permanent residents working full time have lower weekly earnings than other full-time workers

On average, the weekly earnings of non-permanent residents who worked full time were lower than those of Canadian-born workers and established immigrants. However, the average weekly earnings of non-permanent residents working full time exceeded those of more recent immigrants (those who landed between 2000 and 2005). This may be because a larger proportion of non-permanent residents are recruited to fill specific vacancies. They know their credentials will be accepted, have prearranged employment, and commence work on arrival. Permanent migrants may take time to find employment. Once established however, permanent immigrants outperform non-permanent residents in terms of earnings.

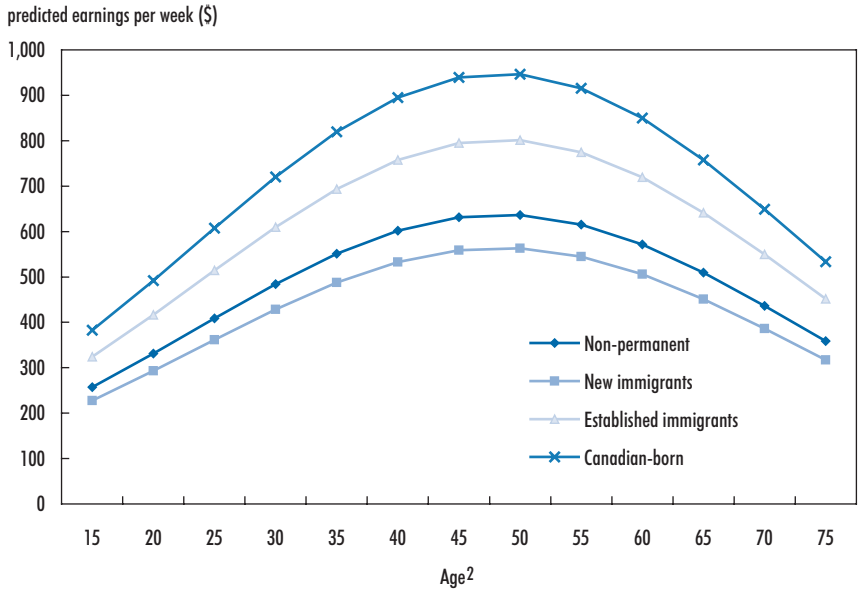
While the median employment incomes of non-permanent residents working full time are the lowest when compared to the Canadian-born, recent immigrant and established immigrants, there is a large degree of income diversity among non-permanent workers. Non-permanent residents working full time are found at both ends of the income continuum. For example, about 5% of non-permanent residents earned $3,000 dollars or more per week in 2005.[28] Only about 2.5% of the Canadian-born, 2.7% of established immigrants and 1.4% of new immigrants who worked full time earned that much. At the same time, 46% of non-permanent residents who worked full time earned less than $500 per week. This was the case for only 23% of the Canadian-born, 25% of established immigrants and 42% of new immigrant workers.

Earnings are influenced by many factors. On average, older experienced workers earn more than younger workers, those with higher levels of education earn more than those with less education and men generally earn more than women. Differences along these dimensions must be carefully controlled when groups are compared. However, the earnings differential between non-permanent residents and permanent residents persists even when gender, age, marital status, education, official language ability, location and place of birth are the same. For example, analysis shows that, based on 2006 Census data,[29] a 40-year-old married female non-permanent resident with a postsecondary certificate who worked full time and lived in a city could expect to earn about $602 per week while an equivalent Canadian-born woman could expect to earn about $895 (Chart 11).

Education generally produces higher earnings, however while returns to education are positive for non-residents working in Canada, they are not as large as the returns to education earned by permanent residents. Returns to education were also negatively affected for those whose country of origin had a per capita GDP of less than one-half that of Canada. That is, the extra amount earned by a full-time worker with a university degree compared to a worker who had only a high school education was considerably less for non-permanent residents from low-GDP countries. For example, a typical worker with a university degree born in Canada or another high-GDP country earned about $672 more per week than an equivalent full-time worker with no more than a high school education. However, the education premium for a worker with a university degree decreased by 24% if that person was a non-permanent resident (Chart 12). For a non-permanent resident who was born in a country with a low per capita GDP, the education premium was 74% lower than that of a Canadian-born full-time worker.

A large part of the explanation for the lower wages of non-permanent residents working full time is related to the occupations in which they work. Many were employed in occupations that are associated with low remuneration. For example, among the occupations listed in the

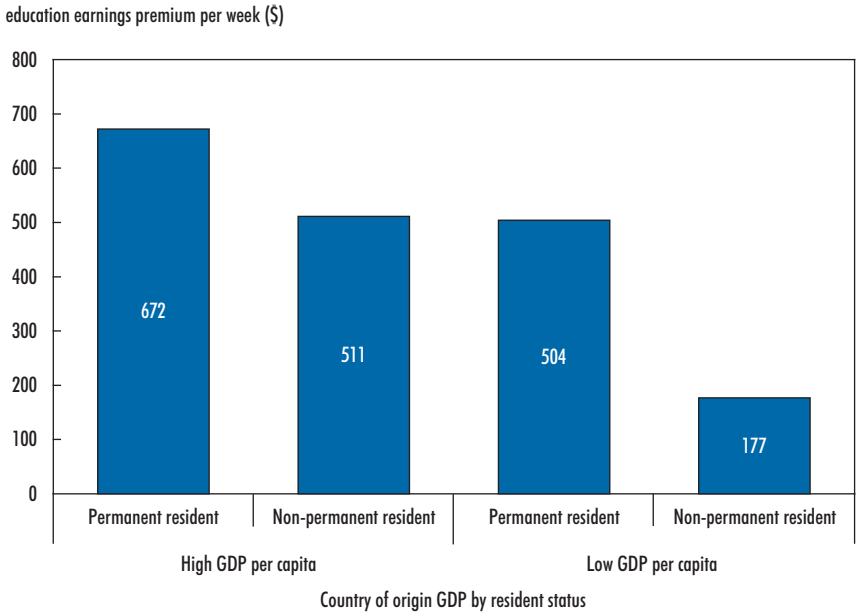
Chart 11 Non-permanent residents earn substantially less than Canadian-born persons and established immigrants[1]



1. Figures are for urban women who speak English and have a postsecondary education.
2. Age on Census Day.

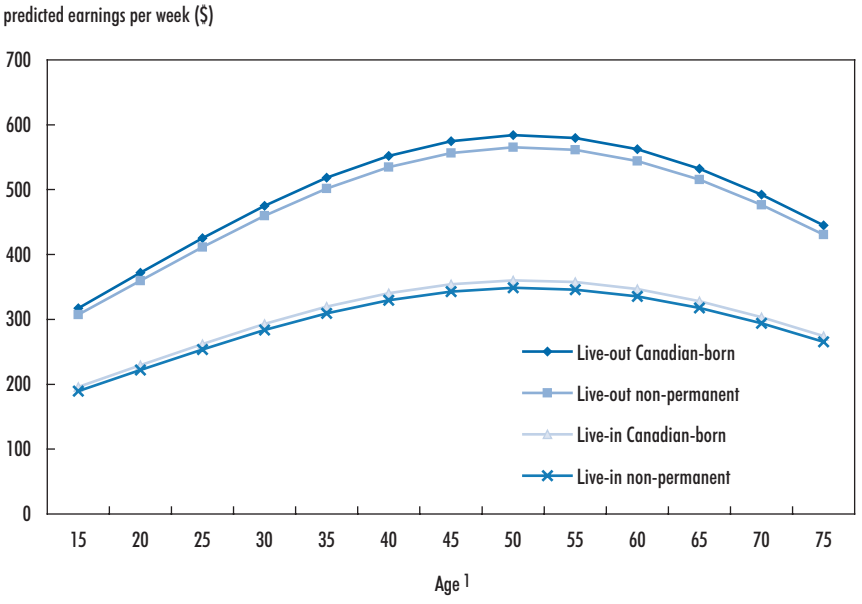
Source: Statistics Canada, Census of Population, 2006.

Chart 12 Returns to education for non-permanent residents are lower than for other workers especially if they come from a low GDP country



Source: Statistics Canada, Census of Population, 2006.

Chart 13 Earnings for domestic workers are similar for Canadian-born and non-permanent residents once live-in situations are considered



1. Age on Census Day.

Source: Statistics Canada, Census of Population, 2006.

National Occupational Classification (NOC) for 2006, "Babysitters, Nannies and Parents' Helpers" had the lowest average earnings per week—this was, coincidentally, the most common occupation for non-permanent workers. Four of the top ten occupations in which non-permanent residents worked were in the bottom 5% of occupations in terms of average remuneration. It is important to note, however, that even within occupational groupings non-permanent residents typically earn less than the Canadian-born and established immigrant workers. This may be because they are more likely to hold entry-level or junior positions within the occupation, but explanations for the gap may differ across occupations.

For example, when only those employed as caregivers (e.g., nannies), housekeepers, cleaners and cooks are considered, the earnings gap between non-permanent residents and other workers becomes smaller (Chart 13). If comparisons are limited to looking at only those who work and live in the same place, the weekly earnings of non-permanent residents are almost equivalent to those of the Canadian-born.

The difference in earnings is largely explained by the distribution of non-permanent domestic workers and Canadian-born domestic workers across live-in and non-live-in positions. In 2006 about one-third of all non-permanent residents in domestic occupations worked at and lived in the same location. This was true for only 7% of Canadian-born workers, 5% of established immigrants and under 7% of new immigrants in the same occupations. It may be that the room and board provided to live-in help accounts for differences in reported earnings. Under Canada's Live-in Caregiver Program, temporary visas are issued to persons willing to live and work in the homes of Canadian residents.

Coverage of temporary residents in the Census of Canada

Since 1991 the census has explicitly collected information from persons born abroad who are not permanent residents and who are not citizens, but who nonetheless live in Canada.[30] Although every attempt has been made to enumerate non-permanent residents, factors such as language difficulties, the reluctance to complete a government form or to understand the need to participate may have affected the enumeration of this population. Non-permanent residents are thought to be under-represented in the Census of Canada. The undercount might be substantial. Program data maintained by Citizenship and Immigration Canada (CIC) indicate that the number of persons legally entitled to reside and work in Canada on Census Day 2006 was about one-third higher than the number enumerated in the census. However, census information on non-permanent residents is not directly comparable with the data used by CIC to administer the immigration program.

The census is a cross-section of the Canadian population. In Canada, the most recent was census was on May 16, 2006. All households in Canada were ostensibly included. Every fifth household received the 2B form (long form) which contained questions on immigration status. The form stipulates that persons in Canada temporarily to work, attend an educational institution or as refugee claimants are to be included in the census. Non-permanent residents are identified in census data by a process of elimination. They are those Canadian residents who were born abroad, who have never been landed or granted permanent resident status and are not Canadian citizens. The 2B form is a rich source of social, demographic and economic information on individuals and their circumstances. It contains information not only on the occupation, but also on for example, the earnings, hours of work, place of work and language of work for each person enumerated.

CIC's visitor information system contains a record of every permit issued allowing a person to temporarily reside, work or study in Canada. Among the information in the system are the reasons for granting permits and their validity period. The system also contains information about the precise occupation or place of employment for those who hold restricted or closed work permits. Some persons hold overlapping permits, for instance, one entitling them to work and another entitling them to go to school. However, it is possible to classify persons according to their **main** permit or reason for being in Canada and obtain a count of persons who have the right to reside in the country on a given day. It is not usually possible, however, to know if a permit holder with the right to reside in Canada actually resides in the country. In order to avoid some of the administrative burden associated with renewals, CIC grants permits for longer rather than shorter periods, subject to eligibility.[31] Many persons no doubt leave Canada before their permit has expired, for example, at the end of their academic year or job.

Discrepancies between the number of non-permanent residents enumerated in the census and the number who held valid permits on Census Day according to CIC data, can be explained in a number of ways. As mentioned, some persons with the right to reside in Canada may not actually live in the country. Many non-permanent residents may not understand that they should complete a census form because they do not perceive that Canada is their usual place of residence. In addition, those residing in work camps may not receive forms or be visited by enumerators. Others may mistakenly identify themselves as immigrants.

Some of the differences in census data with respect to the persons covered by CIC programs can be anticipated. One is a seasonal bias. The census reflects a given day in May while non-permanent residents enter and leave Canada over the entire year. The census likely undercounts agricultural workers who come chiefly from Mexico and the Caribbean at harvest time. It likely also undercounts the number of students and professors who may leave after the academic year. Some of the biases are unknown. The census nonetheless represents the only source of information about non-permanent residents on many socio-economic dimensions. For example, it contains information on actual as opposed to intended occupation as well as earnings. It also allows comparisons with Canadian-born and immigrant workers.

Summary

Non-permanent residents make up a small but growing share of Canada's workforce. They come from a wide variety of countries. Most are young and the majority, male. They come to Canada for a number of reasons, under a variety of programs and constitute a diverse group. Most settle in the census metropolitan areas of Ontario, Quebec and British Columbia. However, the number destined for Alberta has been growing faster than elsewhere in the country. They are more often located in less densely occupied areas than new permanent immigrants.

Non-permanent residents working in Canada can be found in both unskilled and highly skilled occupations. Women who are non-permanent residents and work full time are most often found in caregiving and domestic work. In 2006, most women in these occupations were from the Philippines. Non-permanent resident men, especially those from Mexico, Central America and the Caribbean, were more often employed in the agricultural industry.

On the other hand, temporary workers from high-GDP economies such as the United States and Europe were more likely to be working as university professors, postsecondary teaching and research assistants, computer programmers and senior managers.

In general, non-permanent resident workers earn less than Canadian-born workers and established immigrants. These differences can largely be explained by the combination of different occupations in which non-permanent residents work as well as their countries of origin. International disparities in wealth and earnings are such that well-educated persons from low-GDP countries may find it to their advantage to accept unskilled temporary work in Canada. Additionally, some non-permanent residents accept low-wage jobs as a means to gain Canadian work experience which can help them become permanent residents, allowing them to benefit from access to the wider labour market.

Derrick Thomas is a senior analyst with Social and Aboriginal Statistics Division, Statistics Canada.

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   Choudry, A., Hanley J., Jordan, S., Shragge, E., and Stiegman, M. (2009). *Fight Back, Workplace Justice for Immigrants*. Fernwood.

   The U.N. *Convention on the Protection of Rights of Migrant Workers*, which took effect in 2004, reflects concerns about the situation of workers outside their countries of citizenship/permanent residence.

2. U.N. Committee on the Elimination of Discrimination Against Women, General Recommendation No. 26, on women migrant workers, December 5, 2008.

3. Earnings information is available for approximately 73,000 of them who also worked at a full-time job in 2005.

4. The precise program or type of visa under which non-resident foreign nationals remain and work in Canada cannot be determined from census data. Many individuals from other countries continue to study and make refugee claims here and many receive permission to work to allow them to support themselves or to pursue jobs related to their studies.

5. Citizenship and Immigration Canada. *Annual Report to Parliament on Immigration*, 2008.

6. Under the *Immigration Refugee Protection Act (IRPA)* of 2002, some non-resident workers no longer require a permit. Conference speakers, entertainers and sports teams, for example, are no longer documented.

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21. The list can be found in Citizenship and Immigration Canada's *Foreign Worker Manual* (FW1 5.26.). www.cic.gc.ca/english/resources/manuals/fw/fw01-eng.pdf

22. Citizenship and Immigration Canada. (2009). *Facts and Figures, 2008*. www.cic.gc.ca/english/resources/statistics/facts2008/index.asp

23. Citizenship and Immigration Canada. *Temporary Foreign Workers –Your Rights and the Law*. www.cic.gc.ca/english/resources/work/tfw-rights.asp.

24. *CIA World Factbook*. (2008).

25. It is possible to identify as a member of more than one population group. The figures are for those who mentioned the group as one of those to which they belonged.

26. The census is conducted in May. Very few crops in Canada are harvested at that time. A census conducted later in the growing season might identify more temporary agricultural workers.

27. Citizenship and Immigration Canada. *Canada Welcomes Newcomers: The Canadian Experience Class*. www.cic.gc.ca/english/resources/publications/cec.asp.

28. Earnings in the census are collected for the previous calendar year.

29. The census asks about earnings over the previous calendar year. The 2006 Census asked about earnings in 2005. Only full-time workers who had also worked mostly full time for at least one week in 2005 could be included. See the box *What You Should Know About this Study*.

30. The temporary residents captured in the 1991 Census were somewhat atypical given the large refugee movement and backlog clearance program at the time.

31. Citizenship and Immigration Canada. (2008). *Foreign Worker Manual*. P. 84.

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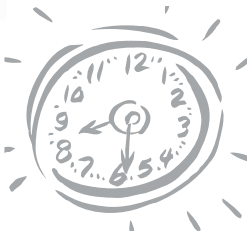

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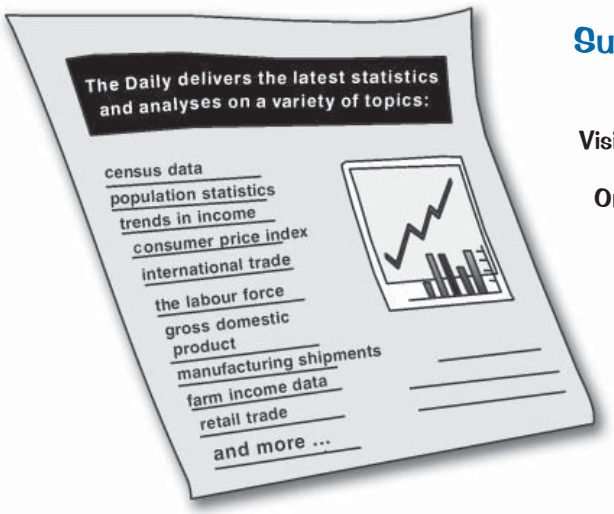

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Participation in sports and cultural activities among Aboriginal children and youth

by Kristina Smith, Leanne Findlay and Susan Crompton

Introduction

Recent studies show that participating in extracurricular activities can have many benefits for children, including positive academic achievement,[1] improved psychological functioning,[2] and good peer relationships.[3] Some research suggests that these activities have a positive effect because they provide children with opportunities to explore their identity, develop initiative, learn to control their emotions, and acquire social skills.[4]

Although less is known about Aboriginal children's participation in extracurricular activities than is known about non-Aboriginal children,[5] previous research has shown that Aboriginal children benefit from engaging in activities outside regular school hours. For instance, Aboriginal children living off-reserve are more likely to do well in school if they volunteer, take part in sports, cultural activities, clubs and groups, and art or music, or spend time with Elders.[6] Physical exercise is also known to be associated with positive outcomes for Aboriginal children, including increased self-esteem[7] and decreased rates of smoking.[8] Conversely, lack of exercise is linked to higher rates of chronic conditions related to obesity such as diabetes, hypertension and arthritis,[9] findings that are particularly relevant for Aboriginal children who are at two to three times higher risk for obesity than the Canadian average.[10]

Other research is also emerging that confirms the role of cultural identity in supporting Aboriginal health in general,[11,12] and there is mounting evidence about the positive impact of cultural activity on children's health.[13] Cultural identity is considered a key element of support and healing in the Aboriginal tradition,[14] and recent studies have suggested that it lowers youth suicide rates[15] and contributes to improved academic achievement.[16] Some research has found that participation in cultural activities reduces depression and lowers substance and alcohol abuse.[17]

This article draws on the children and youth section of the 2006 Aboriginal Peoples Survey (APS) to explore participation in sports and cultural activities by Inuit, Métis and off-reserve First Nations[18] children aged 6 to 14 (for more on definitions and concepts see "What you should know about this study"). This study examines factors that may be associated with participation in extracurricular activities, including the child's basic characteristics, cultural factors and time devoted to other extracurricular activities, as well as the family's sociodemographic characteristics.

The majority of Inuit, Métis and off-reserve First Nations children aged 6 to 14 take part in sports

A little more than two-thirds (69%) of Aboriginal children participated in sports at least once a week: 66% of First Nations children living off-reserve, 71% of Métis and 72% of Inuit children. Boys were significantly more likely to take part than girls, regardless of their Aboriginal identity. Overall, children aged 9 to 11 tended to participate more than younger children, but among Inuit children,12- to 14-year-olds were proportionally more active than 6- to 8-year-olds. Children were also more likely to play sports at least once a week if they were in very good or excellent health (as reported by a parent) than if their health was less robust (Table 1).

The results of a logistic regression model show that the above-mentioned characteristics remain significantly associated with weekly sports participation, even after accounting for other factors such

What you should know about this study

Data from the Aboriginal Peoples Survey (APS) children and youth component were used to examine participation in sports and in cultural activities for Inuit, Métis and First Nations children between the ages of 6 and 14 and living off-reserve. Conducted by Statistics Canada in 2006, the Aboriginal Peoples Survey collected information on the social and economic conditions of Aboriginal people in Canada. Included were persons with Aboriginal ancestors and/or who identified with one of the Aboriginal groups (North American Indian, Métis, Inuit), and/or had treaty or registered Indian status, and/or had Indian Band membership. Individuals living on reserves in the provinces were not included in the survey; in the territories, all Inuit, Métis and First Nations children were included in the survey. Only individuals aged 6 to 14 who were reported as having single North American Indian, Métis or Inuit identity were included in the study population, producing a sample of 11,940 respondents representing just under 170,000 Aboriginal children. (For more information about the APS survey sample and design, see *Aboriginal Peoples Survey, 2006: Concepts and Methods Guide*. Statistics Canada Catalogue no. 89-637-XWE2008003).

Definitions

Sports participation: Children played sports (including taking lessons) at least once a week, as reported by the parent. Less frequent involvement was classified as non-participation.

Participation in cultural activities: Children took part in culturally related activities regardless of frequency, as reported by the parent. Because these activities may be infrequent, e.g., learning a dance for a ceremony that occurs once a year, it was felt that requiring once a week or even monthly participation would be too strict a condition for inclusion.

Contact with Elders: Children spent time at least once a week with Elders.

Knowledge of an Aboriginal language: Parents were asked: "Does the child speak an Aboriginal language?" If the answer was "yes," children were considered to speak and understand an Aboriginal language. If the answer was "no," the parent was then asked: "Does the child understand an Aboriginal language even if only a few words?" If this answer was "yes," children were classified as understanding (but not speaking) an Aboriginal language. Children whose parents replied "no" to both these questions were classified as not knowing an Aboriginal language.

'Screen time' per day: The estimated average amount of time per day spent by children watching television, videos or DVDs, on a computer, or playing video games was approximately four hours. Based on this average, children were split into two groups reporting below- and above-average time devoted to these activities.

Other extracurricular activities: Parents were asked if their child participated in art or music groups or lessons; in clubs or groups such as dance, youth or drum groups; or helped out without pay (volunteered) in the community or at school. Children were defined as participants if they took part at least once a week in one or more of these activities.

Place of residence: The APS allows the aggregation of census subdivisions based on metropolitan areas. In this study, four levels of geography were delineated: census metropolitan areas (CMA), census agglomerations (CA), census metropolitan area and census agglomeration influenced zones (MIZ), and Inuit Nunangat. A MIZ comprises census subdivisions (municipalities) that lie outside CMAs and CAs, but are economically influenced by them (as measured by commuting flows). Depending on the strength of the urban tie, the influence of the closest CMA/CA can range from strong to no influence. Inuit Nunangat is the Inuit homeland and includes communities in Nunatsiavut (Northern coastal Labrador), Nunavik (Northern Quebec), the territory of Nunavut and the Inuvialuit region (Northwest Territories).

The model

In order to isolate individual factors having an influence on participation in activities, a logistic regression model was developed for each of the extracurricular activities examined here. These models allowed for the estimation of odds that a child with a given characteristic was a *participant* compared to a *non-participant* in an activity, while removing the effect of other confounding factors. Survey sampling weights were applied to account for the complex survey design and to render the analyses representative of the Aboriginal population in Canada (excluding reserves). A bootstrapping technique was utilized to produce all variance estimates, and significance was accepted at the $p < 0.05$ level (see Table 2 for a complete list of characteristics included in the models).

What you should know about this study (continued)

Data limitations

Information about the child's participation relied on parental reporting and was based on a single question. The response might also be influenced by the parent's perception of what constitutes a sport or cultural activity. In addition, the survey was conducted in the winter, which might produce lower estimates of sports participation than in the summer months.

Finally, terms like "extracurricular activity," "sports" and "clubs" may reflect Westernized attitudes or philosophies of time use[1] and thus should be interpreted with some caution.

1. One potential limitation of previous research on extracurricular activities may have been an over-reliance on Western-oriented approaches to leisure pursuits. Iwasaki, Yoshitaka, Judith G. Bartlett, Benjamin Gottlieb and Darlene Hall. 2009. Leisure-like pursuits as an expression of Aboriginal cultural strengths and living actions. *Leisure Sciences*. Vol. 31, issue 2. p. 158-173.

as family characteristics, cultural identification and involvement in other extracurricular activities. The influence of gender was particularly strong: the odds of weekly sports participation were almost 80% higher for Aboriginal boys than girls (Table 2).

Some family characteristics were also associated with a child's weekly participation in sports, confirming the results of an earlier study using the 2001 APS.[19] In 2006, Inuit, Métis and off-reserve First Nations children with two parents in the home were more likely to engage in sports, at 72% compared to 63% for children with one parent. This gap was significant for First Nations and Métis children but not for Inuit children. Overall, children with parents who responded to the survey and had completed high school, college or university also displayed higher rates of weekly sports involvement than those with parents without secondary education. Similarly, children living in households with income over $30,000 a year were more likely to play sports; furthermore, the higher their family's income, the greater their likelihood of participating.

Even after other factors were controlled for, children living in households with incomes above $50,000 and living, with parents who had completed high school, college or university, remained positively associated with frequent sports participation. The relationship with parental education was especially strong. Compared to children whose parent had not finished high school, the odds of participating were almost 25% higher for children of high school graduates and almost 75% higher for children of university graduates.

Overall, children with more than three siblings were less likely to play sports at least once a week than those with fewer than two siblings. However, once other variables in the model were controlled for, this characteristic was no longer significantly associated with sports participation. And although a recent study of Canadian children shows that sports participation differs by urban density,[20] this was not the case for Aboriginal children.

Children who are busy with other extracurricular activities are more likely to take part in sports

Watching TV, using a computer and/or playing video games consumes a lot of children's daily leisure time. Overall, Aboriginal children who spent less than four hours on these activities were more likely to participate in sports at least once a week than those who devoted more time to them (Table 1). Children who took part in cultural activities, participated in music or art lessons or groups, did volunteer work or belonged to a club also had a greater tendency to participate in sports. After controlling for other characteristics, these leisure-time activities remained significantly associated with sports involvement, with engagement in other weekly activities showing the strongest effect (odds of almost 2.3 to 1.0) (Table 2).

Finally, the effect of certain cultural factors on sports participation was not large, even after controlling for other factors. Aboriginal children who regularly spent time with Elders (at least once a week) had 20% higher odds of sports participation than those who had less contact. On the other hand, knowledge of an Aboriginal language was not significantly associated with the likelihood of a child participating in weekly sports activities.

Four in ten Aboriginal children participate in cultural activities

Sports are the most popular type of extracurricular activity among Inuit, Métis and off-reserve First Nations children, compared to other out-of-school activities. However, cultural activities also accounted for an important part of their lives, with four in ten children taking part in such activities.

Recent research has found that many Aboriginal adults feel cultural activities like dancing and creating art are strongly associated with positive emotions, identity and aspirations.[21] Many Aboriginal children live in

Table 1 Aboriginal children aged 6 to 14 participating in sports and cultural activities by selected characteristics, 2006

	Children who participated in...							
	Sports at least once a week				Cultural activities			
	Total	First Nations	Métis	Inuit	Total	First Nations	Métis	Inuit
	number							
Total number of children in thousands	**170**	**91**	**68**	**11**	**168**	**91**	**67**	**10**
	percentage							
Child's characteristics								
Sex								
Total	**69**	**66**	**71**	**72**	**40**	**43**	**33**	**56**
Girl †	65	61	69	65	41	44	36	55
Boy	72*	71*	73*	78*	38	41	30*	57
Age group								
6 to 8 years †	66	64	69	66	38	42	30	52
9 to 11 years	72*	70*	76*	73	40	42	34	59
12 to 14 years	67	65	68	78*	41	43	35	58
Self-rated health status								
Good, fair or poor †	58	55	60	67	39	40	34	57
Very good	66*	63*	68*	80*	41	44	33	57
Excellent	73*	72*	75*	71	39	43	32	55
Family characteristics								
Number of parents in household								
One †	63	60	66	76	40	43	34	56
Two	72*	70*	73*	72	39	42	33	57
Number of siblings in household								
None or one †	71	69	74	73	36	40	32	45
Two or three	68	65	71	69	39	42	33	56
Four or more	65*	65	61*	76	48*	49*	38	65*
Education of respondent parent								
Less than high school †	60	57	60	71	39	40	30	57
High school diploma	69*	65*	72*	77	37	40	30	63
Some postsecondary	68*	66*	70*	69	41	44	35	54
College diploma	74*	73*	74*	78	39	44	33	55
University degree	79*	76*	84*	74	46*	48*	44*	F
Household income								
Less than $30,000 †	60	58	61	70	41	44	36	49
$30,000 to $49,999	65*	64	67	69	39	42	31	60
$50,000 to $79,999	71*	69*	73*	76	39	43	33	55
$80,000 or more	78*	77*	79*	73	39	43	32	58
Place of residence								
MIZ[1,2] †	70	69	71	74	41	45	36	37
Census metropolitan area	68	65	72	81	37*	41	31	42
Census agglomeration	68	66	71	74	39	43	32	35[E]
Inuit Nunangat	71	F	F	71	61*	F	F	61*
Cultural factors								
Knowledge of Aboriginal language								
Speaks and understands	68	66	67	71	63*	65*	59*	61*
Understands only	67	65	70	78	51*	53*	47*	54*
Neither †	70	68	72	72	27	28	27	33

Table 1 Aboriginal children aged 6 to 14 participating in sports and cultural activities by selected characteristics, 2006 (continued)

	Children who participated in...							
	Sports at least once a week				Cultural activities			
	Total	First Nations	Métis	Inuit	Total	First Nations	Métis	Inuit
	percentage							
Contact with Elders								
Less than once a week †	66	64	69	70	33	35	27	51
At least once a week	72*	71*	74	75	50*	54*	42*	63*
Other extracurricular activities								
Screen time per day								
Less than four hours †	73	70	76	72	40	44	34	57
Four or more hours	65*	63*	66*	73	39	41	32	54
Sports								
At least once a week	...	...	...	...	42*	37	35*	61*
Less than weekly †	...	...	...	...	34	46*	28	44
Cultural activities								
Participant	73*	71*	75*	78*	...	...	...	...
No cultural activities †	66	63	69	65	...	...	...	...
Other activities[3]								
Weekly	76*	75*	77*	81*	46*	50*	40*	62*
No/few other activities †	57	53	61	61	29	31	22	45

† reference group

* statistically significant difference from reference group in that population at $p < 0.05$, for example, a significantly higher percentage of all single-identity Aboriginal boys participated in sports weekly compared to all single-identity Aboriginal girls. Similarly, proportionally more Métis boys participated in sports than Métis girls.

1. Census metropolitan area and census agglomeration influenced zone.
2. Excludes any metropolitan influenced zone inside Inuit Nunangat.
3. Includes participating in art or music groups or lessons; in clubs or groups, such as youth groups, drum groups, or dance groups; and helping without pay in the community or at school.

Source: Statistics Canada, Aboriginal Peoples Survey, 2006.

families or communities where a holistic approach to child development is taken, emphasizing the role of cultural participation on children's health.[22]

In 2006, more than one-half (56%) of Inuit children engaged in cultural activities, as did 43% of First Nations children living off-reserve and 33% of Métis children. Generally speaking, boys were just as likely as girls to participate in cultural activities, 9- to 11-year-old tweens and 12- to 14-year-old teens had the same rates of participation as younger children, and children in good-to-poor health were just as likely to take part as those in excellent health.

In contrast, some family characteristics played a role in a child's involvement in cultural activities. Overall, children with more than three brothers and sisters had a higher participation rate—the gap was especially large for Inuit children at 65%, versus 45% for those with only one or no siblings. Even after other variables in the model were taken into account, children with four or more siblings had almost 30% higher odds of participating than those with fewer than two siblings.

Aboriginal children with a parent who had graduated from university were also more likely to participate in cultural activities than if the parent had less than a high school education, at 46% versus 39%. This factor was still highly significant after controlling for other variables. Compared with children of a parent without high school, the odds of involvement in cultural activities were about 25% higher for children of high school graduates and over 100% higher for children of university graduates.

None of the other family characteristics in the model were significantly associated with children's participation in cultural activities.

Table 2 Odds ratios for Aboriginal children aged 6 to 14 participating in sports and cultural activities by selected characteristics, 2006

	Odds that children participated in...	
	Sports at least once a week	Cultural activities
	odds ratios	
Child's characteristics		
Sex		
Boy	1.76*	0.98
Girl †	1.00	1.00
Age group		
6 to 8 years †	1.00	1.00
9 to 11 years	1.30*	0.98
12 to 14 years	1.02	1.04
Self-rated health status		
Good, fair or poor †	1.00	1.00
Very good	1.38*	1.05
Excellent	1.81*	1.00
Family characteristics		
Number of parents in household		
One †	1.00	1.00
Two	1.13	0.97
Number of siblings in household		
None or one †	1.00	1.00
Two or three	0.94	1.08
Four or more	0.88	1.28*
Education of respondent parent		
Less than high school †	1.00	1.00
High school diploma	1.24*	1.24*
Some postsecondary	1.17	1.45*
College diploma	1.44*	1.42*
University degree	1.73*	2.08*
Household income		
Less than $30,000 †	1.00	1.00
$30,000 to $49,999	1.16	0.95
$50,000 to $79,999	1.32*	0.99
$80,000 or more	1.72*	0.98
Place of residence		
MIZ[1,2] †	1.00	1.00
Census metropolitan area/census agglomeration	0.94	0.94
Inuit Nunangat	0.89	1.30
Cultural factors		
Aboriginal identity (single origin)		
First Nations	0.91	1.18*
Métis †	1.00	1.00
Inuit	1.34	0.96
Knowledge of Aboriginal language		
Speaks and understands	0.98	4.18*
Understands	0.91	2.77*
Neither †	1.00	1.00
Contact with Elders		
Less than once a week †	1.00	1.00
At least once a week	1.21*	1.76*
Other extracurricular activities		
Screen time per day		
Less than four hours †	1.00	1.00
Four or more hours	0.75*	0.92
Sports		
At least once a week	...	1.22*
Less than weekly †	...	1.00
Cultural activities		
Participant	1.21*	...
No cultural activities †	1.00	...
Other activities[3]		
Weekly	2.26*	1.99*
No/few other activities †	1.00	1.00

† reference group
* statistically significant difference from reference group at $p < 0.05$
1. Census metropolitan area and census agglomeration influenced zone.
2. Excludes any metropolitan influenced zone inside Inuit Nunangat.
3. Includes participating in art or music groups or lessons; in clubs or groups such as youth groups, drum groups, or dance groups; and helping without pay in the community or at school.

Source: Statistics Canada, Aboriginal Peoples Survey, 2006.

Using an Aboriginal language and spending time with Elders key indicators of participation in cultural activities

As one would expect, children who spoke an Aboriginal language or spent time with Elders were more likely to participate in cultural activities outside regular school hours. Almost two-thirds (63%) of children who spoke an Aboriginal language took part in cultural activities; even those who understood but did not speak an Aboriginal language were about twice as likely to participate as children with no knowledge (51% versus 27%). These proportions were similar for all three Aboriginal groups (Table 1). After all other variables were taken into account, Aboriginal language speakers were found to have over four times higher odds than children with no Aboriginal language knowledge of being involved in culturally related activities, while children who understood but did not speak had more than two and one-half times higher odds (Table 2).

Spending time with Elders is also associated with participation in cultural activities. One-half (50%) of children who spent time with Elders at least once a week took part in cultural activities, compared with one-third (33%) of those who did not. After controlling for other factors in the model, children with weekly interaction with Elders had 76% higher odds of cultural engagement than those with less frequent contact.

Overall, children who also took part in additional extracurricular activities had much higher rates of participation in cultural activities. More than four in ten (42%) children involved in sports were also engaged in cultural activities, as were almost one-half (46%) of children who had other weekly pastimes such as arts and music, clubs or groups, and volunteering. After controlling for other factors, both sports and other activities remained significantly associated with cultural participation—the odds of being engaged in cultural activities were about 20% higher for children involved in sports, and almost 100% higher for children involved in other activities. This large difference in the strength of association may be due to the nature of "other activities" as defined in the survey, many of which (e.g., music, art, clubs) may be culturally related.[23]

Summary

According to the 2006 Aboriginal Peoples Survey, over two-thirds of Inuit, Métis and off-reserve First Nations children participated in sports at least once a week and about four in ten participated in cultural activities. While causal attributions cannot be made, regression models that controlled for the confounding effects of different factors identified three significant associations common to participation in both sports and cultural activities. These common factors were a higher level of parental education, weekly contact with Elders, and involvement in additional extracurricular activities.

Other characteristics associated with sports participation included being a boy, being between 9 and 11 years of age, having very good to excellent health, living in a higher-income family, and spending less than four hours per day watching TV or playing computer and video games.

The other characteristics strongly associated with participation in cultural activities were quite different. Having four or more siblings and having knowledge of an Aboriginal language were important factors influencing children's involvement in cultural activities.

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Emigration from Canada to the United States from 2000 to 2006

by Patrice Dion and Mireille Vézina

Introduction

The United States has long been a huge draw for Canadians. The geographical closeness, the economic opportunities, the relationship the two countries have built over the years and their common cultural features make it easy for thousands of Canadians, individually or with their families, to move south of the border each year.

With the exception of slight increases in the 1970s and 1990s, the number of Canadians living in the United States has gradually decreased since 1930, when it peaked at 1,310,000. The most recent increase in emigrants from Canada is attributable to the growing number of skilled Canadian workers who left Canada to work in the United States.[1] Overall, however, this phenomenon, dubbed the 'brain drain,' remained small, both from a historic perspective as well as relative to the Canadian workforce.[2]

Globally, migration exchanges between developed countries continues, however these exchanges have changed in nature. Today there is increasing talk about brain 'churn,' rather than brain drain. For example, while migration between the Organization for Economic Co-operation and Development (OECD) countries is on the rise, it is characterized mainly by the temporary flow of researchers, students, managers and computer specialists.[3]

In this context, and since no recent studies have delved into this matter specifically, it is important to understand what migration exchanges have taken place from Canada to the United States. More specifically, has emigration increased, decreased or remained stable compared to the late 1990s? Additionally, what is the nature of this emigration? For example, does it still consist mainly of skilled and highly educated workers? The purpose of this article is to answer these questions and provide a more current depiction of Canadian emigration to the United States.

Canadian emigration is not subject to compulsory registration, as is the case for births, deaths (through vital statistics registries) and immigration (through Citizenship and Immigration Canada). Although some Canadian data sources provide an overview of the emigrant flow from Canada, they do not allow for an exhaustive review of emigration by country of destination. It is therefore often preferable to use data from the receiving countries.[4] This is the approach chosen for the current study, which benefits mainly from data from the American Community Survey (ACS), conducted in the United States.

The number of emigrants from Canada decreased between 2000 and 2006

One of the advantages of the American Community Survey (ACS) is that it can be used to estimate the number of individuals residing in the United States and who lived in Canada one year earlier. In other words, the ACS estimates the number of individuals emigrating from Canada to the United States in the course of a year. The ACS data show that from 2000 to 2006, the annual number of individuals who left Canada to live in the United States on a temporary or permanent basis fell by approximately 35%, dropping from 113,100 in 2000 to 73,000 in 2006 (Chart 1). Specifically, it was early in this period, i.e., between 2000 and 2002, that the annual flows decreased, and then remained relatively stable from 2002 to 2006. The rate of emigration to the United States went from 3.7 per 1000 in 2000 to 1.9 per 1000 in 2002, and then settled at 2.2 per 1000 in 2006.

Among the three groups of emigrants to the United States from Canada (the Canadian born, those born originally in the United States, those born outside of Canada or the United States), the decrease in the number of emigrants between 2000 and 2002 was observed only among individuals born in the

What you should know about this study

The American Community Survey (ACS)

The American Community Survey (ACS) is an annual survey carried out by the U.S. Census Bureau. The purpose of the ACS is to replace the long questionnaire of the American census conducted every 10 years. Since it contains questions on the demographic and economic characteristics of the population as well as on the place of birth and migration of respondents, it provides a more comprehensive socio-economic picture of immigrants from Canada (Canadian emigrants to the United States.)

The collection of ACS data is ongoing. The resulting estimates therefore correspond to aggregate data collected throughout the year. They represent, on the whole, the average characteristics of the population over the course of a year, and not to one specific date.

Although the ACS started in 2000, it only reached its full implementation starting in 2005, the year in which the sample was expanded to nearly three million households. The analyses in this study are, for the most part, based on Public Use Microdata Sample (PUMS) files. In 2006, the sample of the ACS PUMS file consisted of 2,969,741 people.

Note that more recent ACS files have been released since this study was conducted.

Concepts

Populations studied

Depending on the topics covered, two populations are looked at in this article, namely individuals making up the annual migratory flows from Canada to the United States and Canadian-born persons residing in the United States.

The first is defined in this study using ACS information on place of residence one year earlier. This population consists of those living in the United States at the time of the survey who reported that they resided in Canada one year earlier. However, there is nothing in the ACS to indicate the status these individuals in Canada before migrating—they might have been immigrants or non-permanent residents.

Lastly, although it is an appropriate criterion when measuring emigration, the place of residence one year earlier is less so when creating a picture of recent emigrants to the United States, since the number of emigrants and sample sizes are too small to support detailed analyses. This is why a second population, 'Canadians residing in the United States,' is also examined. This population is limited to individuals born in Canada who do not have American citizenship or who obtained it through naturalization.[1] For the sake of brevity, we have used the term 'Canadian' to refer to Canadian-born persons.

Temporary emigration and permanent emigration

With a few exceptions, the ACS covers only individuals residing in the United States at the time of the survey and wanting to stay for a period of over two months. Canadians travelling in the United States are therefore generally excluded from the survey.

Moreover, Canadians who spend a number of months in the United States and have a residence there, like 'snowbirds,' who live for part of the winter in some of the warmer states, are a special case. Since data are collected throughout the year, some of these Canadians could be included in the ACS, although often the type of residence they occupy makes it improbable.

Moreover, emigration is normally determined to be temporary or permanent according to the duration of residence or legal residence status, information not found in the ACS.[2] As a result, although ACS data provide information on both temporary and permanent movements, the data do not distinguish between the two. In this study, the figures from the ACS therefore pertain to both permanent and temporary emigration, as long as it is for a period of at least two months.

Year of entry into the United States

The year of entry into the United States, available in the ACS, is very useful in identifying Canadians who have recently emigrated to the United States. We must point out, nonetheless, that there is some inaccuracy in cases where an individual entered the United States more than once. Although, in theory, the respondent must provide the most recent year in which he or she entered the United States, the wording of the question is not very clear.[3]

1. United Nations. 1998. *Recommendations on Statistics of International Migration* – Revision 1, United Nations Publication ST/ESA/STAT/SER.M/58/ Rev.1, New York.

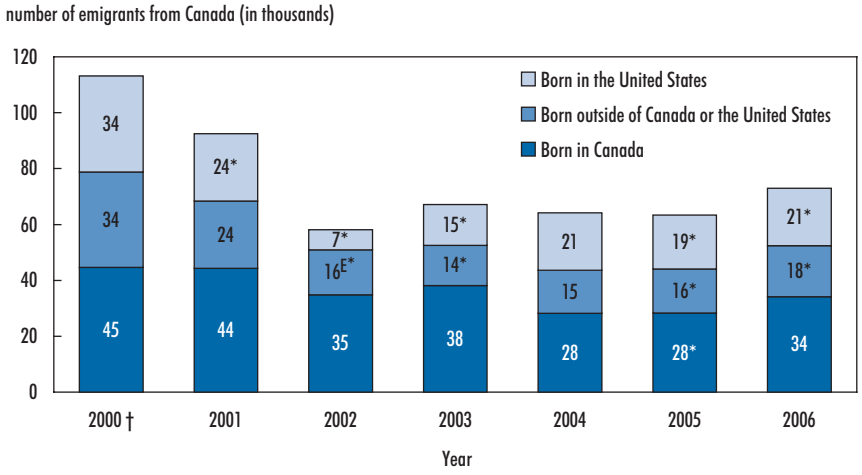
   This definition matches the UN recommendations, according to which the foreign population of a country includes persons who have their place of residence in that country but whose place of birth is in another country. Furthermore, by excluding individuals with American citizenship at birth, only those people eligible to be admitted for permanent residence in accordance with the immigration laws can be considered, and this exclusion is also in conformance with these recommendations. These individuals

What you should know about this study (continued)

represented 8.7% of all people born in Canada and who entered the United States between 2000 and 2006.

2. United Nations. 1998. The United Nations suggests a distinction based on the length of stay, distinguishing between 'long-term' migrants (those who have been living in the country of destination for one year or more) and 'short-term' migrants (those who have been living in the country of destination for at least three months but less than twelve months). However, this criterion does not apply to annual migratory flows in the ACS since, by definition, the migrants cannot have migrated more than one year earlier.
3. The question is worded as follows: "When did this person come to live in the United States?" Although the interviewers were instructed to ask for the most recent year, it is uncertain whether the question was interpreted correctly if the respondent did not ask for clarification from the interviewer or if responses were sent by mail.

Chart 1 The number of persons residing in the United States whose place of place of residence one year earlier was Canada decreased from 2000 to 2002 and remained relatively stable from 2002 to 2006



† reference group

* statistically significant from reference group at $p < 0.05$

Note: Since 2006, the American Community Survey has included persons living in community dwellings. For comparison purposes with previous years, these persons were excluded. However, the proportion of those living in a collective dwelling in 2006 and who were living in Canada one year earlier was minimal.

Sources: U.S. Census Bureau, data from the 2000-2003 American Community Survey.
U.S. Census Bureau, Public Use Microdata Files from the 2004-2006 American Community Survey.

United States and those born outside of the United States and Canada. The number of individuals born in the United States and making a 'return migration' to their country of birth dropped between 2000 and 2001 as well as between 2001 and 2002, but subsequently increased between 2002 and 2003. The number of individuals born outside the United States and Canada and making a 'secondary' migration to the United States was lower in 2002 than in 2000, but has stabilized since then.

The observed drop in emigration from Canada to the United States is supported by the findings of the Canadian census' Reverse Record Check (RRC),[5] which shows that the number of emigrants to the United States decreased significantly from 2001 to 2006. According to RRC data, approximately 167,000 individuals living in the United States in 2006 resided in Canada five years earlier, compared to 214,000 individuals in 2001 (Chart 2).

As a result of the recent decrease in the number of emigrants from Canada to the United States, Canada's net migration resulting from migratory exchanges with its neighbour to the south improved from 2001 to 2006, with the number of emigrants from the United States to Canada remaining very stable (Table 1). A comparison of data from the ACS on annual flows with data from the 2001 and 2006 Canadian Censuses shows that although total migration from Canada to the United States was larger than migration from the United States to Canada, the gap has narrowed. For each emigrant from the United States to Canada, there were 2.2 individuals crossing in the opposite direction in 2001; however, this number dropped to 1.7 in 2006.[6]

The 2006 RRC shows that Canadian emigrants to the United States accounted for one-third of emigrants in the intercensal period from 2001 to 2006. Although this is a significant decrease compared to the previous intercensal period (in which 45.5 % of emigration was to the United States), the United States has nonetheless remained the most popular destination for Canadian emigrants.[7]

Fewer temporary emigrants among recent emigrants

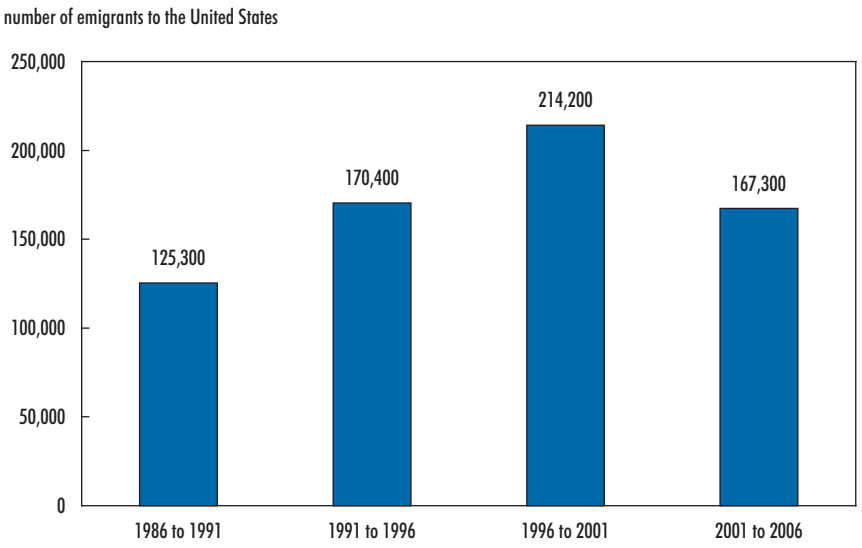
The decrease in the number of emigrants to the United States observed in the ACS data may conceal

differences between permanent and more temporary emigration trends. Using the RRC, it is possible to examine if emigrants intend to return to their homeland, which can then be used to estimate permanent and temporary emigrants.[8] Indeed, recent RRC data indicate that the decrease in emigration to the United States was observed for both temporary and permanent emigrants. However, the proportion of temporary emigrants out of total emigration to the United States decreased slightly compared to the previous intercensal period. That is, RRC data indicate that in 2006, approximately one-third of emigrants from Canada to the United States intended to return to Canada, compared to 37% in 2001.

Permanent emigration tends to remain more stable over time, due to the limited number of permanent immigrants the United States permits per country.[9] As a result, since 2000, the number of individuals from Canada that were granted permanent resident status remained relatively unchanged and close to the limit.[10]

The terms of the North American Free Trade Agreement (NAFTA) greatly facilitate the temporary emigration of individuals wanting to work in the United States. Since visas can be obtained relatively quickly and renewed indefinitely, temporary emigration has become a viable option for many Canadians.[11] Moreover, the significant increase in the number of emigrants from Canada to the United States observed in the 1990s, and mainly since 1994, the year NAFTA came into effect, is mainly attributable to a higher

Chart 2 The number of emigrants to the United States increased between 1986 and 2001 and decreased after 2001



Note: The totals for 1996 to 2001 and 2001 to 2006 were revised in order to exclude those whose emigration date preceded the period covered. Since the totals for 1986 to 1991 and 1991 to 1996 could not be corrected, they were probably slightly overstated.

Source: Statistics Canada, Reverse Record Check for the Census of Population (1991, 1996, 2001 and 2006).

Table 1 Annual migratory exchanges between Canada and the United States, 2001 and 2006

		Place of birth							
		Canada		United States		Country other than Canada or the United States		Total	
		number	percentage	number	percentage	number	percentage	number	percentage
	Migrants								
2001	from the United States to Canada	9,900	23.9	19,700	47.5	11,900	28.6	41,600	100.0
	from Canada to the United States	44,300	47.9	24,200	26.1	24,100	26.0	92,500	100.0
2006	from the United States to Canada	11,100	25.9	19,300	44.8	12,500	29.2	42,900	100.0
	from Canada to the United States	34,200	47.6	20,500	28.0	18,300	24.4	73,000	100.0

Sources: U.S. Census Bureau, data from the American Community Survey, Public Use Microdata Files from the 2006 American Community Survey, and the 2001 and 2006 Censuses, Statistics Canada.

number of Canadians entering the United States with a temporary visa.[12]

Nowadays, although there is still a distinction between temporary and permanent migration from a legal point of view, the line is blurring. Some temporary visa holders can apply for permanent resident status.[13] In fact, emigrating to the United States by transitioning from temporary to permanent status is increasingly popular for a growing number of workers.[14]

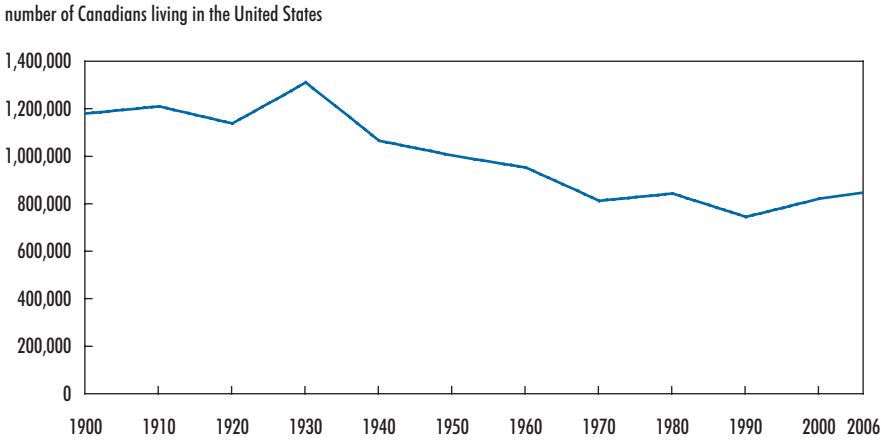
The number of Canadian-born persons in the United States continued to increase between 2000 and 2006, but at a slower pace

In addition to measuring annual migratory flows from Canada, ACS data can be used to provide a picture of individuals born in Canada who reside in the United States. According to the ACS, approximately 847,200 persons born in Canada resided in the United States in 2006. Their numbers have increased since 2000, but this growth has been slower than the rate recorded in the decade ending in 2000 (Chart 3). Since 2000, the number of Canadians residing in the United States has grown at an annual average rate of 0.5%, one-half the rate observed during the 1990s. This decrease may be the result of a number of factors, such as a decrease in migratory flows from Canada to the United States, increased return or secondary migration of Canadian-born persons, or simply deaths.

Canadian-born persons who emigrated to the United States between 2000 and 2006 were relatively young

The age profile of Canadians residing in the United States is somewhat different from those born in the United States. Overall, Canadians residing the United States are under-represented within the youngest groups and over-represented in the oldest groups (Chart 4). One of the reasons for the under-representation at the youngest ages is because when

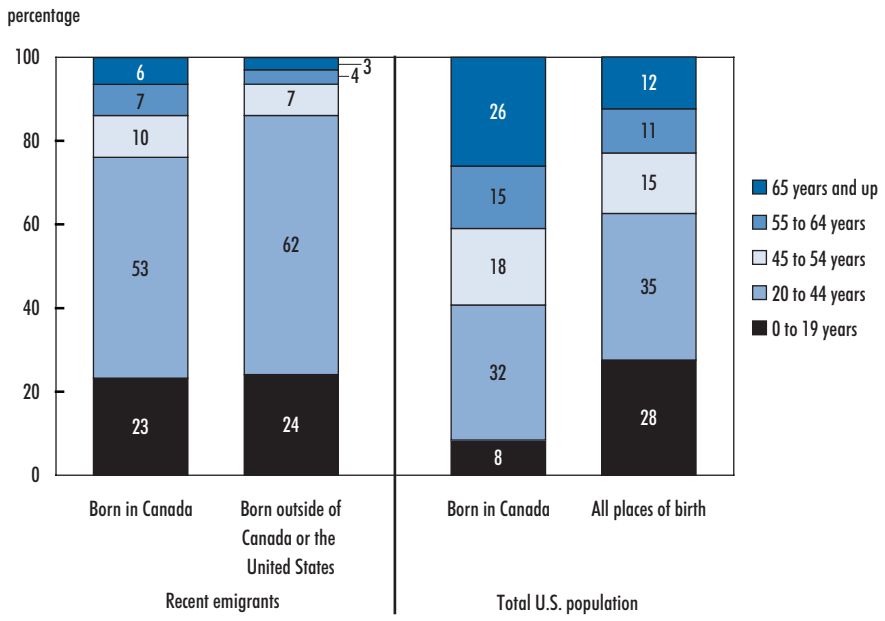
Chart 3 The number of Canadians living in the United States rose from 1990 to 2006, but remained under the peak reached in 1930



Note: Some conceptual and methodological differences bias the comparisons between the data from the American Community Survey (ACS) and those from the U.S. censuses. For example, census data are collected on a set date every 10 years, whereas ACS data are collected throughout the year. Therefore, seasonal variations are possible. In addition, the ACS excludes persons who are only living at their address temporarily, that is, for less than two months.

Sources: U.S. Census Bureau, ten-year data from the U.S. censuses (1900 to 2000).
U.S. Census Bureau, Public Use Microdata Files from the 2006 ACS.

Chart 4 The recent Canadian-born emigrants living in the United States are younger than the total U.S. population



Source: U.S. Census Bureau, Public Use Microdata Files from the 2006 American Community Survey.

emigrants give birth to children in the United States, the children are not considered emigrants. At the older end of the age continuum, the Canadian emigrant cohorts who arrived in the United States prior to 1980 continue to have considerable demographic weight in relation to the younger age groups.

The most recent cohort is younger, however, much like other recent immigrants to the United States. While the median age of all Canadians residing in the United States was 49 in 2006, the median age was only 31 for Canadians who emigrated between 2000 and 2006. In addition, many of these recent emigrants were of prime working age: over one-half (approximately 53%) were between 20 and 44 years of age. Only around 10% were aged 60 or older.

Lastly, Canadians who emigrated recently were also generally very young compared to the Canadian population where the median age according to the 2006 Census was 39.5.

Nearly 60% of Canadian emigrants who arrived in the United States between 2000 and 2006 lived in just seven states

Canadians who live in the United States have certain location preferences. In 2006, nearly 60% of Canadians who had emigrated to the United States between 2000 and 2006 had chosen to take up residence in one of the following seven states: Florida, California, New York, Texas, Arizona, Washington and Michigan (Table 2). In comparison, these seven states contained approximately 40% of the total U.S. population in 2006.

Florida tops the list for recent emigrants from Canada with a total of 27,500 Canadians who emigrated between 2000 and 2006 (17.8% of all recent Canadian emigrants). With a median age of 47, recent emigrants living in Florida were relatively older.[15] California had the second highest number of recent Canadian emigrants. Approximately 19,000 Canadians who migrated to the United States between 2000 and 2006 were living there, accounting for more than one-tenth (12.3%) of all recent emigrants to the United States. California is also the state with the highest number of Canadian residents irrespective of the period of arrival.

With a median age of 31, Canadians who recently emigrated to California were much younger than those who chose to reside in Florida. These comparisons highlight the diversity of Canada's emigration. For example, employment and education are likely the most frequent reasons for migrating to the states with relatively young emigrants. Most of these states have major cities or universities that are likely to attract a population of skilled workers or students. This is particularly true in California, New York, Texas and Michigan. In addition, the geographic closeness of urban centres, such as New York, Syracuse and Detroit, may have also contributed to the influx of Canadians.

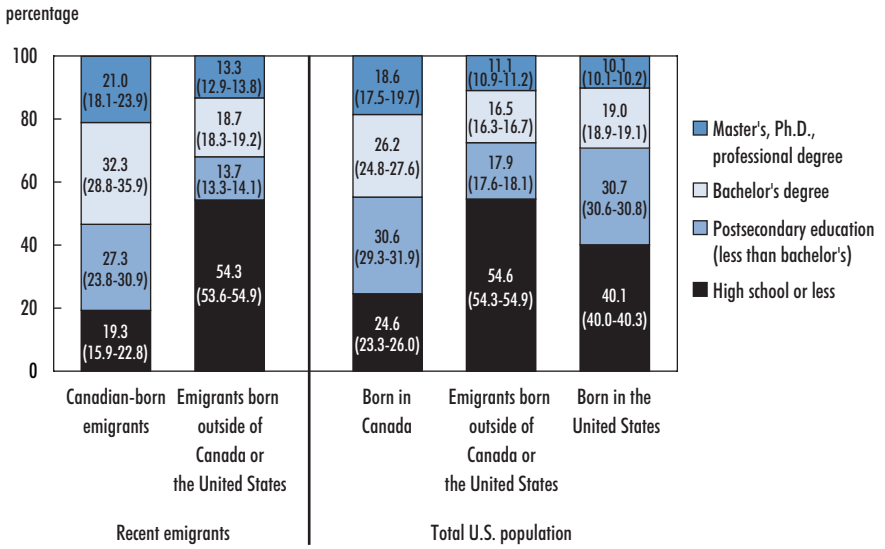
Conversely, recreational activity during or near retirement is likely a greater factor in migrations to Florida and Arizona, two states known for their warm climates.

Table 2 Canadian-born emigrants to the United States by residence status

	Canadian-born emigrants					
	Recent emigrants to the United States (2000 to 2006)			Residing in the United States in 2006		
	number	percentage	Median age	number	percentage	Rank by population size
State of residence						
Florida	27,500	17.8	47	120,100	14.2	2
California	19,100	12.3	31	133,800	15.8	1
New York	13,800	8.9	32	55,600	6.6	3
Texas	10,100	6.5	32	42,600	5.0	6
Arizona	8,800 [E]	5.7 [E]	57	33,500	4.0	8
Washington	7,000 [E]	4.5 [E]	33	49,400	5.8	4
Michigan	5,900 [E]	3.8 [E]	27	45,600	5.4	5
Other states	62,800	40.5	...	366,600	43.3	...
Total	155,000	100.0	31	847,200	100.0	...

Note: For states where the proportion of Canadians who emigrated between 2000 and 2006 is one of the highest.
Sources: U.S. Census Bureau, Public Use Microdata Files from the 2006 American Community Survey.

Chart 5 Among recent emigrants, there are proportionately more Canadian-born with a postsecondary diploma or higher than emigrants born outside of Canada or the United States



Note: Professional degree includes, for example, diplomas in medicine, dentistry, chiropractic, optometry, osteopathy, pharmacy, podiatry, veterinary medicine, law and theology. Generally, the professional level is between a Master's and Ph.D.
The confidence intervals shown in brackets are 95%.

Source: U.S. Census Bureau, Public Use Microdata Files from the 2006 American Community Survey.

More than one-half of recent Canadian emigrants to the United States aged 25 to 64 in 2006 had a university degree

Canadian-born residents of the United States are highly educated. According to ACS data for the population aged 25 to 64, close to 45% had a university degree in 2006 (Chart 5). In comparison, the proportion for the total U.S. population was only 29%.

Canadian-born emigrants aged 25 to 64 who relocated to the United States between 2000 and 2006 were also highly educated. More than one-half (53%) had a university degree in 2006, compared to 20% of Canadian-born residents remaining in Canada.[16]

Regardless of birthplace, recent emigrants from Canada to the United States were highly educated. The ACS data indicate that in 2006, 52.4% of individuals aged 25 to 64 who had emigrated from Canada to the United States in the previous year had a bachelor's degree or higher (results not shown).

Nearly two-thirds of recent Canadian emigrants to the United States were employed

Canadians living in the United States are generally well integrated into the labour market. In fact, in 2006, nearly three-quarters (72.9%) of those aged 25 to 64 were employed. Although slightly lower, this finding is similar to that observed among people who were born in the United States (73.9%) (Table 3). In addition, proportionately less unemployment is observed among Canadians living in the United States than among American-born persons. Conversely, the percentage of people not in the labour force[17] is slightly higher.

Recent emigrants stand out in the emigrant population with higher rates of labour force inactivity, and this is particularly true of recent Canadian-born emigrants. A possible explanation stems from the fact that the cohort of recent emigrants could consist of a relatively higher proportion of people who emigrated for non-work-related reasons like pursuing an education or accompanying or joining a spouse. The results of a survey conducted in 1999 with Canadian college and university graduates of the class of 1995 who were living in the United States in 1997 tend to confirm this hypothesis. According to this survey, 17% of the new graduates had emigrated mainly for marriage or relationships, and 23% had immigrated to attend college or university. Those who had emigrated for employment accounted for only 57% of this emigrant population.[18]

These data suggest that a large number of Canadians who did not specifically emigrate to the United States for work decided to stay and find work there. For example, according to the findings from the Survey of Earned Doctorates, 2004/2005, over 61% of Canadian doctoral students in American universities intended to stay in the United States upon completion of their studies.[19]

Recent Canadian emigrants to the United States work in fields that are often highly specialized and related to the knowledge-based economy

The ACS sample sizes do not allow for a detailed analysis of the types of occupations held by Canadian-born persons residing in the United States. A review by occupational group to which they belong does, however, show that a high proportion of recent emigrants work in fields where the occupations are often highly specialized and related to the knowledge-based economy, such as management, health, education, and business and financial operations (Table 4).

In 2006, the largest number of Canadians residing in the United States and in the labour market worked in management (67,000). A smaller proportion were working in this field among Canadians who emigrated to the United States before the 1990s (13.8%) than among Canadians who emigrated in the 1990s (17.9%) or later (18.0%).

Table 3 Employment status of the population 25 to 64 years residing in the United States, by place of birth, for the total population and recent emigrants, 2006

	Recent emigrants (2000 to 2006)				Total U.S. population					
	Born in Canada		Born outside of Canada or the United States		Born in Canada		Born outside of Canada or the United States		Born in the United States	
	%	confidence interval	%	confidence interval	%	confidence interval	%	confidence interval	%	confidence interval
Employment status										
Employed	66.1	(62.1 to 70.1)	68.0	(67.5 to 68.5)	72.9	(71.5 to 74.4)	73.0	(72.8 to 73.3)	73.9	(73.8 to 74.0)
Unemployed	F	...	4.5	(4.3 to 4.8)	2.8	(2.2 to 3.4)	3.9	(3.8 to 4.0)	3.8	(3.8 to 3.9)
Not in the labour force	31.1	(27.1 to 35.0)	27.5	(27.0 to 28.0)	24.2	(22.9 to 25.6)	23.1	(22.9 to 23.3)	22.3	(22.2 to 22.4)

Note: Confidence levels are 95%.
Source: U.S. Census Bureau, Public Use Microdata Files from the 2006 American Community Survey.

Table 4 Occupational groups of Canadians residing in the United States, by emigration period, 2006

	Workforce by cohort and proportion within the cohort							
	Before 1990		1990 to 1999		2000 to 2006		Total	
	number	percentage	number	percentage	number	percentage	number	percentage
Occupational group								
Management	34,200	13.8	19,800	17.9*	13,000	18.0	67,000	15.5
Administrative support	37,700	15.1	11,400	10.3**	6,100	8.5	55,100	12.8
Sales and related occupations	27,900	11.2	12,200	11.1	6,100	8.4	46,200	10.7
Health	21,200	8.5	14,700	13.3**	7,000	9.7	42,900	10.0
Education, training and library occupations	15,900	6.4	7,000	6.4	5,600	7.8	28,600	6.6
Business and financial operations	12,900	5.2	4,600	4.2	4,700[E]	6.5[E]	22,200	5.1
Arts, sports, recreation, design, media	7,700	3.1	6,200	5.6*	F	F	18,600	4.3
Other occupations	91,200	36.7	34,700	31.4*	25,000	34.7	151,000	35.0
Total	**248,700**	**100.0**	**110,600**	**100.0**	**72,100**	**100.0**	**431,600**	**100.0**

* difference with the proportion observed in the previous cohort statistically significant at $p < 0.05$
** difference with the proportion observed in the previous cohort statistically significant at $p < 0.01$
Note: Includes the population 16 years and over with a job for the seven most prevalent occupations in 2006.
Source : U.S. Census Bureau, Public Use Microdata Files from the 2006 American Community Survey.

However, more than for any other occupational group, it was the emigration of physicians and health specialists that was most publicized and controversial in the 1990s. The fear of a doctor shortage in Canada and the increase in emigration of Canadian doctors certainly contributed, in part, to this phenomenon.[20,21] The ACS data reflect this increase in the number of emigrating health care professionals.[22] Although they only represented 8.5% of those who emigrated from Canada to the United States prior to 1990, Canadians residing in the United States and working in the health field accounted for 13.3% of those who emigrated in the 1990s. The ACS data show, however, that the increased emigration of health professionals did not persist between 2000 and 2006.[23]

Nonetheless, health professionals are over-represented in the population of Canadians residing in the United States. In 2006, approximately 43,000 were working in a health occupation, representing one-tenth of all Canadians living in the United States with a job (Table 4). In comparison, in 2006, 4.3% of Canadian workers worked in a health

Table 5 Industry sectors of Canadians residing in the United States, by emigration period, 2006

	Canadians residing in the United States								Canada
	Cohort								
	Before 1990		1990 to 1999		2000 to 2006		Total		Total
	%	confidence interval	%	confidence interval	%	confidence interval	%	confidence interval	%
Industry sector									
Health and social services	14.7	(13.0 to 16.4)	15.8	(13.6 to 18.1)	12.9	(9.6 to 16.3)	14.7	(13.5 to 16.0)	10.2
Manufacturing	10.8	(9.3 to 12.4)	11.4	(9.1 to 13.7)	12.4	(10.1 to 14.6)	11.2	(10.1 to 12.4)	11.9
Educational services	10.3	(8.9 to 11.7)	9.6	(7.6 to 11.6)	13.1	(10.1 to 16.0)	10.6	(9.5 to 11.6)	6.8
Professional, scientific and technical services	8.7	(7.5 to 9.9)	12.0	(10.0 to 14.0)	14.0	(10.7 to 17.4)	10.4	(9.3 to 11.5)	6.7
Retail trade	9.5	(8.0 to 11.0)	8.1	(6.2 to 10.0)	6.8	(4.9 to 8.7)	8.7	(7.7 to 9.7)	11.4
Construction	6.7	(5.5 to 7.9)	5.2	(3.7 to 6.7)	F	...	6.0	(5.1 to 6.9)	6.3
Finance and insurance	5.9	(5.0 to 6.8)	5.9	(4.1 to 7.7)	5.6[E]	(3.6 to 7.5)	5.9	(5.1 to 6.6)	4.1
All other industry sectors	33.3	(31.3 to 35.3)	31.9	(28.3 to 35.4)	30.5	(26.6 to 34.5)	25.7	(24.3 to 27.1)	38.1
Total	**100.0**	...	**100.0**	...	**100.0**	...	**100.0**	...	**100.0**

Notes: Includes the population aged 16 years and over with a job for the seven most prevalent industry sectors in 2006.
The confidence intervals are 95%.

Sources: U.S. Census Bureau, Public Use Microdata Files from the 2006 American Community Survey. Statistics Canada, Topic-based Tabulations, Catalogue No. 97-559-XCB2006009, 2006 Census.

occupation. The contrast is even greater if technician jobs are excluded from the health field group.[24] While they averaged only about 2.9% of the entire Canadian workforce in 2006, doctors and other health specialists, made up 8.2% of all Canadians residing in the United States with a job.[25]

There were also differences in the industries that recent emigrants from Canada worked in compared to the industrial breakdown of workers in Canada. For example, in 2006, the highest proportion of Canadians having recently immigrated to the United States was in the professional, scientific and technical service sector (14%). In comparison, the proportion in the total Canadian population, based on the 2006 Census, was 6.7% (Table 5). Canadians who were recent emigrants to the United States were also significantly over-represented in the education sector.

Summary

The United States remains the most important destination for Canadian emigrants. However, the most recent data available show a decrease in migratory flows. Indeed, the number of migrants from Canada decreased between 2000 and 2006, and the annual growth in the number of Canadian-born persons in the United States declined.

This outcome was perhaps predictable considering the relative prosperity Canada enjoyed over the study period. Emigration tends to decrease in Canada when the economy is strong.[26,27] Policies encouraging skilled workers to stay in the country likely contributed to this phenomenon.[28]

Recently, much of the flow of Canadian-born individuals to the United States has been made up of young, highly educated individuals who work in areas with high skill requirements. Indeed, the ACS data show that 53% of emigrants from Canada between the ages of 25 and 64 had a university degree.

While the increasing emigration of health professionals was of great concern in the 1990s, the ACS data indicate that the rise in the emigration of health professionals has not persisted since 2000, although emigration for this group of professionals remains relatively high.

Patrice Dion is a senior analyst in the Demography Division and **Mireille Vézina** is an analyst in the Social and Aboriginal Statistics Division of Statistics Canada.

1. Zhao, John, Doug Drew and Scott Murray. 2000. "Brain drain and brain gain: The migration of knowledge workers into and out of Canada." *Education Quarterly Review*. Vol. 6, no. 3. Statistics Canada Catalogue no. 81-003-XIE.

   DeVoretz, Don and Samuel A. Layrea. 1998. *Canadian Human Capital Transfers: The United States and Beyond*. Commentary 115. C.D. Howe Institute.

2. Zhao et al. 2000. The losses represented approximately 0.1% of persons with employment income and less than 1% of the labour force in a given occupation. In addition, a comparison of the migration losses to the United States with the migration gains from international migration exchanges made it possible to put the extent of the brain drain into perspective.

3. Cervantes, Mario and Dominique Guellec. 2002. "The brain drain: Old myths, new realities." *OECD Observer*. No. 230. Available at http://www.oecdobserver.org/news/fullstory.php/aid/673/ (accessed June 17, 2010).

4. Michalowski, Margaret and Kelly Tran. 2008. "Canadians abroad." *Canadian Social Trends*. No. 85. Statistics Canada Catalogue no. 11-008-XIE. Since Canadian emigrants are also immigrants elsewhere, the authors examined the Canadian emigrant population in five countries, using data sources from these countries.

5. The purpose of this survey is mainly to measure census coverage, especially undercounting. It seeks to collect various data from people who were not enumerated in the census. An estimate of the number of individuals residing outside the country during a census year but who resided in Canada during the preceding census can be obtained from this survey.

6. There are a few conceptual differences between ACS data and Canadian census data, particularly with respect to the two-month duration of residence ACS rule and the way in which data are collected (throughout the year for the ACS compared to a set date for the census).

7. The substantial increase in emigration to Asia, due in part to the economic development of China and other Asian countries, is one of the main reasons for this decrease. According to census Reverse Record Check data, while 17.9% of Canadian emigrants chose a country in Asia from 1996 to 2001, this proportion jumped to 33.7% for the 2001 to 2006 period.

8. Temporary emigrants are those who resided outside Canada for at least six months with the intention of returning to Canada as well as those who resided outside Canada for less than two years but whose intentions of returning to Canada were unknown. Permanent emigrants are persons with no intention of returning to Canada as well as those who resided outside Canada for two years or more but whose intentions of returning to Canada were unknown.

9. Jefferys, Kelly and Randall Monger. 2008. "U.S. legal permanent residents: 2007." *Annual Flow Report*. Office of Immigration Statistics, Policy Directorate. For example, in 2007, this limit was set at 26,120.

10. Office of Immigration Statistics. 2008. *Yearbook of Immigration Statistics*. U.S. Department of Homeland Security. Available at http://www.dhs.gov/files/statistics/publications/yearbook.shtm (accessed June 17, 2010). The Office of Immigration Statistics releases data on the number of permanent resident admissions by country of birth and country of origin.

11. Since October 16, 2008, the length of stay allowed between each renewal for work visa holders for Canadian and Mexican workers under NAFTA has been three years (instead of one year).

12. Nadeau, S., L. Whewell and S. Williamson. 2000. "Beyond the headlines on the 'brain drain.'" *Canadian Journal of Policy Research*. Vol. 1, no. 1. ISUMA.

13. U.S. Citizenship and Immigration Services. 2006. *Temporary Migration to the United States: Nonimmigrant Admissions Under U.S. Immigration Law*. January. Office of Policy and Strategy.

14. Batalova, Jeanne. 2006. "The growing connection between temporary and permanent immigration systems." *Insight*. Migration Policy Institute.

15. The ACS data may include a percentage of Canadians who spend several winter months in the United States. Since these Canadians are generally relatively older, their presence could raise the median age of the Canadian population, mainly in warm-climate states. This is particularly the case for Florida and Arizona. See the details on temporary and permanent emigration in the methodology section for further details.

16. Statistics Canada. 2008. *Educational Portrait of Canada, 2006 Census*. Statistics Canada Catalogue no. 97-560-X. Ottawa.

17. The people who are not in the labour force include students, homemakers, seasonal workers, and persons living in institutions.

18. Frank, Jeffrey and Éric Bélair. 1999. *South of the Border: Graduates from the Class of '95 Who Moved to the United States*. Statistics Canada Catalogue no. 81-587. Ottawa. Statistics Canada and Human Resources Development Canada.

19. King, Darren. 2008. *Doctoral Graduates in Canada: Findings from the Survey of Earned Doctorates, 2004/2005*. Statistics Canada Catalogue no. 81-595. Ottawa.

20. Zhao et al. 2000. The study showed that, in 1996 and 1997, the highest rates of emigration were observed among physicians.

21. Skinner, Brett J. 2002. *Medicare, the Medical Brain Drain and Human Resource Shortages in Health Care*. Atlantic Institute for Market Studies. http://www.aims.ca/library/BrainDrain.pdf (accessed June 17, 2010). Skinner, using Canadian Institute for Health Information data, showed that the total emigration of physicians from Canada, considering all destinations, climbed during the 1990s, peaking at 777 in 1994. Among them, 319 physicians were admitted as permanent residents to the United States and it is conceivable that most of the others were temporary emigrants who were also bound for the United States. The number of physicians admitted to the United States as permanent residents also grew considerably in the 1990s, reaching a peak of 522 in 1996. According to this study, by considering the total temporary and permanent emigration of physicians on the one hand and emigrants returning to Canada and new immigrants on the other hand, Canada recorded a net loss of physicians from 1994 to 1997.

22. The health professional group includes physicians as well as a number of other health specialists such as chiropractors, dentists, optometrists, pharmacists, audiologists, therapists, graduate nurses and veterinarians. It also includes technicians working in the health field.

23. Canadian Health Services Research Foundation. 2008. "*Myth: Canadian doctors are leaving for the United States in droves*." Myth Busters. March. http://www.chsrf.ca/mythbusters/html/myth29_e.php. (accessed June 17, 2010). This study looks at physicians only and reveals that far fewer of them have been admitted to the United States as permanent residents lately. This number was over 500 in 1996, but dropped to 169 in 2003, 138 in 2004, and to only 122 in 2005 as well as in 2006.

24. ACS data show that approximately 1,300 physicians and other health specialists, excluding technicians, living in the United States were living in Canada one year earlier.

25. According to census data, close to 719,000 Canadians were working in the health sector in 2006, out of which 484,000 were not working as technicians. These estimates were obtained by associating the occupational groups in the National Occupational Classification (NOC) used in the ACS with the occupational codes of the National Occupational Classification for Statistics (NOC-S) used in the 2006 Census. Since the two classifications do not match perfectly, these estimates are somewhat uncertain. The conclusions drawn from these figures, however, are still conservative. At most, the proportion of Canadians working in a health occupation, as defined in the SOC used in the ACS, could rise to 5.8% and 3.1% if technicians were excluded from the calculation. Furthermore, although the match-up between classifications in the NOC (used in the ACS) and NOC-S (used in the census) proves to be relatively simple for health occupations, this is not the case for other occupational groups. This is why the comparisons are limited to this group of occupations.

26. Finnie, Ross. 2006. *International Mobility: Patterns of Exit and Return of Canadians, 1982 to 2003*. Statistics Canada Catalogue no. 11F0019. Research paper.

27. Statistics Canada. 2008. *Canada's Changing Labour Force, 2006 Census*. Statistics Canada Catalogue no. 97-559-X. Ottawa. For example, according to 2006 Census data, total employment in Canada increased at an annual average rate of 1.7% between 2001 and 2006, ranking Canada as leader among the Group of Seven (G7) nations.

28. For example, in 2000, the Government of Canada created the Canada Research Chairs Program, a permanent program aimed at attracting and retaining some of the world's most accomplished and promising researchers.

Sharing their lives: women, marital trends and education

by Laetitia Martin and Feng Hou

Introduction

Society is constantly evolving. One of the major changes in the second half of the 20th century was the influx of women into the labour market, particularly in the early 1970s. At the same time as the evolving labour market was creating a heavier demand for highly skilled workers, the number of university students was growing. The increase in university attendance was more rapid among women than men, so much so that, in 2006, a larger proportion of women than men aged 25 to 29 held a university degree (33% of women and 23% of men).

Extended schooling among women affects the timing of transitions in their lives, including when they form unions.[1] The most common path is to complete one's education, find a job and then enter a relationship.[2] In this context, researchers have focused on the tendency among women with a higher level of education to postpone starting a family or decide not to have children.[3] How has the situation changed in recent years? Are women with a university degree still, as they were 25 years ago, less likely to be married than women without a university degree? When these women are married or in a common-law relationship, are they more likely than before to be living with a man who is also a university graduate?

Using data from the 1981 to 2006 Censuses, this article examines how the propensity to form unions (marriage or common-law) has changed for women aged 25 to 49 with a university degree and those without. It also compares the likelihood of female university graduates forming unions with similarly educated males in 2006 with the likelihood in 1981 (see "What you should know about this study").

An overview of unions in 2006

According to 2006 Census data, more than one-half of Canadian women aged 25 to 29 were in a union (marriage or common-law) in that year. The proportion of people in unions increases with age, with nearly three out of four women aged 45 to 49 in a union.

In every age group, marriage is more popular than common-law unions. However, younger women were more likely to be in a common-law union (23%) than older women (11%). Conversely, women aged 45 to 49 were almost twice as likely to be married as women aged 25 to 29 (62% and 32% respectively).

Education and marriage over time

In North America, female university graduates born before the 1960s were less likely to marry than less-educated women.[4] That is no longer the case in Canada. In fact, by 2006, there emerged a positive relationship between having a university education and being married. Indeed, women aged 25 to 49 with a university degree are now more likely to be married than less-educated women (57% and 53% respectively) (Table 1).

This reversal is also evident in the oldest age group (Chart 1). In 1981, Canadian women aged 45 to 49 with a university degree were less likely to be married (66%) than other women in the same age group (80%). The gap narrowed over time, however, and, by 2001, the percentage of married women was about the same for university graduates as for the other women (about 65%). And, in 2006, a slightly larger proportion of women aged 45 to 49 with a university degree were married than other women (65% compared to 61%) (Chart 1).

In the group aged 25 to 29, the difference in the proportion of married women with a university degree and those without shrank over the years (Chart 1). Even so, in 2006, women with a university degree remained slightly less likely to be married than other women (31% and 32% respectively).

What you should know about this study

This study is based on data from the 1981 to 2006 Censuses of Population. The analysis focuses on women from 25 to 49 years of age, since most Canadian women have completed their education by the age of 25, and since the proportion of Canadian women in unions levels out at the age of 49. The focus is on marital status by highest level of education. Since the number of same-sex unions is small and there are no data on such unions for years prior to 2001, this study relates to opposite-sex unions only.

Definitions

University graduate: A person with a bachelor's degree, a master's degree or a doctorate. This does not include persons with a university certificate or diploma below the bachelor level.

Educational homogamy: Partners with similar levels of schooling. In this study, there is educational homogamy when a woman with a university degree forms a union (marriage or common-law) with a partner also with a university degree.

Marital status: Conjugal status of a person at the time of the census. Marriage and common-law union are combined. 'Married' includes all persons who are legally married but not separated and not living common-law with a person other than their spouse. 'Common-law' includes all persons who are living as a couple but not legally married to each other. Persons living in common-law unions can be legally unmarried, divorced or widowed. In the 1981 and 1986 Censuses, the data on common-law unions were based on responses concerning the relationship between persons. A direct variable was introduced in the 1991 Census.

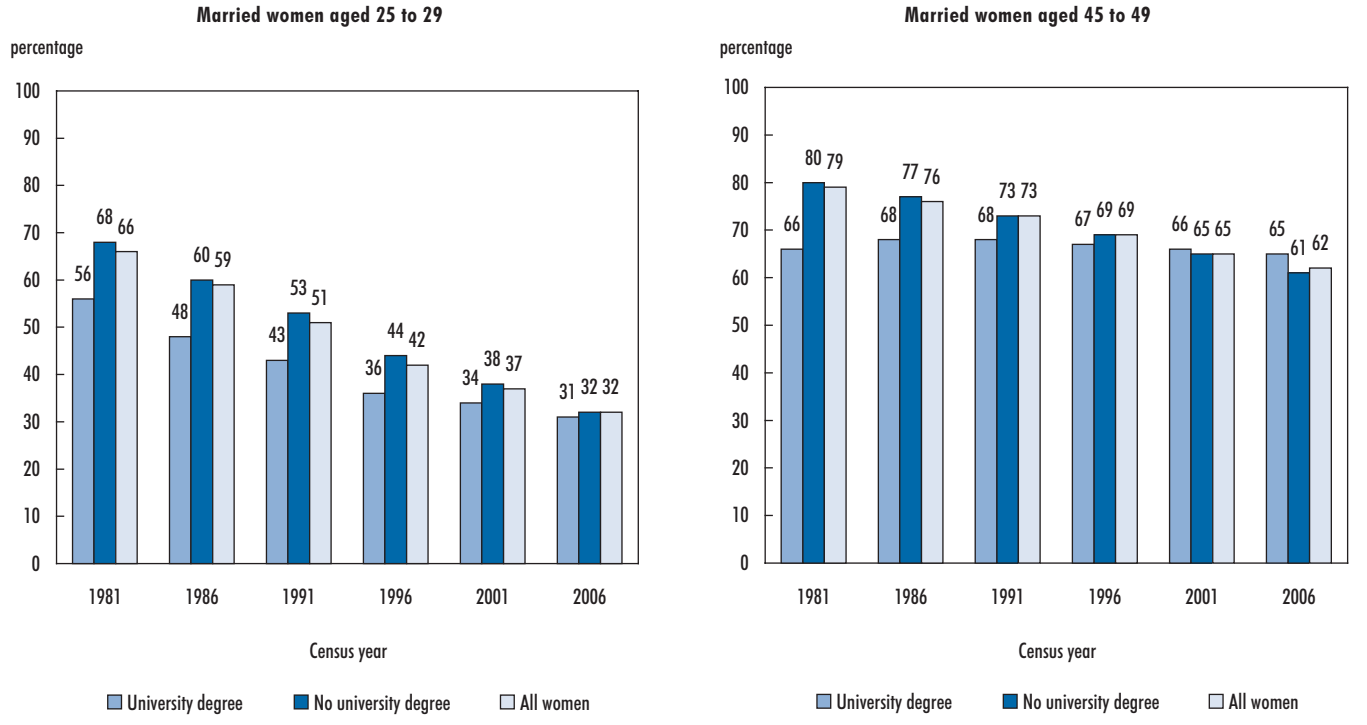
Measurement of unions in the census: The census captures marital status on Census Day. The data do not distinguish whether it is the first union or a subsequent union. Accordingly, any unions prior to the Census Day union are out of scope.

Table 1 Women aged 25 to 49 by marital status, level of education and region of residence

	Canada		Quebec		Canada excluding Quebec	
	1981	2006	1981	2006	1981	2006
	percentage					
In a marriage						
All women	75	54	72	37	76	60
University degree	65	57	58	38	67	62
No university degree	76	53	73	37	77	59
In a common-law union						
All women	4	16	5	31	4	11
University degree	5	13	8	30	4	8
No university degree	4	16	5	32	4	12
Not married and not in a common-law union						
All women	21	30	23	31	20	30
University degree	30	30	34	31	29	29
No university degree	20	30	22	31	19	30

Source: Statistics Canada, Censuses of Population, 1981 and 2006.

Chart 1 Regardless of age, women with a university degree were just as likely to be married as less educated women in 2006



Source: Statistics Canada, Censuses of Population, 1981 to 2006.

Common-law unions are less frequent among women with a university degree

Common-law unions have become more popular since 1981. The proportion of people aged 25 to 49 in a common-law union quadrupled in Canada, increasing from 4% in 1981 to 16% in 2006. In most cases, common-law unions appear to mark the starting point of conjugal life rather than a long-term situation.[5] However, according to recent studies, in some instances common-law unions have become an alternative to marriage, particularly in Quebec.[6] In 2006, 31% of women aged 25 to 49 who were living in Quebec were in a common-law union, while this was the case for 11% of women in the rest of Canada (Table 1).

In 2006, women with a university education were less likely to be in a common-law relationship than less-educated women. In Quebec, 30% of women with a university degree were in a common-law union, a slightly smaller proportion than for less-educated women (32%). In the rest of Canada, the difference was more pronounced, with 12% of less-educated women and 8% of university graduates in common-law unions.

The difference in the tendency to be in a common-law union between university graduates and other women appears to have grown over time. This trend was observed for women aged 25 to 29 as well as for those aged 45 to 49 (Chart 2).

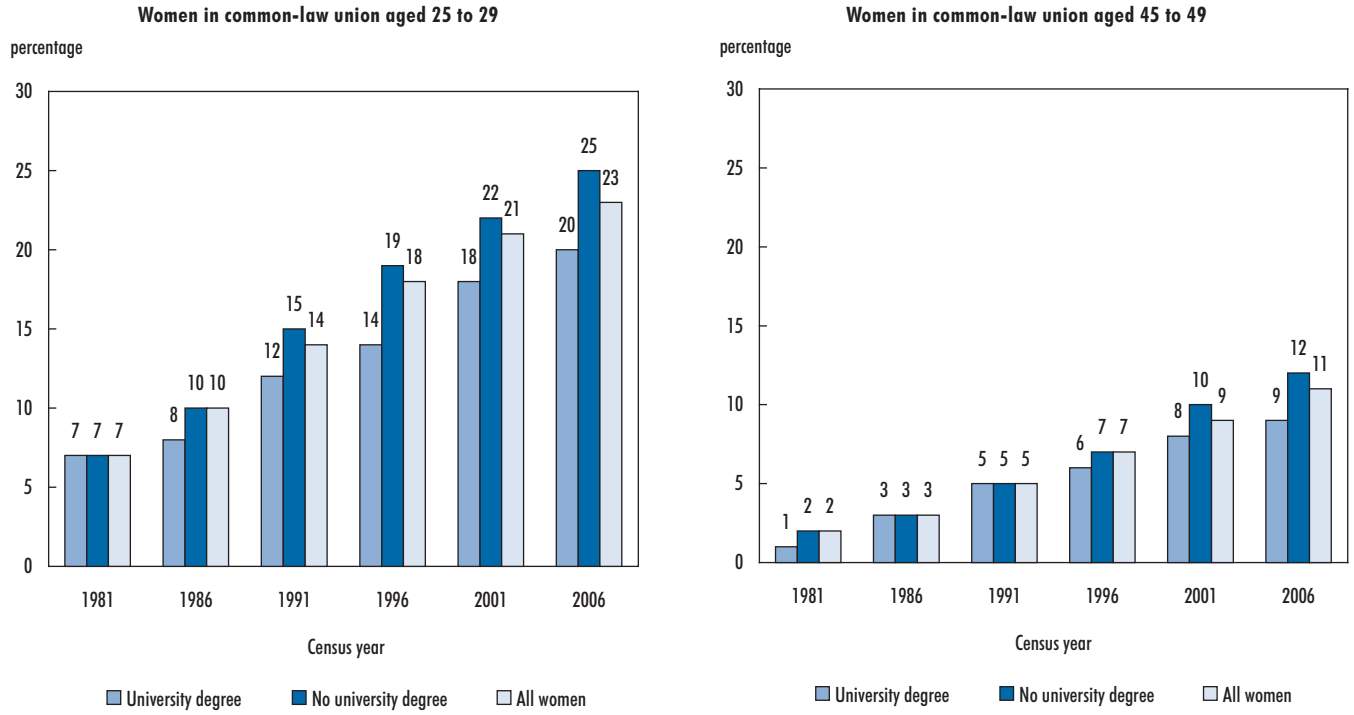
Educational homogamy

Education has always affected the choice of partners in modern Western societies.[7] Schools and universities provide young people with a place where they can meet and discuss what they expect from life, their values and their cultural preferences. The workplace is another location for meeting potential spouses. Individuals who work together may have similar levels of education, which can make it easier to find a partner with a similar level of education (educational homogamy).[8]

In 2006, women aged 25 to 49 were more likely to be highly educated than men in the same age category—about 1,543,000 women, or 27%, had a bachelor's degree or higher, compared with 23% of men.[9] For every 100 women in this age group, 84 men in the same age group had a similar level of schooling. The opposite was true 25 years earlier. For every 100 women with a bachelor's degree or higher, 157 men had an equal amount of education.

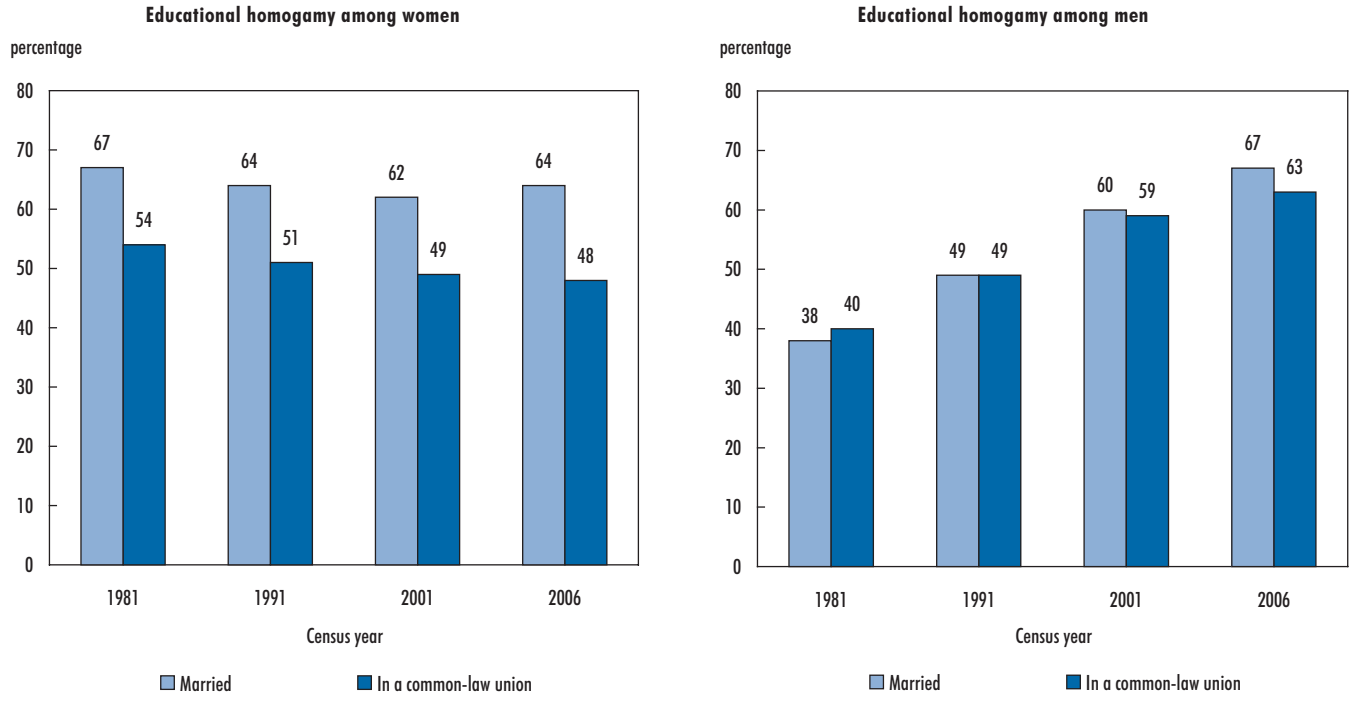
Because of the increase in the number of female university graduates, men with a university degree had a better chance of having a partner with a degree in 2006 than in 1981. In 2006, 67% of men with a university degree were married to women with the same level of education, compared with 38% in 1981 (Chart 3).

Chart 2 Common-law unions are less popular among women with a university degree, particularly those aged 25 to 29



Source: Statistics Canada, Censuses of Population, 1981 to 2006.

Chart 3 Educational homogamy more common among married women than among women in a common-law union



Source: Statistics Canada, Censuses of Population, 1981 to 2006.

Interestingly, in 2006, married women with a university degree between the ages of 25 and 49 had a slightly lower tendency toward educational homogamy than 25 years earlier. For example, the proportion of women with degrees who had married men with the same level of education was 64% in 2006, compared with 67% 25 years earlier.

This slight dip in women's educational homogamy and the sharp increase in men's educational homogamy may be due to the more rapid growth in the rate of women's university graduation. Women with a university education would find fewer partners with comparable schooling to marry, whereas the reverse would be true for men.

Such changes could raise the proportion of women university graduates marrying men with less education than they have (similar to the situation of male university graduates in 1981). The observations made here suggest, however, that the decrease in the relative supply of university-educated men has so far had only a slight impact on the educational homogamy rate for these women.

For women with a university degree, the likelihood of having a partner with the same level of education was lower among those in common-law unions (48% in 2006) than among those who were married (64%). This difference may reflect less concern about their partners' earnings among women in common-law unions than among women in married couples[10] as partners in common-law relationships often have less legal and economic commitment to each other.[11] Some researchers point out that, despite the increasing popularity of common-law unions, marriage is still very highly regarded, and a great deal is expected of marriage in providing economic security.[12] While common-law couples are more likely to choose non-traditional models for the roles of the two partners, marriage is characterized by a higher level of economic interdependence between the spouses.[13]

Summary

Women have made substantial gains in education over the last few decades and are now more likely to have a university degree than men. In 2006, for every 100 women aged 25 to 49 with a university degree, there were 84 men with the same level of education. The corresponding ratio in 1981 was 157 men for every 100 women.

Over the last quarter-century, the conjugal situation of female university graduates has changed considerably. In 2006, women aged 25 to 49 with a university degree were more likely to be married than other women (57% and 53% respectively). In 1981, the opposite was true: 65% of women with a university degree were married, compared with 76% of less-educated women.

The majority of women with a university education marry men who also have a university education. This tendency has decreased slightly over the last quarter-century. The pattern is similar for women in common-law unions. In contrast, men with a university degree are increasingly likely to be married to or in a common-law union with a woman who also has a university degree.

Laetitia Martin is a subject-matter analyst in the Social and Aboriginal Statistics Division and **Feng Hou** is a senior researcher in the Social Analysis Division at Statistics Canada.

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2. Shaienks, Danielle and Tomasz Gluszynski. 2009. *Education and Labour Market Transitions in Young Adulthood*, Culture, Tourism and the Centre for Education Statistics Research Papers. Statistics Canada Catalogue no. 81-595-MWE2009075.

3. Shaienks and Gluszynski. 2009.

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   Clark. 2007.

4. Goldstein and Kenney. 2001.

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8. Oppenheimer, Valerie Kincade. 1994. "Women's rising employment and the future of the family in industrial societies." *Population and Development Review*. Vol. 20, no. 2. p. 293-342.

9. The gap in women's favour was wider in the younger age groups in 2006: 10 percentage points in the 25 to 29 age group, 3 percentage points in the 35 to 39 age group, and no difference in the forties.

10. Blackwell, Debra and Daniel T. Lichter. 2000. "Mate selection among married and cohabiting couples." *Journal of Family Issues*. Vol. 21, no. 3, p. 275-301.

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Family, community, and Aboriginal language among young First Nations children living off reserve in Canada

by Evelyne Bougie

Introduction

Aboriginal languages are central to many First Nations people's identity.[1] The 2006 Census recorded more than 60 different Aboriginal languages spoken by First Nations people in Canada, grouped into distinct language families (Algonquian, Athapascan, Siouan, Salish, Tsimshian, Wakashan, Iroquoian, Haida, Kutenai and Tlingit). Some Algonquian languages, such as Cree and Ojibway, are considered to have better long-term viability than other languages spoken by First Nations people because of their relatively larger base of speakers. However, even these more viable languages have experienced a decline in their use as the primary home language over the past two decades.[2]

According to the 1996 Royal Commission on Aboriginal Peoples, the passing down of Aboriginal languages across the generations was disrupted by residential schools in Canada, where the use of Aboriginal languages was prohibited. The Royal Commission also noted that the revitalization of Aboriginal languages in Canada is a key component for building both healthy individuals and healthy communities.[3]

Given the state of Canada's Aboriginal languages, information about Aboriginal language knowledge and the factors that are associated with language development and retention among today's First Nations children is relevant and important for those working to preserve, revitalize and promote Aboriginal languages.

It has been stated that for many First Nations children, the 'ideal' conditions for acquiring an Aboriginal language—such as both parents having an Aboriginal mother tongue and residing in a First Nations community—are not always possible.[4] In this context, an exploration of the characteristics associated with Aboriginal language knowledge among young First Nations children residing off reserve is important. This article uses data from the 2006 Aboriginal Children's Survey to investigate the extent to which the home, the family, and the community can contribute to Aboriginal language knowledge among young off-reserve First Nations children aged 2 to 5 years in Canada (for more information on data and concepts see "What you should know about this study").

This article will explore two research questions: 1) To what extent do the families and communities of young off-reserve First Nations children provide opportunities to hear, learn and use Aboriginal languages? 2) Which family and community characteristics are associated with Aboriginal language[5] knowledge among off-reserve First Nations children aged 2 to 5 years?

One in five off-reserve First Nations children were able to understand an Aboriginal language

According to the 2006 Aboriginal Children's Survey, 1 in 5 (20%) off-reserve First Nations children[6] were able to understand an Aboriginal language (regardless of whether these were learned as mother tongues or as second languages). Cree and Ojibway were the languages understood by the largest number of off-reserve First Nations children.

Data also show that the vast majority (98%) of off-reserve First Nations children who understood an Aboriginal language could also understand a non-Aboriginal language (i.e., English and/or French). This indicates that most of these children

What you should know about this study

This article is based on data from the 2006 Aboriginal Children's Survey (ACS). The ACS was developed by Statistics Canada and Aboriginal advisors from across the country and was conducted jointly with Human Resources and Social Development Canada. The ACS provides an extensive set of data about Aboriginal (Métis, Inuit and off-reserve First Nations) children under 6 years of age across Canada. Indian settlements and reserves in the ten provinces were excluded from the target population for the survey. All First Nations children living in the Yukon and Northwest Territories were included.

The ACS was conducted between October 2006 and March 2007. In the ACS, the child's parent or guardian responded to the survey. For the majority of First Nations children (89%), this person was the birth mother or father. Parents or guardians of approximately 10,500 Aboriginal children under 6 years of age, including more than 5,100 First Nations children living off reserve, provided information through a combination of personal and telephone interviews. The overall response rate for the survey was 81.1%. For more detailed information on the Aboriginal Children's Survey, please consult the Aboriginal Children's Survey 2006 Concepts and Methods Guide (Statistics Canada Catalogue no. 89-634).

In this article, ACS data include children whose parents identified them as North American Indian in response to the question: "Is (child) an Aboriginal person, that is, North American Indian, Métis or Inuit?" Data include children who were identified as North American Indian only and those identified as North American Indian in combination with another Aboriginal group (either Métis or Inuit). There are some instances where 2006 Census data are used. In this article, census data include children who were identified as North American Indian as a single response (i.e., not in combination with Métis or Inuit identity). In the 2006 Census and the 2006 Aboriginal Children's Survey, children were identified as "North American Indian," however, the term "First Nations children" is used throughout this article.

Statistical analysis and model building

Correlates of Aboriginal language knowledge were examined using logistic regression analysis. The final full model included a number of covariates categorized under sociodemographic, home/parent, extended family, child care, and community factors. The initial sample consisted of 3,640 off-reserve First Nations children between the ages of 2 and 5. The analysis included 2,780 children (76% of the initial sample) with no missing values for any of the covariates included in the model.

Covariates were retained for inclusion in the preliminary full model if they were found to be related to Aboriginal language knowledge at $p < 0.25$ in preliminary single variable models. The full model was simplified by deleting the covariates that did not contribute to Aboriginal language knowledge at $p < 0.05$ when all the covariates were included. Some covariates that did not significantly contribute were nonetheless kept because they provided a needed adjustment of the effect of the covariates that remained in the model, or because of their theoretical importance.[1] The covariates that were initially considered but later deleted from the model because their presence or absence did not change the results from the final full model were the following: child's sex and age; parent's sex; parental residential school attendance; parental employment status; and parental Aboriginal identity.

This article's statistical analysis measures the odds of understanding an Aboriginal language (as reported by the parent or guardian), isolating the impact of one characteristic of interest at a time. The odds ratios were estimated through a weighted regression that used ACS survey weights, with variance estimation done through survey bootstrapping.

It is important to understand that the direction of the relationship between children's ability to understand an Aboriginal language and the factors under investigation is difficult to determine. As such, results from this study are best interpreted as highlighting correlations between variables. It should also be emphasized that this study investigated children's ability to understand an Aboriginal language as perceived and reported by their parent or guardian. More objective measures of language abilities are not available in the ACS.

1. Hosmer, David W. and Stanley Lemeshow. 2000. *Applied Logistic Regression*. 2nd edition. Toronto. John Wiley & Sons, Inc. p. 92-104.

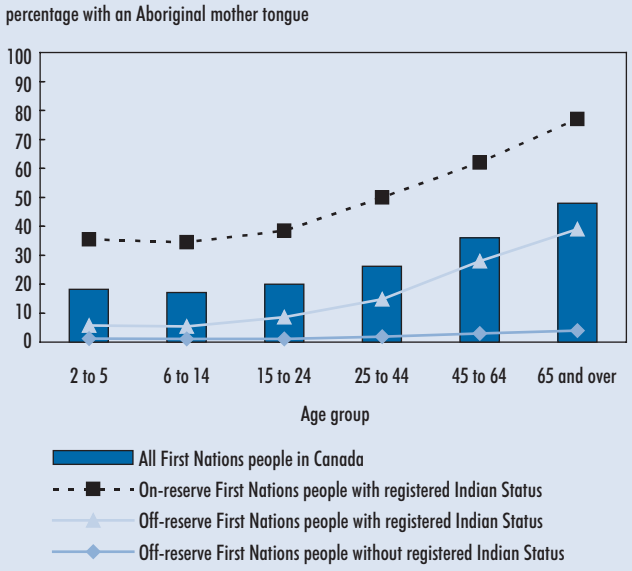
First Nations children make up a growing proportion of all children in Canada, particularly in Manitoba, Saskatchewan, Yukon and the Northwest Territories. In 2006, the census enumerated about 57,110 First Nations children aged 2 to 5 across Canada, 82% of whom were Registered or Treaty Indians.[1]

According to the 2006 Census, 18% of First Nations children across Canada had an Aboriginal language as their mother tongue (or first language learned), down from 21% in 1996. Older generations of First Nations people are generally more likely than younger generations to have an Aboriginal language as their mother tongue (Chart 1). Notably in 2006, 48% of First Nations people aged 65 and over and 36% of those aged 45 to 64 had an Aboriginal mother tongue. An exception to this trend can be observed for off-reserve First Nations people without registered Indian status, for whom the proportions reporting an Aboriginal mother tongue are relatively small across all age groups.

The decreasing share of First Nations children reported to have an Aboriginal mother tongue from 1996 to 2006, coupled with the higher proportions reporting an Aboriginal mother tongue among older generations of First Nations people, indicate some erosion in the intergenerational transmission of Aboriginal languages in Canada.

Data from the 2006 Census also show that having an Aboriginal mother tongue is more common among the Registered Indian population living on reserve (Chart 1). For instance, 36% of First Nations children who were Registered Indians and who were living on-reserve at the time of the 2006 Census had an Aboriginal language as their first language.[2] Off-reserve, these figures were lower at 6% for First Nations children who were Registered Indians and 1% for those who did not have registered Indian status.

Chart 1 Older generations of First Nations people were generally more likely than younger generations to have an Aboriginal language as their mother tongue in 2006



Note: The "on-reserve" population includes First Nations people living on reserve in the ten provinces. The "off-reserve" population includes First Nations people living off reserve in the ten provinces and all First Nations people living in the territories.

Source: Statistics Canada, Census of Population, 2006.

1. Registered Indians or "status Indians" are people who are entitled to have their names included on the Indian Register, an official list maintained by the federal government. Certain criteria determine who can be registered as a status Indian. Only Registered Indians are recognized as Indians under the *Indian Act*, which defines an Indian as "a person who, pursuant to this Act, is registered as an Indian or is entitled to be registered as an Indian." Status Indians are entitled to certain rights and benefits under the law. Generally speaking, Treaty Indians are persons who are registered under the *Indian Act* and can prove descent from a band that signed a treaty. For more information, see the Indian and Northern Affairs Canada website at: http://www.ainc-inac.gc.ca/ap/tln-eng.asp

2. There were 22 incompletely enumerated Indian reserves and settlements in the 2006 Census. Data are not available for incompletely enumerated Indian reserves and settlements and these areas are not included in the tabulations.

appear to be learning an Aboriginal language alongside English or French, and that some may be learning their Aboriginal language as a second language.[7] This observation appears to be supported by the fact that English or French was the primary language spoken at home for the majority (90%) of off-reserve First Nations children. About 10% of children were spoken to primarily in an Aboriginal language at home: 8% in combination with English or French, and 1% exclusively in an Aboriginal language.

It has been suggested that the intergenerational transmission of Aboriginal languages may be difficult when the language is not used at home.[8] The home, however, is not the only setting where children can be exposed to languages. Research suggests that different social environments can provide supports for language acquisition.[9] Parents, the family, and the community have all been shown to play an important role in the transmission of Aboriginal languages to children.[10] Child care facilities and schools, as well as other settings with caregiver–child interactions, also provide communicative opportunities that can influence language acquisition.[11]

There is evidence that the preschool years are a time when language skills are emerging.[12] The 2006 Aboriginal Children's Survey provides information on young children's exposure to Aboriginal languages in many different contexts, as well as information on the involvement of parents, extended family members, and other child care providers in children's lives. Taken together, these data offer a more complete picture of the extent to which the families and communities of off-reserve First Nations children can provide opportunities to hear, learn, and use Aboriginal languages.

To what extent do the families and communities of off-reserve First Nations children provide opportunities to hear, learn and use Aboriginal languages?

The home environment naturally impacts the transmission of an Aboriginal language from parent to child.[13] According to the 2006 Aboriginal Children's Survey, 17% of young off-reserve First Nations children had (at least) one parent with an Aboriginal mother tongue (Table 1). Moreover, 1 in 5 (20%) children were exposed to an Aboriginal language on a daily basis at home, and almost one-third (31%) had parents who helped them understand First Nations culture and history. As for parental attitudes toward Aboriginal languages, the majority (68%) of young off-reserve First Nations children had parents who believed it was "very important" or "somewhat important" for their children to speak and understand an Aboriginal language.

Contact with Aboriginal languages can also be made through interactions with extended family (see "Aboriginal languages in Canada: Snapshots from the census"). For example, in 2006, 44% of young off-reserve First Nations children had grandparents and 28% had other relatives who were involved in raising them. A sizeable proportion of children also spent time "talking or playing together" on a daily basis with their grandparents (27%) or aunts and uncles (17%). In addition, one-quarter (25%) of children had grandparents, and one-tenth (10%) had an aunt or uncle, who helped them understand First Nations culture and history.

Off-reserve First Nations children can also be exposed to Aboriginal languages in the context of child care. About 8% of off-reserve First Nations children had a teacher or child care provider who helped them understand First Nations culture and history. About 8% were in child care arrangements[14] where Aboriginal languages were used.

The community where children live is another context that can

Table 1 Characteristics of off-reserve First Nations children aged 2 to 5, Canada, 2006

	percentage
Sociodemographic characteristics	
Child's registered Indian status	
Without	42
With	58
Child's living arrangements	
Two parents	58
One parent	39
Other (living with relatives or with non-relatives only)	3
Parent's age (in years)	
45 and over	7
35 to 44	27
25 to 34	50
24 and under	16
Parent's level of education	
Less than high school	31
High school	25
Some postsecondary	11
Completed postsecondary	33
Average household income	**in dollars**
Lowest quintile	13,600
Second quintile	25,600
Third quintile	40,000
Fourth quintile	59,900
Highest quintile	109,400

Table 1 Characteristics of off-reserve First Nations children aged 2 to 5, Canada, 2006 (continued)

	percentage
Household size	
Two persons	8
Three persons	21
Four persons	32
Five persons	20
Six persons	10
Seven persons or more	9
Region	
Atlantic	5
Quebec	6
Ontario	26
Manitoba	14
Saskatchewan	12
Alberta	16
British Columbia	17
Territories	4
Home and family characteristics	
Parent's mother tongue	
Non-Aboriginal	83
Aboriginal	17
Exposure to Aboriginal languages at home	
Less than daily[1]	80
Daily[2]	20
Parents help child to understand First Nations culture and history	
No	69
Yes	31
Importance of speaking and understanding an Aboriginal language	
Not very important / Not at all important	32
Somewhat important / Very important	68
Grandparents involved in raising the child	
No	56
Yes	44
Other relatives involved in raising the child	
No	72
Yes	28
Grandparents help child to understand First Nations culture and history	
No	75
Yes	25
Uncles or aunts help child to understand First Nations culture and history	
No	90
Yes	10

	percentage
Focused attention ("talking or playing together") from grandparents	
Less than daily[3]	73
Daily[2]	27
Focused attention ("talking or playing together") from uncles or aunts	
Less than daily[3]	83
Daily[2]	17
Child care	
Child care arrangements	
Attends child care where Aboriginal languages are used	8
Attends child care where Aboriginal languages are not used	42
Does not attend any regular child care	50
Teacher/child care provider helps child to understand First Nations culture and history	
No	92
Yes	8
Community	
Community as a … place with First Nations cultural activities	
Fair / Poor	57
Good / Very good / Excellent	43
Exposure to Aboriginal languages at the home of others	
Less than daily[1]	91
Daily[2]	9
Exposure to Aboriginal languages in the community	
Less than daily[1]	92
Daily[2]	8
Exposure to Aboriginal languages through media	
Less than daily[1]	95
Daily[2]	5
Participation in traditional activities such as singing, drum dancing, fiddling, gatherings and ceremonies	
Less than monthly[4]	79
At least monthly[5]	21
Participation in hunting, fishing, trapping, camping activities	
Less than monthly[4]	88
At least monthly[5]	12
Participation in seasonal activities such as berry picking or gathering wild plants	
Less than monthly[4]	91
At least monthly[5]	9

1. Includes responses of more than once a week, once a week, at least once a month, at least once a year, less than once a year and never.
2. Includes responses of more than once a day and once a day.
3. Includes responses of more than once a week, once a week, less than once a week, and never.
4. Includes responses of at least once a year, less than once a year and never.
5. Includes responses of more than once a day, once a day, more than once a week, once a week and at least once a month.

Source: Statistics Canada, Aboriginal Peoples Survey, 2006.

contribute to the passing down of Aboriginal languages to children. According to the Aboriginal Children's Survey, 9% of young off-reserve First Nations children had daily exposure to Aboriginal languages at the home of others ("others" could include family members not living in the child's household, neighbours, family friends, etc.). Moreover, 8% of children had daily exposure to Aboriginal languages in their community, and 5% through media (such as TV, DVDs, radio or books). About 43% of off-reserve First Nations children had parents who rated their community as an "excellent," a "very good," or a "good" place for First Nations cultural activities.

Participation in traditional activities may provide unique opportunities for exposure to Aboriginal languages. About 21% of young off-reserve First Nations children participated in or attended traditional First Nations activities (such as singing, drum dancing, fiddling, gatherings and ceremonies) at least once a month. In addition, about 12% of children took part in hunting, fishing, trapping or camping, and 9% participated in seasonal activities (such as berry picking or gathering wild plants) at least once a month.

Taken together, these data suggest that there are some opportunities in the families and communities of young off-reserve First Nations children to potentially learn an Aboriginal language, either through different social networks or through different activities. The next section explores the association between these family and community characteristics and children's knowledge of an Aboriginal language.

Which family and community characteristics are associated with Aboriginal language knowledge?

A logistic regression model was developed to explore the contribution of different individual, socio-economic and family and community characteristics of young off-reserve First Nations children to their knowledge of an Aboriginal language. The analysis estimated the likelihood that a child with a given characteristic was able to understand an Aboriginal language, while isolating the effects of other characteristics. Results from this analysis should be interpreted as highlighting correlations between variables, not as causation (see "What you should know about this study" for more information about the logistic regression model).

Analysis of the 2006 Aboriginal Children's Survey revealed that there are a number of home, extended family, child care arrangement and community characteristics associated with the ablity of young off-reserve First Nations children to understand an Aboriginal language (Table 2).

The language environment within the home plays an important role in the likelihood of understanding an Aboriginal language

All of the characteristics related to the language environment within the home were found to be associated with children's knowledge of an Aboriginal language, once all other characteristics were taken into account. In particular, daily exposure to an Aboriginal language at home was strongly linked with Aboriginal language knowledge. The odds of understanding an Aboriginal language for young off-reserve First Nations children who were exposed to an Aboriginal language on a daily basis at home were 6.6 times the odds for children who were not.

Parental mother tongue was also associated with young children's Aboriginal language knowledge. The odds of understanding an Aboriginal language for off-reserve First Nations children whose parent had an Aboriginal mother tongue were about twice the odds for children whose parent had a non-Aboriginal language (e.g., English and/or French) as their mother tongue.

Parental beliefs and involvement matter

Parental beliefs regarding the importance of Aboriginal languages also appear to be related to young children's knowledge of an Aboriginal language. Once all other characteristics were taken into account, the odds of understanding an Aboriginal language for off-reserve First Nations children whose parent thought it "very" or "somewhat" important that their child speak and understand an Aboriginal language were about twice the odds for children whose parent thought it "not very" or "not at all" important.

Off-reserve First Nations children who had parents who helped them understand First Nations culture and history were also found to have higher odds of understanding an Aboriginal language compared to children whose parents did not provide such help (Table 2).

Having extended family members who can speak an Aboriginal language and help children understand their culture is important

The extended family can also play a role in the transmission of Aboriginal languages to children. Once all other characteristics were taken into account, off-reserve First Nations children who had an aunt or uncle who helped them understand First Nations culture and history had higher odds of understanding an Aboriginal language compared to children who did not receive such help (Table 2).

In addition, First Nations children whose grandparents were involved in raising them were found to have higher odds of understanding an Aboriginal language than children whose grandparents were not involved—presumably because grandparents are more likely to speak an Aboriginal language. Data from the 2006 Census show that Aboriginal language knowledge is more common among older generations of First Nations people.

Table 2 Logistic regression model predicting the odds of being able to understand an Aboriginal language, off-reserve First Nations children aged 2 to 5, Canada, 2006

	Odds ratio
Sociodemographic characteristics	
Child's registered Indian status	
Without †	1.0
With	2.0*
Child's living arrangements	
Two parents †	1.0
One parent	1.0
Other (living with relatives or with non relatives only)	0.9
Parent's age (in years)	
45 and over †	1.0
35 to 44	1.8
25 to 34	3.0*
24 and under	4.8*
Parent's level of education	
Less than high school	1.2
High school †	1.0
Some postsecondary	0.9
Completed postsecondary	1.3
Household income (quintiles)	**0.9**
Household size (continuous)	**1.0**
Region	
Atlantic	0.8
Quebec	0.9
Ontario	0.7
Manitoba	0.5*
Saskatchewan	0.7
Alberta	0.7
British Columbia	0.5*
Territories †	1.0
Home and family characteristics	
Parent's mother tongue	
Non-Aboriginal †	1.0
Aboriginal	2.1*
Exposure to Aboriginal languages at home	
Less than daily[1] †	1.0
Daily[2]	6.6*
Parents help child to understand First Nations culture and history	
No †	1.0
Yes	1.8*
Importance of speaking and understanding an Aboriginal language	
Not very important / Not at all important †	1.0
Somewhat important / Very important	2.3*
Grandparents involved in raising the child	
No †	1.0
Yes	1.4*
Other relatives involved in raising the child	
No †	1.0
Yes	1.1
Grandparents help child to understand First Nations culture and history	
No †	1.0
Yes	1.2
Uncles or aunts help child to understand First Nations culture and history	
No †	1.0
Yes	1.4*
Focused attention ("talking or playing together") from grandparents	
Less than daily[3] †	1.0
Daily[2]	0.9
Focused attention ("talking or playing together") from uncles or aunts	
Less than daily[3] †	1.0
Daily[2]	0.9
Child care	
Child care arrangements	
Attends child care where Aboriginal languages are used	3.7*
Attends child care where Aboriginal languages are not used †	1.0
Does not attend any regular child care	1.5*
Teacher/child care provider helps child to understand First Nations culture and history	
No †	1.0
Yes	2.3*
Community	
Community as a … place with First Nations cultural activities	
Fair / Poor †	1.0
Good / Very good / Excellent	1.4*
Exposure to Aboriginal languages at the home of others	
Less than daily[1]†	1.0
Daily[2]	1.6*
Exposure to Aboriginal languages in the community	
Less than daily[1]†	1.0
Daily[2]	0.7
Exposure to Aboriginal languages through media	
Less than daily[1]†	1.0
Daily[2]	0.8
Participation in traditional activities such as singing, drum dancing, fiddling, gatherings and ceremonies	
Less than monthly[4] †	1.0
At least monthly[5]	1.2

Table 2 Logistic regression model predicting the odds of being able to understand an Aboriginal language, off-reserve First Nations children aged 2 to 5, Canada, 2006 (continued)

	Odds ratio
Participation in hunting, fishing, trapping, camping activities	
Less than monthly[4] †	1.0
At least monthly[5]	1.4*
Participation in seasonal activities such as berry picking or gathering wild plants	
Less than monthly[4] †	1.0
At least monthly[5]	0.9

† reference group
* statistically significant difference from reference group at $p < 0.05$
1. Includes responses of more than once a week, once a week, at least once a month, at least once a year, less than once a year and never.
2. Includes responses of more than once a day and once a day.
3. Includes responses of more than once a week, once a week, less than once a week and never.
4. Includes responses of at least once a year, less than once a year and never.
5. Includes responses of more than once a day, once a day, more than once a week, once a week and at least once a month.

Note: The analysis is based on 2,780 children with no missing values on any of the covariates included in the model. The model correctly classified 85% of cases in the sample.
Source: Statistics Canada, Aboriginal Children's Survey, 2006.

Child care arrangements where Aboriginal languages are used play a significant role

Teachers and child care providers can also contribute to the passing down of Aboriginal languages to children. Once all other characteristics were taken into account, the odds of understanding an Aboriginal language for off-reserve First Nations children who were in child care arrangements where Aboriginal languages were used were 3.7 times the odds for children who were in child care arrangements but were not exposed to Aboriginal languages in this context. Children who were not in regular child care arrangements had higher odds of understanding an Aboriginal language than children who were in child care arrangements but were not exposed to Aboriginal languages (Table 2).

Moreover, the odds of understanding an Aboriginal language for off-reserve First Nations children who had a teacher or child care provider who helped them understand First Nations culture and history were about twice the odds for children who did not receive such help.

The community also makes a difference

Social networks in the community appear to be linked with young children's Aboriginal language knowledge. Once all other characteristics were taken into account, off-reserve First Nations children who were exposed to an Aboriginal language on a daily basis at the homes of others had higher odds of understanding an Aboriginal language than children who were not (Table 2).

In addition, off-reserve First Nations children whose parents felt that their community was a "good," a "very good," or an "excellent" place for First Nations cultural activities were also found to have higher odds of understanding an Aboriginal language than children whose parents were less satisfied with the availability of cultural activities in their community (Table 2).

Participation in traditional activities and knowledge of an Aboriginal language are related

Aboriginal language knowledge and participation in traditional activities were found to be related. Once all other characteristics were taken into account, young off-reserve First Nations children who took part in hunting, fishing, trapping or camping at least monthly had higher odds of understanding an Aboriginal language than children who participated in these activities less frequently (Table 2). Language and culture are tightly connected and it is difficult to identify the direction of the relationship between the two. Aboriginal language knowledge and participation in traditional activities could be associated because Aboriginal languages are more likely to be used in the context of traditional Aboriginal activities such as hunting, fishing, trapping or camping; alternatively, it could be that those who speak an Aboriginal language are more likely to frequently engage in these activities. Regardless of which comes first, these findings suggest that activities such as hunting, fishing, trapping or camping can provide unique occasions for young First Nations children to hear, learn, and use their ancestral language.

Children with registered Indian status are more likely to know an Aboriginal language

Some sociodemographic characteristics were associated with Aboriginal language knowledge. Once all other characteristics were taken into account, the odds of understanding an Aboriginal language for young off-reserve First Nations children with registered Indian status were twice the odds for children without registered Indian status.

Younger parents were also found to be more likely to report that their child was able to understand an Aboriginal language. Off-reserve First Nations children whose parent was aged 24 and under, or between 25 and 34, had higher odds of understanding an Aboriginal language than children whose parent was relatively older (i.e., 45 and over) (Table 2). Further analysis would be required to better understand this relationship.

The following sociodemographic characteristics were included in the model but were not found to have a significant effect on children's language knowledge: family structure (that is living with one or two parents); parent's level of education; household income and household size. Region of residence was also included in the model: children living in Manitoba and in British Columbia had lower odds of understanding an Aboriginal language than children living in the territories.

Summary

This article uses data from the 2006 Aboriginal Children's Survey to identify some of the characteristics in the lives of young off-reserve First Nations children aged 2 to 5 that are associated with their ability to understand an Aboriginal language. Better knowledge of these characteristics is important for the survival of these languages.

The Aboriginal Children's Survey data indicate that opportunities for Aboriginal language acquisition can take place in different social environments and through different activities in the lives of today's young off-reserve First Nations children. The home, however, seems to play a particularly important role: daily exposure to Aboriginal languages at home was the strongest predictor of off-reserve First Nations children's ability to understand an Aboriginal language, holding all other characteristics constant. Being in child care arrangements where Aboriginal languages were used, having parents who believed in the importance of speaking and understanding an Aboriginal language, and having at least one parent with an Aboriginal mother tongue were also found to be strong predictors of Aboriginal language knowledge for young off-reserve First Nations children.

Given that not all off-reserve First Nations children have the opportunity to be exposed to Aboriginal languages at home, the finding that the extended family (i.e., grandparents, aunts or uncles) also plays a role in passing down Aboriginal languages to young children is important. Moreover, at the community level, social networks and child care providers appear to contribute to the transmission of Aboriginal languages to young off-reserve First Nations children, even after accounting for family and sociodemographic characteristics. Finally, residing in a community perceived by parents as a good place for First Nations cultural activities, and frequently participating in hunting, fishing, trapping or camping, were also associated with off-reserve First Nations children's ability to understand an Aboriginal language.

While this study investigated the unique contribution of different characteristics to language knowledge, it is important to note that language knowledge is influenced by children's experiences over many years—especially if children are learning a language as a second language. The Aboriginal Children's Survey, however, only captures these experiences as reported at a single point in time. In addition, there is evidence that off-reserve First Nations children who are exposed to an Aboriginal language both at home and outside the home are much more likely to be able to understand an Aboriginal language than children who are exposed exclusively at home or exclusively outside the home.[15]

Evelyne Bougie is a researcher with the Social and Aboriginal Statistics Division of Statistics Canada.

1. Canadian Heritage. 2005. *Towards a New Beginning: A Foundation Report for a Strategy to Revitalize First Nations, Inuit and Métis Languages and Cultures*. Report to the Minister of Canadian Heritage by the Task Force on Aboriginal Languages and Cultures. Ottawa. Catalogue no. CH4-96/2005.
2. Norris, Mary Jane. 2004. "From generation to generation: Survival and maintenance of Canada's Aboriginal languages within families, communities and cities." *TESL Canada Journal*. Vol. 21, no. 2. p. 1-16.

   Norris, Mary Jane. 2007. "Aboriginal languages in Canada: Emerging trends and perspectives on second language acquisition." *Canadian Social Trends*. No. 83. Statistics Canada Catalogue no. 11-008-XIE.
3. Royal Commission on Aboriginal Peoples. 1996. *Report of the Royal Commission on Aboriginal Peoples: Gathering Strength*. Vol. 3. Ottawa. Government of Canada.
4. Norris. 2004 and 2007.
5. In this article, Aboriginal language knowledge refers to children's ability to understand an Aboriginal language, as reported by parents in the Aboriginal Children's Survey in response to the question: "What language or languages can (your child) understand when someone speaks to him/her in that language?"
6. In this article, all references to "children" refer to those aged 2 to 5.
7. Data on children's mother tongue are not available from the Aboriginal Children's Survey.
8. Canadian Heritage. 2005.
9. Hoff, Erika. 2006. "How social contexts support and shape language development." *Developmental Review*. Vol. 26, no. 1. p. 55-88.

10. Norris. 2004.

11. Hoff. 2006.

12. Weigel, Daniel J., Jennifer L. Lowman and Sally S. Martin. 2007. "Language development in the years before school: A comparison of developmental assets in home and child care settings." *Early Child Development and Care*. Vol. 177, nos. 6 and 7. p. 719-734.

13. Norris. 2007.

14. Child care arrangements refer to the care of a child by someone other than a parent, including daycare, nursery or preschool, Head Start, and care by a relative or other caregiver. These refer to regular arrangements that are used consistently rather than sporadically (e.g., babysitting). These data refer to the main child care arrangement, that is, the arrangement in which the child spends the most time.

15. Bougie, Evelyne, Heather Tait and Elisabeth Cloutier. 2010. *Aboriginal Language Indicators for Off-reserve First Nations Children Under the Age of Six in Canada*. Statistics Canada Catalogue no. 89-643-X.

Child care for First Nations children living off reserve, Métis children, and Inuit children

by Leanne C. Findlay and Dafna E. Kohen

Introduction

Over the past several decades, child care has become increasingly common in Canada, and, by 2003, an estimated 54% of Canadian children were in some type of non-parental care.[1]

Previous research has shown that child care has an impact on children's social and developmental outcomes. This research has shown that the quantity, quality, and type of care,[2] as well as regulatory status,[3] influence children's well-being, in particular behavioural characteristics such as hyperactivity and positive peer involvement (also known as pro-social behaviour). For instance, participation in child care that is regulated (i.e., licensed) and high-quality (e.g., high in caregiver praise, with trained caregivers) is associated with fewer behavioural problems and more positive peer involvement. In a study of Canadian children, children in high-quality child care arrangements were reported to exhibit greater pro-social behaviours.[4]

Although factors such as type of child care, hours in child care and stability of child care are relevant to the Aboriginal population, it is also important, when examining the impact of child care on the Aboriginal population, to consider culturally relevant factors which may impact healthy child development. For example, important indicators of Aboriginal child care may include aspects specific to cultural stimulation in the care environment,[5,6] including the availability of culturally relevant activities. However, very little is known about the conditions and usage of child care for Aboriginal children in Canada. Moreover, because children represent a larger than average proportion of the Aboriginal population, child care is a particularly relevant issue for Aboriginal people.[7]

Using data from the 2006 Aboriginal Children's Survey, this study describes child care[8] for First Nations children living off reserve, Métis children, and Inuit children in Canada, including the cultural aspects in the care environment. As a first step, a sample of First Nations children living off reserve, Métis, and Inuit children aged 2 to 5 years and not attending school who participated in child care were compared to a similar sample of children not in child care. For those children in care, aspects of child care of interest included: type of care, regulatory status, total hours in care, and number of care arrangements (i.e., stability). Next, sociodemographic characteristics such as the age and sex of the child, household income, family structure, parental education, parental work status and place of residence were examined in relation to both patterns of child care use and to child outcomes. Finally, cultural activities and Aboriginal language use in child care were investigated to determine associations with child outcomes. For the current study, the effect of child care on hyperactivity and pro-social behaviour were of particular interest as existing research suggests a relationship between child care and both of these outcomes.

Child care options

Across Canada, child care is generally provincially regulated with variability in the number and types of spaces available. Family characteristics, such as income and parental education, may influence the choices and/or availability of child care for children. Moreover, family characteristics have been shown to have significant associations with child outcomes.[9] For example, results

from the National Institute of Child Health and Development (NICHD) study of early child care suggested that family risk factors such as poor socioeconomic conditions were significantly associated with children's behaviour problems and pro-social behaviours.[10] While there is little information on the association between family circumstances and child care availability or participation for Aboriginal children specifically, similar factors may be important. There are several federally funded initiatives to assist and support early child care programs for Aboriginal people including the First Nations/Inuit Child Care initiative, funded by Human Resources and Social Development Canada and the Aboriginal Head Start program, supported by Health Canada.

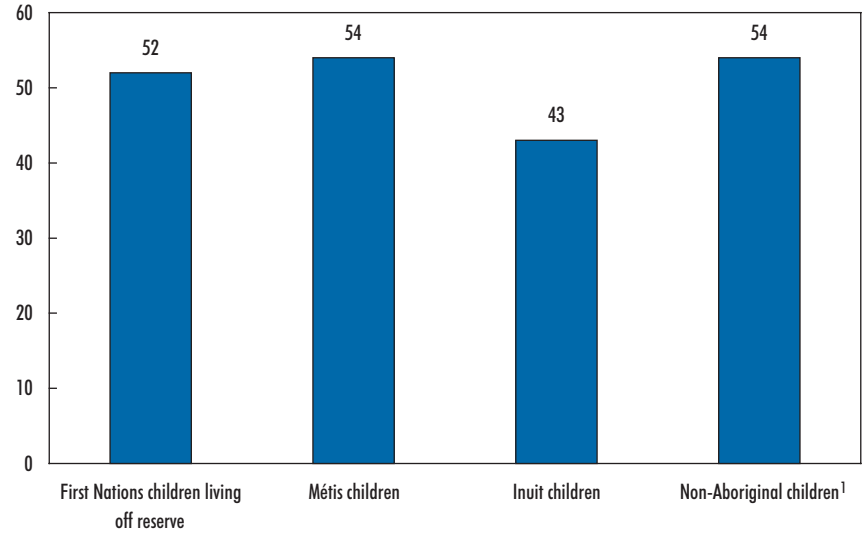
An emerging interest in Aboriginal child care programs which are culturally focused and designed in partnership with community partners has developed.[11] For example, the "Generative Curriculum Model" described by Ball and Pence[12] is a unique approach to child-care training wherein mainstream child care practices are downplayed and a culturally grounded approach to child care is encouraged (e.g., elder involvement in caregiver training and a focus on community-based learning). The result is a community driven, culturally appropriate child care curriculum that can be implemented by trained Aboriginal child-care providers. In addition, programs such as Aboriginal Head Start have specific goals of encouraging Aboriginal culture and language, promoting positive self-image, and fostering early school readiness. Thus, a focus on cultural activities is particularly relevant when studying Aboriginal child care in Canada.

Approximately half of First Nations children living off reserve, Métis children and Inuit children participate in child care

Overall, 52% of First Nations children living off reserve, 54% of Métis children, and 43% of Inuit children were in some type of child care arrangement in 2006 (Chart 1). These results are similar to national data which found that 54% of children in Canada were in some type of childcare arrangement in 2002/2003.[13] For all three Aboriginal groups, children who lived with a single parent, lived in households with a higher income, had a parent who was working and/or had a parent with higher education were more likely to be in child care. Conversely, First Nations children living off reserve, Métis children and Inuit children who had a parent who was not working or a parent with less than a high school education were less likely to be in child care (Table 1). In addition, Métis children in care were, on average, older than Métis children not in care.

There were also differences related to the province or region of residence for each of the Aboriginal groups. Among First Nations children living off reserve, those living in Quebec and British Columbia were more likely to participate in child care than not; those living in Manitoba and Alberta were less likely to participate. These provincial differences would be expected due to differences in provincial funding for early child care in Quebec as well as various child care initiatives in British Columbia.[14] Métis children living in Quebec and the territories were more often in child care while Métis children living in Alberta and the Atlantic Provinces were less often in care. Finally, a higher proportion of Inuit children living in Nunatsiavut, Nunavik, and outside Inuit Nunangat were in child care while a lower proportion of those living in Nunavut were in care.

Chart 1 Just over one-half of off-reserve First Nations children and Métis children were in child care



1. Data from the National Longitudinal Survey of Children and Youth, 2002/2003.

Sources: Statistics Canada, Aboriginal Children's Survey, 2006 and the National Longitudinal Survey of Children and Youth, 2002/2003.

Table 1 Proportion of Aboriginal children[1], by select characteristics, 2006

	First Nations children living off reserve		Métis children		Inuit children	
	In child care	Not in child care†	In child care	Not in child care†	In child care	Not in child care†
	average in months					
Child's characteristics						
Age	39.7	38.6	40.2*	38.2	40.7	42.0
	percentage					
Sex						
Boy	52.3	47.7	51.9	48.1	38.9*	61.1
Girl	50.8	49.2	56.4	43.6	46.4*	53.6
Household and responding parent's characteristics						
Family structure						
Two parent	49.7*	50.3	51.4*	48.6	40.3*	59.7
Single parent	56.0*	44.0	58.9*	41.1	48.9*	51.1
Responding parent's employment status						
Full-time	74.1*	25.9	74.7*	25.3	69.6*	30.4
Part-time	66.7*	33.3	66.4*	33.6	51.5	48.5
Not working	34.5*	65.5	30.6*	69.4	19.7*	80.3
Responding parent's education level						
Less than high school diploma	36.9*	63.1	41.7*	58.3	28.6*	71.4
High school diploma	47.4*	52.6	49.3*	50.7	56.6*	43.4
Postsecondary education	65.1*	34.9	63.2*	36.8	66.0*	34.0
	average in '000 ($)					
Average household income	5.4*	4.4	6.2*	5.1	7.8*	5.5
	percentage					
Province or region of residence						
Eastern provinces	50.2	49.8	40.8*	59.2	...	...
Quebec	65.0*	35.0	70.7*	29.3[E]	...	...
Ontario	51.5	48.5	56.4	43.6	...	...
Manitoba	43.8*	56.2	53.6	46.4	...	...
Saskatchewan	48.0	52.0	53.9	46.1	...	...
Alberta	44.9*	55.1	47.9*	52.1	...	...
British Columbia	61.9*	38.1	57.1	42.9	...	...
Territories[2]	49.6	50.4	65.2*	34.8	...	...
Inuit region (For Inuit only)						
Nunatsiavut	...	...	...	...	54.4*	45.6
Nunavik	...	...	...	...	52.9*	47.1
Nunavut	...	...	...	...	30.9*	69.1
Inuvialuit	...	...	...	...	37.1	62.9
Outside Inuit Nunangat	...	...	...	...	57.3*	42.7

† reference group
* statistically signficant difference from reference group at $p < 0.05$
1. Children 24 months and over and not attending school.
2. Inuit are included in the Inuit regions only.
Source: Statistics Canada, Aboriginal Children's Survey, 2006.

Daycare centres are the most common type of child care arrangement

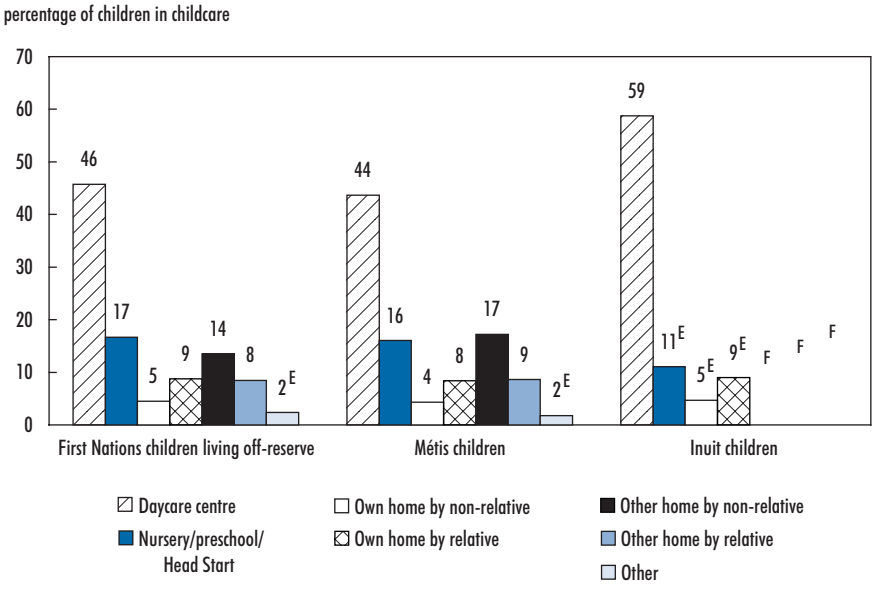
The most common type of child care arrangement[15] for all three groups of Aboriginal children was a daycare centre—46% of First Nations children living off reserve, 44% of Métis children and 59% of Inuit children in care attended a daycare centre (Chart 2). This was followed by care by a non-relative (18% for First Nations children living off reserve, 22% for Métis, 12% of Inuit children) and care by a relative (17% for all three groups). Seventeen percent of off-reserve First Nations children, 16% of Métis, and 11% of Inuit children were in a nursery school, a preschool, or a Head Start program as their main child care arrangement.[16] Parents of 69% of First Nations children living off reserve, 68% of Métis children, and 72% of Inuit children attending child care reported that it was licensed care. The majority of children in licensed child care were in a daycare centre, a nursery school, a preschool, or a Head Start program.[17]

The care arrangements for the majority of First Nations children living off reserve, Métis, and Inuit children were relatively stable. Most—4 out of 5—children had been in a single type of child care arrangement in the year preceding the survey. The average amount of time in any type of care arrangement was approximately 27 hours per week, which was similar for all three groups.

The majority of child care for Inuit children includes Inuit culture and language

Just over one-quarter (26%) of parents of off-reserve First Nations children reported that the child care arrangement promoted traditional and cultural values and customs, compared to 17% of parents of Métis children, and 67% of parents of Inuit children. Care that included either the exclusive use of Aboriginal language or a mix of Aboriginal and non-Aboriginal languages was reported for 16% of First Nations children living

Chart 2 Daycare is the most common type of child care for Aboriginal children



Source: Statistics Canada, Aboriginal Children's Survey 2006.

Table 2 Proportion of Aboriginal children in child care that includes traditional activities and Aboriginal languages, by type of care, 2006

	First Nations children living off reserve	Métis children	Inuit children
	percentage		
Type of care			
Daycare centre			
Traditional activities	22.5	15.4	72.5
Aboriginal languages[1]	10.1	3.1E	72.0
Nursery school/preschool/Head start			
Traditional activities	44.5	34.7	64.8E
Aboriginal languages[1]	32.6	16.9E	65.8E
Own home by non-relative			
Traditional activities	F	0.0	66.2E
Aboriginal languages[1]	F	0.0	73.4E
Own home by relative			
Traditional activities	34.3	25.5E	76.1
Aboriginal languages[1]	36.6	12.3E	71.1
Other home by non-relative			
Traditional activities	12.9E	F	F
Aboriginal languages[1]	F	F	F
Other home by relative			
Traditional activities	34.4	19.2E	80.8
Aboriginal languages[1]	16.4E	F	69.6

1. Includes cases where Aboriginal languages are spoken exclusively as well as in combination with non-Aboriginal languages.

Source: Statistics Canada, Aboriginal Children's Survey, 2006.

off reserve and 6% of Métis children. The majority (66%) of Inuit children were in care where an Inuit language was used. It was also observed that most child care arrangements for Inuit children that included the Inuit language also included traditional and cultural values and customs (88%), as compared to arrangements that did not include the Inuit language (for which only 27% included traditional and cultural values and customs).

Among the First Nations and Métis groups, the proportion of children participating in traditional and cultural values and customs in their child care environment was highest for children attending a nursery school, a preschool, or a Head Start program (Table 2). This was followed by being cared for by a relative (own home or other home). The pattern was similar for Aboriginal language use in care. For Inuit children in child care, the proportion participating in traditional and cultural values and customs was highest for children cared for by a relative, followed by a daycare centre.

Table 3 Odds ratios of Aboriginal children being in child care, by group

	First Nations children living off reserve	Métis children	Inuit children
	odds ratio		
Sex			
Boy	1.09	0.92	0.68*
Girl†	1.00	1.00	1.00
Age (in years)	1.03	1.20*	0.86
Family structure			
Single parent	2.25*	3.46*	2.32*
Two parents†	1.00	1.00	1.00
Responding parent's education level			
Less than high school diploma	0.67*	0.83	0.41*
High school diploma†	1.00	1.00	1.00
Postsecondary education	1.63*	1.51*	0.96
Responding parent's employment status			
Full-time	4.91*	7.35*	6.79*
Part-time	3.83*	4.94*	4.51*
No employment†	1.00	1.00	1.00
Income (adjusted for household size, divided by 10,000)	1.15*	1.17*	1.21*

† reference group
* statistically significant difference from reference group at $p < 0.05$
Note: Geographic variables (province, population density) included as control variables but not shown.
Source: Statistics Canada, Aboriginal Children's Survey, 2006.

Child care use is associated with child and family factors

An examination of the factors associated with the use of child care for First Nations children living off reserve, Métis children, and Inuit children showed that family structure, parental education and employment, and household income were significant, independent factors for all three Aboriginal groups (Table 3). Specifically, living with a single parent (versus two), living with a parent who was working (either full- or part-time) and living in a household with a higher income were all associated with being in child care.

For First Nations children living off reserve, children living with a parent with less than a high school education were less likely to be in care, whereas children living with a parent with more than a high school education were more likely to be in child care. Parental education was also important for Métis and Inuit children; Métis children whose parent had more than a high school education had greater odds of being in child care, and Inuit children with a parent with less than a high school education were less likely to be in child care. In addition, for Métis children only, older child age was associated with increased odds of being in child care. Inuit boys were found to be less likely than girls to attend child care. Similar child and family predictors such as parental education and household income were found to be associated with specific types of care including daycare centres or licensed care (versus no care, data not shown).

Aboriginal culture and traditions in child care have a positive influence on Inuit and off-reserve First Nations children

Research has shown that there are positive impacts for Aboriginal children who learn about, or take part in, cultural activities.[18] In the context of child care, it was of interest to examine whether cultural aspects of child care were associated with First Nations children living off reserve, Métis, and Inuit children's parent-reported outcomes, in particular, hyperactivity and pro-social behaviours. Results indicate that being in any type of child care was significantly associated with greater pro-social behaviour for First Nations children living off reserve; however, this association was not significant after the control variables, including the child's sex and age, family structure, parent

What you should know about this study

The Aboriginal Children's Survey (ACS) was developed by Statistics Canada and Aboriginal advisors from across the country to assess the early development of Aboriginal children (ages 0 to 5 years) and the social and living conditions in which they are learning and growing. The survey was conducted jointly by Statistics Canada and Human Resources and Social Development Canada in 2006. The ACS target population was First Nations children living off reserve, Métis children, and Inuit children living in the provinces as well as all Aboriginal children living in the three territories. The sample was selected from 2006 Census of Canada respondents who reported Aboriginal ancestry; and/or identified as North American Indian[1] and/or Métis and/or Inuit; and/or had treaty or registered Indian status; and/or had Indian Band membership. In the current study, those individuals who reported Aboriginal identity were included. Children with both single and multiple identities were included. For example, Inuit children were those who had Inuit identity and those who had Inuit identity combined with First Nations or Métis identity. In addition, children who were attending school were excluded, and the dependent variables of interest were only collected for children aged 2 to 5 years. Thus, the total sample size for the current study was 4,666 children (2,216 First Nations children living off reserve, 1,630 Métis children and 863 Inuit children, non-independent samples due to multiple identity groups).

Some limitations should be noted. First, parent-reported child care as described here represents the main type of care only; this may conceal any other child care arrangements in which the child spends less time. However, in this study, the majority of children were reported to participate in only one type of care arrangement (79% of First Nations children living off reserve, 81% of Métis, and 87% of Inuit). Second, although Aboriginal Head Start was included on the ACS as a type of child care, some parents may not perceive Head Start as their main type of care or may not describe Head Start as a child care setting (but rather as a cultural or educational program), which might underestimate its frequency in the ACS.[2]

One of the most important aspects of the child care environment—quality of care—is not included in this study. In studies of non-Aboriginal children, quality of care (assessed in terms of developmentally appropriate stimulating activities delivered by people with training in early childhood education) has been shown to be one of the strongest predictors of positive child outcomes. While the Aboriginal Children's Survey did not collect such information, this may be an area for future work. Another caveat is that the statistical associations reported in this study are correlational (taken at one point in time) and thus causal conclusions cannot be made between participation in child care and Aboriginal children's outcomes. In addition, both hyperactivity and pro-social behaviour were reported by the parent; future research might consider the inclusion of other outcomes, including those reported by caregivers, teachers, or others.

Finally, for First Nations children, the ACS collected data from those living off reserve only. However, the findings can be compared with results from the Assembly of First Nation's Regional Health Survey (RHS) which included those living on reserve.[3] The RHS found that 44% of First Nations children under age 6 living on reserve were in some type of child care arrangement, with more than half being cared for by a relative (59%), 31% being cared for in a formal setting (e.g., a daycare centre), and 5% in a home setting by a non-relative. The RHS also found that First Nations children living on reserve whose parents had higher education were more likely to be in child care. Some of the differences in the type of child care use between the ACS and the RHS may be due to a time lag between years in which the data were collected (RHS in 2002/2003, ACS in 2006) or may reflect differences in the circumstances of First Nations children living on and off-reserve.

Definitions of terms and concepts

Sociodemographic characteristics: The person most knowledgeable of the child (a biological parent for 90% of First Nations children living off reserve, 94% of Métis children, and 81% of Inuit children) reported the child's gender, age (in months), and the child's Aboriginal identity (First Nations, Métis, or Inuit). Children's living arrangements were classified as dual parent if they were living with two biological, adoptive, or step-parents; single-parent status included biological or non-biological mother or father. Total household income was obtained from the 2006 Census of Canada. Parental education was categorized as less than high school diploma, high school diploma, or postsecondary education. For parental employment, the parent reported whether they were working,

What you should know about this study (continued)

and if so, if the employment was full-time, full-time seasonal, part-time, or part-time seasonal. Two variables were created to reflect full-time (includes seasonal) or part-time employment.

Child care: Aspects of child care included: main type of care, regulatory status (licensed/not licensed), number of hours in the main type of care, and the total number of care arrangements (one, two, three or more). Parents were asked "At which type of child care does (child) spend the most hours per week?" This question was asked for all children who were reported to be in child care, regardless of the reasons for care (i.e., not necessarily because the parent was working or at school). Response options for main type of care included: daycare centre; nursery school/preschool; Aboriginal Head Start program; non-Aboriginal Head Start program; own home, non-relative; own home, relative; other home, non-relative; other home, relative. These categories were combined to create seven possible arrangements: daycare centre; nursery school, preschool or Head Start (Aboriginal or non-Aboriginal)[4]; relative (own home or other home), non-relative (own home or other home); or other. Daycare centre was used as the reference category in the regression analyses.

The parent was also asked to report on some of the cultural aspects of their child's care arrangement. In particular, the parent reported whether or not the child's main child care arrangement promoted First Nations, Métis or Inuit traditional and cultural values and customs (yes/no). In addition, they were asked to report all of the languages spoken in the main child care arrangement, including English, French, Inuktitut, Cree, and Ojibway. Due to small sample sizes for some of the languages by group, information was collapsed to reflect whether or not the child was spoken to in any Aboriginal language while in care (versus none).

Child behaviour: Information on children's behavioural outcomes was collected using the Strengths and Difficulties Questionnaire (SDQ). The original SDQ was designed to assess children's social and emotional behaviour.[5] The child's parent or guardian responded to 25 questions about the child's behaviour and emotions on a three-point Likert scale using the responses "not true," "somewhat true" or "certainly true." Previous work with the ACS has shown that an alternative factor structure of the SDQ items on the ACS demonstrated validity for First Nations children living off reserve, Métis children, and Inuit children.[6] Two subscales were considered: hyperactivity and pro-social behaviour. Sample items of the hyperactivity scale include: easily distracted, concentration wanders, and constantly fidgeting or squirming. For the pro-social scale, sample items include: considerate of other people's feelings, shares readily with other children, and helpful if someone is hurt, upset or feeling ill.

Data analysis

As a first step, descriptive analyses were performed to provide information on the study sample and aspects of child care. Subsequently, significance tests were performed to determine any differences in sociodemographic factors between children who were in child care versus those who were not in care. Logistic regressions were also performed to determine independent predictors of child care use among those who were in child care (for the three Aboriginal groups separately). The predictors included: child sex and age, family structure, parental education, full- and part-time employment, and household income. Finally, in order to determine the individual factors that were significantly associated with parental-reported child functioning (hyperactivity and pro-social behaviour), linear regressions were performed to determine the association with aspects of child care, including opportunities for traditional and cultural values and customs, and Aboriginal language use in care, on hyperactivity and pro-social behaviours (both unadjusted and adjusted for sociodemographic characteristics and for other aspects of child care including type of care, hours in care, and number of care arrangements). Normalized sampling weights were applied to render the analyses representative of each of the three Aboriginal groups in Canada. Bootstrap weights were applied to account for the underestimation of standard errors due to the complex survey design.[7] Statistical significance was accepted at the $p < 0.05$ level.

1. Children were identified as "North American Indian"; however, the term "First Nations" is used throughout this report.
2. Information on the proportion of Aboriginal children living off reserve served by the Head Start program from the literature was not located.
3. Assembly of First Nations. 2007. *First Nations Regional Longitudinal Health Survey* (02/03). Ottawa, Ontario, Assembly of First Nations/ First Information Governance Committee.
4. Due to small sample size and difficulties with collection, Head Start could not be examined as a separate type of child care setting.

What you should know about this study (continued)

5. Goodman, Robert. 1997. "The Strengths and Difficulties Questionnaire: A research note". *Journal of Child Psychology and Psychiatry*. Vol. 38, no. 5 p. 581-586.
6. Oliver, Lisa, Leanne C. Findlay, Cameron McIntosh, and Dafna E. Kohen. 2009. *Aboriginal Children's Survey, 2006: Evaluation of the Strengths and Difficulties Questionnaire*. Statistics Canada Catalogue no. 89-634-X2009008.
7. Rust, K. F. and J.N.K. Rao. 1996. "Variance estimation for complex surveys using replication techniques". *Statistical Methods in Medical Research*. Vol. 5, no. 3, p. 281-310.

work status and education, and household income, were taken into consideration (data not shown). For Métis or Inuit children who participated in care, their hyperactive or pro-social behaviours did not differ from Métis or Inuit children who did not participate.

In models examining the effects of traditional and cultural values and customs and Aboriginal language use in child care, participation in traditional activities was positively associated with pro-social behaviours for First Nations children living off reserve. That is, First Nations children living off reserve who engaged in traditional and cultural activities and customs in child care arrangements were rated by their parents as being more pro-social than children whose child care arrangements did not include traditional activities. This effect remained significant after controlling for sociodemographic characteristics (e.g., parental education and employment, household income) and other aspects of child care previously shown to be associated with child functioning, including the type of child care, total hours in care, and the total number of care arrangements.[19] For Métis children, although those who were in child care environments that included traditional and cultural values and customs were found to be more hyperactive, this effect did not remain once family sociodemographic characteristics and other aspects of child care were considered. This suggests that for Métis children, traditional activities are not significantly related to hyperactivity in the context of family income and other care factors. For Inuit children, speaking the Inuit language in child care was associated with greater pro-social behaviour, which remained significant in the model that was adjusted for family sociodemographic factors and child care factors (data not shown).

Summary

In 2006, approximately one-half of First Nations children living off reserve, Métis children, and Inuit children aged 2 to 5 and not in school were in some type of child care, with the most common type of child care arrangement being a daycare centre. Interestingly, approximately 2 out of 3 children were reported by parents to be in regulated (licensed) care compared to approximately one-third of non-Aboriginal Canadian children.[20] Differences in Aboriginal child care use were found based on family structure, parental education, parental work status, and household income for all three Aboriginal groups. It is likely that factors such as family structure, education, and income impact both the availability and affordability of child care options for Aboriginal families and employment situations may necessitate the use of child care.

Many of the child care arrangements for First Nations children living off reserve, Métis children and Inuit children included some Aboriginal cultural content, be that through traditional and cultural values and customs or the use of an Aboriginal language in the child care environment. For example, the majority of Inuit children in care were reported to attend a child care arrangement that promoted traditional Inuit cultural values and customs (67%) and used an Inuit language (66%).

Although participation in child care was not found to be independently associated with hyperactivity or pro-social behaviours, this study demonstrates that traditional and cultural values and customs and Aboriginal language within the child care environment can have positive influences on young First Nations, Métis, and Inuit children's outcomes. In particular, for First Nations children living off reserve, participation in traditional and cultural values and customs in care was positively associated with pro-social behaviours even after family sociodemographic characteristics and other aspects of child were considered. For Inuit children, speaking the Inuit language in care was associated with greater pro-social behaviours, suggesting that language in care is particularly relevant for Inuit children's social behaviours.

Leanne C. Findlay is an analyst and **Dafna E. Kohen** is a senior analyst in the Health Analysis Division of Statistics Canada.

1. Bushnik, Tracey. 2006. *Child care in Canada*, Children and Youth Research Paper Series. Statistics Canada Catalogue no. 89-5999-MIE – no. 003.

2. Bradley, Robert H. and Deborah Lowe Vandell. 2007. "Child care and the well-being of children." *Archives of Pediatric Adolescent Medicine*. Vol. 161, no. 7. p. 669-676.

3. National Institute of Child Health and Development (NICHD) Early Child Care Research Network. 1999. "Child outcomes when child care center classes meet recommended standards for quality." *American Journal of Public Health*, Vol. 89, no. 7. p. 1072-1077.

4. Romano, Elisa, Dafna E. Kohen and Leanne C. Findlay. 2010. "Associations among child care, family and behavior outcomes in a nation-wide sample of pre-school aged children." *International Journal of Behavioral Development OnlineFirst*. p. 1-14.

5. Assembly of First Nations. 2005. *First Nations Early Learning and Child Care Action Plan*.

6. Ball, Jessica. 2002. "The challenge of creating an optimal learning environment in child care: Cross-cultural perspectives." *Enhancing Caregiver Language Facilitation in Child Care Settings*. Toronto. Symposium of the Canadian Language and Literacy Research Network.

7. Beach, Jane, Martha Friendly, Carolyn Ferns, Nina Prabhu and Barry Forer. 2009. *Early childhood education and care in Canada 2008*. 8th edition. Childcare resource and research unit. 216 p.

8. Child care arrangements refer to the care of a child by someone other than a parent, including daycare, nursery or preschool, Head Start, and care by a relative or other caregiver. These refer to regular arrangements that are used consistently rather than sporadically (e.g., babysitting). These data refer to the main child care arrangement, that is, the arrangement in which the child spends the most time.

9. NICHD Early Child Care Research Network. 2001. "Nonmaternal care and family factors in early development: An overview of the NICHD Study of Early Child Care." *Journal of Applied Developmental Psychology*. Vol. 22, issue 5. p. 457-492.

10. NICHD Early Child Care Research Network. 2000. "The interaction of child care and family risk in relation to child development at 24 and 36 months." *Applied Developmental Science*. Vol. 6, issue 3. p. 144-156.

11. Doherty, Gillian, Martha Friendly and Jane Beach. 2009. *OECD Thematic Review of Early Childhood Education and Care: Canadian background report*.

12. Ball, Jessica and Alan Pence. 2001. "A 'Generative Curriculum Model' for Supporting Child Care and Development Programs in First Nations Communities." *Journal of Speech-Language Pathology and Audiology*. Vol. 25, no. 2. p. 114-124.

13. Bushnik, Tracey. 2006.

14. Beach et al. 2009.

15. The most common child care arrangement refers to those children aged 2 and over, in non-parental child care and not in school.

16. Due to small sample size and difficulties with collection, participation in Head Start programs could not be examined separately.

17. Of First Nations children who attended licensed care, 64% reported being in a daycare centre and 23% in a nursery/preschool/Head Start program. For Métis children in licensed care, 60% were in a daycare centre and 23% in a nursery/preschool/Head Start program. Among Inuit children in licensed care, 81% were in a daycare centre and 13% in a nursery/preschool/Head Start program.

18. Ball, Jessica. 2005. "Early childhood care and development programs as hook and hub for inter-sectoral service delivery in First Nations communities." *Journal of Aboriginal Health*. Vol. 2, issue 1. p. 36-53.

19. For First Nations and Métis children, being cared for by a relative (own home, other home, respectively, as compared to a daycare centre) was associated with higher parent-reported hyperactivity. Being cared for by a non-relative was associated with greater pro-social behaviour for Métis. For Inuit, participating in any type of care (except own-home, relative) was associated with lower parent ratings of hyperactivity (as compared to a daycare centre).

20. Romano et al. 2010.

Living with disability series

Help with activities of daily living for people with a disability

by Patric Fournier-Savard, Chantal Mongeon and Susan Crompton

Introduction

Canada has a large and growing population of people with disabilities.[1] How many of them need help with the day-to-day tasks of daily life, such as running errands, doing everyday housework, or personal care? Where do they get the help they need? And how do the people who provide that help share the responsibility as a person's disability becomes more severe?

Although the issue of the care obtained by older people has been extensively studied, researchers have less often examined the care received by people with a disability. This presents a gap in knowledge about caregiving since findings about eldercare cannot be generalized to the disabled population, because, among other things, almost 60% of people with disabilities are under 65.

Studies that focus on the disabled population confirm the importance of the family as the primary caregiver; they particularly underline that this role fluctuates according to the tasks with which an individual requires assistance. They also corroborate that the help provided by the family grows as the severity of the disability increases.[2,3]

However, little is known about the extent to which family members may share the caregiver role, and how the necessary tasks are distributed among different caregivers.

This article uses the 2006 Participation and Activity Limitation Survey to shed light on these issues. It examines how many people with disabilities receive help with activities of daily living, the type of daily activities with which they get help, and their relationship to the person or persons who provide help with specific tasks. Then, it explores how these relationships change as the severity of the disability increases.

It is important to note that the activities of daily living (ADLs) discussed here include tasks that exceed basic care or simple physical needs. ADLs encompass all those activities which facilitate active engagement in everyday life for a person with disabilities. At first glance, these tasks may seem inconsequential, but being able to accomplish them contributes greatly to a person's quality of life (see "What you should know about this study").

Getting enough help to meet the demands of daily life

Making sure that people with disabilities receive the help they need can be an important determinant of their social and economic participation. Of course, some do not need any help, and others require a minimal amount of assistance.

In 2006, one-third of people with disabilities reported that they did not need any help to perform the activities of daily living (ADL). More than one-third said they received all the help they needed; one-quarter would have liked to have had more help than they were getting; and 5% reported that even though they needed help, they did not receive any at all (Chart 1).

As the severity of a person's disability increased, their demand for help increased as well: 95% of people with very severe limitations needed at least some care, compared to 40% of those with mild disabilities. At the same time, it also became more difficult to get as much help as they needed; the large majority of people with a mild disability who needed help said they had enough care, but less than half of those with a very severe limitation reported that they received sufficient help (Chart 1).

What you should know about this study

This article draws on data from the 2006 Participation and Activity Limitation Survey (PALS). Respondents were classified as having a disability if they reported that they had difficulties with daily living activities, or that a physical or mental condition or health problem reduced the kind or amount of activities they could do. The answers to the disability questions are self-reported and therefore represent the respondent's perception of his or her situation.[1]

The main study population consists of about 13,100 respondents—representing about 2.4 million Canadians aged 15 and over with a disability—who received care with at least one activity of daily living (ADL). PALS asked each respondent to identify their relationship to their caregivers as well as the ADL with which they received help from each caregiver. Data were collected on a maximum of three caregivers, although some people may have had additional caregivers.

Definition of terms

Care receiver: A person aged 15 and over with a disability who received help with at least one activity of daily living (ADL).

Severity of disability: PALS constructed a scale measuring the overall severity of disability according to the intensity and frequency of the activity limitations reported by respondents. The disability severity scale is divided into four levels: mild, moderate, severe and very severe.

Activity of daily living (ADL): Respondents were asked the following nine questions:

Because of your condition do you usually receive help with:

- preparing meals?
- everyday housework, such as dusting and tidying up?
- heavy household chores, such as spring cleaning or yard work?
- getting to appointments and running errands, such as shopping for groceries or other essential items?
- looking after your personal finances, such as making bank transactions or paying bills?
- childcare?
- personal care, such as washing, dressing or taking medication?
- specialized nursing care or medical treatment at home such as injections, therapy, blood or urine testing or catheter care?
- moving about inside your residence?

If respondents replied "Yes" to any one of these questions, they were classified as receiving care with activities of daily living.

Although persons receiving help with childcare constitute part of the study population of care receivers, this study does not discuss childcare as a separate topic because the relevant population is too small (2% of all care receivers) to provide reliable detailed estimates.

Caregiver: A person who usually helped the respondent with activities of daily living. Respondents identified a maximum of three caregivers and the ADL(s) with which they assisted the respondent.

Sources of care: Care receivers obtained help from four types of sources, depending on their relationship to the person or persons providing the care:

Immediate family only/family only: spouse or partner (including same-sex partner), daughter, son, mother, father, sister, brother. Whether the care receiver had one, two or three main caregivers, they were all members of the immediate family.

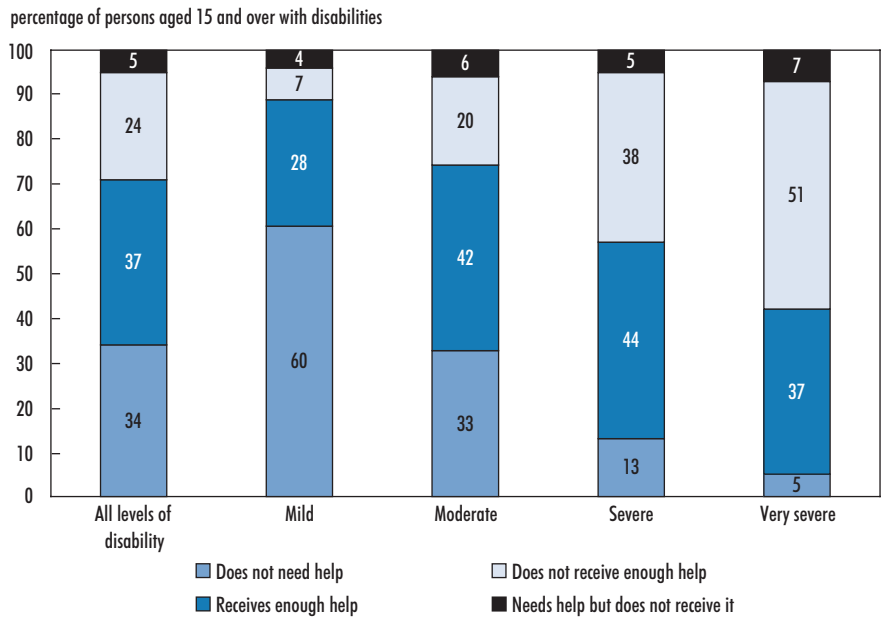
Friends and extended family only/friends only: Close friend, neighbour, work colleague, grandchild, grandparent, daughter-/son-in-law, mother-/father-in-law, sister-/brother-in-law, niece, nephew, aunt, uncle, cousin, former spouse or partner, other persons not associated with an organization. Whether the care receiver had one, two or three main caregivers, they were all friends or extended family.

Paid help only: Non-governmental organization, governmental (all levels), and paid employee of the care receiver. Whether the care receiver had one, two or three main caregivers, they were all paid helpers.

Immediate family and others: Care is received from two or three different sources. For example, a person getting help with meals from his daughter and from Meals-on-Wheels would be receiving care from immediate family and others, as would a person receiving personal care from her mother, a neighbour and a paid homecare worker. About 90% of the care obtained from this source includes some involvement from the immediate family.

1. For more detailed information about the concepts and definitions used by PALS, see MacKenzie, Hurst and Crompton, "Defining disability in the Participation and Activity Limitation Survey," *Canadian Social Trends* No. 88 (Winter 2009).

Chart 1 Two-thirds of people with disabilities needed help with at least one activity of daily living



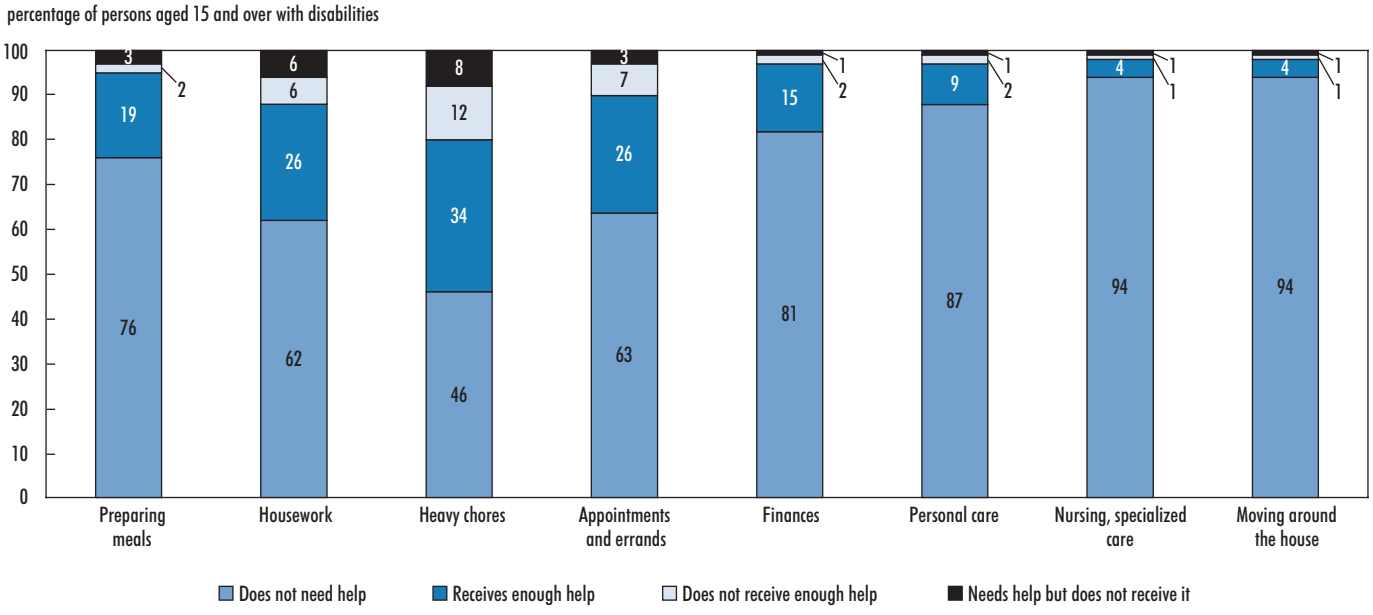
Note: Totals may not add to 100% due to rounding.
Source: Statistics Canada, Participation and Activity Limitation Survey, 2006.

Different ADLs can make different demands of the caregiver in terms of the skills required to do the tasks and/or the frequency with which a task must be performed. As such, it is not surprising that people's assessment of the help they received varied considerably depending on the task. For example, 24% of persons with disabilities wanted help[4] preparing meals; of these, 8 in 10 felt that they got as much as they needed. In contrast, 6% of the disabled population wanted assistance to move around the house, but only two-thirds of these people reported that they received enough help (Chart 2).

Accessing different sources of care

Over 9 in 10 Canadians with disabilities who said they needed help with their daily tasks (more than 2.4 million people) regularly received assistance with at least one ADL. On average, these care receivers got help with about three activities of daily

Chart 2 Most people with disabilities received the help they needed



Source: Statistics Canada, Participation and Activity Limitation Survey, 2006.

living, although the actual number of ADLs was strongly correlated to the severity of their disability. Over three-quarters of people with mild limitations received assistance with only one or two activities, while two-thirds of those with very severe disabilities had help with four or more (data not shown).

The principal source of help for people needing support with daily activities was their immediate family. Eighty percent of care receivers obtained at least some care from a spouse, child, parent or sibling (Table 1).

The sources of care expanded as the number of tasks multiplied. When the number of ADLs rose from one to four or more, the proportion of care receivers getting at least some help from friends and extended family[5] increased from 27% to 32%; and the proportion sourcing at least some support from paid helpers[6] almost doubled, from about 17% to 30% (Table 1).

Yet even when the care receiver drew on a mix of sources for their care, the family maintained its primary role. The more ADLs that a person received help with, the more likely it was that they were getting at least some of that help from a spouse or other close family member.

Sources of care for different activities of daily living

The source of care is likely to depend not only on the number of ADLs with which a care receiver needs help, but also the type of activity. The care receiver may need to have injections or to be monitored doing physiotherapy exercises; on the other hand, they might need help only with routine daily tasks like meal preparation or housework. Clearly, a different set of competencies, skills or proximity to the care receiver is required to meet these distinct needs.

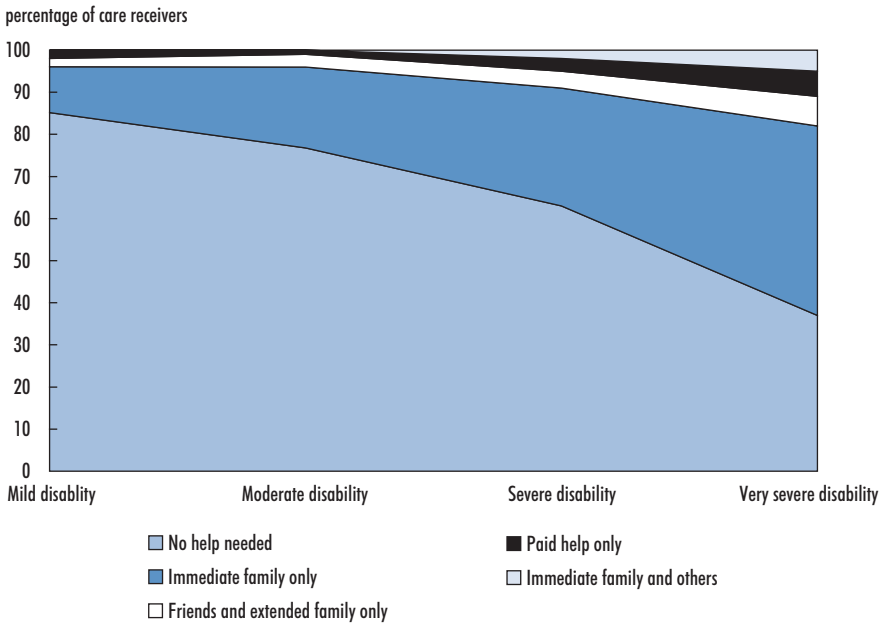
The PALS data show that, regardless of the severity of the disability or the type of help required, most care receivers identified immediate family as their main source of care; in a large number of cases, the immediate family was the only source of care. The sole exception was help with nursing and specialized treatment, most of which was received from paid help. Friends and extended family were most often accessed to help with heavy chores, and with going to appointments or running errands, but even for these activities, they did not provide as much assistance as immediate family (Table A.1).

Table 1 Source of care by number of activities of daily living for persons with disabilities aged 15 and over receiving care with at least one activity, 2006

	Number of ADLs[1] with which a person received help				
	One †	Two	Three	Four to nine	Total
Source of care	percentage of care receivers				
All care involving immediate family	**72**	**75**	**85***	**89***	**80**
Immediate family only	57	49*	56	49*	53
Immediate family with friends and extended family	11	17*	19*	19*	16
Immediate family with paid help	3	8*	8*	14*	8
Immediate family with friends, extended family and paid help	F	2 E	2 E	8	3
Friends and extended family only	**14**	**9***	**6*E**	**3***	**8**
Friends and extended family with paid help	**F**	**3 E**	**F**	**3E**	**3**
Paid help only	**13**	**13**	**4*E**	**5***	**9**

† reference group
* statistically significant difference from reference group (one ADL) at $p < 0.05$
1. Activities of daily living.
Note: Totals may not add to 100% due to rounding.
Source: Statistics Canada, Participation and Activity Limitation Survey, 2006.

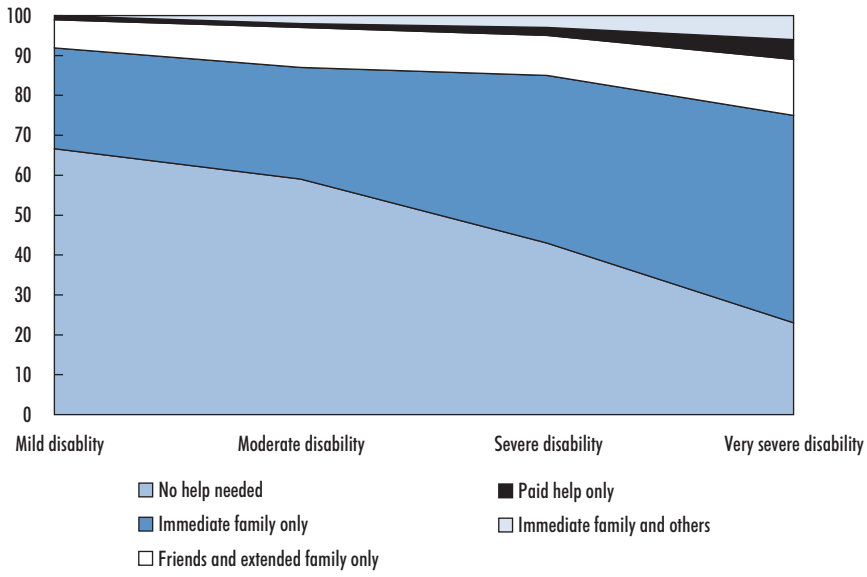
Chart 3 Almost all help received with preparing meals comes from immediate family



Source: Statistics Canada, Participation and Activity Limitation Survey, 2006.

Just over one-third of all care receivers got help preparing meals, and most had help every day (Table 2). Demand for assistance rose as the severity of disability increased (Chart 3), but the most important source of care remained the immediate family.

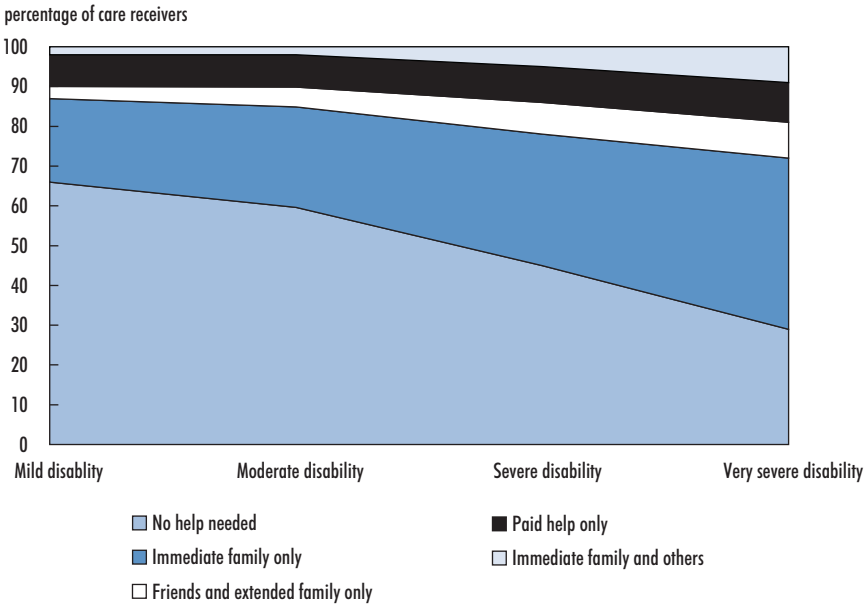
Chart 4 Help going to appointments or running errands is received from friends as well as close family



Source: Statistics Canada, Participation and Activity Limitation Survey, 2006.

About half of all care receivers had someone's help to get to appointments or do errands, although help received increased as the severity of the disability intensified (Chart 4). Irrespective of the severity of the disability, one in five care receivers got help with this task from friends and extended family (Table A.1).

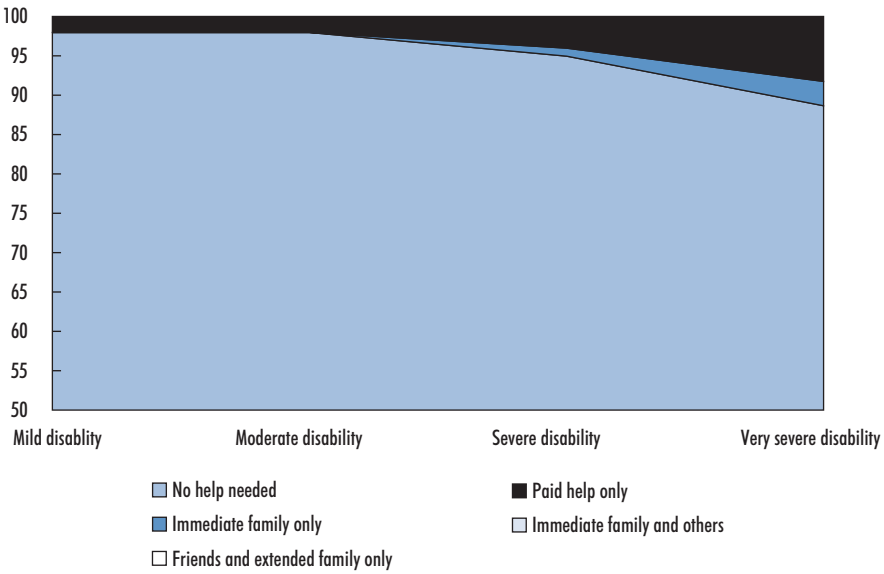
Chart 5 Care receivers getting help with regular housework often looked to sources of care outside the family



Source: Statistics Canada, Participation and Activity Limitation Survey, 2006.

Half of all care receivers obtained assistance to do their everyday housework (Table 2); people with very severe limitations were twice as likely to get help as those with mild disabilities (Chart 5). Paid help and friends and extended family were the sources of care for almost one-third of people who received help with this ADL.

Chart 6 The majority of care receivers sourced nursing care or specialized treatment from paid caregivers



Source: Statistics Canada, Participation and Activity Limitation Survey, 2006.

Only 6% of care receivers, most of them with severe or very severe disabilities, obtained nursing care or specialized treatments (Chart 6). About two-thirds of people getting help with this ADL received it only from paid helpers.

Frequency of care received

The frequency with which care is provided is an important dimension of caregiving. Information about the frequency of care can help address issues related to the intensity or volume of the assistance needed by the care receiver as well as enriching understanding of the network of care upon which persons with disabilities rely.

For example, although the proportion of care receivers who cited friends as primary caregivers was much lower compared to immediate family, the frequency with which they gave help was similar to that of immediate family. This was the case for most ADLs except routine housework and heavy chores. For instance, only 4% of care receivers got help with meals from friends and extended family, compared to 25% from immediate family. However, three-quarters of help from friends was received every day, the same frequency of care obtained from immediate family (Table 2).

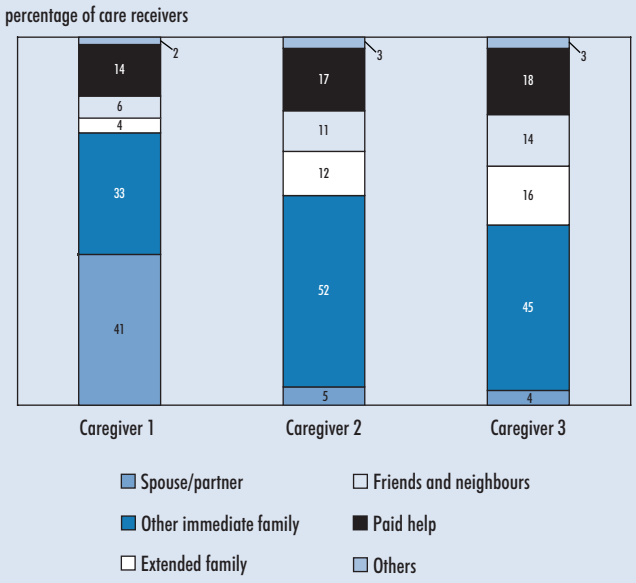
The frequency of caregiving was somewhat different when paid helpers were the source of care. For most ADLs, care receivers showed little reliance on paid helpers. Nursing care was most likely to be received from paid helpers, but they rarely provided it every day (Table 2).

How many caregivers?

PALS collected data on the assistance received from the three caregivers who usually provided help with a given activity of daily living (ADL). Forty-three percent of care receivers reported that they had one main caregiver, 28% named two and 29% named three caregivers. Of course, the number of caregivers generally grew as the level of disability increased: care receivers with very severe limitations were over twice as likely to have three caregivers (42% versus 18% for those with mild disabilities).

As a care receiver acquired more caregivers, the nature of his or her relationship to the people providing help changed. As immediate family members were increasingly spoken for, friends, neighbours and extended family accepted more responsibility. For example, immediate family made up 75% of caregiver one, 57% of caregiver two, and 49% of caregiver 3. In contrast, friends and extended family accounted for 10% of primary caregiver one, 23% of primary caregiver two and 30% of primary caregiver three.

Regardless of whether there is one, two or three caregivers, family always plays an important role



Source: Statistics Canada, Participation and Activity Limitation Survey, 2006.

Table 2 Sources of care for individual activities of daily living, by frequency of assistance, 2006

Activity of daily living	Persons with a disability who received help	Frequency of assistance		
		Daily	At least weekly par semaine	Less than weekly fois par semaine
	percentage			
Meal preparation				
All sources of care	**34**	**78**	**20**	**3**
Immediate family †	25	78	19	3[E]
Friends, extended family	4*	75	23	F
Paid help	3*	73	23[E]	F
Immediate family and others	2*	84	15[E]	F
Housework				
All sources of care	**50**	**52**	**35**	**14**
Immediate family †	30	64	31	5
Friends, extended family	7*	46*	37	16*
Paid help	9*	16*	43*	41*
Immediate family and others	5*	49*	39	13*[E]
Appointments and errands				
All sources of care	**52**	**16**	**41**	**43**
Immediate family †	37	16	41	43
Friends, extended family	10*	15	43	41
Paid help	2*	23[E]	23*	54
Immediate family and others	3*	13[E]	41	46
Nursing and specialized care				
All sources of care	**6**	**31**	**32**	**38**
Immediate family †	1[E]	56	22[E]	22[E]
Friends, extended family	1[E]	58[E]	F	F
Paid help	4*	16*[E]	39	45*
Immediate family and others	1[E]	50[E]	F	F
Personal care				
All sources of care	**17**	**59**	**27**	**14**
Immediate family †	9	67	23	10
Friends, extended family	2*	58	22[E]	20[E]
Paid help	4*	39*	37*	24*
Immediate family and others	2*	58	32[E]	F
		At least weekly	At least monthly	Less than monthly
Personal finances				
All sources of care	**26**	**52**	**40**	**8**
Immediate family †	22	54	39	7
Friends, extended family	2*	44	48	F
Paid help	1*[E]	36[E]	33[E]	F
Immediate family and others	1*[E]	40[E]	55[E]	F
Heavy chores				
All sources of care	**70**	**60**	**24**	**17**
Immediate family †	45	66	22	11
Friends, extended family	15*	51*	26	23*
Paid help	8*	34*	29	37*
Immediate family and others	4*	63	18	19*

† reference group

* statistically significant difference from reference group (immediate family) at $p < 0.05$

Note: Data were not collected on the frequency with which the receiver got help in moving around the house. Totals might not add to 100 due to rounding.

Source: Statistics Canada, Participation and Activity Limitation Survey, 2006.

Summary

People with disabilities who received help with activities of daily living (ADLs) most often identified an immediate family member as their primary caregiver. However, the majority of care receivers relied on more than one source of care to accomplish all the tasks with which they needed help, as the severity of their disability increased.

Help with certain ADLs was received almost exclusively from immediate family. This was particularly the case for personal finances, meal preparation, and moving around the home, where the family remained most closely involved.

But as people received more care for ADLs, the help they obtained increasingly came from outside the immediate family, as friends, neighbours, extended family and paid helpers took on a larger caregiving role.

In general, friends and extended family came forward when the care receiver needed help to go to appointments and run errands, with general housework, and heavy household chores. Paid helpers tended to be a source of care when the care receiver required assistance with personal care and nursing or specialized treatment.

Frequency of care giving adds an important dimension to the understanding of care giving. The 2006 PALS data show that while friends and extended family were less likely to provide care than immediate family, the care they did provide was given just as frequently as family. Conversely, paid caregivers were least often called upon by care receivers, and provided care less frequently than any other source.

Patric Fournier-Savard is an analyst and **Chantal Mongeon** is a statistical officer with Health Statistics Division; **Susan Crompton** is a senior analyst with Social and Aboriginal Statistics Division at Statistics Canada.

1. In 2006, 4.4 million Canadians aged 15 and over identified themselves as having a disability, an increase of three-quarters of a million people since 2001.
2. Fawcett, G., C. Ciceri, S. Tsoukalas and A. Gibson-Kierstead. 2004. *Supports and Services for Adults and Children aged 5-14 with Disabilities in Canada: An analysis of data on needs and gaps*. Ottawa: Canadian Council on Social Development. http://www.socialunion.gc.ca/pwd/_GAPS_Report_Eng_rev.pdf (accessed September 22, 1010)
3. Statistics Canada. 2003. *Disability supports in Canada, 2001*. Statistics Canada Catalogue no. 89-850-XIE. http://www.statcan.gc.ca/bsolc/olc-cel/olc-cel?catno=89-580-X&lang=eng (accessed September 22, 2010)
4. Wanted help includes categories: received enough help; did not receive enough help; and needs help but does not receive it.
5. Some help from friends and extended family includes the following categories: immediate family with friends and extended family; immediate family with friends, extended family and paid help; friends and extended family only; and friends and extended family with paid help.
6. Some support from paid helpers includes categories: immediate family with paid help; immediate family with friends, extended family and paid help; friends and extended family with paid help; and paid help only.

Table A.1 Sources of care for individual activities of daily living, by severity of disability, 2006

Activity of daily living	Persons with a disability who received help	Of these, proportion receiving care by level of disability			
		Mild †	Moderate	Severe	Very severe
	percentage				
Meal preparation					
Immediate family	25	76	80	75	71
Friends, extended family	4	11[E]	11[E]	11	11
Paid help	3	11[E]	7[E]	7	10
Immediate family and others	2	F	F	6[E]	7
Housework					
Immediate family	30	60	62	59	61
Friends, extended family	7	10	14	14	13
Paid help	9	23	19	17	14
Immediate family and others	5	6[E]	6	10	13
Appointments and errands					
Immediate family	37	75	69	73	67
Friends, extended family	10	20[E]	24	17	19
Paid help	2	3[E]	3[E]	4[E]	6[E]
Immediate family and others	3	F	4[E]	5	8[E]
Nursing and specialized care					
Immediate family	1	F	F	10[E]	23[E]
Friends, extended family	1	F	F	F	F
Paid help	4	75	52[E]	62	60
Immediate family and others	1	F	F	F	F
Personal care					
Immediate family	9	64	62	57	51
Friends, extended family	2	F	F	10[E]	13
Paid help	4	F	23[E]	22	20
Immediate family and others	2	F	F	11[E]	16
Personal finances					
Immediate family	22	89	81	83	83
Friends, extended family	2	F	13[E]	7	9
Paid help	1	F	F	F	F
Immediate family and others	1	F	F	6[E]	F
Heavy chores					
Immediate family	45	64	64	62	64
Friends, extended family	15	19	22	21	20
Paid help	8	13	10	12	8[E]
Immediate family and others	4	4	4[E]	5	7[E]
Moving around the house					
Immediate family	6	80	78	68	61
Friends, extended family	1	F	F	17[E]	14[E]
Paid help	1	F	F	F	11[E]
Immediate family and others	1	F	F	F	14[E]

† reference group
* statistically significant difference from reference group (mild disability) at $p < 0.05$
Source: Statistics Canada, Participation and Activity Limitation Survey, 2006.

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