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CANADIAN Social Trends

Features

Immigrants in Canada who work in a language other than English or French

by Derrick Thomas

Linguistic diversity has long been a feature of Canada's work force. English, French and Aboriginal languages have served and still serve as languages of commerce and work in various regions of the country. The linguistic mix has been enriched by immigrants from a large number of other countries.

Immigrants make up a growing share of Canada's population and labour force. There were over 3.8 million immigrants in the experienced labour force in the 2006 Census,[1] an increase of about half a million over the number in 2001. Increasingly, immigrants come from source countries where English and French are not commonly spoken. Consequently, a larger proportion of Canadian workers now use a language other than English or French in their job. For the purpose of this article, "official languages" refers to English and French.[2]

At the time of the 2006 Census, close to 831,000 people in Canada's labour force used a language other than English or French on a regular basis in their job. This constitutes close to 1 in 20 (4.5%) people who had been employed between January 1, 2005 and May 16, 2006. While still a small proportion nationally, it represents an increase both absolutely (86,900) and proportionately (from 4.41% to 4.54%) over the 2001 Census. Moreover, the proportion using a language other than English or French at work is much higher in some provinces and major cities than in other parts of the country.

In 2006, 611,400 of workers using non-official languages were immigrants. Over 70% of these immigrants were already Canadian citizens.

This article will use data collected in the 2001 and 2006 censuses of Canada to describe immigrants who used a language other than one of Canada's official languages in their work. It will explore the extent to which they rely on non-official languages at work in conjunction with: their official language ability, their age at immigration, their level of education and their place of work in Canada. It will look at which languages immigrants actually use in their jobs. The article also examines whether immigrants are more likely to use non-official languages at work within their language communities.

English and French remain the dominant languages in Canada's workplaces and markets. There are, however, establishments, networks, markets and neighbourhoods where workers can function and sometimes thrive in another language.[3] These linguistically-delimited communities or markets (sometimes referred to as enclaves[4]) depend on a concentration of people who share not only a language but often an ethnic background, common experience and similar tastes.

Some researchers report that workers in such communities face limited opportunities and are rewarded less well for their skills.[5] Ethnic community based economies, however, can provide opportunities for newcomers to earn a living despite the inability to communicate fluently in the dominant language. Owing to a concentration of consumers and workers, such communities can also more easily and cheaply produce and distribute goods and services valued uniquely by ethnic groups.[6] Businesses positioned to do so can avail themselves of both the skills and markets represented by immigrants in their community.

While different languages and cultures can disrupt the flow of information and exchanges between these communities and the wider marketplace, these barriers are not impermeable. Ethnic products frequently find a wider market, and enclave labour can be vital to the functioning of at least some sectors of the general economy.[7]

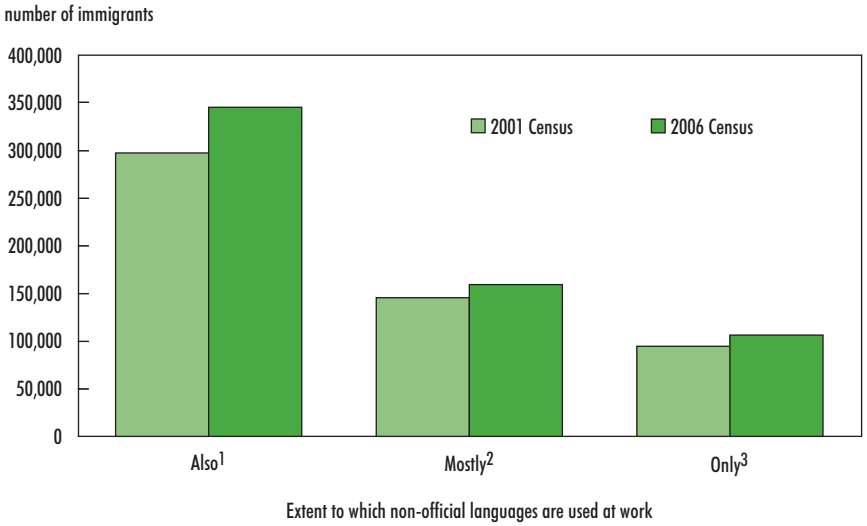
Non-official languages are becoming more prevalent in Canadian workplaces

Immigrants who work in Canada can be distinguished according to the extent to which they use non-official languages in their jobs. Jobs differ in the amount of communication they require, but the proportion of communication that takes place in a non-official language can be used to construct a scale. This scale can be used to study and compare immigrants who use a non-official language in their job at different censuses (Chart 1) and across other characteristics.

At one end of the scale are those immigrant workers who "only" use non-official languages; then, those who "mostly" use non-official languages but who also use an official language with some regularity; next are those who mostly use an official language but who "also" regularly use a non-official language; and on the other end are those who "do not" use a non-official language at work with any regularity.

Since the mid-1990s, more immigrants have been selected on labour market criteria that include official language skills. Thus a slightly larger share of Canada's immigrants is arriving with the ability to speak English or French.[8] The proportion of immigrants who work in a non-official language declined very slightly between 2001 and 2006 (16.3% vs 16.0%).[9] Nonetheless, according to 2006 Census data, immigrants are 10 times more likely than their Canadian-born counterparts to work in a non-official language (16% versus 1.5%).

Chart 1 Immigrants who used a language other than English or French at work: 2001 and 2006 Census



1. Uses an official language most of the time at work, but **also** regularly uses a non-official language at work.
2. **Mostly** uses a non-official language at work.
3. **Only** uses a non-official language at work.

Source: Statistics Canada, Census, 2001 and 2006.

For the past 15 years, Canada has had historically high levels of immigration. As a consequence, immigrants make up an increasing proportion of the labour force. They accounted for more than one-third of labour force growth between 2001 and 2006 and now constitute over 20% of those who work in Canada. As a result, the total number and share of workers in Canada using a non-official language at work has increased.

The number of immigrants working in Canada in a non-official language grew from 538,000 in 2001 to 611,400 in 2006. This represents an increase of 73,400 people or almost 14%.

Most immigrants who use a language other than English or French at work use it in conjunction with one of these official languages (Chart 2). In fact, more than eight in ten (83%) use English or French regularly at work along with a non-official language. About one in six immigrants use a non-official language "only" (17%).

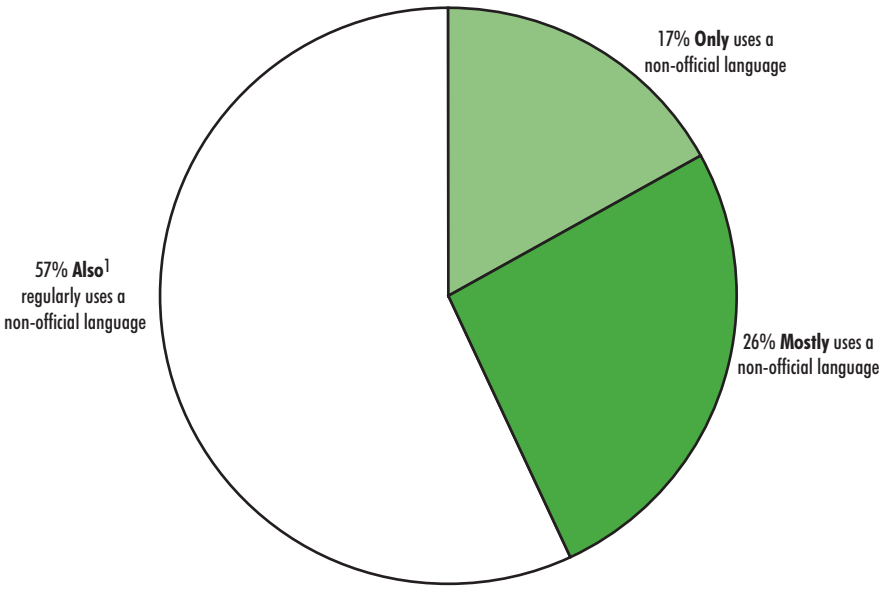
Asian languages predominate

Immigrants use a variety of non-official languages at work. East Asian and particularly Chinese languages figure predominantly among them (Chart 3). Over 208,000 immigrants regularly work in Cantonese, Mandarin or an unspecified Chinese language.[10] Punjabi, Tagalog, Korean and Vietnamese are also often used on the job. It is, moreover, those who use these Asian languages who are most likely to use "only" a non-official language at work. Immigrants from Asia tend to have arrived more recently than Europeans. Spanish, Italian, Portuguese, German, Polish and Russian are also often used at work but more often along with English or French.

Official language ability affects the language of work

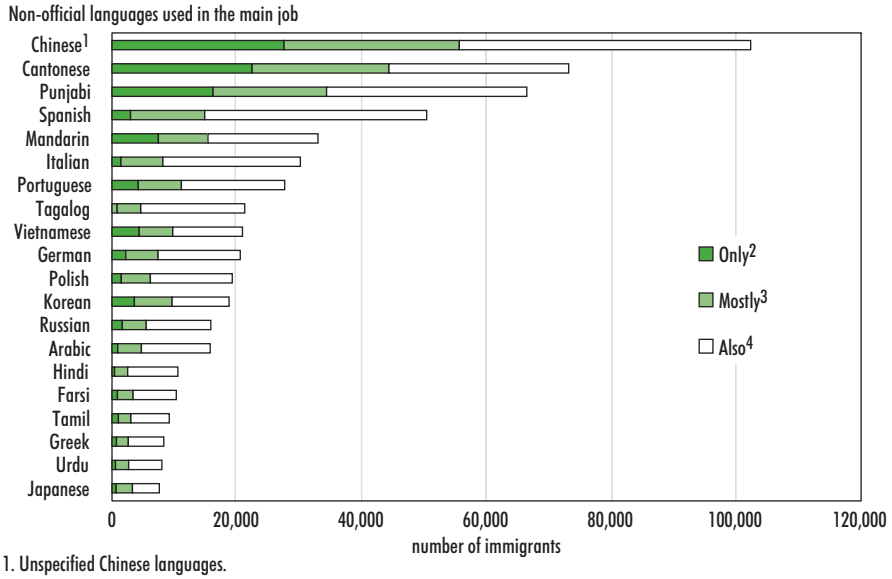
With the shift to a knowledge-based economy, official language skills are even more important in the labour market than in the past.[11] Compared with other immigrants, immigrants

Chart 2 Extent to which immigrants who used languages other than English or French at work utilized them



1. Uses an official language most of the time at work, but **also** regularly uses a non-official language at work.
Source: Statistics Canada, Census, 2006.

Chart 3 Top 20 non-official languages used at work by immigrants: 2006 Census



1. Unspecified Chinese languages.
2. **Only** uses this language at work.
3. **Mostly** uses this language at work.
4. Uses an official language most of the time at work, but **also** regularly uses this non-official language at work.
Source: Statistics Canada, Census, 2006.

unable to speak at least one of the official languages more often work in some other language (80% in 2006). Almost 60% of those who used "only" a non-official language at work indicated that they were unable to conduct a conversation in English or French. This suggests that some immigrants who work in non-official languages may do so because they face barriers owing to limited official language skills. Their lack of official language skills could restrict to a certain extent their mobility, bargaining position and terms of employment.

It should be noted that non-participation and unemployment rates are higher for immigrants who do not speak English or French. Many will not have worked in 2005 or 2006. As a consequence, they were not asked about their language at work and are not included in this analysis.

About 6% of those who "mostly" or "also" used a non-official language at work indicated they were unable to speak an official language.[12] This implies that they used an official language only in a limited, work-related context.

There is undoubtedly some variation in official language skills beyond the self-reported ability to conduct a conversation. Fluency, literacy and accent all have an influence on employment.[13] The language of work may well capture more of this variation in ability. It might reflect the assessment of employers and the markets as to the actual oral and written language skills of immigrants.

Immigrants who arrive when older more often rely on a non-official language

There are few differences with respect to gender, but in general, older immigrants are more likely to use a language other than English or French at work (Chart 4). The proportion that uses non-official languages increases with age, but not in a constant fashion.

Non-official language use at work was relatively low among youth who held jobs. It was higher but essentially stable over the working ages 25 to 54. It decreased for those 55 to 65. Immigrants over 65 who worked, however, were significantly more likely to use non-official languages in their jobs. The average age of immigrant workers in Canada was about 43 in 2006. For those who used a non-official language with any regularity, it was 44 years of age. For those who used only a non-official language it was higher at 47.

The age effect can be attributed largely to immigrants who arrive when older as opposed to immigrants who have aged in Canada. Immigrants who arrive at more advanced ages are more likely to work in a minority language and are particularly likely to use one to the exclusion of the official languages (Chart 5). Immigrants who used only a non-official language at work arrived in Canada at an average of 36 years of age. Those who did not regularly use one arrived at an average age of 23.

One possible explanation for the association between age at immigration and the use of a non-official language at work may lie in Canada's evolving immigration policy and the various criteria for admission to this country. An increasing portion of the immigrants accepted in Canada each year is screened on labour market criteria.[14]

The selection criteria include age along with official language ability, work experience and education. Preference is given to those of prime working age. Many persons, however, continue to be admitted to Canada for family and refugee protection reasons. Older immigrants are more often accepted for these reasons, are not subject to official language or other labour market tests, and are thus more likely to lack official language skills. To the extent that they work to earn a living or to build up pension credits, older immigrants are thus more likely to take jobs not requiring English or French.

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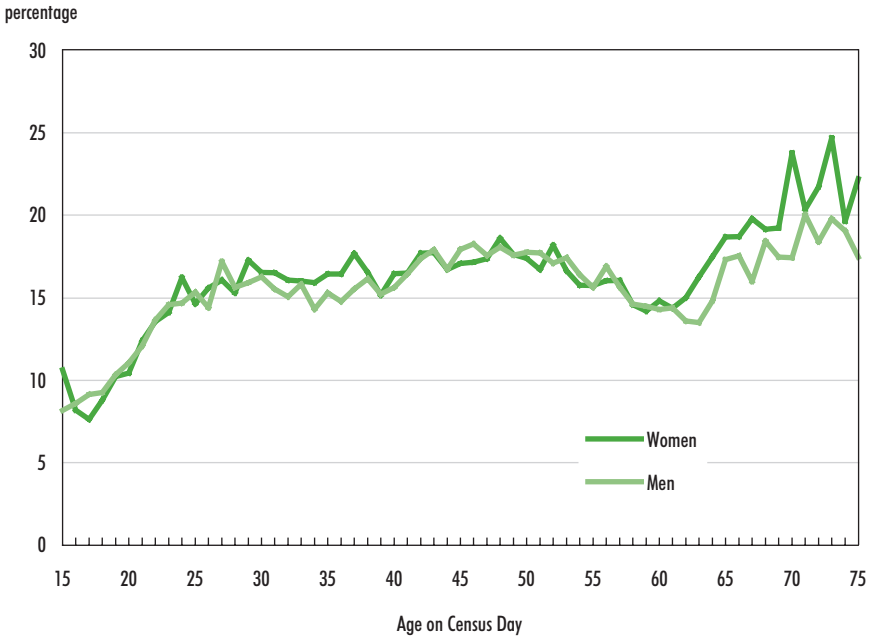
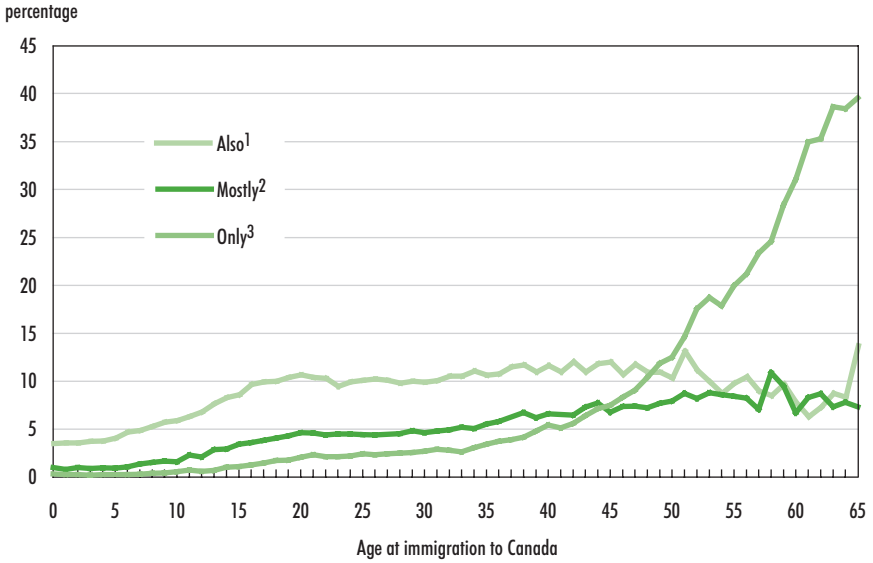
Chart 4 Proportion of immigrant workers who used a language other than English or French at work by age and sex



Source: Statistics Canada, Census, 2006.

CST

Chart 5 The proportion of immigrants who worked in a language other than English or French is higher among those who arrived when older



1. Uses an official language most of the time at work, but **also** regularly uses a non-official language at work.
2. **Mostly** uses a non-official language at work.
3. **Only** uses a non-official language at work.

Source: Statistics Canada, Census, 2006.

Use of languages other than English or French at work declines with time in Canada

Immigrants' use of non-official languages at work appears to lessen as they are in Canada longer (Chart 6). The drop is fastest among those who use non-official languages "only"—the proportion seems to fall by over one-quarter in 2 years.

A slower decrease is observed among those who "mostly" use non-official languages. The proportion of immigrants that "also" uses a non-official language along with English or French seems to remain stable for a considerable time before also falling off. This group may be replenished by movement out of the groups who use "mostly" or "only" a non-official language. Immigrants may make more use of official languages at work as their facility with them improves.

The official languages skills of immigrants improve with time in Canada but the proportion of immigrants who arrive with official language abilities also differs over time. In recent years a larger proportion of immigrants have been selected on labour market criteria that include knowledge of an official language. The broad pattern has been one of improved skills in English and French among newcomers who enter each year.[15]

It seems that almost one-quarter of working immigrants initially use languages other than English or French in their jobs. This proportion appears to fall off as they adjust to Canadian labour markets. However, as many as 1 in 10 still regularly use non-official languages at work after as much as 40 years in Canada. Almost all of them, however, also use one of the official languages regularly in their job.

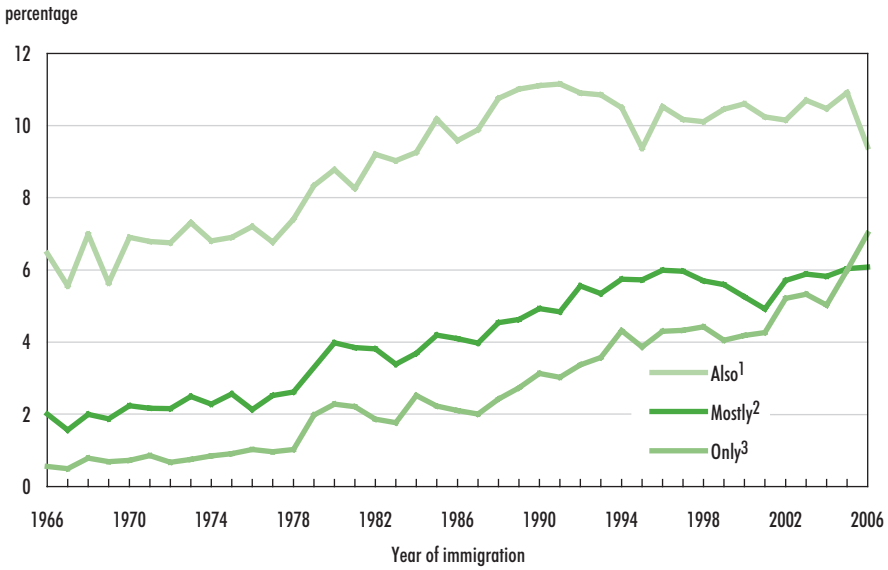
Immigrants with less formal schooling more often work in a language other than English or French

In general, immigrants who use a non-official language at work (in the "also," "mostly," and "only" categories) tend to have less formal education than those who do not (Chart 7). Almost half of these immigrants who use non-official languages at work had a high school diploma or less, compared to about one-third who use only official languages. Over 1 in 5 had no certificate, diploma or degree. This was the case for only about 1 in 10 of those who worked in English and/or French and did not regularly use any other language. Three-quarters of those who used "only" a non-official language had a high school education or less.

About 28% of immigrant workers with no certificate, diploma or degree used a language other than English or French at work. The proportion was about 17% for those with only a high school education. It was lower still among the holders of trade and college certificates.

Beyond that level of education, however, the story is more complex. There were a number of immigrant workers educated at the university level who regularly worked in a language other than English or French. There are also a number of immigrants who hold medical doctorates who regularly use a non-official language at work. However, few of these highly-educated workers use a non-official language to the exclusion of official languages. Perhaps some are professionals who are sought out by their communities owing to their skills in a non-official language.

CST Chart 6 Proportion of immigrants who worked in a language other than English or French by year of immigration to Canada



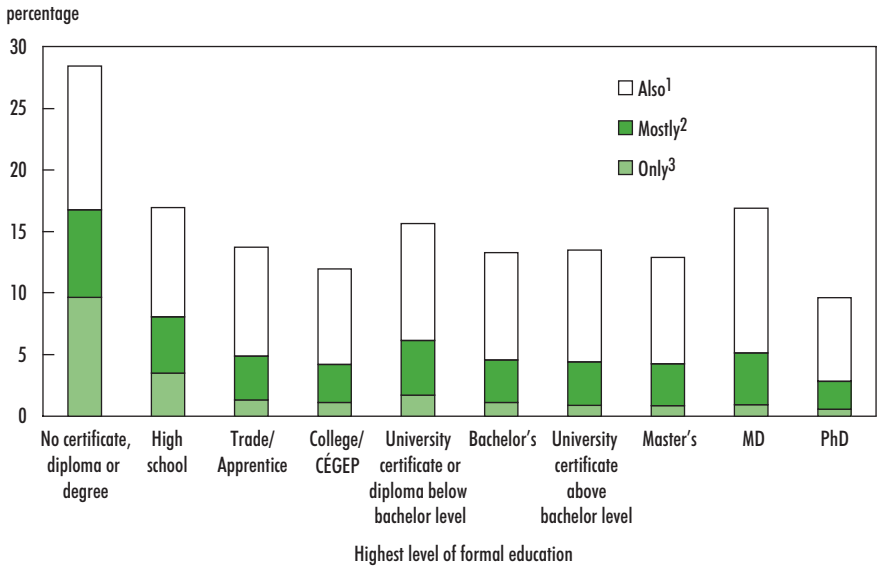
1. Uses an official language most of the time at work, but **also** regularly uses a non-official language at work.
2. **Mostly** uses a non-official language at work.
3. **Only** uses a non-official language at work.

Source: Statistics Canada, Census, 2006.

Non-official languages used at work in big provinces and cities

The immigrant population in general is concentrated in Canada's largest provinces and cities. Newcomers who work in non-official languages are even more densely concentrated.[16] In 2006, Ontario had nearly 315,000 immigrant workers who used non-official languages in their job; British Columbia had almost 164,000; Quebec had 66,000; and Alberta had 45,000. Among the provinces, British Columbia had the highest proportion (almost 25%) of immigrant workers

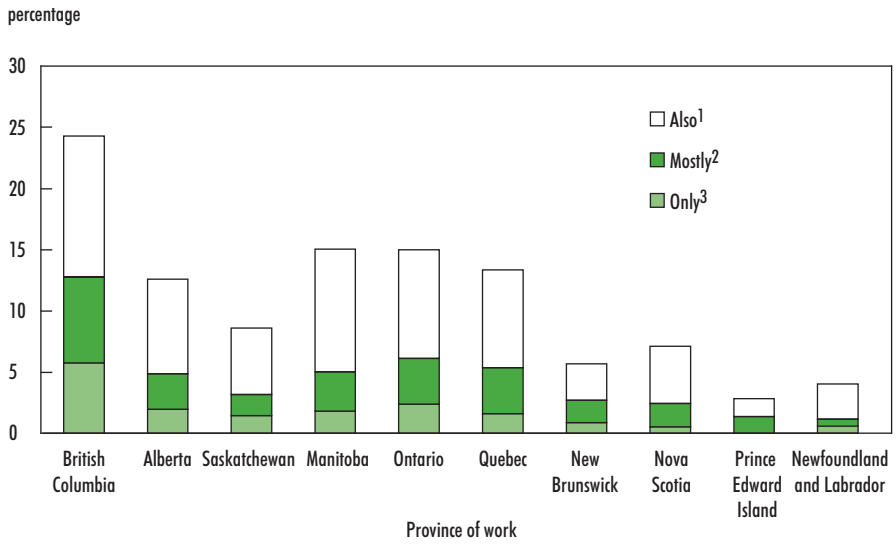
Chart 7 Proportion of immigrant workers at various levels of education who used a language other than English or French in their job



1. Uses an official language most of the time at work, but **also** regularly uses a non-official language at work.
2. **Mostly** uses a non-official language at work.
3. **Only** uses a non-official language at work.

Source: Statistics Canada, Census, 2006.

Chart 8 Proportion of immigrant workers who used a language other than English or French in their job by province of work



1. Uses an official language most of the time at work, but **also** regularly uses a non-official language at work.
2. **Mostly** uses a non-official language at work.
3. **Only** uses a non-official language at work.

Source: Statistics Canada, Census, 2006.

who regularly used other languages at work. Ontario and Manitoba both had about 15%, Quebec had over 13% and Alberta had 12%. In general, non-official languages were used less often in Atlantic Canada (Chart 8).

On the whole, non-official languages are more likely to be used at work in larger urban areas (Chart 9). About 10% of immigrants in rural areas use a language other than English or French at work, while 16.4% of those in urban areas do. Over 95% of immigrants who used a non-official language in their job worked in an urban area. Three major cites: Toronto, Vancouver and Montréal accounted for over 75% of them.

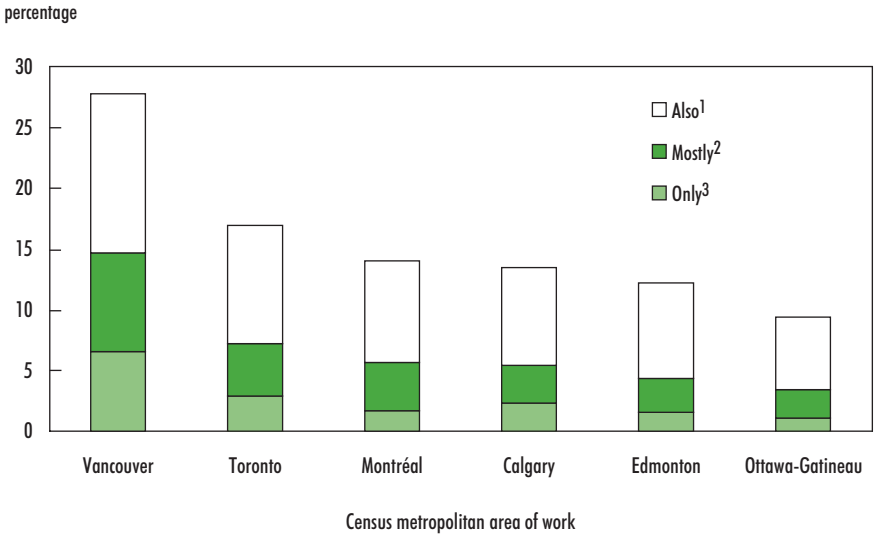
Immigrants more likely to use non-official languages within their language communities

Immigrants who have a non-official mother tongue[17] are far more likely to use a non-official language at work. Holding other factors constant, the likelihood that a given immigrant will use their non-official mother tongue at work increases with the proportion of people who speak that language in the municipality where they are employed.

Language groups differ in how sensitive they are to the presence of people who speak their mother tongue in the area where they work.[18] The top language groups (Chart 3) were tested and a significant positive relationship was found in most cases. For example, among immigrants who have a Chinese mother tongue,[19] the probability of working in that language doubles as the proportion of Chinese speakers in the municipality where they work increases to 10% (Chart 10).[20]

Using a non-official language at work depends in part on the presence of enough customers, employers and co-workers who speak the same language. It helps if there is a market where information is exchanged in that language.

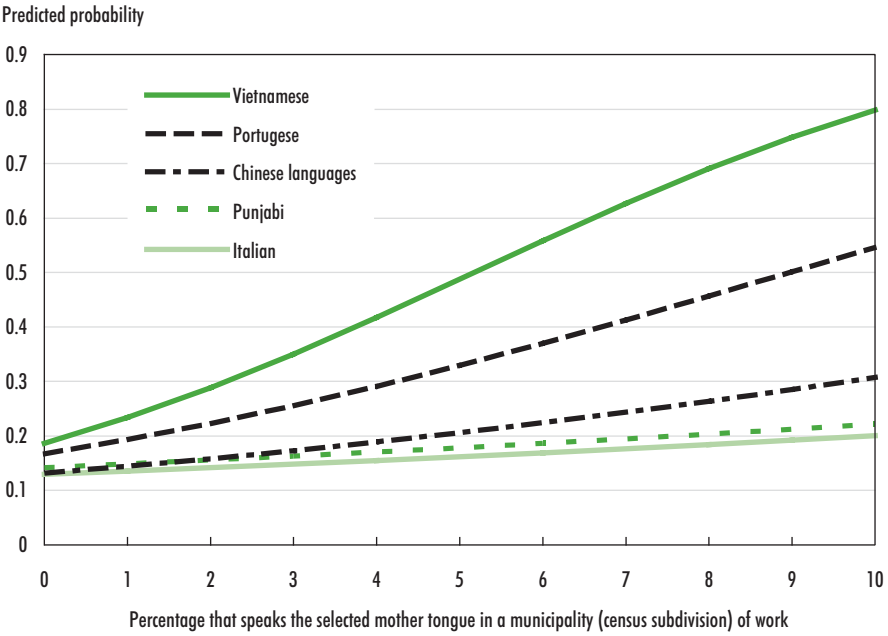
CST Chart 9 Proportion of immigrants who used a language other than English or French at work in selected metropolitan areas



1. Uses an official language most of the time at work, but **also** regularly uses a non-official language at work.
2. **Mostly** uses a non-official language at work.
3. **Only** uses a non-official language at work.

Source: Statistics Canada, Census, 2006.

CST Chart 10 Probability of using selected mother tongues at work (male immigrants in Canada for 5 years and educated in their source country at the university level)



Source: Statistics Canada, Census, 2006.

Summary

As immigrants from non-English and non-French speaking countries have made up an increasing proportion of the labour force, the use of other languages in Canada's workplaces has increased.

A significant proportion of immigrant workers regularly use languages other than official languages in their jobs, especially in some provinces and major cities. Those who do so, often but not always lack official language skills. They also more often have a mother tongue other than English or French. Moreover, immigrants who work in other languages tend to have arrived in Canada at a more advanced age and to have lower levels of education than those who do not. Those who come from East Asia are most likely to use a language other than English or French at work. The vast majority work in Canada's major cities.

The probability that a given immigrant will use their mother tongue in their job increases with the proportion of people who speak that language in the community where they work. There could be areas within Canadian cities where there are enough customers and employers who speak specific non-official languages to allow immigrants to earn a living in their native language.

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

1. The experienced labour force consists of those workers who held a job on Census Day along with people who had been employed at some point between January 1, 2005 and May 16, 2006.
2. In some of Canada's territories, Aboriginal languages have official status. This paper focuses on immigrants and very few immigrants use Aboriginal languages.
3. Wilson, K. and Portes, A. (1980). Immigrant enclaves: An analysis of the labour market experiences of Cubans in Miami. *American Journal of Sociology, 86*, 295-319.

CST What you should know about this study

This article is based primarily on data collected using the 2B form (long form) in the 2006 Census of Canada. It also makes use of some of the same information collected in the 2001 Census. One out of every five households in Canada receives the longer 2B form.

For each person aged 15 or over who is working or who has worked for pay or in self-employment over the current or immediately preceding calendar year, the census long form poses two questions. The questions are asked with reference to their current job, the job at which they worked the most hours (if they had more than one) or the job of longest duration if they are not working on Census Day. They are: (a) In this job, what language did this person use most often? and (b) Did this person use any other languages on a regular basis in this job? Respondents were able to check-off English or French or to specify another language.

Only immigrants are included in the analysis. All persons who answer the "language at work" question in the census have, by definition, been employed at some point in the recent past. Approximately 50,000 immigrants who lived in Canada in 2006 worked outside Canada. In 2001 about 46,000 did so. These immigrants reported in the census about jobs they held in another country. Some of them may have described a job they held before migrating, but in 2006 over three-fifths of them were providing information about a job they held on Census Day. These foreign job holders span many occupations and countries of origin. Engineers and computer consultants figure prominently among them, as do truck drivers and pilots. Many were born in China, the U.S., India or the UK. About half at each census said they worked in a non-official language. Because they work in a non-Canadian environment, these immigrants have been excluded from the analysis in this article.

Most of the reported numbers and proportions are from simple cross-tabulations. But, to check for spurious associations, a model is used to estimate the probability that an immigrant will regularly use a language other than English or French at work. This allows other factors to be held constant (including: gender, marital status, education level, location of study, official language ability, mother tongue, place of birth, time in Canada, age at immigration, and population in the census subdivision where they work). Similar models are used to estimate the probability that immigrants from a number of mother tongue groups will use a non-official language at work, conditional on the same set of characteristics along with the proportion of persons in their municipality (CSD) who speak the same language. Since language at work is measured at the categorical level, logistic regression was used.

The results of these models are reported as predicted probabilities. These probabilities are calculated for the characteristic under discussion, where that characteristic varies but all other variables are held constant at their average or most common value.

All the relationships discussed in the paper are significant at the .05 level and the tests of significance rely on weights which have been normalized to have a mean of one.

Sanders, J. M. and Nee, V. (1987). Limits of ethnic solidarity in the enclave economy. *American Sociological Review, 52*(6), 745-767.

Portes, A. and Jensen, L. (1987). What's an ethnic enclave? The case for conceptual clarity. *American Sociological Review, 52*(6), 768-773.

4. Since the seminal article by Wilson and Portes in 1980, which described the experiences of Cubans in Miami, such communities or segmented markets have been referred to in the academic literature as enclaves.

5. Sanders, J. M. and Nee, V. (1987). Limits of ethnic solidarity in the enclave economy. *American Sociological Review, 52*(6), 745-767.

Hou, F. and Picot, G. (2002). Visible-minority neighbourhood enclaves and labour market outcomes of immigrants. In C. M. Beach, A.G. Green, and J. G. Reitz (Eds.), *Canadian Immigration Policy for the 21st Century* (pp. 537-569). Kingston: John Deutsh Institute, McGill-Queen's University Press.

6. Chiswick, B. R. and Miller, P. (2002). Immigrants' earnings: language skills, linguistic concentration and the business cycle. *Journal of Population Economics, 15*, 31-57.

7. Portes and Jensen. (1987).

8. Citizenship and Immigration Canada. (2007). *Facts and Figures 2006, Immigration Overview: Permanent and Temporary Residents*. Ottawa: Minister of Public Works and Government Services Canada.

9. Statistics Canada. (2008). *Using Languages at Work in Canada, 2006 Census*. Statistics Canada, Catalogue no. 97-555. Ottawa: Minister of Industry.

10. Some census respondents distinguish between Cantonese and Mandarin while others who may use these languages simply report "Chinese." Written Chinese, moreover, is not divided in the same way as is spoken Chinese.

11. Keung, N. (2008, November 1). 'English or bust' is new reality for immigrants; Knowledge economy drives language needs. *Toronto Star*, p. A13.
12. This would seem to imply that some immigrants who use non-official languages also use an official language without, in their own estimation, really being able to speak one. However, the census question on official language ability asks about the ability to "conduct a conversation" while the question on "language of work" asks only about the language "used." One might infer that immigrants who **cannot conduct a conversation** in an official language **use** one only in a limited work related context.
13. Chiswick, B. R. (1991). Speaking, reading, and earnings among low-skilled immigrants. *Journal of Labour Economics, 9*(2), 149-170.
14. Citizenship and Immigration Canada. (2007).
15. Citizenship and Immigration Canada. (2007).
16. The locations are the census subdivisions (CSD's) or municipalities where immigrants work. Many workers indicated in the Census that they had no fixed place of work (e.g. truck drivers, construction tradespersons, house cleaners, traveling sales persons, etc.). In those cases the CSD of work has been imputed from the CSD of residence.
17. According to the 2006 Census Dictionary: Mother tongue refers to the first language learned at home in childhood and still understood by the individual at the time of the census.
18. Reitz, J. (1990). Ethnic concentrations in labour markets and their implications for ethnic inequality. In R. Breton, W. W. Isajiw, W. E. Kalbach, J. G. Reitz (Eds.), *Ethnic Identity and Equality: Varieties of Experiences in a Canadian City* (pp. 135-195). Toronto: University of Toronto Press.
19. Refers to any Chinese language.
20. The predicted probabilities are for male immigrants who arrived at 24 years of age, have been in Canada for 5 years, are married, speak an official language, and whose highest level of education attained is a university degree from their world area of origin.

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The impact of working in a non-official language on the occupations and earnings of immigrants in Canada

by Derrick Thomas

The importance of language in the labour market and general integration of immigrants is widely agreed upon.[1] Immigrants must often adjust to societies with cultures and languages that differ from their experience.

The languages of the larger established population in the areas where migrants settle tend to be the ones used in markets and in most workplaces. In addition, Canada also has Official Languages legislation. Various Federal and Provincial Acts formally establish laws for language use, for instance: that people seeking government services will be served in the official language of their choice; that publicly-funded schooling will be available in an official language; or that official languages are the language(s) of work in a given institution or area.

For the purposes of this article, "official languages" refers to English and French.[2] The term "non-official language" refers to a language other than English or French.

Many studies in Canada have used census data to examine the impact of official language ability on the economic integration of immigrants.[3] Until 2001, the census only provided data on the self-reported ability to conduct a conversation in an official language. Language ability is more complex, however, than it initially appears.

There are various levels of language knowledge from basic survival ability to complete fluency. The ability to understand, speak, read and write can, moreover, be distinguished. Official language literacy is lower among immigrants, even when those unable to speak English or French are taken out of the equation.[4] Accented speech can also exert an influence.[5] Immigrants may well be at a disadvantage for some time even after they report that they can conduct a conversation in the language of the predominant marketplace.

Another measure now exists that can complement data on the self-assessed ability to conduct a conversation in English or French. Since 2001, the Canadian census[6] has also asked about languages of work (See "What you should know about this study"). This article explores the utility of this new measure as a predictor of economic adjustment among immigrants, as compared to and in conjunction with self-reported official language ability. Language of work reflects to a certain extent the assessment of the marketplace with respect to workers' official language capacity and literacy. As such, it adds to our ability to explain employment, occupation and earnings.

Immigrants make up a growing share of Canada's population and labour force. There were over 3.8 million immigrants in the experienced labour force in the 2006 Census,[7] an increase of about one half million over the number in 2001. The use of non-official languages is increasing in Canada's workplaces and markets. The number of immigrants working in Canada in a non-official language grew from 538,000 in 2001 to 611,400 in 2006. This represents an increase of 73,400 people or almost 14%.

This article looks at a number of issues. One question concerns the extent to which immigrants who work in a non-official language do so because they derive an advantage through access to additional markets. Alternatively, some immigrants may work in a non-official language because poor official language skills limit their choices and confine them to less rewarding jobs. Perhaps work in a linguistically-delimited market segment (enclave[8,9]) can be an important stepping stone where

some immigrants earn a living while they adjust to life in Canada. This article will discuss these issues using data on language of work from the 2006 Census. The focus will be on immigrants in the experienced labour force.

Labour force participation and employment differ according to the language at work

Immigrants who cannot conduct a conversation in English or French are more likely to be unemployed or not in the labour market. Those who held no job in 2005 or in 2006 were not asked about their language at work in the 2006 Census and hence are not part of this analysis. Unemployment and participation rates can be calculated for those who held a job at some point. Those rates, however, underestimate the extent of non-participation and unemployment among those unable to converse in an official language.

Even so, non-participation and unemployment rates are generally higher among those immigrants who reported using a language other than English or French in a job at some point between January 1, 2005 and May 16, 2006. Compared to those who did not use a non-official language, rates are especially high among those who used a non-official language exclusively, followed by those who used one most of the time. Rates, however, were slightly lower among those who used an official language most of the time but also used a non-official one regularly (Table 1).

A similar pattern is observed with respect to part-time work. Part-time jobs are more common among those who use "only" a non-official language at work. They are less common, however, among those who use one in conjunction with an official language. This suggests that there may in fact be opportunities for those who use a non-official language, provided they also have some official language skills.

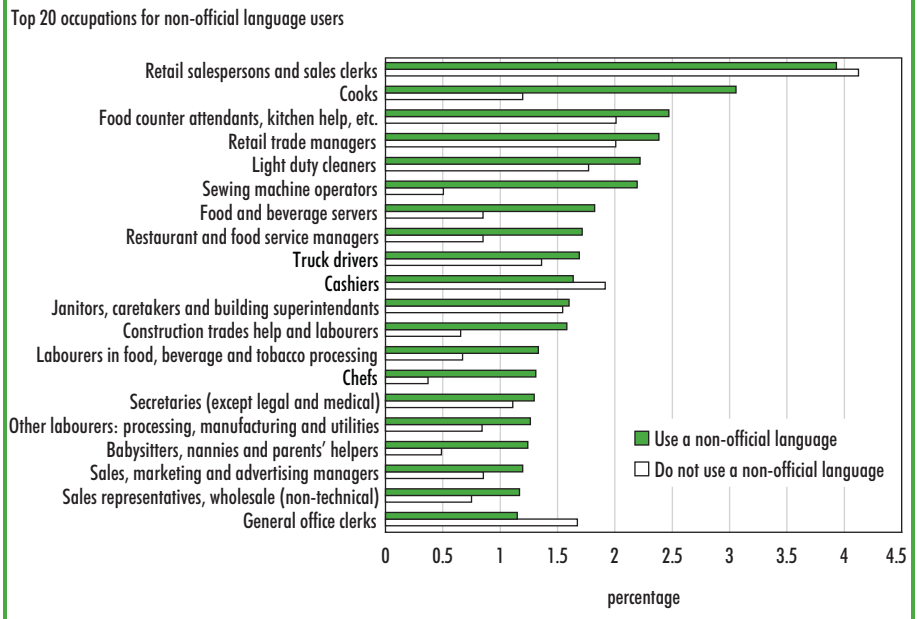
Table 1 Non-participation and unemployment as of Census Reference Week for immigrants who worked at some point over the previous 16 months, according to how often they used a non-official language at work

	Use of non-official language at work			
In Census reference week[1]	Do not	Also[2]	Mostly	Only
	percentage			
Non-participation rate	8.0	6.8	8.6	15.0
Unemployment rate	4.4	3.8	4.6	8.0

1. May 7 to 13, 2006.
2. Uses an official language most of the time at work, but **also** regularly uses this non-official language at work.

Source: Statistics Canada, Census, 2006.

Chart 1 Occupational distribution of immigrant workers by language of work



Source: Statistics Canada, Census, 2006.

Immigrants who use languages other than English or French are more often found in less skilled occupations

The occupational profile of immigrant workers who use languages other than English or French at work reflects many jobs that usually require less formal training and may be poorly paid.[10] Chart 1 shows the top 20 occupations selected for the highest proportion of immigrants who are non-official language users. For the purposes of comparison, it also shows the proportion of immigrants who do not use non-official languages with any regularity in the same occupations.

There are comparatively more cooks, restaurant workers, cleaners, sewing machine operators, labourers and childcare workers among

immigrants who use a non-official language at work. There are also however more "retail trade managers," "marketing managers" and "sales representatives." Immigrants in these managerial occupations more often used a non-official language along with an official one. Among immigrants who worked in other languages, the proportion in occupations such as marketing and sales management declined as non-official languages gained in predominance. It was highest for those who used an official language most of the time (5.2%) , followed by those who used a non-official language most of the time (5%), and was lowest for those who used a non-official language only (2.9%).

Immigrants who work in a language other than English or French are also concentrated in fewer occupations. About 36% are found in the 20 jobs listed in Chart 1. In contrast, the top 20 occupations for immigrant workers who do not use a non-official language at work reflect more skilled occupations and account for only 31% of them.

The concentration is highest (53%) among those who regularly use "only" a non-official language. A quarter of this latter group is found in just 5 occupations: cooks, sewing machine operators, food counter/ kitchen help, babysitters/nannies and light duty cleaners. Marketing managers and sales representatives, moreover, do not appear in the list of most important occupations for those who only use a non-official language.

Twenty industries employ over 40% of immigrants who work in a non-official language

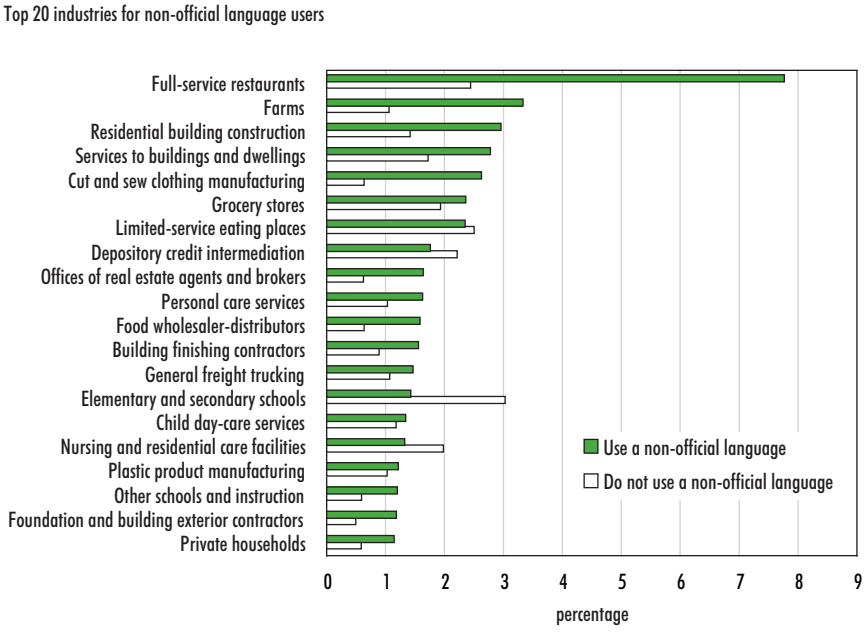
Immigrants using a non-official language at work are also concentrated by industry (Chart 2). It tells much the same story.

Restaurant employment accounts for a large proportion of immigrants who work in a non-official language, followed by farms, residential construction, building services, clothing manufacturing and grocery stores. The top twenty industries include over 40% of them. Full-service restaurants and limited-service eating places together account for over 10%.

While cooks, sewing machine operators and janitors may not require highly-developed communications skills, there are a number of jobs and industries occupied by many persons using a non-official language that would seem to entail such skills. Retail and wholesale sales persons and managers, workers and managers in advertising and marketing, and real estate agents may require a good or excellent ability to communicate. Such people may hold their jobs precisely due to their ability to speak a non-official language and hence to reach growing immigrant markets. Comparatively few immigrants employed in sales, marketing or real estate speak a non-official language to the exclusion of English and French, however. They may use another language with some regularity but are also called upon to use an official tongue.

With time in Canada, immigrants appear less concentrated in industries typical of recently arrived people who work in non-official languages (Chart 3). This is especially relevant to those who do not use languages other than English or French at work. If immigrants indeed move from working in languages other than English and French to using these languages almost exclusively, they may also be moving into a wider array of industries and jobs.

Chart 2 Industrial distribution of immigrant workers by language of work

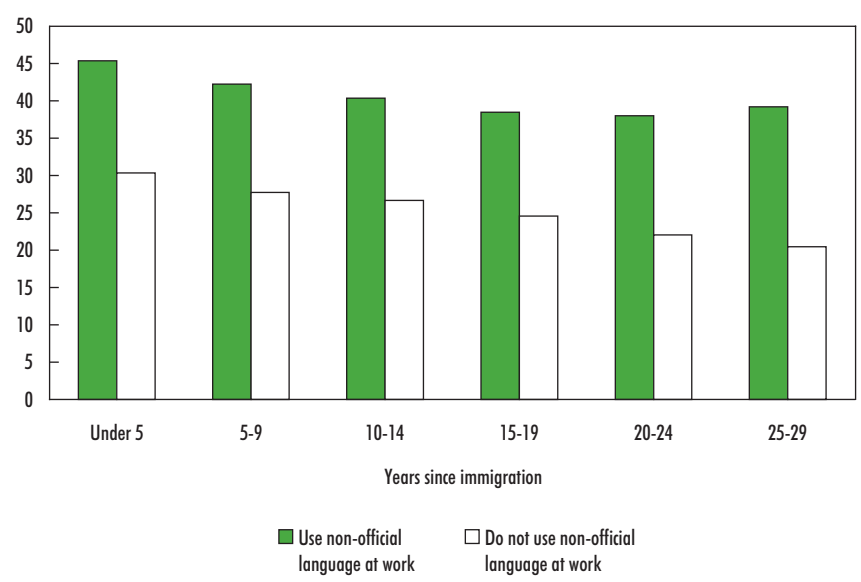


Source: Statistics Canada, Census, 2006.

Self-employment is more common for immigrants working in a non-official language than for immigrants working only in official languages

Immigrant workers who use non-official languages in their jobs tend more often to be self-employed than those who do not. In general, about 14% of immigrant workers are self-employed. Among those who use a non-official language at work, the self-employment rate is 21%. It

Chart 3 Industrial concentration among immigrant workers by language used at work and time in Canada



Source: Statistics Canada, Census, 2006.

is highest among those who use a non-official language most of the time (23%) or regularly with an official language (22%). Among those who use a non-official language exclusively it is about 15%. The rate is about 12.5% for those who do not regularly use a language other than English or French.

The proportion of immigrant workers who are self-employed and employ others is about twice as high for those who use a non-official language compared with those who do not (10.8% versus 5.4%). The rate is under 8% for those who use "only" a non-official language.

Some immigrants may set up their own businesses to serve their communities in their own languages.[11,12] These enterprises may also provide employment within those communities. Self-employed people are in a better position to control what language they use in the workplace. However, starting a business may be easier for those who have some command of English and French and use them some of the time.

Earnings decrease as non-official languages are used more frequently on the job

According to the 2006 Census, immigrants who used a non-official language in their job were found in low-income households[13,14] almost twice as often as were those who did not (22% vs. 12%). Almost 30% of those who made no regular use of English or French in their work lived in low-income households.

In 2005, immigrants who regularly used a language other than English or French at work[15] earned on average $11,000 less than those who did not. Those who only used non-official languages at work earned less than half as much as those who did not regularly use one.

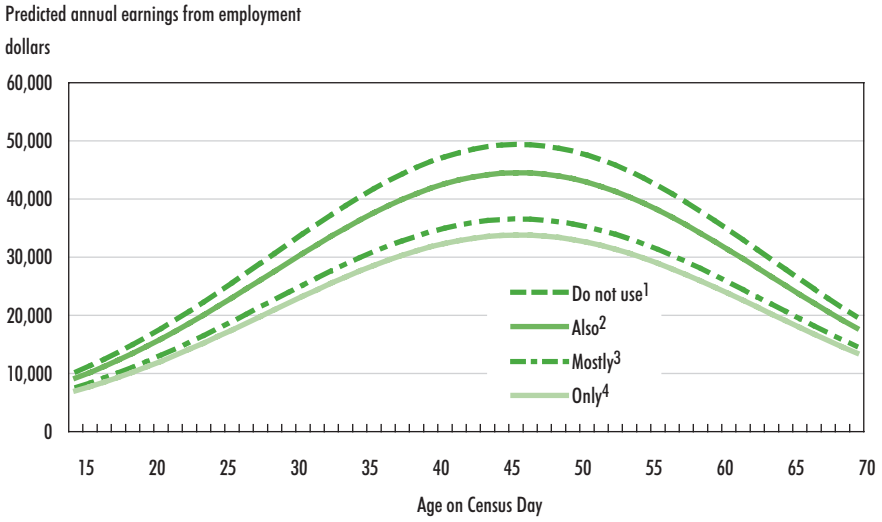
Even when other human capital and worker characteristics are held constant (level of education, country of education, official language ability, years in Canada, marital status, age and sex), a difference between those who use non-official languages at work and those who do not persists (See Table A.1). When these factors are held constant, moreover, language of work appears to be at least as good a predictor of earnings as is official language ability[16] (See "What you should know about this study" for a description of the model used to control for other factors; regression coefficients are produced in Table A.1).

Chart 4 compares 2005 employment incomes by age for immigrant workers who: 1) do not use a non-official language at work; 2) use non-official languages regularly but English or French more often; 3) use non-official languages most of the time; and 4) use them almost exclusively. Other factors are held constant. The illustration is for married males with a university degree earned outside Canada, the U.S. or Europe who can speak an official language. This comparison is limited to immigrants who arrived before 2005 and who worked and earned income in 2005. The strong effect observed for age is related to immigrants who arrive when older and lack official language skills.[17]

As can be seen in Chart 4, earnings decrease as non-official languages are used more frequently on the job.[18] This suggests that many immigrants who work in languages other than English or French are constrained to a certain limited number of occupations and industries where they are paid less. Annual earnings do increase with time in Canada, however a gap persists between those who use and those who do not use official languages in their job (See Table A.1).

It also appears that many workers who use non-official languages on the job are not able to bring their other skills fully to bear. For instance, when other human capital and worker characteristics are held constant (as above), the premium (higher value or extra payment) earned by a 43-year-old worker with a university

Chart 4 Predicted earnings for married male immigrants 5 years in Canada with a university education obtained outside Canada, the U.S. or Europe: by use of a non-official language at work



1. **Do not use** a non-official language at work.
2. Uses an official language most of the time at work, but **also** regularly uses a non-official language at work.
3. **Mostly** uses a non-official language at work.
4. **Only** uses a non-official language at work.

Source: Statistics Canada, Census, 2006.

degree compared to one who has no such degree is over $14,250 per year, provided they work in one of the official languages. If the worker regularly uses another language, the premium is only about $5,800 (See Table A.2 for details).

While working in a language other than English or French seems to have negative implications for immigrant workers' earnings, linguistically-delimited markets or communities may well offer opportunities for those with limited language skills. Jobs in their mother tongue may provide a living while immigrants learn an official language and adapt their skills to the Canadian market.

Summary

Even holding other characteristics such as ability to speak in English or French, education and age equal, it seems that most immigrants who work in non-official languages are at a disadvantage with respect to other workers. They have higher rates of unemployment, are in occupations usually requiring less formal training, earn less and are more often in low-income households. They also have less opportunity to bring their educational qualifications and other skills to bear (See interaction effect in Table A.2).

Employment in comparatively unskilled occupations and linguistically-delimited markets implies more limited opportunities for some immigrant workers. It is important to note however that for many, these occupations and markets seemingly serve as a sheltered base where newcomers earn a living as they acquire official language skills and become more accustomed to the specific requirements of the Canadian markets.

Some workers continue to use minority languages in their work for some time but most of them also use an official language. Minority language communities may also provide openings for professionals, self-employed immigrants and immigrant business persons in the form of markets and a work force that may not be accessible to the wider business community.

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

1. Chiswick, B. R. (1991). Speaking, reading, and earnings among low-skilled immigrants. *Journal of Labour Economics, 9*(2), 149-170.

   Chiswick. B. R. and Miller, P. W. (2002). Immigrants earnings: language skills, linguistic concentration and the business cycle. *Journal of Population Economics, 15*(1), 31-57.

   Pendakur, K. and Pendakur, R. (2002). Language as both human capital and ethnicity. *International Migration Review, 36*, 147-177.

2. In some of Canada's territories, Aboriginal languages have official status. For the purpose of this article, however, "official language" refers to Canada's official languages, English and French. Very few immigrants use Aboriginal languages.

3. Chiswick, B. R. and Miller, P.W. (1988). Earnings in Canada: The role of immigrant generations, French ethnicity and language. In T.P. Schultz (Ed.), *Research in Population Economics, 6* (pp. 183-228). Greenwich, CT: JAI.

   Chiswick, B. R. and Miller, P.W. (2000). The complementarity of language and other human capital. *Economics of Education Review, 22*(2003), 469-480.

   Pendakur and Pendakur. (2002).

4. Ferrer, A., Green, D. and Riddell, C. (2006). *The Effect of Literacy on Immigrant Earnings*. Statistics Canada. Catalogue no. 89-552-MIE, no. 12. Ottawa: Ministry of Industry.

5. Economic Council of Canada. (1991). *Economic and Social Impacts of Immigration*. Ottawa: Economic Council of Canada.

   Creese, G. and Kambere, E.N. (2003). What colour is your english. *Canadian Review of Sociology and Anthropology, 40*(5), December, 565-573.

6. Statistics Canada. (2008). *Using Languages at Work in Canada, 2006*. Statistics Canada, Catalogue no. 97-555-X. Ottawa: Ministry of Industry.

CST What you should know about this study

This article is based primarily on data collected via the 2B form in the 2006 Census of Population. It also makes use of some of the same information collected in the 2001 Census. One out of every five households in Canada receives the longer 2B form.

For each person aged 15 or over who is working or who has worked for pay or in self-employment over the current or immediately preceding calendar year, the census long form poses two questions. The questions are asked with reference to their current job, the job at which they worked the most hours (if they had more than one) or the job of longest duration if they are not working on Census Day. They are: (a) In this job, what language did this person use most often? and (b) Did this person use any other languages on a regular basis in this job? Respondents were able to check-off English or French or to specify another language.

Only immigrants who arrived before January 1st 2005 and who had positive earnings in that year are included. All persons who answer the language at work question on the census form have by definition been employed at some point in the recent past. Approximately 50,000 immigrants who lived in Canada in 2006 apparently worked outside Canada. In 2001 about 46,000 did so. These immigrants reported in the Census about jobs they held in another country. Some of them may have described a job they held before migrating, but in 2006 over three fifths of them were providing information about a job they held on Census Day. These foreign job holders span many occupations and countries of birth. Engineers, computer consultants figure prominently among them as do truck drivers and pilots. Many were born in China, the U.S., India or the UK. About half at each census said they worked in a non-official language. Because they work in a non-Canadian environment, these immigrants have been eliminated from the analysis.

Immigrants who work in Canada can be distinguished according to the extent to which they use non-official languages in their jobs. Jobs differ in the amount of communication they require, but the proportion of communication that takes place in a non-official language can be used to construct a scale.

At one end are those immigrants who "only" use non-official languages (2.8%); then those who "mostly" use non-official languages but who also use an official language with some regularity (4.2%); next are those who mostly use an official language but who "also" regularly use a non-official language (9%); and on the other end are those who "do not" use a non-official language at work with any regularity (84%).

The impact of language of work together with various kinds of human capital on annual earnings is explored using OLS regression analysis. The dependant variable is actually the natural log or earnings as this corrects for skewness in the raw measure. Quadratic terms are included along with the original terms for age and years in Canada as these effects are not linear and tend to dampen with time. Most of the other terms are dichotomies which reflect the presence or absence of a characteristic. The technique was initially pioneered by Mincer for the study of human capital (Mincer, 1974). Mincer models have been adapted by Chiswick (Chiswick, 1978, Chiswick and Miller, 1998, 2000 and 2002) to the study of labour market outcomes for immigrants and to the consideration of language skills. They have been standard in the literature on immigration.

Among the independent measures controlled for are: gender, age, years in Canada, education, marital status and location of study (or the country where each subject obtained their highest level of education). An interaction between language of work and education is also explored and is found to be significant. All the relationships discussed in the paper are significant at the .01 level and the tests of significance rely on weights which have been normalized to have a mean of one.

7. The experienced labour force consists of those workers who held a job on Census Day along with people who had been employed at some point between January 1, 2005 and May 16, 2006.

8. Wilson, K. and Portes, A. (1980). Immigrant enclaves: An analysis of the labour market experiences of Cubans in Miami. *American Journal of Sociology, 86*, 295-319.

   Sanders, J. M. and Nee, V. (1987). Limits of ethnic solidarity in the enclave economy. *American Sociological Review, 52*, 745-767.

   Hou, F. and Picot, G. (2002). Visible-minority neighbourhood enclaves and labour market outcomes of immigrants. In C. M. Beach, A.G. Green and J. G. Reitz (Eds.), *Canadian Immigration Policy for the 21st Century* (pp. 537-571). Kingston: John Deutsh Institute for the Study of Economic Policy, McGill-Queen's University Press.

9. Since the seminal article by Wilson and Portes in 1980, which described the experiences of Cubans in Miami, such communities or segmented markets have been referred to in the academic literature as enclaves. Enclaves consist of establishments, networks, markets and neighbourhoods where workers can function and sometimes thrive in another language. These linguistically-delimited communities or markets depend on a concentration of people who share not only a language but often an ethnic background, common experience and similar tastes.

10. Blishen, B. R., Carroll, W. K., and Moore, C. (1987). The 1981 Socio-economic index for occupations in Canada. *The Canadian Review of Sociology and Anthropology, 24*, 465-488.

11. Portes, A. and Jensen, L. (1987). What's an ethnic enclave? The case for conceptual clarity. *American Sociological Review, 52*, 768-773.

    Wilson and Portes. (1980).

12. According to Portes and Jensen (1987) one of the most important benefits of an immigrant enclave is that it provides newcomers with a greater opportunity for self-employment. Our data support that contention.

13. Low-income households as per Statistics Canada's definition of Low Income Cut-offs: A family unit with income below the cut-off for its family size and urbanization classification is considered a "low income" family. Base year low income cut-offs are set where families spend 20 percentage points more of their income than the Canadian average on food, shelter and clothing. Statistics Canada low income cut-offs are not generally applied to Indian Reserves, Yukon, Northwest Territories, Nunavut (or institutional residents).

14. Statistics Canada. (1999). *Low Income Cut-offs*. Statistics Canada, Catalogue no. 13-551-XIB. Ottawa: Ministry of Industry.

15. Care must be taken in interpreting these results. The Census data is a snapshot of Canadians taken at one point in time (cross-sectional). This makes it difficult to distinguish effects that are due to changes in individual immigrants' circumstances as they adjust over time to life in Canada, from effects due to changes in the characteristics of immigrants who arrive at different times.

16. Language of work tends to overpower language ability when they are used in the same model and when they are tested separately it results in a slightly better model.

17. Age, years in Canada, and age at arrival cannot be truly disentangled from data in a single cross-section.

18. Many immigrants unable to speak English or French may have been excluded from the analysis because they held no job in 2005 or 2006 and did not answer the questions about language of work, had no occupation to report and had no earnings from employment. Some may have been unable to find employment. Others may, for instance, have been studying English or French and did not seek employment.

Table A.1 Models predicting the log of 2005 annual earnings from employment for immigrants who arrived before January 1, 2005

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	unstandardized regression coefficients					
Intercept	10.076	6.027	5.885	5.986	5.950	5.949
Use of non-official language at work (Do not)†						
Also[1]	-0.148	-0.168	-0.115	-0.117	-0.104	-0.103
Mostly	-0.418	-0.411	-0.314	-0.317	-0.303	-0.300
Only	-0.665	-0.581	-0.385	-0.386	-0.395	-0.378
Highest level of education (High school or less)†						
Some postsecondary[2]		0.203	0.212	0.213	0.038	0.037
University		0.424	0.509	0.507	0.350	0.349
Age						
Age in years		0.163	0.153	0.145	0.149	0.149
Age in years squared		-0.002	-0.002	-0.002	-0.002	-0.002
Gender (Women)†						
Men		0.386	0.391	0.385	0.382	0.382
Time in Canada						
Years in Canada			0.037	0.038	0.033	0.033
Years in Canada squared			-0.0004	-0.0005	-0.0004	-0.0004
Marital status (Single, divorced or other)†						
Married or common-law				0.112	0.121	0.121
Location where highest certificate obtained (Other)†						
Canada					0.222	0.223
United Kingdom					0.214	0.214
United States					0.221	0.221
Elsewhere in Europe					0.133	0.133
Australia / New Zealand					0.374	0.374
Official language ability (English, French or both)†						
None						-0.030
Adjusted R squared	0.012	0.191	0.215	0.217	0.221	0.221

† Reference group.

1. Uses an official language most of the time at work, but **also** regularly uses a non-official language at work.
2. Some postsecondary includes registered apprenticeship or trades certificate or diploma, college, CEGEP or other non-university certificate or diploma, university, certificate or diploma below bachelor level.

Notes: R squared is a statistical measure of how well a regression line approximates real data points. It ranges between 0 and 1.
All variables are significant at $p < 0.01$.

Source: Statistics Canada, Census, 2006.

CST Table A.2 Model predicting the log of 2005 annual earnings from employment for immigrants who arrived before January 1, 2005, showing the interaction between language at work and education

	Model 7
	unstandardized regression coefficients
Intercept	5.939
Use of non-official language at work (No)†	
Yes	-0.137
Highest level of education (Less than university)†	
University	0.346
Age	
Age in years	0.150
Age in years squared	-0.002
Gender (Women)†	
Men	0.382
Time in Canada	
Years in Canada	0.033
Years in Canada squared	0.000
Marital status (Single, divorced or other)†	
Married or common-law	0.121
Location where highest certificate obtained (Other)†	
Canada	0.248
United Kingdom	0.213
United States	0.237
Europe elsewhere	0.158
Australia/New-Zealand	0.394
Official language ability (English and/or French)†	
None	-0.173
Interaction between non-official language at work and education	
Yes multiplied by University	-0.162
Adjusted R squared	0.220

† Reference group.

Notes: R squared is a statistical measure of how well a regression line approximates real data points. It ranges between 0 and 1.
All variables are significant at $p < 0.01$.

Source: Statistics Canada, 2006 Census.

Métis in Canada: Selected findings of the 2006 Census

by Linda Gionet

As part of its contribution to dissemination of Census findings, *Canadian Social Trends* is highlighting some of the key social trends observed in the 2006 Census.
In this issue, we present an adaptation from *Aboriginal Peoples in Canada in* 2006: *Inuit, Métis and First Nations*, 2006 *Census* (Catalogue no. 97-558-X2006001), which focuses on Métis population in Canada.

In the 2006 Census, 389,785 people identified themselves as a Métis person.[1] This represents nearly a doubling (a 91% growth) in the size of the Métis population since 1996. By way of comparison, the First Nations[2] and Inuit populations grew 29% and 26%, respectively, over the same period; the non-Aboriginal population grew at less than one-tenth the rate (8%). Higher birth rates and a greater tendency to self-identify as Métis on the Census underlie this increase in the Métis population over the past decade.[3]

The Métis account for more than one-third (34%) of the overall Aboriginal population, up from just over one-quarter (26%) in 1996.

Métis population is young and concentrated in the West

Nearly 87% of the Métis population lives west of Quebec, with the largest percentage in Alberta (22% in 2006), followed by Ontario (19%), Manitoba (18%), British Columbia (15%) and Saskatchewan (12%). Additionally, 7% of Métis live in Quebec, 5% in the Atlantic provinces and 1% in the territories (Chart 1).

Over two-thirds of Métis (69%) in Canada live in an urban area; of these, the majority (59%) live in a census metropolitan area (CMA) and the remainder (41%) in smaller urban centres with populations under 100,000. The CMAs with the largest number of Métis residents include Winnipeg (40,980), Edmonton (27,740), Vancouver (15,075), Calgary (14,770), Saskatoon (9,610) and Ottawa-Gatineau (7,990).

With a median age of 30 years, the Métis are younger than the non-Aboriginal population, which has a median age of 40 years. In fact, one-quarter (25%) of the Métis are children under age 15. A somewhat higher proportion of Métis in Saskatchewan (29%), Manitoba (27%) and Alberta (27%) are children.

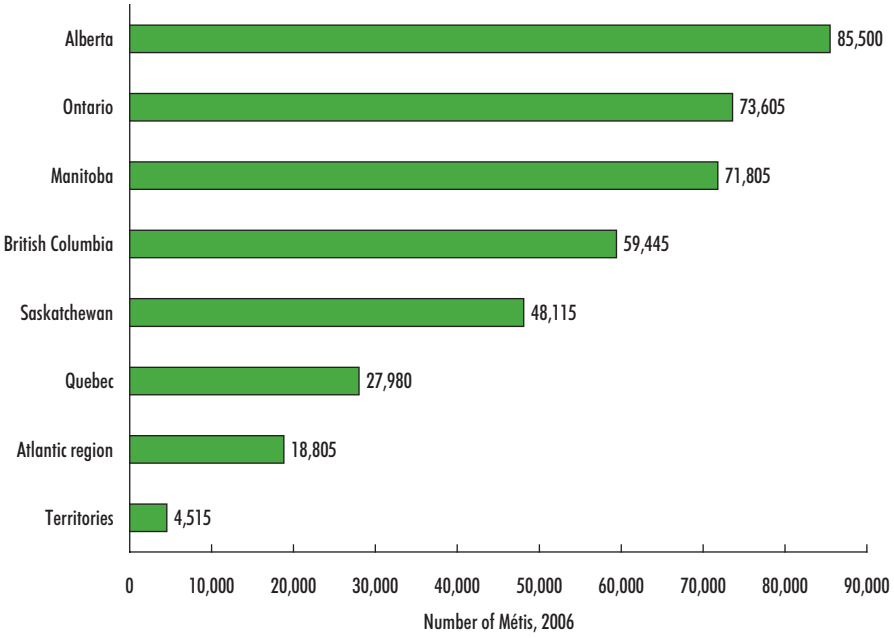
Métis children are almost twice as likely as non-Aboriginal children to live in a lone-parent family. In 2006, 31% of Métis children lived with a lone mother or father, compared with 17% of non-Aboriginal children. In Manitoba (35%) and Saskatchewan (36%), more than one-third of Métis children under age 15 lived with one parent. In cities where Métis made up a large proportion of the population – for instance, Winnipeg, Regina and Edmonton – about four in ten Métis children lived in lone-parent families.

CST Who are the Métis?

In this article, Métis refers to people who identify as Métis on the Census. This definition differs from that adopted by the Métis National Council (MNC), whereby: "Métis means a person who self-identifies as Métis, is of historic Métis nation ancestry, is distinct from other Aboriginal peoples and is accepted by the Métis nation".[4] According to the MNC, Métis ancestry derives, in part, from a person having ancestry from the historic Métis nation homeland, an area in west central North America.

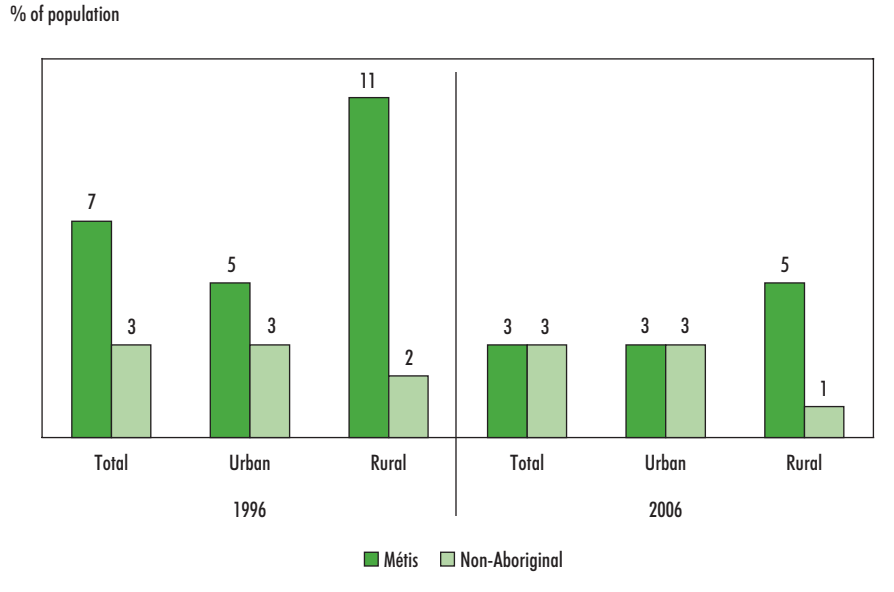
Because the definition of Métis in this article is broader in scope than the MNC's definition, the information about the Métis population presented here may vary from that provided by the MNC's national registry.

CST Chart 1 Nearly 9 in 10 Métis lived in the western provinces and Ontario



Source: Statistics Canada, Census of Population, 2006.

CST Chart 2 Between 1996 and 2006, rates of crowding in Métis households decreased



Note: Crowding is defined as more than one person per room, excluding bathrooms, halls and similar.
Source: Statistics Canada, censuses of population, 1996 and 2006.

Older Métis more likely to speak an Aboriginal language

Overall, 4% of Métis had knowledge of an Aboriginal language in 2006, down slightly from 5% in 2001. Those living in rural areas were more likely to be Aboriginal language speakers, at 6% compared with 2% of urban dwellers.

Older Métis were more likely to speak an Aboriginal language. An estimated 12% of Métis aged 75 years and over could converse in an Aboriginal language, compared with 9% of those aged 65 to 74, and 6% of people aged 45 to 64. Less than 3% of Métis aged 44 and younger spoke an Aboriginal language.

Cree is the Aboriginal language most often spoken among the Métis (9,360 speakers in 2006). Other languages spoken by Métis include Dene (1,620), Ojibway (1,345) and other Algonquian languages, as well as Michif (fewer than 1,000 speakers).

Although few Métis are able to converse in an Aboriginal language, about half of the Métis population have reported that keeping, learning or re-learning their Aboriginal language was important or very important to them.[5]

Crowding and need for major repairs

At the national level, 3% of Métis lived in crowded housing conditions in 2006, a rate equal to that of the non-Aboriginal population. This proportion marks a change from 1996, when 7% of the Métis population lived in crowded households.

Crowding was more common for Métis in rural than urban areas, at 5% compared with 3% in 2006. (In 2006, about one-third of the Métis population lived in rural areas.) Métis in rural Saskatchewan (11%) and rural Alberta (8%) were most likely to experience crowded housing conditions. Nevertheless, over the ten-year period from 1996 to 2006, rates of rural crowding declined in most parts of the country, especially in the Prairies. For instance, in rural

Saskatchewan it dropped from 21% to 11%, and in rural Alberta it fell by almost half from 15% to 8% (Chart 2).

While there is little difference overall between the Métis and non-Aboriginal populations in terms of crowding, Métis are more likely to live in homes that need major repairs. In 2006, 14% of Métis occupied dwellings that needed major repairs, a proportion twice as high as that of the non-Aboriginal population (7%).

Once again, conditions varied between the Métis living in rural (18%) compared to urban (12%) areas. In Ontario, Quebec, British Columbia and the Atlantic provinces, the gap was smaller, but in Saskatchewan and Alberta (where one-third of the Métis population reside), rural Métis were almost twice as likely as urban Métis to occupy housing that needed major repairs.

At the national level, levels of housing affordability among the Métis were similar to those for the non-Aboriginal population. In 2006, 22% of Métis lived in a household that spent at least 30% of its income on shelter costs, compared with 21% of the non-Aboriginal population. At the provincial level, Ontario (24%) and British Columbia (29%) recorded rates of housing affordability above the national Métis average. Additionally, the widest gap between the Métis and the non-Aboriginal population was in Saskatchewan, at 21% and 15%, respectively.

Métis are less likely than the non-Aboriginal population to own their own home. In 2006, 64% of Métis lived in a home that was owned by a member of the household; for the non-Aboriginal population, the proportion was 75%.

While the national homeownership rate is lower for the Métis population than the non-Aboriginal population, the provincial gap is particularly wide in the Western provinces. For instance, in Saskatchewan and Alberta, the proportion of Métis who lived in their own homes were 20 and 18 percentage points lower, respectively, compared to the non-Aboriginal population.

College education more common among Métis

Half of Métis adults aged 25 to 64 have completed a postsecondary education: the comparable proportion in the non-Aboriginal population is 61%. A college education was most common, with 21% of Métis having completed a diploma, followed by a trades certificate (16%). Between 2001 and 2006, the percentage of Métis with a university degree increased from 7% to 9%. This percentage was 14 percentage points less than the non-Aboriginal population (23%).

In the Prairie provinces and New Brunswick, the proportion of Métis adults who have a postsecondary qualification was slightly lower than the national Métis average. In the remaining provinces, the proportion was higher than the Métis national average, aged 25 to 64.

Métis women were somewhat more likely to have a postsecondary education, at 51% compared with 48% of men in 2006. Métis women were more likely to have a college diploma – 25% versus 17% of men – while Métis men were more likely to have a trades certificate – 21% versus 12% of women. In addition, Métis women were slightly more likely to have a university degree, at 10% compared with 8% of men.

In most of the Atlantic provinces and in Quebec, Métis men had a greater likelihood than women of finishing a postsecondary education, particularly a trades certification.

Employment rates for adults of core working age

Between 2001 and 2006, the employment rates for Métis adults of core working age (aged 25 to 54 years) increased 4 percentage points from 70.4% to 74.6%. Although the Métis employment rate was lower than that of the non-Aboriginal population (81.6%), the gap has narrowed between these two populations by about 3 percentage points.

Métis employment rates were lower than those of the non-Aboriginal population across the country in 2006. The differences were widest in New Brunswick (18 percentage points), Prince Edward Island (14 points), Saskatchewan (14 points) and Quebec (13 points).

Métis men had higher employment rates than women, at 79.2% compared with 70.4%. In the provinces with larger Métis populations, Métis men had higher rates of full-time, full-year employment than Métis women. In parts of the country with smaller Métis populations, as in Newfoundland, New Brunswick, the Yukon and Nunavut, Métis women were more likely than Métis men to be employed.

Unemployment rates represent the proportion of people in the labour force who are looking for work but cannot find it. At the national level, unemployment rates of Métis adults of core working age were higher than those in the non-Aboriginal population– in 2006, 8.4% versus 5.2%, respectively.

Between 2001 and 2006, the unemployment rates for Métis decreased 4 percentage points from 12.5% to 8.4%. Although the Métis unemployment rate was lower than that of the non-Aboriginal population (5.2%), the gap has narrowed by 3 percentage points.

The percentage of unemployed Métis in the labour force was below the Métis national average west of Quebec, except in Saskatchewan and Nunavut.

The unemployment rate for Métis women was comparable to that for Métis men, at 8.2% compared with 8.6% in 2006.

Median income

In 2005, the median income of the Métis in Canada was lower than that of the non-Aboriginal population. Indeed, it was about $5,000 less than the median income of $25,955 reported for the non-Aboriginal population. Nonetheless, between 2000 and 2005, the Métis median

income increased by about $2,600, over three times faster than the nearly $800 increase for the non-Aboriginal population. This rise narrowed the income gap between the Métis and the non-Aboriginal population during this period.

Across the country, the difference in median income between the Métis and the non-Aboriginal population was widest in Alberta and in the territories. In Alberta, the Métis median income ($22,839) was about $6,600 less than that of the non-Aboriginal population ($29,501). Within the small Métis population in the territories, there was a larger gap. In the Northwest Territories, for example, the Métis median income ($36,211) was approximately $13,000 less than that of the non-Aboriginal population ($49,219).

In most regions, the median income of Métis women was less than that of Métis men. In 2005, it was about $9,000 less (Métis men reported $26,466), a difference consistent with that recorded in 2000. At the regional level, the gap was widest in Alberta and Nova Scotia. Métis women in Alberta made about $14,000 less than Métis men ($31,869) while Métis women in Nova Scotia made about $10,200 less than their male counterparts ($25,329).

Summary

In 2006, over one-third of people – almost 390,000 – who identified themselves as an Aboriginal person reported that they were Métis. In the last 10 years, the Métis population has grown by 91%, due to higher fertility rates, and an increasing tendency to self-identify as Métis.

Almost nine in ten Métis live in the Western provinces and Ontario. The Métis are the most urbanized of the Aboriginal groups, with 69% of the population living in an urban area in 2006.

Overall, housing conditions of the Métis population improved between 1996 and 2006. In 2006, about 3% of Métis reported living in crowded conditions, about the same rate as the non-Aboriginal population; however, they were more likely to live in homes that needed major repairs, especially in rural areas.

Of those Métis who had completed a postsecondary education, most had obtained a college diploma or trades certificate. Between 2001 and 2006, the percentage of Métis who had completed a university degree increased.

Métis adults of core working age were less likely to be employed than the non-Aboriginal population, at 74.6% compared with 81.6% in 2006. In comparing the employment rates of the Métis and the non-Aboriginal population, the largest differences were recorded in New Brunswick (18 percentage points), Prince Edward Island (14 points), Saskatchewan (14 points) and Quebec (13 points).

CST

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1. All estimates in this article are based on the Aboriginal identity population. For descriptions of definitions and concepts used, please see "What you should know about this study" at the end of this article.
2. Data have been adjusted to account for incompletely enumerated reserves in 1996 and 2006.
3. Statistics Canada. (2005). *Aboriginal Conditions in Census Metropolitan Areas, 1981-2001*. Statistics Canada, Catalogue no. 89-613-MIE.Ottawa: Minister of Industry.
4. Métis National Council. (2007) Who are the Métis: National Definition of Métis. Retrieved October 31, 2008 from Métis National Council Website: http://www.metisnation.ca/who/definition.html
5. Statistics Canada. (2008) *Aboriginal Peoples Survey*, 2006

CST What you should know about this study

Aboriginal identity refers to those persons who reported identifying with at least one Aboriginal group, that is, North American Indian, Métis or Inuit; and/or those who reported being a Treaty Indian or a Registered Indian, as defined by the *Indian Act* of Canada; and/or those who reported they were members of an Indian band or First Nation.

Census metropolitan area (CMA): an area consisting of one or more neighbouring municipalities situated around a major urban core. A CMA must have a total population of at least 100,000, of which 50,000 or more live in the urban core.

Crowding: more than one person per room. Not counted as rooms are bathrooms, halls, vestibules and rooms used solely for business purposes.

Dwellings in need of major repairs: in the judgment of the respondent, the housing they occupy requires the repair of defective plumbing or electrical wiring, structural repairs to walls, floors or ceilings, etc.

Employed: during the reference week prior to Census Day, persons who had a paid job or were self-employed or worked without pay in a family farm, business or professional practice. It includes those absent from their workplace due to vacation, illness, work disruption or other reason.

First Nations people: persons reporting a single response of "North American Indian" to the Aboriginal identity question. Although respondents self-identified as "North American Indian," the term "First Nations people" is used in this article.

Housing affordability: the share of household income spent on shelter costs, whereby a threshold of 30% is the upper limit for defining affordable housing, as defined by Canada Mortgage and Housing Corporation. Those who spend above the threshold may do so by choice, or they may be at risk of experiencing problems related to housing affordability. The data related to housing affordability does not include households living on reserve or on farms.

Income: refers to the total money income received from various sources during calendar years 2005 by persons 15 years of age and over. For a list of total income sources, please refer to *2006 Census Dictionary.* http:www12.statcan.ca/English/census06/reference/dictionary/pop020a.cfm

Inuit: persons reporting a single response of "Inuit" to the Aboriginal identity question. Inuit of the western Arctic are known as Inuvialuit; in this article, the term "Inuit" includes Inuvialuit.

Knowledge of an Aboriginal language: the respondent is able to conduct a conversation in a given Aboriginal language.

Median age: the point where exactly one-half of the population is older and the other half is younger.

Median income: the dollar amount where one-half of income recipients aged 15 years and over has more income and the other half has less income. Persons without income are not included in the calculation of this statistic. All dollar figures are expressed in 2005 constant dollars, i.e., in terms of their value, or purchasing power, in 2005.

Métis: persons reporting a single response of "Métis" to the Aboriginal identity question.

Postsecondary education: educational attainment above the level of secondary (high school) completion. This includes apprenticeship or trades certificate; college or CEGEP diploma; university certificate or diploma below bachelor level; university degree at bachelor's degree and above.

Unemployed: during the reference week prior to Census Day, persons who did not have paid work or self-employment work and was available for work, and was looking for employment, was on temporary lay-off, or expected to start work within 4 weeks.

Urban areas: an area with a population of at least 1,000 and no fewer than 400 persons per square kilometre. They include both census metropolitan areas and urban non-census metropolitan areas.

Who participates in active leisure?

by Matt Hurst

Engaging in physically active leisure—from participating in sports, to activities like walking, cycling and going on outdoor expeditions—is espoused as a way to stay fit and healthy, both mentally and physically. An active lifestyle has long been associated with health benefits. These benefits are not limited to vigorous physical activity, but can be achieved through frequent moderate levels of physical activity such as walking or cycling.[1]

Healthier and more active lifestyles may generate considerable savings in health care costs. One study estimated there to be annual savings of 150 million dollars for a 10% reduction in physically inactive Canadians.[2] So leading an active life benefits the individual as well as society in general.

This article looks at the active leisure activities of Canadians aged 20 and over. Time-use diaries permit analysis of the type and length of activities done on a given day (See "What you should know about this study" for definitions). Using data from the 1992 and 2005 General Social Surveys (GSS), we will look at trends in active leisure participation rates from 1992 to 2005. We will also examine which groups are more likely to participate in active leisure in 2005.

CST Summary

This article is about Canadians' participation in active leisure. Active leisure helps keep us fit and healthy. It can reduce health risk factors, such as those associated with growing obesity trends. It may also save health care costs. Between 1992 and 2005, the participation rate in active leisure rose while the time spent doing these activities remained the same. Results from this article include:

- Participation in exercise, as well as walking and jogging, grew from 1992 to 2005.
- Although sports participation remained about the same in 1992 and 2005, people were slightly more likely to go swimming, possibly due to the hotter summer in 2005. Also, Canadians are moving away from organized sports to informal sports activity in their leisure time.
- Groups more likely to participate in active leisure, while holding other factors constant were: women, university-educated people, married people, and those with incomes of $60,000 and over, those who reported their lives had a relatively low level of time stress, and those living in British Columbia or Quebec.

Canadians are more active overall

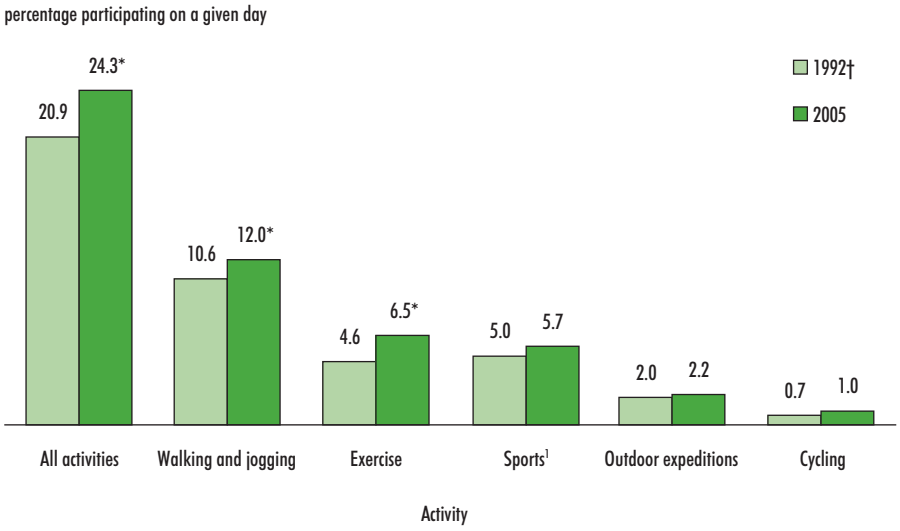
More Canadians made active leisure choices[3] in their daily lives over the period of 1992 to 2005. In 2005, 5.6 million of 23 million Canadians 20 years of age and over participated in active leisure on a given day. These activities require varying amounts of physical energy but are more physically demanding than sedentary activities like watching TV or sitting at the computer.

Participation in active leisure rose to 24.3% in 2005 from 20.9% in 1992 (Chart 1).[4] On average, those participating in active leisure activities spent 1 hour and 46 minutes on a given day on these activities in 2005 (Table 1). The time spent doing the activities listed in the table was similar in 1992.

Physical activity is known to be an ingredient in healthy weight maintenance, along with other contributing factors, such as diet. In Canada, waists are widening on average, as evidenced by trends in obesity[5] from 1986 to 2004. Physical activity is linked to reduced risks of obesity-related health problems, even when it does not result in weight loss.[6] Thus the rise in active leisure may help counteract the health risks of obesity trends.

Although participation in active leisure has risen somewhat, physical activity outside of leisure time, like at work, may be falling. In the past,

CST Chart 1 Changes in active leisure participation from 1992 to 2005



† Reference group.
* Statistically significant difference from reference group at $p < 0.01$.
1. "Sports" refers to informal sports activity (e.g. soccer at the park) as well as organized sports (e.g. competitive baseball).
Source: Statistics Canada, General Social Survey, 2005.

CST Table 1 Time spent participating in active leisure on a given day in 2005

	Activity time
	minutes
All activities	**106**
Outdoor expeditions	186
Sports[1]	147*
Cycling	100*
Walking and jogging	69*
Exercise	65

* Statistically significant difference with the previous activity at $p < 0.05$.
1. Refers to informal sports activity (e.g. soccer at the park) as well as organized sports (e.g. competitive baseball).
Source: Statistics Canada, General Social Survey, 2005.

a higher proportion of jobs were in manufacturing and agriculture that required high levels of physical activity.

With the shift in the economy to more service and office-related jobs which require less physical activity, leisure time activities have more influence on fitness and health. So how are Canadians spending this discretionary time, and which physically active pastimes are they following?

Participation in walking or jogging and exercise slightly higher in 2005

Canadians' most common active leisure activity was walking or jogging. In 2005, 12% of Canadians aged 20 and over walked or jogged, compared with 10.6% in 1992. This small increase may be the result of relatively more people choosing to walk or jog as a form of physical activity, or simply more people getting outside to enjoy the day through a walk. Canadians who walked or jogged in 2005 did so for an average of 1 hour and 9 minutes on a given day.

Exercising (e.g. yoga, weight lifting, working out) was the second most likely active leisure activity and has gained in popularity. In 2005, 6.5% of Canadians exercised, up from 4.6% in 1992. In 2005, those who exercised did it for about 65 minutes.

Sports (5.7%), outdoor expeditions such as hunting, fishing, camping and boating (2.2%), and cycling (1.0%) rounded out the active leisure activities captured in the GSS activity diary in 2005. None of these activities showed much change in participation from 1992.

Many of the activities in these three groups are seasonal or require larger time slices. The weather may limit activities, particularly in the winter in much of Canada. Also, participation in these activities was less likely than in leisure activities that can take shorter slices of time, such as walking or exercising.

For example, outdoor expeditions averaged about 3 hours in duration and sports activities averaged about 2½ hours in 2005. Cycling is shorter in duration, partially due to fewer restrictions on how long the activity lasts. In 2005, the average cycling trip lasted 1 hour and 40 minutes.

As well, many sports have fixed time durations and it takes additional time to get to where the sport is taking place. Outdoor expeditions to camp or fish have similar time demands.

Informal sports activity on the rise

This analysis found that Canadians participated in sports at about the same rate in 1992 as in 2005. The term "sports" includes informal sports activity as well as organized sports. Other studies have shown

large declines in organized sport participation.[7,8] For GSS respondents who reported they did not participate in organized sports, the sports participation rate increased (from 1.1% in 1992 to 3.0% in 2005).[9] This suggests that people are moving away from sports that are organized to those that are not.

Sports in detail: more people are choosing to swim

The stable trend of leisure sports participation masks differences between groups of sports (Table 2). Field sports (for example: football, basketball, baseball, volleyball, hockey, soccer, field hockey), as well as racquet sports (for example: tennis, squash, racquetball, paddleball) and lane and table sports and activities (for example: bowling, pool, ping-pong, pinball) are on the decline with a smaller proportion of Canadians playing these sports.

Although participation in soccer or volleyball could not be isolated in this article, other research has shown that they individually are on the rise.[10]

Swimming participation increased. The GSS shows the participation rate doubled to 2.0% in 2005 from 0.9% in 1992, which suggests an increase of about 300,000 more swimmers on a given day.

Climate trends may be a part of the reason for this increase. A hotter summer in 2005 may be one reason why more people chose swimming as a leisure activity.[11,12]

Personal characteristics impact participation

Analysis of the results of the 2005 GSS revealed that there are a number of socio-economic characteristics associated with active leisure participation. Other research has shown that participation in active leisure is influenced by cultural and social attitudes.[13] This article's statistical analysis measures the odds of participating in active leisure activities on a given day, isolating the impact of one characteristic of interest at a time (by removing the effects of the other characteristics).

Canadians with more leisure time are more likely to participate in active leisure. For each additional hour of leisure time, the odds of participating increase 1.2 times (Table 3). More available time means more opportunity to do something active.

On a level playing field, women are more likely to participate in active leisure than men

Equal percentages of women and men engaged in active leisure activities in 2005. But, after accounting for other socio-economic characteristics or factors (see Table 3 for factors), women had 1.2 times the odds of participating in active leisure than men.

One key factor explaining this gender difference in the odds of participation is total leisure time. Men had more leisure time than women (5 hours and 35 minutes versus 5 hours and 16 minutes) which means they had more opportunity to be active in leisure. If this difference did not exist and men and women had theoretically the same opportunity, women would have higher odds of participating than men.

Older Canadians participate more because of more leisure time

Canadians aged 60 and over have more time for leisure than others, which increases their opportunity for active leisure. In fact, they have higher active leisure participation rates (28% for people aged 60 and over and 23% for those aged 20 to 39 years). However, when the amount of leisure time is accounted for along with other factors, age no longer has an influence on the odds of participating in active leisure.

Highly educated Canadians participate more in active leisure

Higher levels of education were also associated with higher odds of active leisure. Other studies have found the same link between education and physical activity in general.[14] Educational institutions also provide direct experience in many competitive sports and the resources to do them.

Completing higher levels of education beyond high school reinforces this connection. In fact, university graduates had 1.5 times the odds of participating compared to high school graduates. Participation in organized sports follows a similar pattern.[15]

CST Table 2 Participation in various groups of sports on a given day

	1992†	2005
	percentage	
Golf	0.6	0.8
Swimming	0.9	2.0*
Field, court, lane, table sports[1]	2.8	1.7*
Other sports[2]	1.2	1.2

† Reference group.
* Statistically significant difference from the reference group at $p < 0.01$.
1. Includes football, basketball, baseball, volleyball, hockey, soccer, field hockey, tennis, squash, racquetball, paddleball, bowling, pool, ping-pong, pinball.
2. Includes skiing, ice skating, sledding, curling, snowboarding, judo, boxing, wrestling, fencing, rowing, canoeing, kayaking, wind surfing, and sailing.

Source: Statistics Canada, General Social Survey, 2005.

Table 3 Socio-economic characteristics of active leisure participation, 2005

	Participation rate	Model
	percentage	odds ratio
Total leisure time (hours)	...	1.2*
Gender		
Men†	25	1.0
Women	24	1.2*
Age (years)		
20 to 39†	23	1.0
40 to 59	23	1.0
60 and over	28*	1.0
Education (highest level)		
University degree	29*	1.5*
Diploma /certificate from community college or trade/technical	24	1.1
Some university/college diploma	25*	1.2
High school diploma†	22	1.0
Less than high school diploma	20	0.7*
Marital status		
Not married or common-law†	24	1.0
Married or common-law	24	1.2*
Children of any age in the household		
None†	26	1.0
1 or more children	22*	0.9
Region		
Atlantic region	22	1.1
Quebec	26*	1.3*
Ontario	24*	1.1
Prairie region†	21	1.0
British Columbia	28*	1.4*
Personal income ($)		
Less than 30,000†	24	1.0
30,000 to 59,999	25	1.2*
60,000 and over	27*	1.3*
Time stress		
Low†	28	1.0
Moderate	24*	0.9
High	18*	0.7*

... not applicable
† Reference group. For the results from the logistic model, the odds ratio of the reference group is always one.
* Statistically significant difference from the reference group at $p < 0.05$.
Source: Statistics Canada, General Social Survey, 2005.

Living with a partner increases odds of participating

Canadians who are living with a partner have higher odds of participating compared to those who are not. Canadians who were married or in a common-law relationship had 1.2 times the odds of participating in active leisure, after controlling for other factors such as time stress, the presence of children, and total leisure time available on the diary day.

Parents participate less due to less leisure time

People with children tend to have less leisure time than people with no children in the home. Parents devote time to childcare and are busy with their kids' activities, so they have less opportunity for active leisure themselves. As role models for their children, parents may be motivated to be more physically active. Parents may also be more physically active because they may involve themselves directly in their kids' activities.

According to the GSS, parents participate in active leisure less than people without children (22% versus 26%). However, when leisure time is taken into account, the odds of parents participating become the same as for adults without children. In a theoretical world where parents had the same amount of leisure time as people without children, their active leisure participation would be about the same.

Regional factors play a part

In 2005, people in Quebec and British Columbia were more likely to participate in active leisure than those living in the Prairie Provinces, while accounting for other factors. British Columbia may experience higher active leisure participation because the milder climate on the West Coast reduces barriers for active leisure throughout the year.

Higher-income Canadians are more active in leisure

Canadians with a higher personal income had higher odds of participating in active leisure. Canadians whose income was $60,000 and over had 1.3 times the odds of participating in active leisure compared to Canadians with an income of less than $30,000 per year in 2005, while accounting for other factors.

Higher-income Canadians have less leisure time than those with lower income, but in 2005, they spent a larger proportion of their limited leisure time being physically active. For example, those with annual personal income over $60,000 spent 9.1% of their leisure time being active, compared with 6.5% of those with income under $30,000 (Table 4).

Higher-income Canadians may have more money to spend on sports equipment, exercise classes, or have access to fitness facilities at their place of work. Higher-income people may also live in neighbourhoods which have fewer safety concerns and

which are more accessible to facilities that have physical activity options (parks, gyms, bicycle trails, etc.).

Research has shown that people "with higher incomes report stronger beliefs in the stress reduction potential of regular physical activity".[16] Looking at people's perceptions of time stress overall, regardless of income, the analysis finds that high levels of time stress are associated with less participation in active leisure. In fact, people who reported having a high level of time stress had lower odds (0.7 times) of participating compared to low time stressed individuals, while accounting for other factors. Time-stressed people don't feel they have much time for active leisure because other areas of their lives are consuming their attention.

Conclusion

Active leisure helps keep us fit and healthy. It may also reduce health care costs. Between 1992 and 2005, overall participation in active leisure increased while the time spent doing these activities has remained the same.

Participation in exercise, as well as walking and jogging, grew from 1992 to 2005. Although the sports participation rate remained about the same in 1992 and 2005, people were slightly more likely to go swimming, possibly due to the hotter summer in 2005. Also, Canadians are moving away from organized sports to informal sports activity in their leisure time.

Canadians who engaged in active leisure, while holding other factors constant, were more likely to be women, to be university-educated, married, to have an income of $60,000 and over, to report that their lives had a relatively low level of time stress, and to live in British Columbia or Quebec.

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Table 4 Leisure time on a given day by income, 2005

	Personal income		
	Less than $30,000†	$30,000 to $59,999	$60,000 and over
		minutes	
Total leisure time	356	302*	279*
Active leisure time	25	26	30*
		percentage	
Proportion of leisure that is active	6.5	7.9*	9.1*

† Reference group.
* Statistically significant difference from the reference group at $p < 0.05$.
Source: Statistics Canada, General Social Survey, 2005.

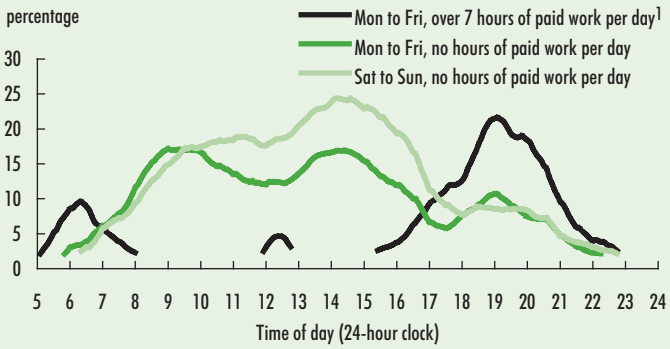
During the work week, the evenings are the time for active leisure

Depending on their lifestyle and social circumstances, Canadians are more physically active on different days of the week and at different times of the day (Chart 2).

According to the GSS time use results, on weekdays, those who are working full-time concentrated their active leisure activities in the evening and, to a lesser extent, before work in the morning and during lunch.

In contrast, those who do not work on weekdays, spread their active leisure throughout the day, but less so during the evening. On weekend days, Canadians who are not working are more likely to be physically active in their leisure time compared to during the week, and that activity is often done in the afternoons.

Chart 2 Canadians participating in active leisure, by time of day, 2005



1. This line has breaks where the data are not reliable.
Notes: Chart describes only those who participated in active leisure on a given day. The data is smoothed using the surrounding data points. The smoothing utilizes 5-period, centred moving averages. Each period is 5 minutes.
Source: Statistics Canada, General Social Survey, 2005.

1. Chen, J. and Millar, W. J. (1999). Health effects of physical activity. *Health Reports, 11*(1), 21-30. Statistics Canada, Catalogue no. 82-003. Ottawa: Minister of Industry. Retrieved June 5, 2008, from http://www.statcan.gc.ca/studies-etudes/82-003/archive/1999/4638-eng.pdf

2. Katzmarzyk, P. T., Glendhill, N. and Shephard, R. (2000). The economic burden of physical inactivity in Canada. *Canadian Medical Association Journal, 163*(11), 1435-1440.

3. Active leisure choices include sports, exercise, walking and jogging, cycling, and outdoor expeditions if they are part of the individual's leisure time. But if, for example, a person walks, jogs or cycles to work this is considered to be a commuting activity; mode of commuting is not counted as a leisure activity.

4. Further research (not shown here) on Canadians aged 12 and over indicates that leisure physical activity rates, calculated using different surveys and measurement methodologies, have also increased from 1994/1995 to 2005 from 39% to 51%, based on Statistics Canada's CANSIM Table 105-4033. Retrieved on June 5, 2008 from http://cansim2.statcan.gc.ca:81/WDS74_2_CANSIM/TableViewer/tableView.aspx?ReportId=3411&IF_Language=eng

5. Shields, M. and Tjepkema, M. (2006). Trends in adult obesity. Health Reports, 17(3), 53-59. Statistics Canada, Catalogue no. 82-003. Ottawa: Minister of Industry. Retrieved on June 5, 2008 from http://www.statcan.gc.ca/studies-etudes/82-003/archive/2006/9279-eng.pdf

6. Janiszewski, P. and Ross, R. (2007). Physical activity in the treatment of obesity: beyond body weight reduction. *Applied Physiology, Nutrition and Metabolism, 32*(3), 512-522.

7. Fidelis, I. (2008). *Sport Participation in Canada, 2005*. Statistics Canada, Catalogue no. 81-595. Ottawa: Minister of Industry. Retrieved on June 5, 2008 from http://www.statcan.gc.ca/pub/81-595-m/81-595-m2008060-eng.pdf

8. Fidelis measured organized sports participation as regular participation in an organized sport over a year (i.e., if a person regularly participated in an organized sport during their sport's season at some time during the year, then they were considered an organized sports participant). This is a considerably different concept than participation in sports (informal or organized) on a given day as used in this article. The Fidelis research showed that organized sports participation dropped from 45% in 1992 to 28% in 2005. Organized sports are defined by Sports Canada and include those sports engaged in for the purpose of competition. Organized sport involves formal rules and procedures, requires tactics and strategies, specialized neuromuscular skills and a high degree of difficulty and effort. The competitive nature of sport implies the development of trained coaching personnel. This is a much narrower concept of sport than used in this article where recreational sports activities (such as a simple pick-up game of hockey or basketball) are included.

9. Use the 1992 estimate with caution.

10. Fidelis. (2008).

11. For instance, the largest population centres in Canada, Toronto and Montreal, both having public beaches and public pools where people can swim, had higher average maximum temperatures per day for July and August in 2005 (5.9°C higher for Toronto, 3.6°C for Montreal) compared to 1992.

12. Environment Canada. (2008). *Climate data online*. Ottawa: Minister of Environment. Retrieved May 14, 2008 from http://www.climate.weatheroffice.ec.gc.ca/climateData/canada_e.html

13. Henderson, K. A. and Bialeschki, M. D. (2005). Leisure and active lifestyles: Research reflections. *Leisure Sciences, 27*(5), 355-365.

14. Ross, C. E. and Wu, C. (1995). The links between education and health. *American Sociological Review, 60*(5), 719-745.

15. Fidelis. (2008).

16. Gauvin, L. (2003). *Social Disparities and Involvement in Physical Activity: Shaping the Policy Agenda in Healthy Living to Successfully Influence Population Health*. Montréal: Groupe de recherche interdisciplinaire en santé, University of Montréal, p.7.

CST What you should know about this study

This article is based on time use data collected using a 24-hour time diary in the 1992 and 2005 General Social Survey (GSS). The GSS is an annual survey that monitors changes and emerging trends for Canadian society. It collects information from Canadians aged 15 and over living in private households in the 10 provinces. This article excludes those aged 15 to 19 and those who are students. With these exclusions, the sample is 8,778 people for 1992 and 17,738 for 2005.

The **time-use diary** provides a detailed record of the duration (in minutes) and timing of each activity during the **diary day**. Each respondent recorded their activities for only one day (diary day). Collection of diary data covered a 12-month period.

A given day: This study uses "a given day" to mean an average of all the diary days in the year of collection.

Activity participation rate (time use): The proportion of the population (or sub-population) that spent some time on the activity on a given day.

Average time spent on activities by participants (time use): The total time spent by all participants on a given activity divided by the number of participants in that activity.

Leisure time: Time spent in activities outside of work and household responsibilities. It may include time spent watching children as a concurrent activity. Example of leisure activities include: watching TV, playing sports, and playing cards.

Active leisure time: Time spent doing sports, exercise, walking and jogging, cycling and outdoor expeditions. Time spent walking, jogging and cycling to perform another activity, such as shopping, or to get to work, are excluded.

Exercise: Includes yoga, weight lifting and related activities.

Walking and jogging: Also includes hiking and running.

Outdoor expeditions: Includes hunting, fishing, boating, camping and horseback riding.

Sports: Refers to golf; swimming (includes waterskiing); field, court, lane and table sports (includes football, basketball, baseball, volleyball, hockey, soccer, field hockey, tennis, squash, racquetball, paddleball, bowling, pool, ping-pong, pinball); and other sports (includes skiing, ice skating, sledding, curling, snowboarding, judo, boxing, wrestling, fencing, rowing, canoeing, kayaking, wind surfing, and sailing. "Sports" refers to informal sports activity as well as organized sports.

Time stress: The GSS asked a series of 10 questions about time stress. People were categorized as having low time stress if they answered yes to 0 to 2 questions, having a medium level of stress if they answered yes to 3 to 5, and a high level of stress if they answered yes to 6 to 10 questions.

Married: Includes people who are married and those living in a common-law relationship.

Life in metropolitan areas

Are suburban residents really less physically active?

by Martin Turcotte

The health benefits of physical activity are numerous and widely recognized by scientists and public health authorities.[1] Not everyone benefits in the same way, however, as participation in physical activity varies appreciably by age, health, gender, income, personal taste and so on.[2]

Aside from these factors, does participation in physical activity differ according to the type of neighbourhood where people live? Does living in a suburb make people less active than they would be if they lived in a city? These questions have interested urban planners and public health researchers over the last decade.[3,4,5]

According to many experts, North American suburbs encourage physical inactivity because they are built almost exclusively for the automobile. Walking or cycling to workplaces, retail stores or other types of services is unrealistic in most suburbs. The same is true in most rural areas.

In contrast, living in the city centre promotes physical activity because in traditional urban neighbourhoods, homes, services, stores and workplaces are mixed together, which reduces the distance between them. In that kind of environment, residents burn calories without even realizing it as they simply go about their daily business.

CST Summary

This study is the first of its kind to cover all of Canada's metropolitan areas. It differs notably from previous studies in that it examines the relationship between urban planning and various types of physical activities. It reveals that although the activities practiced differ by type of neighbourhood, total activity levels are quite similar wherever people live.

In fact, people living in low-density residential areas are as likely to be physically active over the course of a day as those in high-density areas. However, people living in the central urban neighbourhoods of Canada's largest metropolitan areas are the most likely of all to be physically active.

The type of physical activity varies by place of residence. Residents of urban areas are more likely to get around actively, i.e. by walking or cycling, while tending to their daily affairs. On the other hand, residents of suburban areas are much more apt to get their exercise by performing outside work (gardening, yard work and cleaning).

In view of those findings, some experts suggest that we take a page from the past in the way we design and build neighbourhoods in our cities to promote physical activity and health.[6,7,8] "New urbanism," an influential trend in urban planning, advocates such changes as a greater mix of residential, commercial and office use, higher density, more sidewalks and better connectivity between streets.[9]

This study, for the first time in the context of Canada's larger metropolitan areas, quantifies the difference between the physical activity levels of residents of traditional urban neighbourhoods (high-density) and of residents of typical suburban neighbourhoods (low-density). With data from the 2005 General Social Survey (GSS) on time use, it focuses on the activities of people aged 15 and over. Time-use

CST What you should know about this study

This study is based on data collected by Statistics Canada in the 2005 General Social Survey (GSS). The GSS is an annual survey that measures changes and new trends in society. The 2005 survey was the fourth to collect time-use information from Canadians aged 15 and over living in private households in the 10 provinces.

Survey respondents completed a **time-use diary** to provide a detailed record of the duration (in minutes) and timing of each activity during one day, the **diary day**. Collection of diary data covered a 12-month period, thus participation rates and durations are averages of all diary days of the year.

The data were collected from 19,597 respondents, who represent nearly 26.1 million people. The study deals with the data from 11,653 respondents who were living in one of the 27 census metropolitan areas (CMAs). Table 2 is based on an analysis of 6,738 respondents who were residents of the six largest CMAs (Toronto, Montréal, Vancouver, Ottawa-Gatineau, Calgary and Edmonton).

Low-, medium- and high-density neighbourhoods

Neighbourhood density is based on the type of housing in the census tract where a respondent lives. A census tract generally corresponds to what people consider to be a neighbourhood. Census tracts are small, relatively stable geographic areas that usually have a population of 2,500 to 8,000 people. They are located in CMAs with an urban core population of 50,000 or more as determined in the previous census.

The terms **suburbs**, **suburban** neighbourhoods correspond to **low-density** neighbourhoods. The term **mixed** neighbourhood and **medium-density** are synonymous. **Urban** and **typically urban** have the same meaning as **high-density**.

Low-density or typical suburban neighbourhoods consist mostly of single houses, semi-detached houses and mobile homes, which are regarded as traditional suburban housing. Conversely, **high-density** or traditional urban neighbourhoods are essentially composed of apartment or condominium buildings and row houses. (They accommodate more people per square kilometre.)

To classify neighbourhoods by density, we determine the proportion of traditional suburban housing units in each neighbourhood. This type of housing makes up at least 66.6% of the units in **low-density** neighbourhoods, between 33.3% and 66.6% in **medium-density** neighbourhoods (mixed neighbourhoods), and less than 33.3% in **high-density** neighbourhoods.

Central and peripheral neighbourhoods

Central urban neighbourhoods lie within a five-kilometre radius of the **city centre**. In this study, the city centre corresponds to the census tract that includes the city hall of the CMA's central municipality. That area includes well-known urban neighbourhoods such as the Plateau Mont-Royal in Montréal, The Annex near the University of Toronto, and Yaletown in Vancouver.

Peripheral urban neighbourhoods are located outside the five-kilometre radius of the city hall.

For more information on how these criteria are defined, see Turcotte, M. (2008). "The city/suburb contrast: How can we measure it?" Martin Turcotte. (2008) *Canadian Social Trends, 85*, Statistics Canada, Catalogue no. 11-008-X. Available electronically at: http://www.statcan.gc.ca/bsolc/olc-cel/olc-cel?catno=11-008-X200800110459&lang=eng

The minimum recommended level of physical activity

According to the Public Health Agency of Canada, 30 minutes of moderate physical activity (brisk walking, bicycling, raking leaves) will have a number of positive effects on a person's physical and mental health. Sixty minutes of light physical activity (walking at a moderate pace, easy gardening, etc.) will also help people stay in shape or improve their health, as will 20 minutes of vigorous physical activity (jogging, playing hockey).[1]

One of the important advantages of the GSS on time use compared with other surveys is that respondents were not asked directly whether they had engaged in any physical activity in recent weeks or months. This was done to avoid the bias that occurs when the question is asked directly, which results in an overestimate of the incidence of physical activity.[2] However, the GSS on time use does not distinguish between activities on the basis of intensity level. For this study we set the minimum period of activity at 20 minutes to ensure that people who had "only" 20 minutes of vigorous physical activity on the diary day were included as physically active.[3]

CST What you should know about this study (continued)

Paid employment and physical activity

This study focuses on daily travel, recreational activities and domestic chores, reflecting the concerns of health experts who recognize that **whether** people are physically active is more important than **how** they get their physical activity. However, the type of job that a person has may also affect his or her level of physical activity. For example, it is reasonable to assume that a construction worker will be more physically active on the job than an office worker. Additional analyses (not presented here) have shown that job type (whether physical effort was involved or not) does not alter the study's qualitative conclusions.

1. Public Health Agency of Canada. Retrieved July 2, 2008 from www.phac-aspc.gc.ca/pau-uap/paguide/why.html
2. Katzmarzyk, P. T., and Tremblay, M. S. (2007). Limitations of Canada's physical activity data: Implications for monitoring trends. *Canadian Journal of Public Health*, *98*(suppl.2), S185-S194.
3. This measure is obviously not perfect. Some people may have walked very slowly for 20 minutes and done nothing else the rest of the day, which would be below the required threshold for that level of effort (60 minutes). Even so, they are better off than people who had no physical activity at all during the day. The objective here is not to have a perfect measure of the day's physical activity (such data simply do not exist at the moment) but to identify the differences between various population groups, especially differences related to their neighbourhood type.

diaries permit analysis of the type and length of activities done on a given day (See "What you should know about this study" for definitions and concepts).

Unlike some other research,[10,11] this study does not attempt to establish a relationship between living in a suburban area and body mass index or obesity. Obesity is a complex issue, and physical activity is just one of the many factors affecting weight. Moreover, the GSS collects no information about a respondent's weight.

Suburban residents are less likely to walk or use a bicycle for routine travel

Nearly every recent study has found that residents of typical suburban neighbourhoods were more likely to use a car for routine travel and much less likely to walk or cycle.[12] This study makes the same observation.

Residents of areas that had the characteristics of traditional suburbs were half as likely to have walked or used a bicycle on at least one non-recreational trip (14%) as residents of more densely-populated urban neighbourhoods (30%). (In this analysis, non-recreational travel includes trips made for the purpose of going to work, running errands or visiting friends but excludes recreational walking or cycling.)

With regard to travel time, the average time spent by residents of typically urban neighbourhoods travelling on foot or by bicycle was almost three times more than that of residents of typically suburban neighbourhoods (an average of 11 and 4 minutes a day respectively). When only those residents who walked or cycled are considered, the average travel times for high-, medium- and low-density neighbourhoods were 35, 30 and 28 minutes respectively. This indicates that urban dwellers are more likely to travel on foot or by bicycle, and when they do so, it is for longer periods.

Several factors other than type of neighbourhood, such as income, age and health status, are associated with the possibility of having made a physically active journey (Table A.1). For example, people with the lowest household income (less than $40,000) are more likely to have made at least one physically active trip, probably because fewer of them have a car. Nevertheless, when we compare the variables, the one with the greatest impact, apart from age, was type of neighbourhood (urban, mixed or suburban). The correlation between living in an urban area and the probability of having made at least one physically active journey during the day remained strong and positive when all the other factors in the analysis were kept constant (Table A.2).[13]

Residents of the suburbs get exercise by gardening or doing yard work; urban residents by travelling

Even though residents of suburban neighbourhoods travel less often on foot, they may be more likely than residents of traditional urban neighbourhoods to engage in physical activity during their free time (walking, cycling, working out, playing sports). Since their yards and houses are generally larger, it is also plausible that suburbanites are more likely to get exercise as they perform household chores (gardening, yard work, indoor and outdoor cleaning). Is that really the case?

Of all the activities that require physical effort on a given day, the most common is indoor cleaning (25% of Canadians engaged in that activity). On average, residents of metropolitan areas spent about 26 minutes dusting, vacuuming, cleaning the bathroom and other indoor cleaning (Table 1). While women devoted much more time to

Table 1 Residents of urban neighbourhoods are more likely to make physically active trips

People doing…	Residential density		
	High	Medium	Low †
Non-recreational travel by foot or by bicycle			
Participation (%)	30*	18*	14
Average duration, all (minutes)	11*	5*	4
Average duration of participants[1] (minutes)	35*	30	28
Indoor cleaning			
Participation (%)	25	26	25
Average duration, all (minutes)	24	27	25
Average duration of participants[1] (minutes)	96	105	101
Gardening, yard work / outdoor cleaning			
Participation (%)	5*	9*	12
Average duration, all (minutes)	6*	10*	15
Average duration of participants[1] (minutes)	118	111	123
Physical activity in leisure/sports			
Participation (%)	25	24	25
Average duration, all (minutes)	27	23*	28
Average duration of participants[1] (minutes)	108	96*	112
All sources of physical activity (total)			
Participation (%)	60*	57	56
Average duration, all (minutes)	67	66*	72
Average duration of participants[1] (minutes)	113*	115*	128
20 minutes or more of physical activity			
Participation (%)	53	51	52

† reference group

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

1. Participants are those who spent one minute or more doing this activity on a diary day.

Source: Statistics Canada, General Social Survey, 2005.

this activity than men (37 minutes compared with 13 minutes), the type of neighbourhood made no difference. Even though suburban residences are generally more spacious, participation rates and average lengths of time were practically the same in low-, medium- and high-density neighbourhoods.

There was also no difference between residents of typically urban and suburban neighbourhoods with regard to participation in sports or other physical recreation activities. About one person in four engaged in those activities (Table 1).

For gardening, yard work and outdoor cleaning, the picture is completely different. The distinction between urban and suburban neighbourhoods, in both participation rate and duration of the activity, is clear-cut. In low-density neighbourhoods, 12% of residents gardened, did yard work or cleaned the outside of their houses, compared with 9% of residents of medium-density neighbourhoods and just 5% of residents of high-density neighbourhoods. They spent an average of 15, 10 and 6 minutes respectively on those activities (Table 1). When other factors associated with participation in gardening, yard work or outdoor cleaning are held constant (such as age, gender, household income and the presence of children), the conclusions remain the same (Table A.2).

The fact that yards are almost always larger in the suburbs means that there could be more room for gardening. It also means that there is more snow to shovel in the winter, more grass to cut in the summer, and more outdoor chores of all kinds to complete. Whether or not these outdoor maintenance activities play a role in the decision on where to live, they increase the physical activity level of many residents of low-density neighbourhoods.

For all sources of physical activity combined (physically active travel, recreation, sports and domestic chores), residents of urban neighbourhoods were slightly more likely than residents of typically suburban neighbourhoods to have engaged in at least one physical activity (60% compared with 56%) (Table 1).[14]

The proportion of moderately active people is similar in suburban and urban neighbourhoods

Although information about participation in and average time spent on physical activities is useful and relevant, it is also interesting to know which neighbourhood type is associated with a greater probability of reaching a level of physical activity that would be "beneficial" to physical and mental health. In this study, we consider people who spent 20 minutes or more engaging in any physical activity on the diary day to be at least moderately active (See "What you should know about this study").

The difference between low-density and high-density neighbourhoods in the proportion of people considered "moderately active" was not statistically significant (Table 1). That conclusion remains the same when the effects of factors such as gender, health and household income, that influence the choice of a neighbourhood and the probability of being physically active, are held constant (Table A.2).

While residents of urban neighbourhoods are far more likely to be physically active in their day-to-day travels, residents of suburban neighbourhoods "catch up" when other types of physical activity

(especially gardening and yard work) are taken into account. Overall, they are neither more nor less likely to have been moderately active.

Central urban neighbourhoods stand out: residents are more likely to be physically active

Some urban neighbourhoods have, to a greater extent than others, traits that should be associated with a higher level of physical activity. They are the central urban neighbourhoods.

We can identify two major types of urban (high-density) neighbourhoods: (1) *central urban neighbourhoods*, which are close to the city centre; and (2) *peripheral urban neighbourhoods*, which also have large numbers of multiple dwellings but are in the suburbs. (See "What you should know about this study" for definitions and concepts.)

CST Table 2 Residents of central urban neighbourhoods are more physically active

People doing…	Residential density: High — Central urban neighbourhoods †	High — Peripheral urban neighbourhoods	Medium	Low
	percentage			
Non-recreational travel by foot or bicycle	42	26*	17*	14*
Indoor cleaning	21	27*	25*	25*
Gardening, yard work / outdoor cleaning	2	6*	10*	11*
Physical activity in leisure/sports	32	21*	23*	25*
At least one type of physical activity	67	57*	56*	55*
20 minutes or more of physical activity	61	50*	51*	51*

† reference group

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

Note: Includes only the residents of the census metropolitan areas of Toronto, Montréal, Vancouver, Ottawa-Gatineau, Calgary and Edmonton.

Source: Statistics Canada, General Social Survey, 2005.

CST Activity by neighbourhood type affects some groups more than others

Physically active travel (non-recreational) is different from other forms of physical activity in that, in most cases, its main purpose is not exercise, amusement or relaxation. Physically active travel has a specific goal (getting somewhere) without necessarily involving a conscious decision to exercise. Hence, people who are less inclined to play sports in their leisure time may benefit even more than others from living in a neighbourhood that encourages physical activity.

Overall, the proportion of residents who made at least one physically active trip was twice as high in high-density neighbourhoods as in low-density neighbourhoods. In certain groups, however, the difference between residents of more urban neighbourhoods and residents of less urban neighbourhoods was even more pronounced (Table A.3).

For example, that was the case for people with busy schedules (persons who spent at least nine hours of their day at work or at school). For those people, who do not necessarily have time to engage in active leisure, area of residence—urban or suburban—made a huge difference in physical activity. Of those who lived in urban neighbourhoods, 26% made at least one physically active trip. The same was true for only 9%, or about three times fewer proportionally, of the ones living in typically suburban neighbourhoods.

The pattern is similar for people aged 25 to 34. While 38% of the 25-34 age group living in urban neighbourhoods made at least one physically active trip, the same was true for only 12% of young adults living in typically suburban neighbourhoods, also about three times fewer. The difference is so large that it affects the overall level of physical activity in the age group: 59% of urban dwellers in the group had at least 20 minutes of physical activity during the day, compared with 49% for those living in the suburbs.

In short, living in a typically suburban neighbourhood discourages physically active travel in general, with even stronger effects on some groups. That information may be important in campaigns to promote physical activity, particularly those aimed at getting sedentary people to do more.

In central urban neighbourhoods, that is, neighbourhoods which surround the city centre of the central municipality of a metropolitan area, the situation is very different from that in peripheral ones.

Most central urban neighbourhoods were designed before car ownership became almost universal. Therefore, higher density, mixed use and connectivity are the norm, which should promote physically active travel.

Peripheral urban neighbourhoods are different from central urban neighbourhoods not only because of their location in the metropolitan space; they often have less of a mix of residential and commercial uses, are relatively far from major public transportation routes, and are composed of curved streets that are poorly interconnected. They often have many more parking spaces than the city centre. Thus, though they are urban in terms of the type of dwellings they contain, many of them have few characteristics likely to encourage physically active travel.

To highlight the distinct nature of central urban neighbourhoods, we looked at residents of the six largest metropolitan areas (CMAs): Toronto, Montréal, Vancouver, Ottawa-Gatineau, Calgary and Edmonton. Their central neighbourhoods match most closely the traits associated with physically active travel and physical activity in general. That is not necessarily the case in the smaller CMAs.[15]

Our study confirms that participation in physical activity is higher in central urban neighbourhoods than in other ones: peripheral urban, mixed, and suburban (low density). Sixty-one percent of residents of the central urban neighbourhoods engaged in physical activity for at least 20 minutes compared with about 50% in each of the other types of neighbourhoods, (Table 2). The difference is primarily due to the unmatched propensity of central urban residents to use physically active modes of travel. Holding other factors such as age, gender and household income constant, the conclusions remained the same (detailed results not presented here).

However, only a small proportion of metropolitan residents live in central urban neighbourhoods. In the six large CMAs studied, only 7% of residents lived in central high-density neighbourhoods, compared with 47% in low-density neighbourhoods, 29% in medium-density neighbourhoods, and 17% in peripheral high-density neighbourhoods.

Conclusion

This is the first study to examine the differences in physical activity levels between urban and suburban parts of Canada's larger metropolitan areas.

Suburban residents are as active as urban residents. The proportion of people who engaged in physical activity for 20 minutes or more was no higher in high-density (urban) neighbourhoods than in medium-density (mixed) or low-density (suburban) neighbourhoods.

However, one population group living in urban neighbourhoods stands out: residents of the central urban neighbourhoods of Canada's largest cities. They were more likely to be moderately active, though this group represents a small fraction of the population.

Activities differ according to the type of neighbourhood. The residents of high-density neighbourhoods are twice as likely to make their routine trips on foot or by bicycle. This confirms the findings of other studies. Residents of typically suburban neighbourhoods are much more likely to get physically active by doing outdoor work (gardening, outdoor cleaning and maintenance) than those living in traditionally urban ones. That association, which seems obvious, was never explored directly in previous studies.

The proponents of "new urbanism" encourage urban planners to include in their development plans various features of traditional urban neighbourhoods that they consider positive. Though they remain the exception, some neighbourhoods have actually been designed this way in recent years in both Canada and the United States. However, they are not numerous enough for their residents to be adequately represented in a survey such as the GSS on time use. A challenge for researchers in the future will be to compare central urban neighbourhoods, traditional suburban districts and new neighbourhoods built according to new urbanism's recommendations to determine what effect they have had on physical activity levels of their residents.

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1. Health Canada. Retrieved August 29, 2008 from www.hc-sc.gc.ca/hl-vs/physactiv/index-eng.php
2. For example, see Gilmour, H. (2006). Physically active Canadians. *Health Reports, 18*(3), 45-65, Statistics Canada, Catalogue no. 82-003. Ottawa: Minister of Industry.
3. Frank, L. D., Saelens, B. E., Powell, K. E., and Chapman, J. E. (2007). Stepping towards causation: Do built environments or neighbourhood and travel preferences explain physical activity, driving, and obesity? *Social Science & Medicine, 65*(9), 1898-1914.
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7. Saelens, B. E., Sallis, J. F., Black, J. B., and Chen, D. (2003). Neighborhood-based differences in physical activity: an environment scale evaluation, *American Journal of Public Health, 93*(9), 1552-1558.

8. Brownson, R. C., Boehmer, T. K., and Luke, D. A. (2005). Declining rates of physical activity in the United States: What are the contributors? *Annual Review of Public Health, 26*, 421-443.

9. For more details on this trend, see the website www.newurbanism.org/. See also Duany, A., Plater-Zyberk, E., and Speck, J. (2001). *Suburban Nation: The Rise of Sprawl and the Decline of the American Dream*. New York: North Point Press.

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12. For a complete bibliographic analysis, see Ewing, R., and Cevero, R. (2001). Travel and the built environment: A synthesis. *Transportation Research Record, 1780*, 87-114. For a more recent bibliographic analysis, see Khattak, A. J., and Rodriguez, D. (2005). Travel behaviour in neo-traditional neighbourhood developments: A case study in USA. *Transportation Research Part A: Policy and Practice*, *39*(2005), 481-500.

13. Some sources have noted that people who prefer walking to driving may choose to live in urban neighbourhoods instead of suburban areas (and vice versa). This might suggest that it is not the physical characteristics of the area that influence the residents' behaviour, but rather the individual characteristics of those who decide to live there. For further explanation, see: Committee on Physical Activity, Health, Transportation, and Land Use, Transportation Research Board, and Institute of Medicine of the National Academies. (2005). *Does the Built Environment Influence Physical Activity? Examining the Evidence*. Transportation Research Board Special Report 282. Also see the following critique: Eid, J., Overman, H. G., Puga, D., and Turner, M. A. (2008). Fat city: Questioning the relationship between urban sprawl and obesity. *Journal of Urban Economics, Elsevier, 63*(2), 385-404.

    Other studies examining this criticism concluded that living in the suburbs was associated with a decrease in physically active non-recreational travel, even when preferences for walking are taken into account. For example, see Frank, L. A., Saelens, B. E., Powell, K. E., and Chapman, J. E. (2007); Handy, S. L., Cao, X., and Mokhtarian, P. L. (2006). Self-selection in the relationship between the built environment and walking. *Journal of the American Planning Association, 72*(1), 55-74. See also Schwanen, T., and Mokhtarian, P. L. (2005). What affects commute mode choice: neighborhood physical structure or preferences toward neighborhoods? *Journal of Transport Geography, 13*(1), 83-99.

14. On the other hand, the difference in duration of activity between residents of low-density neighbourhoods and residents of high-density neighbourhoods was not statistically significant.

15. When the residents from all 27 CMAs were included, the qualitative conclusions of this analysis were unchanged. However, the differences in participation were slightly smaller than those presented here.

CST Table A.1 Characteristics associated with participation in different types of physical activities

	People doing...				
	Non-recreational travel by foot or bicycle	Indoor cleaning	Gardening, yard work / outdoor cleaning	Physical activity during leisure time	20 minutes or more of physical activity
	percentage				
Total	19	25	10	24	52
Gender					
Women †	20	36	9	23	58
Men	17*	14*	11*	25*	46*
Age					
15 to 24 years old	31*	11*	2*	24	46*
25 to 34 years old	20*	25	5*	24*	50
35 to 44 years old †	16	28	9	21	50
45 to 54 years old	14	26	12*	24	51
55 to 64 years old	14	30	15*	25*	54
65 to 74 years old	12*	34*	22*	32*	65*
75 years and older	18	35*	16*	28*	63*
Immigrant status					
Non-immigrant †	19	25	10	25	52
Immigrant (before 1990)	15*	29*	13*	27	55*
Recent immigrant (1990 to 2005)	22	21*	6*	21*	49
Health status					
Excellent	19	22*	9	31*	55
Very good †	19	25	10	25	52
Good	18	26	10	22*	51
Fair or poor	17	27	10	19*	48*
Highest level of educational attainment					
No high school diploma	22	25	11*	23*	55
High school diploma	17*	24	9	22*	50
College diploma or trade certificate	17*	27	11*	24*	52
University degree †	20	25	9	28	52
Household income					
Less than $20,000	30*	32*	7*	23	61*
$20,000 to $39,999	21*	27	9*	21*	52
$40,000 to $59,999	16	28*	10	25	52
$60,000 to $99,999 †	16	25	11	26	54
$100,000 and more	18	21*	11	27	49*
Presence of a child 4 years or less					
No †	19	24	10	25	52
Yes	18	35*	5*	20*	53
Presence of a child of 5 to 12 years					
No †	18	24	10	25	52
Yes	18	24	10	25	52
Day of the week					
Weekday †	20	24	9	24	51
Weekend	14*	29*	12*	25	55*
Time constraint due to work/education					
0 minutes †	16	36	15	30	64
1 to 419 minutes (less than 7 hours)	28*	24*	8*	22*	54*
420 to 539 minutes (from 7 to nearly 9 hours)	20*	16*	5*	21*	42*
540 minutes and more (9 hours and up)	16	10*	4*	15*	31*

† reference group

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

Source: Statistics Canada, General Social Survey, 2005.

CST Table A.2 Logistical regression of factors associated with participation in different types of physical activity

	People doing...				
	Non-recreational travel by foot or bicycle	Indoor cleaning	Gardening, yard work / outdoor cleaning	Physical activity during leisure time	20 minutes or more of physical activity
	odds ratio				
Type of neighbourhood					
Urban	2.6*	0.9	0.4*	1.0	1.1
Mixed	1.3*	1.0	0.8*	1.0	1.0
Suburban †	1.0	1.0	1.0	1.0	1.0
Gender					
Women †	1.0	1.0	1.0	1.0	1.0
Men	0.9*	0.3*	1.5*	1.2*	0.7*
Age					
15 to 24 years old	2.5*	0.4*	0.2*	1.4*	0.9
25 to 34 years old	1.2*	0.9	0.5*	1.2*	1.0
35 to 44 years old †	1.0	1.0	1.0	1.0	1.0
45 to 54 years old	0.8	1.0	1.2	1.1	1.0
55 to 64 years old	0.8	1.0	1.3	1.0	0.9
65 to 74 years old	0.6*	0.9	1.8*	1.4*	1.1
75 years and older	1.0	0.9	1.3	1.1	1.0
Immigrant status					
Non-immigrant †	1.0	1.0	1.0	1.0	1.0
Immigrant (before 1990)	0.9	1.1	0.9	1.1	1.1
Recent immigrant (1990 to 2005)	0.9	0.8*	1.0	1.0	1.0
Health status					
Excellent	1.0	0.9	1.0	1.4*	1.2*
Very good †	1.0	1.0	1.0	1.0	1.0
Good	1.0	1.1	1.0	0.8*	0.9
Fair or poor	0.9	0.8*	0.8	0.7*	0.7*
Highest level of educational attainment					
No high school diploma	1.0	1.0	1.0	1.0	1.0
High school diploma	0.8*	1.0	0.9	1.0	0.9
College diploma or trade certificate	0.9	1.0	0.9	1.2	0.9
University degree †	1.2	1.0	0.8	1.4*	1.0
Household income					
Less than $20,000	1.7*	1.1	0.5*	0.8	1.0
$20,000 to $39,999	1.3*	1.0	0.7*	0.8*	0.8*
$40,000 to $59,999	1.0	1.1	0.9	1.0	0.9
$60,000 to $99,999 †	1.0	1.0	1.0	1.0	1.0
$100,000 and more	1.2	0.9	1.0	1.0	0.9*
Presence of a child 4 years or less					
No †	1.0	1.0	1.0	1.0	1.0
Yes	0.9	1.7*	0.6*	0.7*	1.0
Presence of a child of 5 to 12 years					
No †	1.0	1.0	1.0	1.0	1.0
Yes	1.1	1.2*	0.9	1.0	1.1
Day of the week					
Weekday †	1.0	1.0	1.0	1.0	1.0
Weekend	0.6*	0.9	0.9	0.7*	0.7*
Time constraint due to work/education	0.98*	0.87*	0.87*	0.90*	0.87*

† reference group

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

Source: Statistics Canada, General Social Survey, 2005.

CST Table A.3 Interaction between the type of physical activity, the type of neighbourhood and socio-economic variables

	People having done at least…					
	One active trip			20 minutes of physical activity		
	Residential density			Residential density		
	High	Low †		High	Low †	
	percentage		ratio	percentage		ratio
Gender						
Women	31*	15	2.1	57	57	1.0
Men	28*	14	2.1	49	46	1.0
Age						
15 to 24 years	39*	28	1.4	47	45	1.1
25 to 34 years	38*	12	3.1	59*	49	1.2
35 to 44 years	28*	11	2.5	48	50	1.0
45 to 54 years	23*	11	2.0	49	51	1.0
55 to 64 years	25*	12	2.1	54	54	1.0
65 to 74 years	22*	10	2.3	64	64	1.0
75 years and older	22	15	1.5	58	68	0.9
Immigrant status						
Non-immigrant	31*	15	2.1	54	51	1.1
Immigrant (before 1990)	28*	10	2.6	56	56	1.0
Recent immigrant (1990 to 2005)	30*	16	1.8	50	49	1.0
Health status						
Excellent	35*	14	2.4	59	54	1.1
Very good	31*	15	2.1	52	53	1.0
Good	28*	15	1.9	54	51	1.1
Fair or poor	28*	11	2.6	49	47	1.0
Highest level of educational attainment						
No high school diploma	28*	19	1.5	55	54	1.0
High school diploma	29*	13	2.3	52	48	1.1
College diploma or trade certificate	29*	12	2.4	52	54	1.0
University degree †	34*	15	2.3	55	52	1.1
Household income						
Less than $ 20,000	41*	20	2.0	62	61	1.0
$20,000 to $39,999	31*	13	2.4	54	52	1.0
$40,000 to $59,999	27*	13	2.1	57	53	1.1
$60,000 to $99,999	29*	12	2.5	55	54	1.0
$100,000 and more	31*	15	2.1	50	49	1.0
Presence of a child of 4 years or less						
No	30*	14	2.1	53	52	1.0
Yes	26*	14	1.9	54	53	1.0
Presence of a child of 5 to 12 years						
No	30*	14	2.2	53	52	1.0
Yes	31*	16	2.0	56	52	1.1
Day of the week						
Weekday	31*	16	2.0	52	50	1.0
Weekend	27*	11	2.6	56	56	1.0
Time constraint due to work/education						
0 minutes	28*	13	2.1	63	65	1.0
1 to 419 minutes (less than 7 hours)	41*	25	1.7	58	54	1.1
420 to 539 minutes (from 7 to nearly 9 hours)	33*	16	2.1	44	42	1.0
540 minutes and more (9 hours and up)	26*	9	2.9	34	29	1.2

† reference group

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

Source: Statistics Canada, General Social Survey, 2005.

Going on vacation: Benefits sought from pleasure travel

by Susan Crompton with Leslie-Anne Keown

For centuries, travel for pleasure was a wealthy person's privilege. But beginning in the 20th century, as average incomes rose and as cars and planes made distances shrink, the vacation or pleasure trip became attainable for people from almost all walks of life.[1]

With over three in four Canadian adults taking even a brief holiday,[2] pleasure travel has become a large and important industry. Canadians spend tens of billions of dollars within Canada itself and billions more in other countries.[3] This spending generates government revenues that are also in the billions, primarily from sales, employment and business taxes.[4]

In the last year or so, though, the tourism industry has faltered and conditions are not expected to improve in 2009.[5] A poll of Canadian consumer spending intentions, conducted in December 2008, identified vacation spending as the second most common cost-cutting measure in 2009.[6] Meanwhile, the term "stay-cation" was coined to describe the increasing tendency of people to take their vacations at home.[7]

Nevertheless, it's not certain that these intentions will be acted upon. Several decades of tourism research generally conclude that the benefits people expect to derive from their travel experience are better predictors of their travel behaviour than their income or other socio-demographic characteristics.[8,9] People travel for pleasure because they want to escape the everyday, to feel rejuvenated, to acquire status and prestige, to socialize, to learn something, or just to enjoy the scenery.[10] And these benefits of pleasure can be much more powerful motivators to people than affordability alone.

While these benefits have been identified in earlier studies, this article adds to the discussion by quantifying the value of these benefits. By measuring their magnitude on an eight-point index, we can compare the value of a given benefit to different kinds of travellers; we can also compare the value of one benefit relative to another. In addition, since many people take vacation or pleasure trips for multiple reasons, we are able to identify correlated travel benefits and discuss them as pairs, rather than as separate items. Ultimately, we hope that these findings will be useful to the Canadian tourism industry.

Using data from the 2006 Travel and Activity Motivation Survey, this article examines the three most popular benefits of vacation or pleasure travel: rest and relaxation (R&R index); nurturing family and friendship ties (family-and-friends index); and learning and discovery (discovery index). The study population is restricted to travellers aged 25 and over who live in a family with children under 18, in a couple, or on their own. (See "What you should know about this study" for concepts and definitions.)

Why do Canadians travel for pleasure?

Canadian travellers look for three principal types of benefits when they go on a vacation or pleasure trip. The first benefit is simply rest-and-relaxation (R&R index): the traveller's main objective is to get a break from their daily environment, to relax and relieve stress, and to have no fixed schedule. On an index of 0 to 8, where 6.0 or over is defined as "highly important," the overall average score on the benefits index for rest-and-relaxation is 6.2. R&R has the highest average score of all three benefits because almost two-thirds of adult travellers said that, for them, this was a highly important benefit of a pleasure trip (Chart 1).

The second type of benefit involves nurturing family and friendship ties (family-and-friends index). In this case, a key goal of the trip is to keep family ties alive, to enrich the traveller's relationship with their spouse and children, to create lasting memories, and to renew personal connections with people other than family. The overall average score on the index for family-and-friends is 5.2 out of 8.0 points, with almost half of adult travellers reporting that this is a highly important benefit of pleasure travel.

CST What you should know about this study

Data in this study were drawn from the 2006 Travel Activities and Motivation Survey (TAMS). TAMS was conducted by Statistics Canada on behalf of the Canadian Tourism Commission, three federal agencies and nine provincial and territorial agencies and departments responsible for tourism. Travellers were defined as persons answering that they had taken an out-of-town trip of one or more nights in the two-year period preceding the survey.

This article is based on a sample of about 15,500 respondents to TAMS representing over 11.3 million Canadian travellers aged 25 and over. This study population comprises travellers who live in a family with children under 18, live with a spouse or partner only, or live alone. Travellers are restricted to adults aged 25 and over since they are more likely than younger adults to be making the key decisions about pleasure travel such as where to go and what to spend. About 3,000 respondents, representing just over 3.6 million travellers, who were living with children aged 18 and over, or with anyone outside the immediate nuclear family (e.g. grandparents, in-laws, or other relatives) are also excluded because it is impossible to reasonably assume that these family members travel together, making the effect of family structure on travel motivations and behaviour difficult to interpret.

Definitions

Travellers: persons aged 25 and older who had taken an out-of-town vacation or pleasure trip of one or more nights in the past two years.

Family structure: the study population comprises travellers living in four basic family types.

Living with a spouse/partner and child (*or children*) under age 18 living at home. Also referred to as husband-wife family with children.

Living with a child (*or children*) under age 18 living at home. Also referred to as a lone-parent family.

Living in a couple, living with a spouse or partner only.

Living alone. Referred to as solo.

Preliminary analysis showed that age is a primary factor dictating the likelihood of travelling for pleasure, so we separated the solo and couple family types into two age groups—25 to 54 years, and 55 years and older. Travellers with children are not sub-divided by age because over 97% of them were between 25 and 54 years old.

Travel benefits

Respondents were asked about 15 specific benefits of travel, which they were asked to rate as 0 "of no importance", 1 "somewhat important" or 2 "highly important." Following the procedure established in the travel literature,[1,2,3] we conducted a factor analysis to identify those specific benefits that were most closely related and could be grouped together into general themes. Based on the results, we were able to collapse 11 of the 15 questions into the three travel benefits indices described below:[4]

Rest-and-relaxation (R&R): get a break from your day-to-day environment; relax and relieve stress; have a life with no fixed schedule (to do what I want, when I want).

Family-and-friendship ties (*Family-and-friends*): to keep family ties alive; to enrich your relationships with your spouse, partner and/or children; to create lasting memories; to renew personal connections with people other than family.

Learning-and-discovery (*Discovery*): to see or do something new and different; to gain knowledge of history, other cultures or other places; to enrich your perspective on life; to stimulate your mind or be intellectually challenged.

The model

We used linear regression models with the benefit index as the dependent variable. Coefficients were estimated through a weighted regression that used the TAMS survey weights, with variance estimation done through survey bootstrapping. Coefficients are unstandardized; statistical significance was calculated at $p < 0.01$ (99% confidence). Variables in the models include travellers' socio-demographic and economic characteristics, as well as a set of destination determinants. See Table 1 for a complete list of variables in the models.

For readers wanting a practical application of the model results, the coefficients may be interpreted in an additive fashion as shown in the following example. Begin with the base score for the travel index and then add the required variables. Thus, we can add up: base score for family-and-friends index (3.36) for a woman (0.19) with spouse and children under 18 (1.05) and household income of $60,000 to $99,999 (-0.03) having high school education (0.00) and a full-time paid job (-0.11), who also scores over 6.0 on the rest-and-relaxation index (0.61) and also rates as highly important destination attributes that there are lots of activities for the kids (0.62), the language and/or culture is familiar (0.16) and it feels

What you should know about this study (continued)

safe (0.30). Total score on the family-and-friends travel benefits index for this hypothetical individual is 6.15.

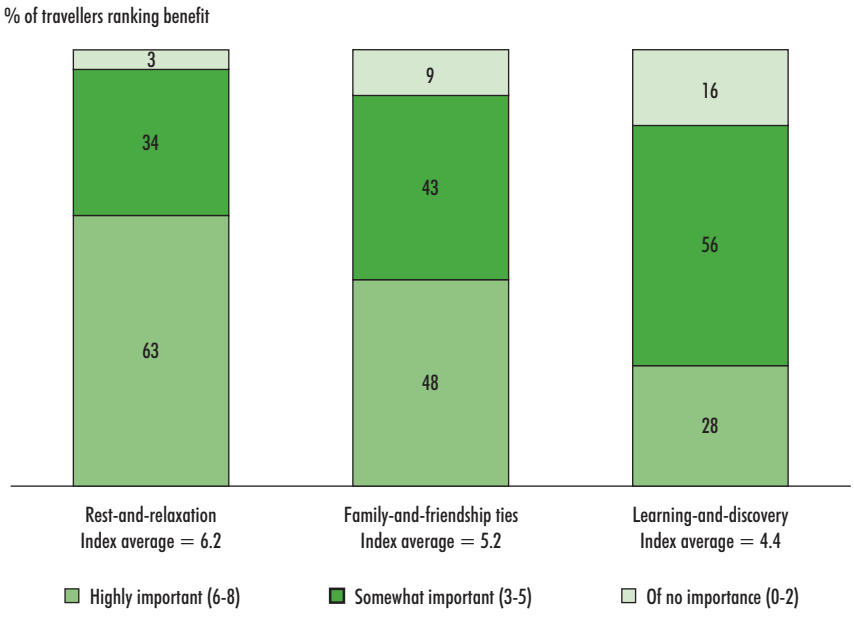
Data limitations

Due to the way the data were collected by TAMS, we cannot identify the duration of pleasure trips taken; for instance, we cannot distinguish a three-week trip to Europe from an overnight camping trip. Also, although we know where respondents travelled for pleasure during the two-year survey period, we cannot identify the destination of any one particular trip. These limitations mean that we cannot match travel benefits to specific destinations or to different types of trips, and therefore cannot determine, for example, whether R&R trips tend to be longer vacations taken abroad and trips to nurture family and friendship ties are shorter visits made mainly in Canada.

Notes

1. Gitelson, R. J., and Kerstetter, D. L. (1990). The relationship between sociodemographic variables, benefits sought and subsequent vacation behavior: A case study. *Journal of Travel Research*, *28*(3), 24-29.
2. Heung, V. C. S., Qu, H., and Chu, R. (2001). The relationship between vacation factors and socio-demographic and traveling characteristics: the case of Japanese leisure travellers. *Tourism Management*, *22*(3), 259-269.
3. Moscardo, G., Morrison, A. M., Pearce, P.L., Lang, C-T., and O'Leary, J. T. (1996). Understanding vacation destination choice through travel motivation and activities. *Journal of Vacation Marketing*, *2*(2), 109-122.
4. The four questions that did not fit into any benefits category were: to seek solitude or isolation; to have stories to share/something interesting to talk about; to be physically challenged/physically energized; to be pampered.

Chart 1 Rest-and-relaxation is the most popular benefit of vacation or pleasure travel



Source: Statistics Canada, Travel and Activity Motivation Survey, 2006.

The third type of travel benefit is learning-and-discovery (discovery index). Travellers look forward to seeing or doing something new and different, learning about history or other cultures and places, enriching their perspective on life, and stimulating their intellect. This benefit is highly important to just over one quarter of travellers, making its overall average score of 4.4 fairly low compared to the other two benefits indices.

It is certainly possible to seek more than one benefit from the same pleasure or vacation trip, and undoubtedly many travellers have multiple purposes.[11] There is a mild-to-moderate positive correlation between the benefits indices of family-and-friendship ties and rest-and-relaxation; that is, as the importance of family-and-friends increases, so does the importance of R&R. There is also a positive link between family and friendship ties and learning-and-discovery, but no association between discovery and R&R (Chart 2).

We will follow up on these correlations and discuss family-and-friends and R&R together as a pair of travel benefits. We will then examine adults who describe learning-and-discovery as a key benefit of their vacation or pleasure travel plans.

Family-and-friends and rest-and-relaxation: For some it's a pair, for others it's a trade-off

Canadian travellers aged 25 and over consider rest-and-relaxation to be an important benefit of taking a vacation or pleasure trip. Maintaining and strengthening family and friendship ties is also reported to be an important benefit of taking a pleasure trip.

Nevertheless, the benefits of having some unstructured time for rest and relaxation are more valuable to some travellers than others; exactly the same may be said of the benefits of nurturing family and social networks. On a basic level, we would expect people's preferences—expressed as scores on each benefit index—to be influenced by their socio-demographic characteristics such as age, family structure and education.[12,13,14]

Family structure provides the clearest example of the different choices made by travellers with different backgrounds. Simply put, when travellers with children at home go on a vacation or pleasure trip, they want both more bonding with family and friends and more rest and relaxation than other travellers. They have a score of 5.6 on the family-and-friendship index, and a score of 6.6 to 6.7 on the rest-and-relaxation index (depending on marital status). In contrast, travellers who live alone place much less value on the travel benefits of family-and-friends, while travellers who are in their mid-50s or older are less motivated by R&R (Chart 3, Table A.1).

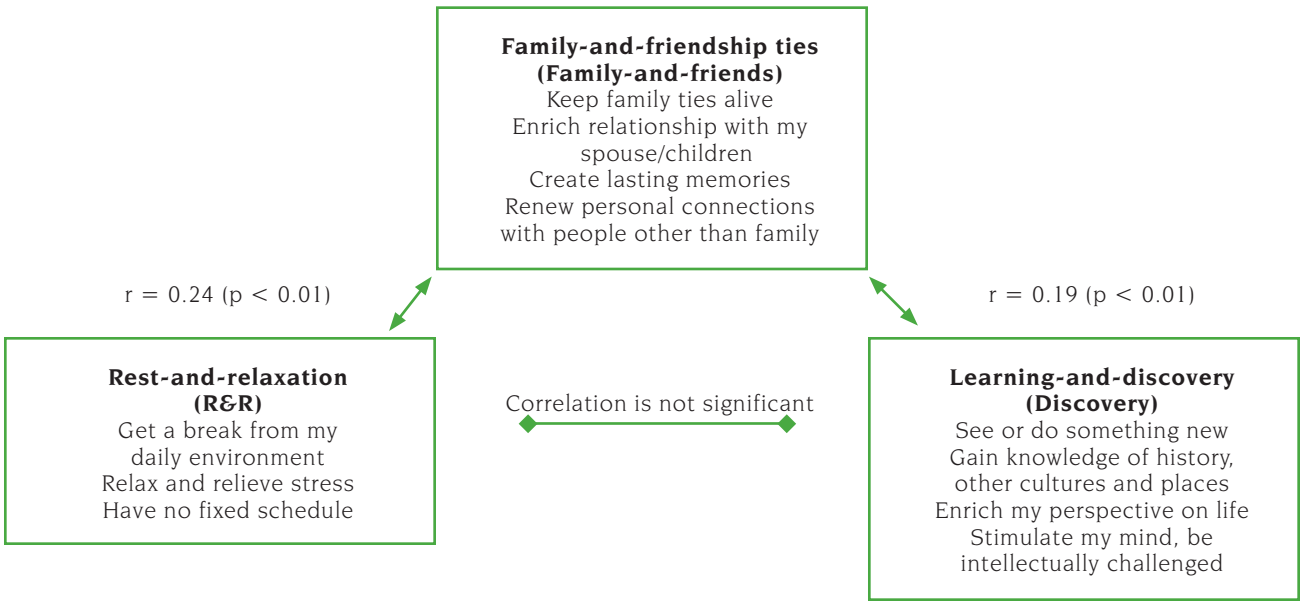
When women go on a pleasure trip, they reported wanting more in terms of family-and-friendship ties than men (5.3 compared to 5.0) although they also reported that they expect just as much in the way of rest-and-relaxation.

Travellers who work full time have a significantly higher-than-average score on the benefits index for R&R (6.5), while their interest in nurturing family-and-friendship ties on holiday is about average (5.1). Part-time workers have average scores for both the R&R and family-and-friends indices (6.2 and 5.3, respectively). Meanwhile, travellers who are not employed (e.g. homemakers, students) rank the travel benefits of family-and-friends higher than travellers in the paid workforce (Chart 4, Table A.1).

Children influence family-and-friends and work status affects R&R

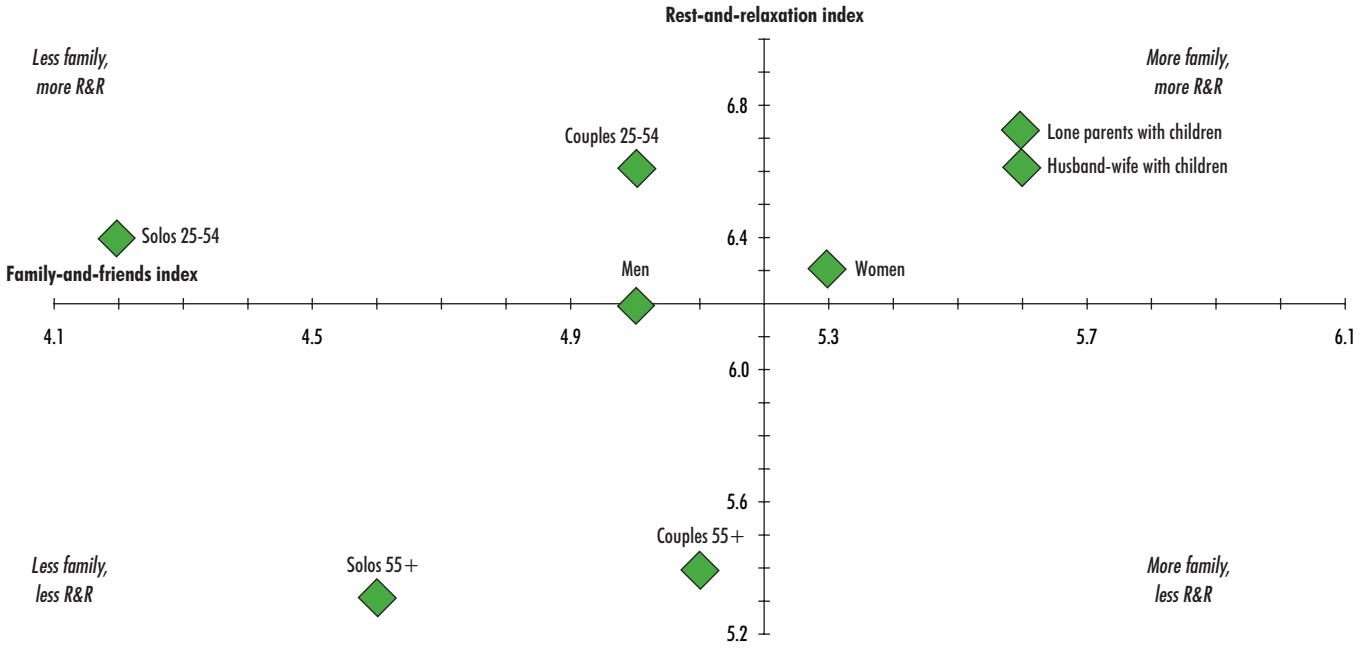
Clearly, a traveller's demographic and socio-economic characteristics overlap: for example, does a young mother have a higher score on the family ties index because she is a woman or because she has children. And is it her family or her work status that makes her value the R&R aspects of a vacation or a week-end away from home. In order to isolate individual factors from the overlapping effects of other variables, we ran multiple regression models. This allows us to estimate the influence of different characteristics on the benefits scores of Canadian travellers. (See "What you should know about this study" for more information about the models.)

CST Chart 2 There is a mild-to-moderate positive correlation between family-and-friendship ties and other travel benefits



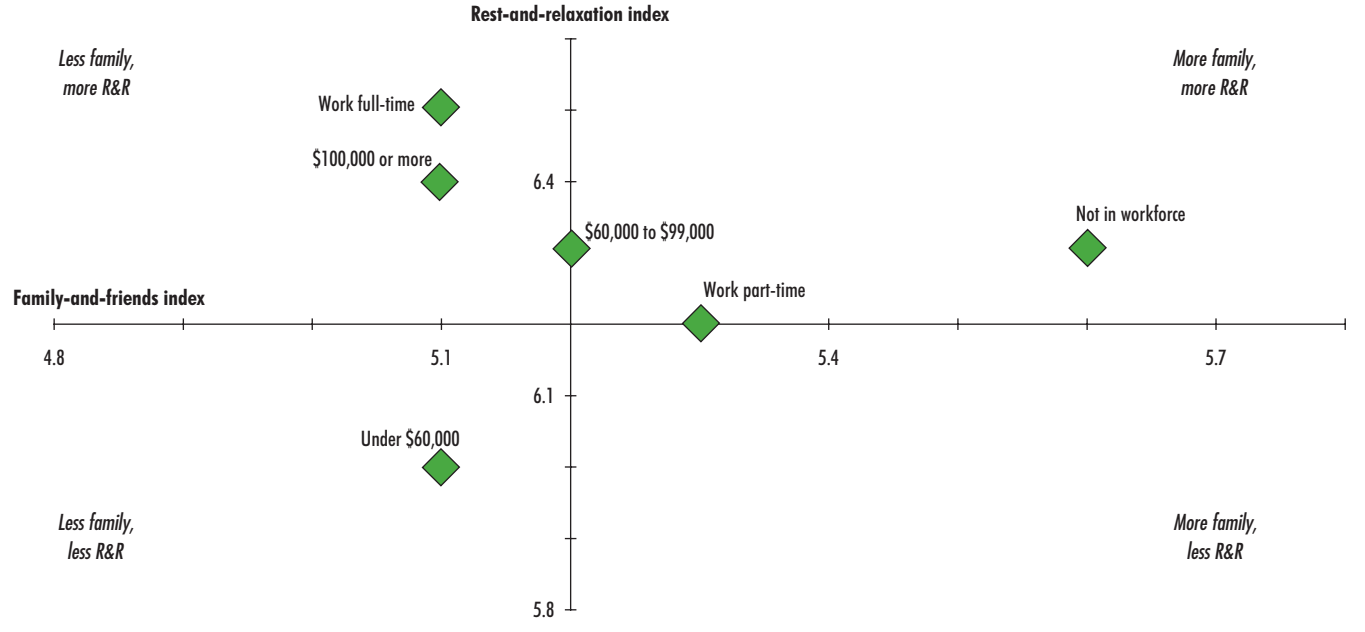
Source: Statistics Canada, Travel and Activity Motivation Survey, 2006.

Chart 3 Travellers in different family types report wanting a different mix of preferred travel benefits



Note: Axes cross at the overall average score for the index, Family-and-friends = 5.2, R&R = 6.2. For measures of significance across both indices for each data point, see Table A.1.
Source: Statistics Canada, Travel and Activity Motivation Survey, 2006.

Chart 4 Travellers who work full-time prefer the travel benefits of rest-and-relaxation(R&R), those outside the workforce place higher value on family-and-friends



Notes: Axes cross at the overall average score for the index, Family-and-friends = 5.2, R&R = 6.2. Retired travellers not shown to maintain scale integrity. For measures of significance, see Table A.1.
Source: Statistics Canada, Travel and Activity Motivation Survey, 2006.

Results of the models show that family structure has the most important impact on family-and-friendship scores, even when the influence of other variables is controlled for. Compared with solo travellers, travellers with children score about 1.0 point higher on the index, and travellers in couples about 0.8 points higher, regardless of their age (Table 1, Model 1).

Travellers with children also consider the benefits of rest-and-relaxation to be more important than older travellers do, after taking account of other factors in the model. This result confirms the findings of previous studies, which have identified lower interest in R&R among older travellers, partly because they are more likely to seek out discovery benefits while on a vacation or pleasure trip.[15,16]

The clearest preference for rest-and-relaxation is shown by travellers who have paid employment. Compared to retirees, travellers who work full time score 1.0 point higher on the R&R index, and part-time workers score almost as high (Table 1, Model 2). Non-retirees outside the workforce, such as homemakers and students, who do not work for pay but nevertheless have daily obligations, also had significantly higher scores on the R&R index than retirees, even when other variables like sex, age and family structure are taken into account. In contrast, work status has no influence on the scores for family-and-friendship ties.

Since the travel benefits of family-and-friends and R&R are moderately correlated, each benefit still has a significant influence on the scores of the other, even when other factors are controlled for. Travellers who describe rest-and-relaxation as a "highly important" travel benefit score 0.6 points higher on the family-and-friends index. Similarly, reporting that nurturing family and friendship ties is "highly important" also increases a traveller's R&R score by almost 0.6 points, compared with those who do not consider it to be so important.

CST Table 1 Family structure has the most important effect on scores for travel benefits of family-and-friendship ties, even after controlling for other factors

	Family-and-friendship	Rest-and-relaxation	Learning-and-discovery
	Model 1	Model 2	Model 3
	Estimated coefficients		
Base score (when all variables are held constant)	3.36	4.91	3.97
Sex			
Men †	0.00	0.00	0.00
Women	0.19*	0.10*	0.16*
Family structure			
Solo aged 25 to 54 †	0.00	0.00	0.00
Solo aged 55 and over	0.21	-0.63*	0.13
Couple aged 25 to 54	0.79*	0.05	-0.38*
Couple aged 55 and over	0.80*	-0.58*	-0.32*
Husband-wife family with child(ren) under 18	1.05*	-0.13	-0.62*
Lone-parent family with child(ren) under 18	1.04*	0.02	-0.58*
Household income			
Household income under $60,000 †	0.00	0.00	0.00
$60,000 to $99,999	-0.03	0.01	0.02
$100,000 or more	-0.11	0.10	-0.04
Refused, not stated	0.09	-0.04	-0.10
Highest level of education			
High school diploma or some postsecondary education †	0.00	0.00	0.00
Diploma or certificate from a college or trade school	0.00	0.04	0.08
University degree	-0.06	-0.27*	0.75*
Main activity during previous 12 months			
Retired †	0.00	0.00	0.00
Full-time paid work	-0.11	1.06*	-0.07
Part-time paid work	-0.08	0.68*	-0.11
Other (includes homemaker; student, etc.)	0.02	0.76*	0.01
Other travel benefits sought that are highly important to me (score 6.0 or more) ††			
Rest-and-relaxation	0.61*	...	...
Family-and-friendship ties	...	0.58*	0.68*
When choosing a destination [...] is highly important to me (score 6.0 or more) ††			
Having lots of activities for children	0.62*	-0.05	-0.44*
Having lots of activities for adults	0.31*	0.25*	0.92*
Friends or relatives live there	0.81*	-0.50*	-0.48*
Being very different from home	0.15*	-0.10	1.34*
Knowing the language and/or culture	0.16*	0.15*	-0.42*
Feeling safe	0.30*	0.34*	-0.07
No health concerns	0.15*	0.19*	0.04
An affordable travel package	0.06	0.33*	0.01
Adjusted R-squared	**0.17**	**0.18**	**0.19**

... not applicable

† reference group for the category

†† reference group for each category is "[Variable name] is not highly important," e.g. "Rest-and-relaxation is not highly important to me"

* statistically significant difference from reference group at $p < 0.01$

Note: R-squared is a statistical measure of how well a regression line approximates real data points. It ranges between 0 and 1.

Source: Statistics Canada, Travel and Activity Motivation Survey, 2006.

Women continue to express a greater interest than men in the travel benefits of family-and-friends, even after controlling for other factors such as family structure and work status. Since women generally consider it their role to build and hold together the family's social networks,[17] they might be expected to rank these elements of a vacation or pleasure trip higher than men.

Level of education has a significant effect on attitudes to R&R, but not on family ties. Travellers with a university degree score almost 0.3 points lower on the R&R index than travellers with high school or some postsecondary, even when other factors like age are taken into account.

Finally, the models show that household income has no effect on either R&R or family-and-friends as an explicit benefit of travel for pleasure. This result is unexpected, given the findings of previous studies.[18,19] Most probably, our result is an artifact of the TAMS definition of travel (an out-of-town trip for at least one night), which included most survey respondents at almost all income levels. Income may very well be a significant factor for pleasure travel of longer duration or greater distance, which we cannot identify (see "What you should know about this study" for data limitations).

The benefits people want dictate the qualities they look for in a destination

The benefits people seek from a vacation or pleasure trip are driven by more than their socio-demographic characteristics. Because pleasure travel entails going out-of-town, travellers choose a destination that they expect to provide the benefits they seek.[20,21,22] For instance, if R&R is the primary benefit sought, we might expect travellers to go to a place that is "comfortable" so they won't be required to deal with the unfamiliar.

Travellers who rank higher than average on the rest-and-relaxation benefits index want to go where there will be lots of fun activities for the children. They also prefer to choose a place where they feel safe and they know the language or culture (Chart 5, Table A.1).

To travellers who score above average on the family-and-friends index, entertaining the kids is also of primary importance. Not surprisingly, friends or family live at their preferred destination.

When we examine the effect of each destination determinant on both travel indices, we can identify three determinants that have a positive effect on scores, even when other factors are taken into account. Travellers score 0.3 points higher on both indices if they report that safety is highly important to them when choosing a destination. Similarly, both scores are somewhat higher for travellers who say that activities for adults are highly important and for those who do not want to worry about health issues (Table 1, Models 1 and 2).

Travellers score 0.8 points higher on the family-and-friendship index when it is highly important that friends or family members are living at their chosen destination. This determinant has the opposite effect on the R&R index, where a traveller's score drops by 0.5 points. And while an affordable travel package can raise scores by 0.3 points on the R&R index, it has no effect at all on the family-and-friends index, once all other factors are controlled for.

Learning-and-discovery: It's all about adventure

About 28% of adult Canadian travellers report that learning and discovery is a highly important benefit of their pleasure travel: they want to see or do new things, learn about other cultures and places, and be intellectually challenged (Chart 1). Statistically, there is a somewhat moderate positive correlation between the benefits indices for learning-and-discovery and family-and-friends (Chart 2). But in many respects, travellers who place a high premium on discovery are the inverse of those who strongly value family and friendship ties.

Higher-than-average scores on the discovery index are posted by university-educated travellers and by solo travellers who live alone; in contrast, those with less education and travellers with children score significantly below average. Somewhat unexpectedly, scores do not differ across income groups or across work status (Chart 6, Table A.1).

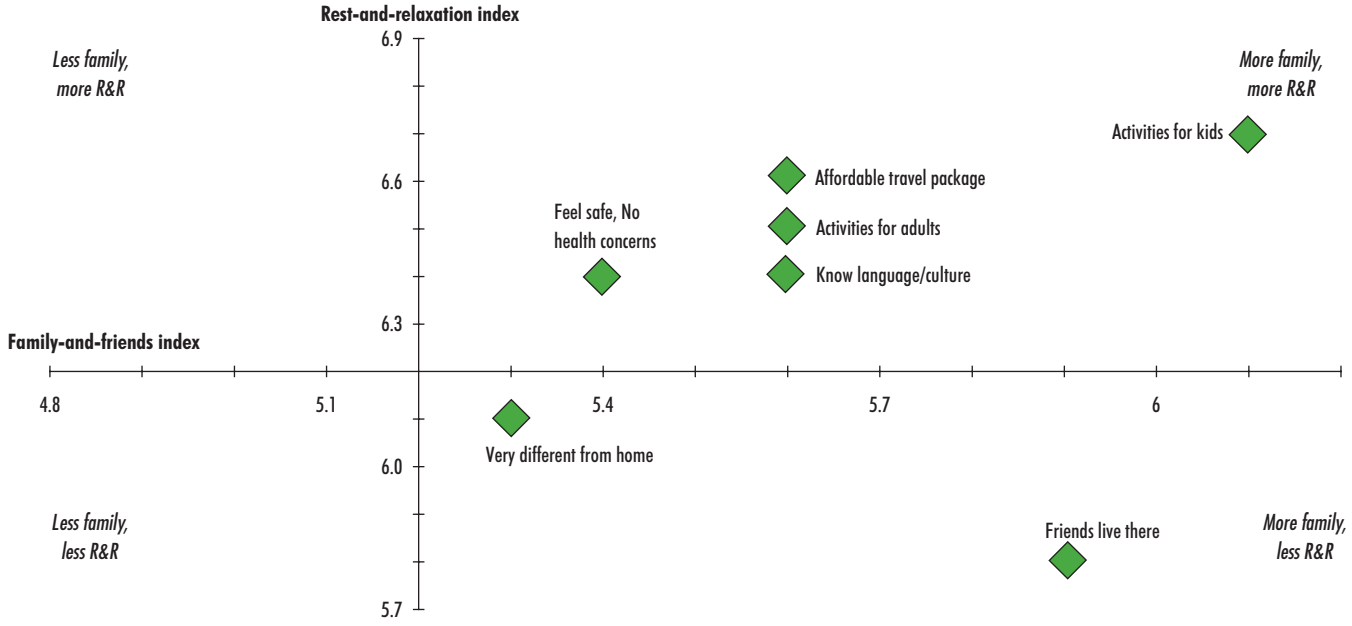
After controlling for the effects of other variables, travellers with a university degree are still bigger fans of discovery benefits than those with high school or some postsecondary, scoring more than 0.7 points higher on the index. It is possible that travellers with higher education developed the habit of inquiry at university and remain "lifelong learners"; it is also possible that social norms require the highly-educated to travel to "expand their horizons," and that people tend to conform to that expectation[23] (Table 1, Model 3).

Family structure remains an important factor, since without children's needs to consider, travellers can focus on the benefits they prefer. When all other variables including education are taken into account, travellers living alone or in a couple have significantly higher discovery scores than travellers living with children (Table 1).

The influence of destination on benefits scores, though, is greater than the traveller's socio-demographic characteristics alone. Far and away the most important factor is the desire for novelty. Travellers who are explicitly looking for something new and different score over 1.3 points higher than those who are not. And those who want lots of adult activities also have significantly higher scores on the discovery index, once all other variables in the model are controlled for.

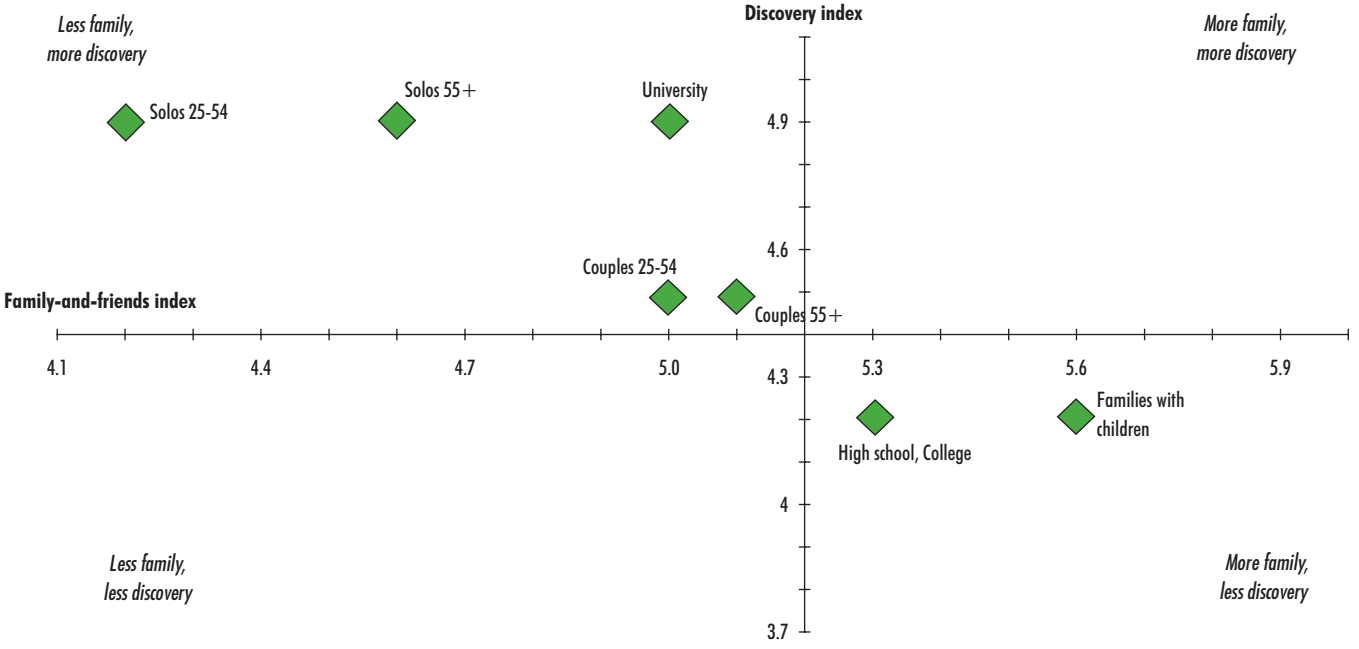
As expected, travellers do not post high marks on the discovery index if they are looking for an

CST Chart 5 Travellers scoring high on both family and rest-and-relaxation(R&R) benefits look for a destination where the children have lots to do



Note: Axes cross at the overall average score for the index, Family-and-friends = 5.2, R&R = 6.2. For measures of significance, see Table A.1.
Source: Statistics Canada, Travel and Activity Motivation Survey, 2006.

CST Chart 6 Travellers who rank learning-and-discovery as very important travel benefits simultaneously score low on family-and-friends index



Note: Axes cross at the overall average score for the index, Family-and-friends = 5.2, Discovery = 4.4 For measures of significance, see Table A.1.
Source: Statistics Canada, Travel and Activity Motivation Survey, 2006.

experience within their "comfort zone," for example, to feel safe, to know the language or culture at their destination, or to have friends or family living there. Nevertheless, travellers score almost 0.7 points higher if they rank nurturing family and friendship ties as a "highly important" travel benefit. This finding may reflect the probability that these travellers share their adventure with a spouse or a friend.

Summary

People take a vacation or pleasure trip in the expectation of deriving certain benefits from their experience. Getting away from their daily routine is a highly important benefit for almost two-thirds of adult travellers, while almost half say that maintaining social and family ties is of primary importance to them. Discovering something new about the world or themselves is a key objective for just over one-quarter of Canadian adults who go on a vacation or pleasure trip.

There is a moderate positive correlation between the travel benefits of rest-and-relaxation and those of family-and-friendship ties; that is, people seeking to escape their everyday routines are also likely to be looking for ways to strengthen their social relationships. In this pair of benefits, though, R&R always has priority.

Travellers who score above average on these two indices share some common characteristics. They are generally under 55 and often have children at home. They prefer destinations that are comfortable for them, perhaps even predictable: a place where they feel safe, with lots of things to do and see for children and for adults. Travellers with high rest-and-relaxation scores are also looking for a destination that offers an affordable travel package; travellers with high scores on the family-and-friends index want a destination that presents no health concerns. Some choose a destination where people they know live nearby.

There is also a positive correlation between the learning-and-discovery and family-and-friends indices. However, travellers who highly value the discovery benefits of travel can be quite different than others. Travellers who actively seek new experiences or challenges when they take a vacation or pleasure trip generally do not have children under 18 at home, and are more likely to have a university degree. They report wanting to see a place that is special, probably somewhere they have never been before, and where they can participate in more adult-oriented activities.

Finally, once other factors like family structure and destination attributes are taken into account, work status is significant only for travellers looking for rest-and-relaxation, and education plays a role only among travellers who want intellectual discovery. The results of the regression models show that household income has no effect on any of the benefits scores, but this finding should be interpreted with caution.

Susan Crompton and **Leslie-Anne Keown** are senior analysts with *Canadian Social Trends*.

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3. In the third quarter of 2008, Canadians spent $15.1 billion on tourism within Canada; in the year 2007, they spent $26.7 billion in other countries. Statistics Canada. (2009). *National Tourism Indicators, Quarterly Estimates*, Third quarter 2008. Catalogue no. 13-009-XWE. Ottawa: Minister of Industry; and Statistics Canada (2008). *International Travel – 2007*. Catalogue no. 66-201-X. Ottawa: Minister of Industry.
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CST Table A.1 Average values for travel benefits indices, by selected characteristics

	Benefits Index (Min = 0.0, Max = 8.0)		
	Family-and-friendship	Rest-and-relaxation	Learning-and-discovery
	average score		
Total (Overall average) †	**5.2**	**6.2**	**4.4**
Men	5.0*	6.2	4.3
Women	5.3*	6.3	4.5
Family structure			
Solo aged 25 to 54	4.2*	6.4	4.9*
Solo aged 55 and over	4.6*	5.3*	4.9*
Couple aged 25 to 54	5.0	6.6*	4.5
Couple aged 55 and over	5.1	5.4*	4.5
Husband-wife family with child(ren) under 18 at home	5.6*	6.6*	4.2*
Lone-parent family with child(ren) under 18 at home	5.6*	6.7*	4.2
Household income			
Under $60,000	5.1	6.0	4.4
$60,000 to $99,999	5.2	6.3	4.4
$100,000 and over	5.1	6.4	4.5
Refused, not stated	5.3*	6.2	4.3
Highest level of education			
High school diploma or some postsecondary education	5.3	6.2	4.2*
Diploma or certificate from a college or trade school	5.3	6.5*	4.2*
University degree	5.0	6.1	4.9*
Main activity during previous 12 months			
Retired	5.0	5.1*	4.6
Full-time paid work	5.1	6.5*	4.4
Part-time paid work	5.3	6.2	4.4
Other (includes homemaker, student, etc.)	5.6*	6.3	4.5
Other travel benefits sought that are highly important to me (score 6.0 or more)			
Family-and-friendship ties	...	6.6*	4.7*
Rest-and-relaxation	5.5*	...	4.4
Learning-and-discovery	5.6*	6.2	...
When choosing my destination ... is highly important to me (score 6.0 or more)			
Having lots of activities for children	6.1*	6.7*	4.4
Having lots of activities for adults	5.6*	6.5*	5.0*
Friends or relatives live there	5.9*	5.8*	4.1*
Being very different from home	5.3	6.1	6.0*
Knowing the language and/or culture	5.6*	6.4	4.2*
Feeling safe	5.4*	6.4*	4.4
No health concerns	5.4*	6.4*	4.9
An affordable travel package	5.6*	6.6*	4.5

... not applicable

† reference group (overall average)

* statistically significant difference from reference group (overall average) at $p < 0.01$

Source: Statistics Canada, Travel and Activity Motivation Survey, 2006.

First Nations people: Selected findings of the 2006 Census

by Linda Gionet

As part of its contribution to the dissemination of Census findings, *Canadian Social Trends* is highlighting some of the key social trends observed in the 2006 Census.

In this issue, we present adaptations from the following Census analytical documents: *Aboriginal Peoples in Canada in 2006: Inuit, Métis and First Nations, 2006 Census* (Catalogue no. 97-558-XWE2006001); *Educational Portrait of Canada, 2006 Census: Findings* (Catalogue no. 97-560-XWE2006001); and *Canada's Changing Labour Force, 2006 Census* (Catalogue no. 97-559-XWE2006001), as well as Census data on income, housing affordability and home ownership.

First Nations people represent a large and diverse population. They number 698,025[1] individuals and comprise 60% of over one million people who identified themselves as an Aboriginal person in the 2006 Census. (See "What you should know about this study" for terms and definitions.)

First Nations people account for 2.2% of the total Canadian population and they are growing at a rapid rate. Between 1996 and 2006, the First Nations population grew by 29%.[2] This rate was 3.5 times more than the 8% growth rate recorded by the non-Aboriginal population in Canada. Several factors account for the rapid growth, such as high birth rates and an increase in the number of individuals who are now identifying themselves as a First Nations person (North American Indian).[3]

A large proportion of the population who reported that they were First Nations people also said that they were Registered or Treaty Indians.[4] In the 2006 Census, 81% of First Nations people were Registered Indians.

Among First Nations people living off reserve, 68% were Registered Indians while 32% did not have Registered Indian status. Nearly all of First Nations people living on reserve were Registered Indians (98%).

This article highlights where First Nations people live, their age structure, children's living arrangements, the ability to speak an Aboriginal language, postsecondary education, employment and unemployment, income, and housing conditions (including housing affordability and home ownership).

Majority of First Nations people live in Ontario and Western provinces

Together, Ontario and the Western provinces were home to an estimated 577,300 First Nations people, or four-fifths (83%) of all First Nations people in Canada (Table 1).

The 2006 Census enumerated 158,395 First Nations people (23%) in Ontario; 129,580 (19%) in British Columbia; 100,645 (14%) in Manitoba; 97,275 (14%) in Alberta; and 91,400 (13%) in Saskatchewan.

Although a quarter of the First Nations population lived in Ontario, they represented 1.4% of the total population of that province.[5] In contrast, First Nations people comprised a larger percentage of the total population in regions such as the Northwest Territories (31%), Yukon (21%) and Saskatchewan (10%).

In 2006, 45% of First Nations people lived in urban areas. (Urban areas include large cities, or census metropolitan areas, and smaller urban centres.)

The five census metropolitan areas (CMAs) with the largest number of First Nations people were Winnipeg (25,900), Vancouver (23,515), Edmonton (22,440), Toronto (17,275) and Saskatoon (11,510).

CST Table 1 Size of the First Nations population, Canada, provinces and territories, 2006

Provinces and territories	Distribution (2006)
	percentage
Canada	**100**
Newfoundland and Labrador	1.1
Prince Edward Island	0.2
Nova Scotia	2.2
New Brunswick	1.8
Quebec	9.3
Ontario	22.7
Manitoba	14.4
Saskatchewan	13.1
Alberta	13.9
British Columbia	18.6
Yukon Territory	0.9
Northwest Territories	1.8
Nunavut	0

Source: Statistics Canada, Census of Population, 2006.

First Nations people are a youthful population

The age structure of the First Nations population in Canada was decidedly young in 2006. The median age of First Nations people was 25 years, while that of the non-Aboriginal population was 40 years. (Median age is the point where exactly one-half of the population is older and the other half is younger.)

About a third of the First Nations population was made up of children under age 15, while only 5% were seniors aged 65 and over. Lower life expectancy, in addition to higher fertility rates, underlies this youthful age structure.[6]

Across Canada, the median age of First Nations people living on reserve (23 years) was lower than for those living off reserve (26 years). Moreover, children under age 15 represented 34% of First Nations people living on reserve and 31% of First Nations people living off reserve.

The median age of 26 years was the same for off-reserve First Nations people with and without Registered Indian status in 2006.

The First Nations population was youngest in Saskatchewan (median age 20 years) and Manitoba (21 years).[7] The oldest populations were living in Newfoundland and Labrador (33 years) and Quebec (30 years).

Living arrangements for First Nations children differ from non-Aboriginal population

Compared with the non-Aboriginal population, First Nations children (14 years of age and under) were more likely to live with a lone parent, grandparent or other relative. In 2006, 37% of First Nations children lived with a lone parent, 8% lived with a grandparent or other relative.[8] This compares with 17% of non-Aboriginal children who lived with a lone parent and less than 1% who lived with a grandparent or other relative.

About a third of First Nations children living on reserve resided with a lone parent in 2006. The percentage was higher for First Nations children living off reserve at 41%. Among those living off reserve, First Nations children with Registered Indian status were more likely than those without Registered Indian status to reside with a lone parent (44% versus 35%).

The likelihood of living with a grandparent or another relative was highest for First Nations children with Registered Indian status living off-reserve. In 2006, 10% of these children lived with relatives other than a parent, compared with 7% of First Nations children living on reserve and 6% of off-reserve First Nations children without Registered Indian status.

Over half of First Nations people living on reserve can speak an Aboriginal language

The census recorded over 60 different languages spoken by First Nations people in Canada. The First Nations languages with the largest number of speakers in 2006 were Cree (87,285), Ojibway (30,255), Oji-Cree (12,435) and Montagnais-Naskapi (11,080).

In both 2001 and 2006, 29% of First Nations people said that they could speak an Aboriginal language well enough to carry on a conversation.

This figure, however, was much higher for First Nations people living on reserve. In 2006, half of the First Nations people living on reserve (51%) could speak in an Aboriginal language compared with 12% of those living off-reserve.

Off-reserve First Nations people with Registered Indian status were more likely than those without Registered Indian status to be able to carry on a conversation in a First Nations language (17% versus 2%).

Two out of five First Nations adults (aged 25 to 64) have a postsecondary education

In 2006, 42% of First Nations people (25 to 64 years old) had completed a postsecondary education compared with 61% of the non-Aboriginal population in this age group (Chart 1). (The term postsecondary education refers to educational attainment above the level of secondary (high school) completion. See "What you should know about this study" for a more detailed explanation of the term postsecondary education.)

CST What you should know about this study

Comparing Aboriginal census data over time

Some Indian reserves and settlements did not participate in the census as enumeration was not permitted, or it was interrupted before completion. In 2006, there were 22 incompletely enumerated Indian reserves, compared to 30 in 2001 and 77 in 1996.

Most of the people living on incompletely enumerated Indian reserves and settlements have Registered Indian status. Consequently, the impact of incomplete enumeration will be greatest on data for First Nations people registered under the *Indian Act*.

Only the Indian reserves and settlements that participated in both censuses are included when comparing data for two census years.

Defining the Aboriginal population

There are different ways to identify the Aboriginal population based on four questions asked in the census (Aboriginal identity; member of an Indian Band/First Nation; Registered or Treaty Indian; and ethnic origin, including Aboriginal ancestries) depending on the focus and the requirements of the data user.

For the purposes of this article, two concepts are used: Aboriginal identity population, and Registered or Treaty Indian (See Definitions of terms section below).

Separate data are presented for First Nations people living on and off reserve as well as by Registered Indian status for the off-reserve population.

For more information, see *How Statistics Canada Identifies Aboriginal Peoples*: http://www.statcan.gc.ca/pub/12-592-x/12-592-x2007001-eng.htm

Definition of terms

Aboriginal identity population: Aboriginal identity refers to those persons who reported identifying with at least one Aboriginal group, that is, North American Indian, Métis or Inuit, and/or those who reported being a Treaty Indian or a Registered Indian, as defined by the *Indian Act of Canada*, and/or those who reported they were members of an Indian band or First Nation.

Census metropolitan area (CMA): is an area consisting of one or more neighbouring municipalities situated around a major urban core. A census metropolitan area must have a total population of at least 100,000, of which 50,000 or more live in the urban core.

Crowding: more than one person per room. Not counted as rooms are bathrooms, halls, vestibules and rooms used solely for business purposes.

Dwellings in need of major repairs: in the judgement of the respondent, the housing they occupy requires the repair of defective plumbing or electrical wiring, structural repairs to walls, floors or ceilings, etc.

Employed: during the reference week prior to Census Day, persons who had a paid job or were self-employed or worked without pay in a family farm, business or professional practice. Includes those absent from their workplace due to vacation, illness, work disruption or other reason.

Employment rate: The employment rate for a particular group (age, sex, marital status, geographic area, etc.) is the number of persons employed in the week (Sunday to Saturday) prior to Census Day (May 16, 2006), expressed as a percentage of the total population, in that particular group.

Family: a married couple (with or without children of either or both spouses), a couple living common-law (with or without children of either or both partners) or a lone parent of any marital status, with at least one child living in the same dwelling. A couple may be of opposite or same sex. "Children" in a census family includes children living with their grandparent(s) with no parents present.

First Nations people: persons reporting a single response of "North American Indian" to the Aboriginal identity question. Although respondents self-identified as "North American Indian" on the census, the term "First Nations people" is used in this article. Both single and multiple responses to the Aboriginal identity question are possible, however, only the population reporting a single response of "North American Indian" is included.

Housing affordability: the share of household income spent on shelter costs, whereby a threshold of 30% is the upper limit for defining affordable housing, as defined by Canada Mortgage and Housing Corporation. Those who spend above the threshold may do so by choice, or they may be at risk of experiencing problems related to housing affordability. The data related to housing affordability does not include households living on reserve or on farms.

Income: refers to the total money income received from various sources during calendar year 2005 by persons 15 years of age and over. For a list of total income sources, please

CST What you should know about this study (continued)

refer to the 2006 Census Dictionary. http://www12.statcan.ca/english/census06/reference/dictionary/pop020a.cfm

***Indian Act*:** *The Indian Act* sets out certain federal government obligations and regulates the management of Indian reserve lands, Indian moneys and other resources. Please refer to "Registered Indians" below for more information regarding the *Indian Act*.

Knowledge of an Aboriginal language: the respondent is able to conduct a conversation in a given Aboriginal language.

Median age: the point where exactly one-half of the population is older and the other half is younger.

Median income: the point where exactly one-half of income recipients aged 15 years and over has more income and the other half has less income.

On-reserve population: The 'on-reserve' population is defined according to criteria established by Indian and Northern Affairs Canada (INAC). For a detailed definition, please refer to the 2006 Census Dictionary: http://www12.statcan.ca/english/census06/reference/dictionary/geo012a.cfm

Postsecondary education: educational attainment above the level of secondary (high school) completion. This includes apprenticeship or trades certificate; college or CEGEP diploma; university certificate or diploma below bachelor level; university degree at bachelor's degree and above.

Registered or Treaty Indians (Status Indians): Registered 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 Status 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.[1]

For more information, including the inheritance rules regarding the passing of Registered Indian status from parents to children, see the Indian and Northern Affairs Canada website at: http://www.ainc-inac.gc.ca/pr/pub/wf/index_E.html

Unemployed: during the reference week prior to Census Day, persons who did not have paid work or self-employment work and were available for work, and were looking for employment, were on temporary lay-off, or expected to start work within 4 weeks.

Unemployment rate: The unemployment rate for a particular group (age, sex, marital status, geographic area, etc.) is the unemployed in that group, expressed as a percentage of the labour force in that group, in the week (Sunday to Saturday) prior to Census Day (May 16, 2006).

Urban areas: have a population of at least 1,000 and no fewer than 400 persons per square kilometre. They include both census metropolitan areas and urban non-census metropolitan areas.

Note

1. Indian and Northern Affairs Canada. (2004). *Words First: An Evolving Terminology Relating to Aboriginal Peoples in Canada*, Catalogue no. QS-6181-010-BB-A1. Ottawa, p. 11.

While about the same share of First Nations and non-Aboriginal people had a trades certificate (12% and 13% respectively), First Nations people were less likely to have a university degree or a college diploma. For example, 7% of First Nations people had a university degree, compared with 23% of non-Aboriginal people; 17% of First Nations people had a college diploma, compared with 20% of non-Aboriginal people.

Among First Nations people living on reserve, 35% had completed a postsecondary education. This was lower than the figure for off-reserve First Nations people (46%), regardless of Registered Indian Status. While off-reserve First Nations people were more likely to have a university degree or college diploma, the share with a trades certificate was about the same for people living on (13%) and off reserve (14%).

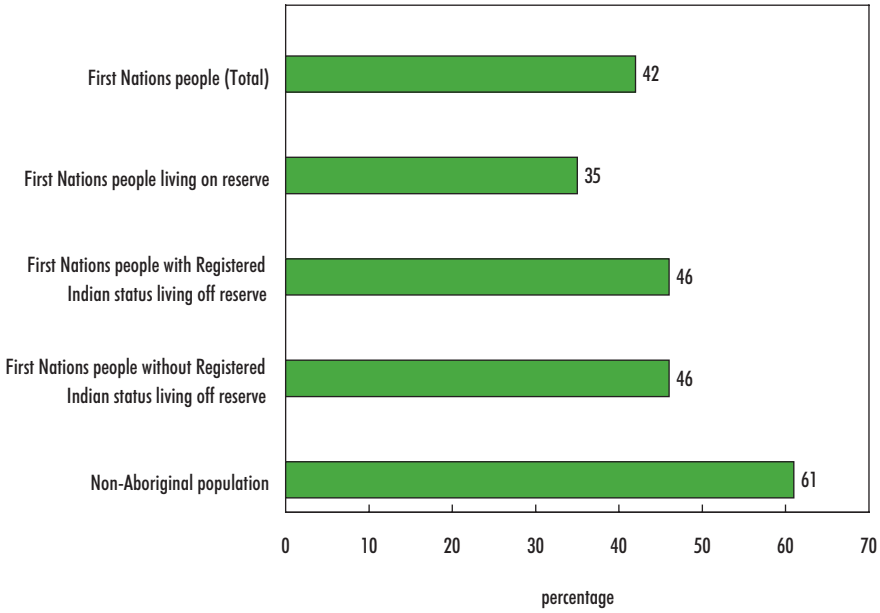
Overall, First Nations women aged 25 to 64 were more likely to have completed a postsecondary education than First Nations men in this age group (44% versus 39%). This remained the case regardless of whether they lived on or off reserve or had Registered Indian status.

The gap, however, was the narrowest at 2 percentage points between off-reserve First Nations women and men (47% versus 45%), who were without Registered Indian status.

Employment rates

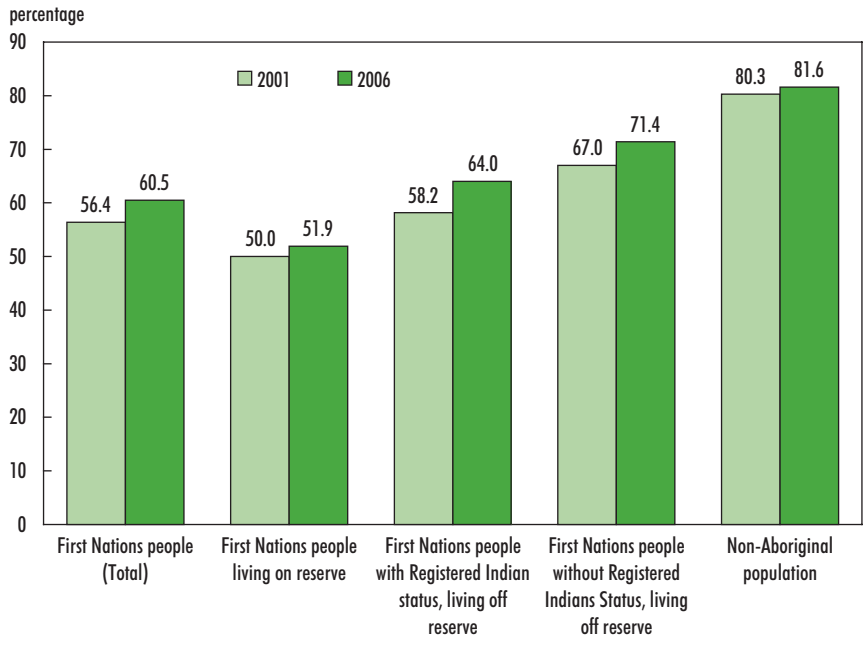
In 2006, 60.5% of First Nations people of core working age (25 to 54 years) were employed. Although this was lower than the employment rate for the non-Aboriginal population

Chart 1 Percentage who completed postsecondary education among First Nations people aged 25 to 64, by Registered Indian status, living on and off reserve, Canada, 2006



Source: Statistics Canada, Census of Population, 2006.

Chart 2 Employment rates among First Nations people aged 25 to 54, by Registered Indian status, living on and off reserve, Canada, 2001 and 2006



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

(81.6%), it represented an increase of about 4 percentage points over 2001 (Chart 2).

Employment rates (the proportion of the population 25 to 54 who are employed) were lower for First Nations people living on reserve. In 2006, First Nations people living on reserve had an employment rate of 51.9% compared to 66.3% off reserve.

Among First Nations people living off reserve, people without Registered Indian status (71.4%) had higher rates of employment than people with Registered Indian status (64.0%).

In 2006, 51.9% of First Nations people living on reserve were employed, compared with 50.0% in 2001. In contrast, employment rates rose considerably for First Nations people living off reserve. For example, 64.0% of off-reserve First Nations people without Registered status were employed in 2006, up from 58.2% five years earlier.

The gap in employment rates between First Nations men and women was widest for people with Registered Indian status living off reserve. Within this group, the employment rates were 70.4% for men and 59.3% for women.

Unemployment rates estimate the proportion of people in the labour force who do not have a job and are looking for work. In 2006, the unemployment rate among First Nations people aged 25 to 54 living on reserve was 23.1% unemployed. By comparison, 12.3% of First Nations people living off reserve and 5.2% of non-Aboriginal people were unemployed.

Among First Nations people living off reserve, unemployment rates for people with Registered Indian status was 13.7% in 2006 compared to 9.4% of people without Registered Indian status.

In terms of the unemployment situation of First Nations men and women, First Nations men living on reserve had an unemployment rate of 27.1% compared to 18.5% for women. Among those living off reserve, First

Nations men and women had similar rates of unemployment.

Median income low for First Nations people

In 2005, the median annual income of the First Nations people aged 15 and over in Canada was lower than that of the non-Aboriginal population. (Median income is the point where exactly one-half of income recipients aged 15 years and over has more income and the other half has less income.)

The median income of First Nations people in 2005 was $14,517, about $11,000 lower than the figure for the non-Aboriginal population ($25,955). This gap was similar in 2000; both groups experienced an increase in median income of approximately $800[9] between 2000 and 2005.

Overall, First Nations people living on reserve had a lower median income ($11,224) than those living off reserve ($17,464). Off-reserve First Nations people with Registered Indian status had a similar median income to people without Registered Indian status ($16,771 versus $18,969).

Among those living off reserve, the gap between median incomes of First Nations men and women was wider for people without Registered Indian status. In 2005, the median income of off-reserve First Nations men without Registered Indian status ($23,221) was $6,537 higher than that of their female counterparts ($16,684). The median income of off-reserve First Nations men with Registered status ($18,732) was $2,764 higher than that of women ($15,968).

Housing affordability

The housing affordability indicator refers to the proportion of household income spent on shelter. A commonly-used benchmark is spending 30% or more of before-tax income on rent or mortgage payments plus utilities.[10]

In 2006, three in ten off-reserve First Nations people in the provinces lived in households spending 30% or more of their household income on shelter costs.[11] This was down from 35% in 2001, but still higher than the 21% for the non-Aboriginal population. There was little difference in housing affordability between off-reserve First Nations people with and without Registered Indian status (31% and 30% respectively).

Home ownership

About 45% of First Nations people living off reserve were in dwellings owned by a member of the household, compared with 75% of the non-Aboriginal population.[12] The level of home ownership for the First Nations population, living off reserve, in 2006 was 4 percentage points higher than in 2001.

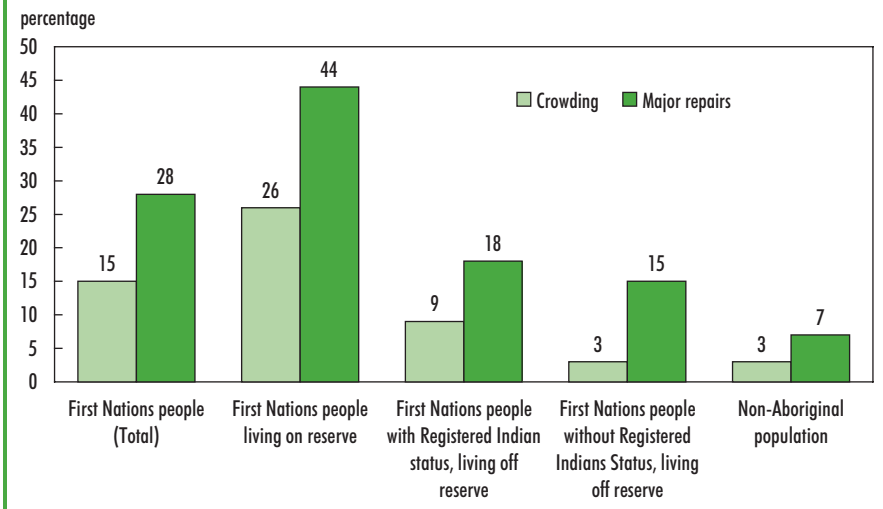
Off-reserve First Nations people with Registered Indian status had lower home ownership levels (41%) than First Nations people without Registered Indian status (55%).

First Nations people more likely to live in crowded homes and homes needing major repairs

In 2006, First Nations people were five times more likely than non-Aboriginal people to live in crowded homes—15% versus 3%. Nonetheless, First Nations people experienced a decrease in crowding of 5 percentage points since 1996 (Chart 3). (Crowding is defined as more than one person per room. Not counted as rooms are bathrooms, halls, vestibules and rooms used solely for business purposes.)

The highest rate of crowding was reported among First Nations people living on reserve (26%). Overall, this was nearly four times higher than the rate of crowding for First Nations people living off reserve (7%). Off-reserve First Nations people with Registered Indian status were slightly more likely than people without Registered Indian status to live in a crowded home (9% versus 3%).

CST Chart 3 Housing conditions among First Nations people by Registered Indian status, living on and off reserve, Canada, 2006



Notes: Crowding is defined as more than one person per room. Not counted as rooms are bathrooms, halls, vestibules and rooms used solely for business purposes.Crowding is defined as more than one person per room. Not counted as rooms are bathrooms, halls, vestibules and rooms used solely for business purposes. Dwelling in need of major repairs: in the judgement of the respondent, the housing they occupy requires the repair of defective plumbing or electrical wiring, structural repairs to walls, floors or ceilings, etc.

Source: Statistics Canada, Census of Population, 2006.

The quality of one's living conditions is also reflected by the state of repair of one's home. In 2006, 28% of First Nations people lived in homes that needed major repairs versus 7% of the non-Aboriginal population. (The need for major repairs was in the judgement of the respondent.)

Of First Nations people living on reserve, 44% reported having a dwelling in need of major repairs, up from 36% in 1996.

Living off reserve, the need for major repairs was similar for those with or without Registered Indian status (18% versus 15%).

Summary

First Nations people are a young and rapidly growing population that mostly lives in Ontario and the Western provinces. A large proportion of First Nations people reported that they had Registered Indian status. Compared with the non-Aboriginal population, First Nations children were more likely to live with a lone parent, grandparent or other relatives. A higher percentage of First Nations people living on reserve could converse in an Aboriginal language than those living off reserve. Two out of five First Nations adults (aged 25 to 64) have a postsecondary education. Although the employment rate and median income of First Nations adults (aged 25 to 54) were higher for those living off reserve, they remained lower than the non-Aboriginal population. First Nations people living on reserve were more likely to report having crowded homes and those needing major repairs.

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1. Note on rounding: Due to the nature of random rounding, counts may vary slightly between different census products.
2. Only the Indian reserves and settlements that participated in both censuses are included when comparing data for two census years.
3. According to Guimond, "Ethnic mobility is also the principal component to the recent demographic explosion of North American Indian and Métis populations. Failure to consider ethnic mobility in the analysis of Aboriginal populations would preclude proper understanding of the fuzziness of definitions, multiplication of estimates, and recent population growth." Guimond, E. (2003). Fuzzy definitions and population explosion: changing identities of aboriginal groups in Canada. In D. Newhouse and E. Peters (Eds.), *Not strangers in these parts: Urban aboriginal peoples*. Catalogue no. DS-3986. Ottawa: Policy Research Initiative, p.45.
4. See "What you should know about this study" for a definition of the term Registered Indian status.
5. It should be noted that 17 of the 22 incompletely enumerated Indian reserves in 2006 were located in Ontario and in Quebec. Of the remainder, three were in Alberta, one was in Saskatchewan and one in British Columbia.
6. Statistics Canada. (2005). *Projections of the Aboriginal Populations, Canada, Provinces and Territories*, Catalogue no. 91-547-XIE. Ottawa: Minister of Industry, p. 25.
7. In Saskatchewan, First Nations people without Registered Indian status living off reserve (3,985 people) had a median age of 18 years.
8. Less than one percent of First Nations people lived with non-relatives (with no relatives present). This was the case for those living on reserve or off reserve, regardless of Registered Indian status.
9. All dollar amounts from the 2001 Census have been adjusted for inflation and are reported in constant 2005 dollars.
10. According to Canada Mortgage and Housing Corporation (CMHC), a benchmark for determining housing affordability is when the share of household income spent on shelter costs (rent or mortgage payments plus utilities) is 30% or more of before-tax income. It should be noted that not all households spending 30% or more of incomes on shelter costs are necessarily experiencing housing affordability problems. This is particularly true of households with high incomes. There are also other households who choose to spend more on shelter than on other goods. Nevertheless, the allocation of 30% or more of a household's income to housing expenses provides a useful benchmark for assessing trends in housing affordability.

    The relatively high shelter cost to household income ratios for some households may have resulted from the difference in the reference period for shelter cost and household income data. The reference period for shelter cost data (gross rent for tenants, and owner's major payments for owners) is 2006, while household income is reported for the year 2005. As well, for some households, the 2005 household income may represent income for only part of a year.
11. The housing affordability indicator was not used in the territories or for people living on reserve. The unique housing situations in these regions do not easily conform to the indicator's parameters for housing affordability.
12. Home ownership rates were not used for people living on reserve. The unique housing situation on reserve may not be comparable to dwellings off reserve.

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