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- Immigrants in the hinterlands
- The dynamics of housing affordability



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-	not available for a specific reference period
...	not applicable
P	preliminary
R	revised
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E	use with caution
F	too unreliable to be published

Highlights

In this issue

■ Immigrants in the hinterlands

- The distribution of the immigrant population in the urban and rural areas differs vastly from the rest of the population. While approximately 34% of Canadians 20 years of age or older live in one of the three largest urban centres (Toronto, Montréal and Vancouver), nearly 75% of immigrants live there. On the other hand, while a little more than one in five Canadians lives in a small city or rural area with a population under 15,000, barely one in forty immigrants lives there.
- For most Canadians, living in a large metropolitan area is usually synonymous with having a higher income. This trend is the opposite for immigrants. Immigrants' incomes are lowest (median of \$16,800) in very large urban areas and their incomes are highest (\$19,500) in small urban areas, a difference of 16%.
- Immigrants living in smaller urban centres or rural areas achieve economic integration faster than immigrants living in very large urban areas. The initial income gap between immigrants and the rest of the population is 37% for those living in very large urban areas. This gap decreases gradually and rather slowly. This gap falls under the 10% mark as of the twelfth year. On the other hand, in small urban areas, the initial gap is only 14%, and as of the fourth year, the gap is reversed, with the income of immigrants becoming 2% greater.

■ The dynamics of housing affordability

- Around one-fifth of persons in Canada lived in households spending more than the affordability benchmark (30% of before-tax income spent on shelter) for any given year between 2002 and 2004.
- On a longitudinal basis, the percentage of households exceeding the affordability benchmark was less than 9% for those exceeding the benchmark in all of the three years between 2002 and 2004. Another 19% lived in households spending above the benchmark for either one or two years.
- The attributes associated with the highest probabilities of living in a household spending above the affordability benchmark were: living alone, being a female lone parent, renting, being an immigrant, or living in Vancouver or Toronto.
- Persons living in households experiencing a transition between 2002 and 2004 had a higher probability of exceeding the benchmark at least once during this period. Such transitions included changing rent-subsidy status, changing from owner to renter or vice versa, changing family type (for example, marrying or divorcing), and moving between cities. These transitions did not increase the probability of exceeding the benchmark persistently.

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Immigrants in the hinterlands

André Bernard

Recent immigrants have experienced more difficulty integrating into the labour market than previous cohorts in the 1970s and 1980s. Since the 1990s, immigrant cohorts have earned significantly less income during their first years in Canada than other Canadians, and earnings growth in subsequent years has not been sufficient to achieve income parity (Frenette and Morissette 2003).

The immigrant population has changed greatly over the last few decades, one of the most dramatic changes being country of origin. Immigrants are now increasingly coming more from Asia (China, India and the Philippines, in particular) than from European countries such as the United Kingdom and Italy or from the United States. As a result, the proportion of immigrants who speak a language other than English or French at home has increased sharply (Citizenship and Immigration Canada 2005a).

At the same time, immigrants with university degrees are becoming more and more common. Of the immigrants who arrived between 1996 and 2001, more than one-third had a university degree, twice the proportion of native-born Canadians (CIC 2005a). Recent immigrants are also much more likely to be 'economic' immigrants, who qualified on the basis of admissibility criteria resulting from policies specifically intended to promote their entry into Canada. Because this should normally result in improved economic outcomes for immigrants, the deterioration observed over the last few years has caused serious concern (Picot, Hou and Coulombe 2007).

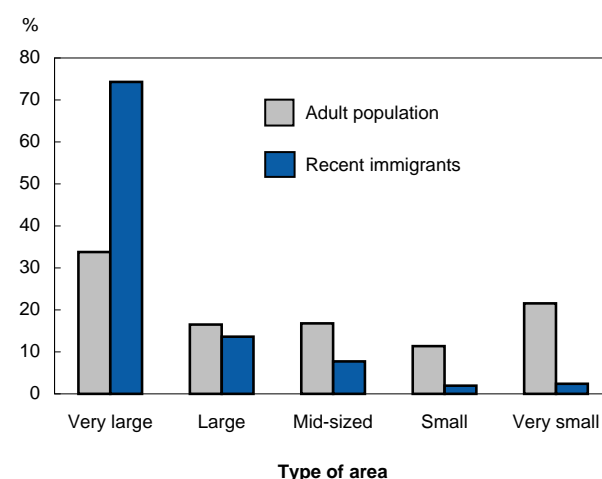
One trend, which has garnered considerable attention, is the increasing concentration of immigrants in Toronto and Vancouver. The proportion settling in those two cities rose from 43% for those immigrants admitted before 1986 to 61% for those admitted

between 1996 and 2001 (CIC 2005a). Even though relatively few immigrants are choosing to settle outside the large urban centres, immigration is attracting a great deal of interest from smaller communities. These communities, especially in rural areas, often face declining populations, and immigration can represent a potential means of revitalizing their economies. A more balanced geographic distribution of immigration is generally acknowledged as being desirable (CIC 2001). Some specific policies have already been put in place to attract more immigrants to rural parts of the country.¹

Poor economic outcomes of immigrants

This concentration of new immigrants settling in very large urban centres raises the question of the differences between large urban centres and the rest of the

Chart A Immigrants overwhelmingly opt for Toronto, Montréal or Vancouver



Source: Statistics Canada, Longitudinal Administrative Databank, 2005.

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country: could economic integration difficulties simply reflect problems encountered in large urban centres?

Of course, every newcomer to the labour market, immigrant or otherwise, must overcome certain challenges, such as a lack of work experience, a mismatch between knowledge gained in school and industry requirements, and a lack of information on employment opportunities. However, immigrants face additional hurdles, including recognition of foreign qualifications, an even greater lack of information on labour market requirements and employment opportunities, and sometimes an incomplete ability to function in one of Canada's official languages. Discrimination may also be an issue, since immigrants are increasingly likely to be members of visible minorities (Hum and Simpson 2004).

Income trends, in absolute terms, of immigrants over the years provides an incomplete view of economic integration. High incomes do not necessarily mean rapid integration if incomes of other Canadians are even greater. Relative measures are more meaningful.

Economic integration can be measured through two components: the initial income gap between immigrants and Canadians in general, and the rate at which that gap narrows. Given all of the factors, incomes of immigrants can be expected to be lower in the first years after arrival. However, rapid economic integration would result in the rapid closing of the gap and its elimination within a few years. Because economic integration is a complex process that includes components other than income, like labour force participation, this

measure of economic integration is not the only one that could be examined.

Immigrants less apt to settle in small urban centres

The distribution of immigrants based on five areas defined for this study (see *Data sources and definitions*) is very uneven and does not reflect the distribution of the Canadian population. While approximately 34% of Canadians 20 years of age or older live in one of the three largest urban centres (Toronto, Montréal and Vancouver), approximately 75% of immigrants make these cities their homes. Conversely, while slightly more than 1 in 5 Canadians live in a small town or rural area with a population under 15,000, the corresponding proportion of immigrants is less than 1 in 40 (Chart A).

Immigrants in large cities and those in small towns are not all that different (Table 1). Immigrants in the smallest areas are slightly less likely than other Canadians to hold a university degree. However, they are more likely to have pursued postsecondary studies without obtaining a university degree. Immigrants in small areas are also less likely to be refugees, but the proportions of skilled worker economic class immigrants and family class immigrants are similar in all types of areas. Given that knowledge of an official language is more critical in small areas (because of less linguistic diversity), it is interesting that 1 in 4 immigrants living in a small town or rural area did not have official-language knowledge upon settling there (compared with almost 2 in 5 in very large urban areas).

Table 1 Immigrants by type of area

	Very large	Large	Mid-sized	Small	Very small
	%				
Education					
High school or less	44.9	43.8	44.2	42.5	37.8
Postsecondary	24.5	25.1	25.8	29.8	38.8
University degree	30.6	31.2	30.0	27.7	23.3
Immigrant class					
Economic	24.7	21.3	21.2	23.2	29.0
Family	56.8	54.5	55.1	58.7	59.2
Refugee	10.3	17.3	18.7	11.6	4.8
Other	8.2	6.9	5.0	6.5	7.0
Ability in an official language					
Yes	61.5	59.7	59.0	66.7	74.9
No	38.5	40.3	41.0	33.3	25.1
Country of origin					
Europe	23.3	25.6	31.4	35.7	48.6
Africa	8.3	11.9	8.1	9.0	6.1
Asia	65.6	57.9	52.4	42.4	26.9
Oceania	0.2	0.7	0.8	1.5	2.8
United States	1.0	2.2	4.4	7.7	12.5
Latin America	1.6	1.9	2.9	3.7	3.0

Source: Statistics Canada, Longitudinal Administrative Databank, 2005.

Data sources and definitions

The **Longitudinal Administrative Databank (LAD)** provides a 20% sample of the T1 Family File (T1FF), containing cross-sectional annual data on all Canadian tax filers and their family members. Census family formation is done using information provided to the Canada Revenue Agency each year through individual tax returns and Canada Child Tax Benefit applications. LAD also contains data from the **Longitudinal Immigration Database** on characteristics of immigrants at the time of landing.

The sample was restricted to individuals 20 years of age or over.

Before-tax income comprises employment income (74% in 2005), other market income, like investment income (14%), and government transfers (12%). All figures are in constant 2005 dollars. The sample includes only individuals whose income exceeds \$1,000.

For this study, an immigrant is any person who obtained permanent residence in Canada between 1992 and 2003.

Years since establishment are calculated from the date on which permanent residence was obtained (which may differ from an immigrant's date of arrival in Canada). Only whole

years are counted, so that income in the year of establishment, during a portion of which an immigrant was not a permanent resident, is omitted.

Very large urban areas are the census metropolitan areas (CMAs) of Montréal, Toronto and Vancouver.

Large urban areas are other CMAs with populations exceeding 500,000—Québec, Ottawa-Gatineau, Hamilton, Winnipeg, Calgary and Edmonton.

Mid-sized urban areas are the 20 CMAs with 100,000 to 500,000 residents.

Small urban areas are census agglomerations with 15,000 to 100,000 residents.

Small towns and rural areas comprise all other locations.

Income gaps between immigrants and the population as a whole, by year, as of the year of landing, are adjusted for age. Incomes of immigrants are compared with the median income of the general population for the same type of geographical area and for the same age group (13 defined age groups). This adjustment is required because years since establishment are correlated with age, and age is correlated with income.

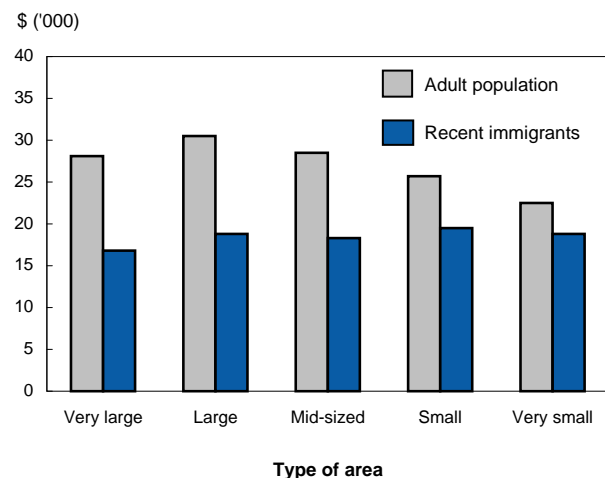
The most striking differences between areas involve country of origin. Immigrants living in small areas come mostly from Europe and the United States, while immigrants in large urban centres come mostly from Asia. Nevertheless, more than 1 in 4 immigrants in the smallest areas come from Asia and the proportions of immigrants from Africa in very large urban areas and small urban areas are similar.

Immigrants generally earn less, but gap smaller in less urbanized areas

For Canadians in general, living in a large metropolitan area means a higher income. Median incomes of Canadians in very large urban areas and large urban areas were \$28,100 and \$30,500, respectively, compared with \$22,500 in small towns and rural areas (Chart B), a significant difference.

For immigrants, the pattern is reversed. Incomes of immigrants were lowest in very large urban areas (median \$16,800) and highest in small urban areas (median \$19,500), a difference of 16%. Incomes of immigrants in small towns and rural areas (median \$18,800) were also significantly greater (by 12%) than those of immigrants in very large urban areas.

Chart B In relative terms, immigrants fare better in smaller areas



Source: Statistics Canada, Longitudinal Administrative Databank, 2005.

While immigrants have lower incomes in all types of areas, the gap narrows along the gradient from urban to rural. In very large urban areas, the median income gap is very large, at 67%. In small urban areas, the gap falls to 32%, while in small towns and rural areas the gap is only 20%.

Economic integration faster in smaller areas

Economic integration can be examined by starting with the initial income gap between immigrants and Canadians and then measuring the subsequent rate of convergence or equalization over time.

Integration of immigrants in small, less urbanized areas is more rapid and that advantage increases over time. In very large urban areas, the initial income gap is 37%. It gradually decreases, but rather slowly. After four years, the gap is still 22%, falling below the 10-percent threshold in the twelfth year (Chart C). In contrast, in small urban areas, the initial gap is only 14%, and in the fourth year immigrants are earning 2% more than Canadians. The relative advantage of immigrants continues to increase over time, reaching a peak of 18% following the eleventh year.

In small towns and rural areas, the advantage of immigrants is even more pronounced. In their first year of permanent residence, their average income is 4%

higher than that of Canadians. In the thirteenth year, the relative income advantage of immigrants rises to 19%.

The most vulnerable immigrant groups integrate rapidly in small areas

Immigrants in the smallest areas, while they have diverse characteristics, are more likely to have prior official-language ability and are less likely to have at most a high school education or to be refugees. Immigrant groups with no more than a high school education and groups with no official-language ability, as well as refugees, are examined in greater detail. Analysis of refugees is especially important since they land in Canada under completely different circumstances from that of qualified economic immigrants.

For each group, economic integration is significantly more rapid in smaller areas than in large urban centres. Immigrants with no more than a high school education earn incomes that are 46% lower in very large urban areas, compared with 23% lower in small towns and rural areas (Chart D). The gap closes very slowly in large cities—after 13 years, the gap is still 20%. However, in small towns and rural areas, the gap closes quite quickly, so that as of the fifth year the gap in most years is significantly less than 10%.²

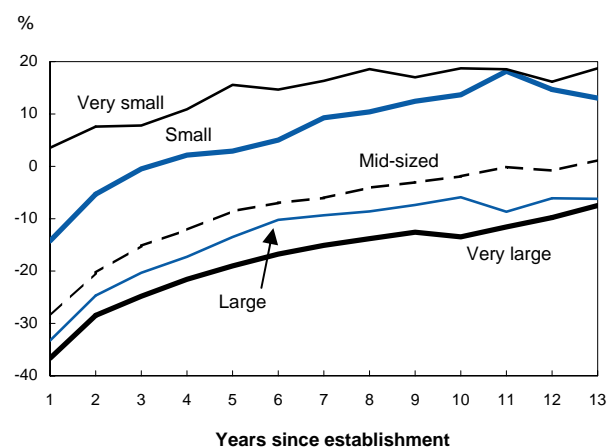
The pattern is similar for immigrants without prior ability in one of Canada's two official languages. The initial gap is smaller in small towns and rural areas (31%) than in other areas, especially very large urban areas (50%), and the subsequent increase in the relative income of immigrants is also much faster (Chart E).

Refugees, though they represent only 5% of immigrants in small towns and rural areas, integrate very rapidly—so rapidly that, after only one year, their incomes are 10% greater than that of Canadians living in the same type of area (Chart F). By contrast, refugees in very large urban areas earn 43% less and, after 13 years of residence, the gap is barely under 20%. In other areas, refugees generally earn lower incomes. However, in smaller areas, the gap is not as wide.

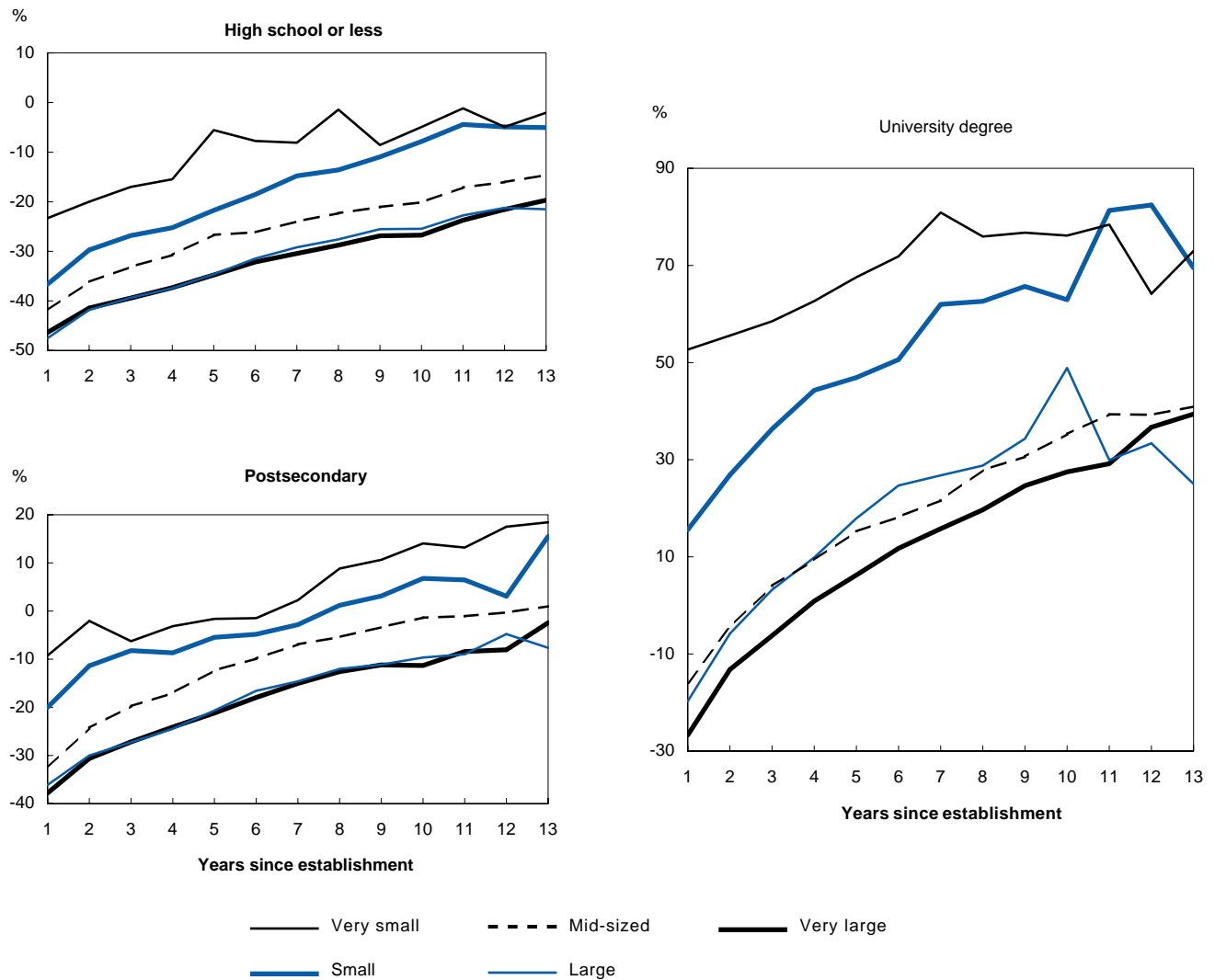
Only immigrants from the United States and Oceania integrate better economically in larger centres

Only immigrants from the United States (and to a lesser degree from Oceania) integrate more quickly in economic terms in larger centres than in smaller ones (data not shown). All other immigrants, especially those

Chart C Integration of immigrants is quicker in smaller areas



Source: Statistics Canada, Longitudinal Administrative Databank, 1992 to 2005.

Chart D Immigrants with less education fare better in smaller areas

Note: Reflects level of education at time of establishment.
 Source: Statistics Canada, Longitudinal Administrative Databank, 1992 to 2005.

from Asia, show a smaller initial discrepancy and subsequent relatively larger increase in income in smaller cities.

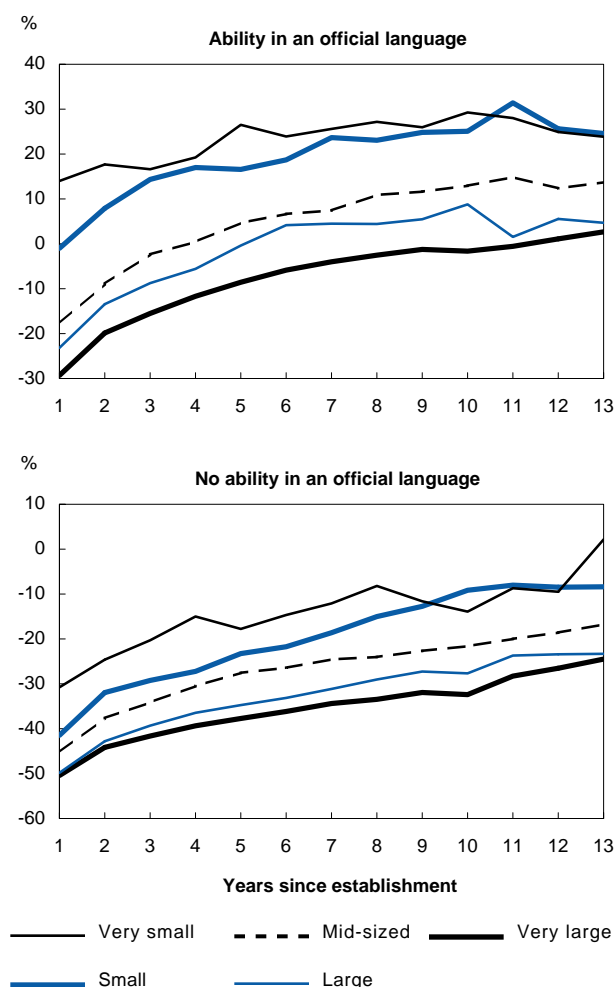
Advantages of smaller regions persist after controlling for characteristics of immigrants

Even after taking into consideration the different characteristics specific to immigrants, as well as other observable characteristics common to Canadians, eco-

nomics integration is much faster outside the major urban centres (Table 2; see also *Linear regression*).

Economic class immigrants have difficulty integrating in the major urban centres, regardless of their education, their ability in an official language or their country of origin. For almost every group of immigrant considered, parity had still not been achieved even after 13 years, the maximum observable with the data.

Chart E Lack of prior ability in an official language is less important in smaller areas



Note: Reflects level of ability at time of establishment.
Source: Statistics Canada, Longitudinal Administrative Databank, 1992 to 2005.

In fact, only those with a university degree, ability in an official language and from a region other than Africa and Asia eventually manage to achieve parity—and even then, after seven years.

In contrast, in a small urban or rural area, these same immigrants generally manage to integrate quite rapidly, especially when they have a university degree upon establishment. In fact, every group of immigrants with

a degree achieves parity within at most four years, and some achieve it within the first year. Nonetheless, in many cases economic integration is better in smaller regions even for immigrants with at most a high school diploma upon establishment.

For refugees, the contrast between the larger urban centres and the smaller urban and rural areas is even more striking. In the larger urban centres, none achieved parity within 13 years.

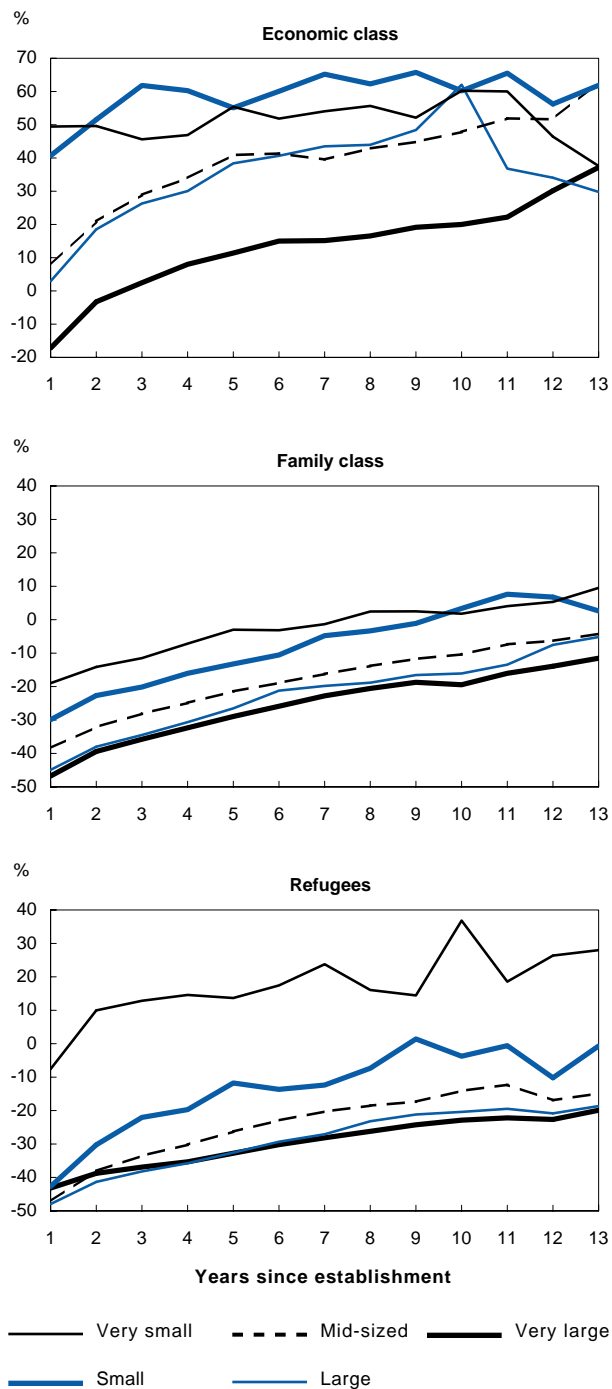
Refugees in the small urban areas, smaller cities and rural areas integrate well from the economic standpoint, particularly those arriving with a university degree. For most groups, refugees in the smaller cities and rural areas achieve income parity very quickly. Those with a university degree achieve it within the first year, regardless of their country of origin or their prior ability in an official language. Refugees with at most a high school diploma do better than those living in the larger urban centres.

Factors in the better economic integration of immigrants in less urban areas

It is difficult to clearly identify the factors accounting for immigrants' better economic integration in smaller urban areas. Because not many characteristics of individuals are available in the database, it is likely that many of the differences identified are only tied to other unobservable factors specific to immigrants, not to the regions.

Nonetheless, some hypotheses merit consideration. The difficulty associated with the recognition of education obtained abroad is well known, and the lack of information about labour market requirements and job opportunities, and the sometimes imperfect ability in one of the official languages, are examples of factors that can slow the economic integration of immigrants.

With regard to education, the impact of university degrees earned abroad on relative incomes is greater in less urbanized regions. It is difficult to determine the extent to which this is because immigrants living in the smaller areas are better able to translate their education acquired abroad into income and/or because a smaller proportion of people with university degrees live in these areas. Based on the 2001 Census, the proportion of university graduates in the adult population aged 25 to 64 years is 30% in the largest urban centres (Montréal, Toronto and Vancouver) and 16% in the areas with fewer than 100,000 inhabitants. Among new

Chart F Refugees integrate much more rapidly in smaller areas

Source: Statistics Canada, Longitudinal Administrative Databank, 1992 to 2005.

immigrants, the differences according to education upon arrival are much less pronounced (Table 1). Immigrants with university degrees are particularly well represented in the small areas (Chart D), and having pursued postsecondary (not only university) studies abroad greatly improves the advantage of immigrants in the smaller areas. However, even less well-educated immigrants post better results in terms of economic integration in smaller urban areas and the smaller cities and rural areas.

The need for information about labour market requirements and job opportunities suggests that the creation of a network—formal or informal—with non-immigrants would likely be inevitable in smaller areas, precisely because of the smaller proportion of immigrants there. In return, this network may be critical to economic integration, even if the small proportion of immigrants may be a source of other kinds of disadvantages. This does not mean that immigrants living in smaller regions will not face the same difficulties inherent to the local labour market as any of their neighbours. Rather, they will be less likely to be at a disadvantage than immigrants in the major urban centres merely because they are immigrants.

Lack of ability in an official language is not as great a handicap outside the major centres. In the largest urban centres, none of the groups of immigrants without ability in an official language managed to achieve income parity after 13 years. In smaller cities and rural areas, several groups, in particular refugees, managed to achieve it. One could conclude that these immigrants are more likely to learn one of the official languages quickly if they live in an area with a high proportion of French- or English-speakers. This enables them to overcome this barrier more rapidly than in the larger urban centres.

To a large extent, the data also rule out at least one other possible hypothesis. Even though immigrants living in smaller cities and rural areas are more likely to come from Europe and the United States, this does not explain why they do better than immigrants in the major urban centres. The raw regressions suggest that in smaller cities and rural areas, the impact of country of origin on income advantage is very small, and does not necessarily favour immigrants from Europe, the United States or Oceania. Also, immigrants from the United States are the only ones to have integrated more rapidly from an economic standpoint in the larger urban centres. In other words, it is very likely that the

Table 2 Number of years to achieve income parity by admission category

Immigrant	Education on landing	Prior ability in an official language	Type of area				
			Very large	Large	Mid-sized	Small	Very small
Economic							
years							
Europe, United States or Oceania	High school or less	no	>13	>13	11	11	>13
Africa and Asia	High school or less	no	>13	>13	>13	>13	>13
Latin America	High school or less	no	>13	>13	>13	>13	>13
Europe, United States or Oceania	High school or less	yes	>13	5	6	7	11
Africa and Asia	High school or less	yes	>13	>13	>13	11	7
Latin America	High school or less	yes	>13	11	>13	11	>13
Europe, United States or Oceania	University degree	no	>13	5	5	2	2
Africa and Asia	University degree	no	>13	>13	>13	3	1
Latin America	University degree	no	>13	11	>13	4	4
Europe, United States or Oceania	University degree	yes	7	2	3	1	1
Africa and Asia	University degree	yes	>13	5	11	2	1
Latin America	University degree	yes	7	4	9	2	1
Refugees							
Europe, United States or Oceania	High school or less	no	>13	>13	>13	>13	>13
Africa and Asia	High school or less	no	>13	>13	>13	>13	10
Latin America	High school or less	no	>13	>13	>13	>13	>13
Europe, United States or Oceania	High school or less	yes	>13	>13	>13	>13	4
Africa and Asia	High school or less	yes	>13	>13	>13	>13	2
Latin America	High school or less	yes	>13	>13	>13	>13	6
Europe, United States or Oceania	University degree	no	>13	>13	>13	7	1
Africa and Asia	University degree	no	>13	>13	>13	11	1
Latin America	University degree	no	>13	>13	>13	13	1
Europe, United States or Oceania	University degree	yes	>13	11	>13	3	1
Africa and Asia	University degree	yes	>13	>13	>13	7	1
Latin America	University degree	yes	>13	>13	>13	7	1

Note: Reference to ">13" means that 13 years after establishment, which is the maximum allowed to be considered with the data, these immigrants still had an unfavourable income gap.

All of the regression coefficients used for these calculations are significant to a threshold of 1% or more, with two exceptions. These are the coefficients associated with Latin America (definitive outcomes for Europe, the United States and Oceania), for the very large urban areas (not significant for conventional thresholds) and for small cities and rural areas (significant to a threshold of 5%). If the coefficient is not significant, it is assumed to be zero, therefore its value does not have an effect on these findings.

Source: Statistics Canada, Longitudinal Administrative Databank, 1992 to 2005.

discrepancies identified would be even larger if the distribution by country of origin in the smaller cities and rural areas were closer to that in the larger urban centres.

Naturally, several factors could affect immigrants' ability to integrate. These include, in particular, their formal or informal reception by government and community, any discrimination they may face, and their

motivation to integrate into the labour market. None of these can be measured from the data.

Discrepancies stable between urban and rural areas

The three cohorts of immigrants studied show a surprising stability in the differences between urban and rural areas over time. From 1994 to 1996, the relative incomes of immigrants who arrived in 1992 and 1993

Linear regression

Regression models are used to measure how certain key factors account for a phenomenon after controlling for other observable characteristics. This study used an ordinary least squares linear regression model:

$$\begin{aligned} \ln(y_{it}/Y_r) = & \alpha + \beta_1 X' + \beta_2 \text{IMMIGRANT} + \beta_3 (\text{YEARS})' \\ & + \beta_4 (\text{ORIGIN})' + \beta_5 (\text{EDUCATION})' \\ & + \beta_6 (\text{CLASS})' + \beta_7 (\text{LANGUAGE})' + \varepsilon_{it} \end{aligned}$$

The dependent variable is a measure of the individual's income advantage. This is the ratio of, on the one hand, individual i 's income in year t in region r and, on the other hand, the median income (Y) of the entire population in region r (median income in constant dollars, all years combined).

A ratio of one indicates parity between the income of an individual and that of his/her neighbours; a ratio higher (lower) than one indicates a relative advantage (disadvantage) in terms on income. To facilitate the calculations, we used the logarithm of the ratio as the dependent variable for the regression. This way, the explanatory variable coefficients could be added and interpreted as the percentage impact on the ratio, or, in other words, the impact in percentage terms on the income advantage. The construction of this dependent variable is similar to that of Li (2003). Only individuals whose incomes are greater than \$1,000 are included in the regression models (as in the descriptive tables), in order to exclude those who are not in the labour market or are dependents.

The regression considers every individual, not only immigrants. Thus, there are two types of explanatory variables. The control variables that are common to immigrants and to all other Canadians are included in vector X . Unfortunately, the administrative data used only contain a limited number of variables on the characteristics of individuals. Nonetheless, the individual's province of residence, type of family, age group and sex are included in the model. Dichotomic variables for every year from 1992 to 2005 are also included in order to account for the impact of the business cycle.

The other explanatory variables included in the model are strictly for immigrants. First, there is a dichotomic variable identifying immigrants as such. This variable identifies an initial impact of immigration in terms of income advantage (or disadvantage). Next, the dichotomic variables are included, representing each of the years following their arrival (starting with the second year). These variables are included in the YEARS vector. Because the data cover years 1992 to 2005, immigrants can be followed for up to

13 years after their arrival (for immigrants who arrived in 1992). The coefficient for the variable identifying immigrants provides an indication of the 'income discrepancy upon establishment' (a coefficient that is assumed to be negative), while the coefficients associated with the different years since establishment provide an indication of the 'catch-up speed' (coefficients assumed to be positive) in the incomes of immigrants with those of all Canadians living in the same type of area.

Other control variables specific to immigrants are added to take the different characteristics among immigrants living in the major urban centres and those living elsewhere in the country into consideration. This variable identifies the admission class of the immigrant (economic class, family class, refugee and other), prior knowledge of an official language, level of education at the time of arrival, and the immigrant's country of origin. All of these variables specific to immigrants (including the number of years since establishment) are multiplied by the indicator (using a value of 0 or 1) identifying immigrants, which is zero for all other Canadians.

Income parity between immigrants in a certain class and all Canadians in the same type of area is considered achieved after a certain number of years when the coefficient associated with the status of immigrant, added to the coefficient associated with the number of years since arrival, is equal to or greater than zero, which means that the catch-up after arrival was enough to make up for the initial unfavourable income discrepancies. To do this calculation for every group of immigrants, the coefficients associated with the different targeted characteristics—which is to say the coefficients associated with the CLASS, LANGUAGE, EDUCATION and ORIGIN variables—have to be added up.

Three more regressions are done to determine whether the differences between urban and rural areas are accentuated or reduced during the period under study. For the most part, the form of these regressions is comparable. However, the data on all types of regions are grouped and the variables identifying the regions are included in the model, while the variables identifying the number of years since arrival are omitted. Thus, the coefficients associated with the different types of regions represent the average of the income advantages associated with the types of regions. The three regressions help compare the change in results for three cohorts of immigrants: those who arrived in 1992 and 1993, those who arrived in 1997 and 1998 and, finally, those who arrived in 2001 and 2002.

were 32% higher in smaller cities and rural areas than in the largest urban centres. For those who arrived in 2001 and 2002, this difference was only slightly smaller, 27% for the years 2003, 2004 and 2005. The comparative advantage of the largest urban centres edged up from 24% to 25% (data not shown).

Conclusion

The economic well-being of immigrants is critical for a country like Canada, which relies heavily on immigration for demographic growth. Where immigrants choose to settle appears to affect their economic integration. It is much faster outside the largest urban cen-

tres, which is where most of them settle. In contrast, the incomes of those who choose to settle outside these major centres are similar to those of other Canadians. This initial disadvantage of immigrants, when it exists, generally disappears after a few years.

In contrast, in the largest urban centres, immigrants face a large initial income disadvantage, and subsequent increases are not enough for them to achieve parity. Better economic integration of immigrants outside the largest urban centres is evident even after taking into consideration differences in terms of immigrants' education upon arrival, prior ability in an official language, admission class and country of origin.

These results put the large income differences between recent immigrants and other Canadians, identified in previous studies, into perspective. These differences appear, at least in large part, to result from a dynamic exclusive to the largest urban centres.

Immigrants living outside the largest urban centres can translate their credentials acquired abroad into a relative income advantage more easily. They are more likely to overcome their lack of ability in an official language, quickly learning English or French, enabling them to increase their ability to generate income faster.

Perspectives

■ Notes

1. For example, the federal government recently announced new measures to attract French-speaking immigrants to rural parts of Prince Edward Island (CIC 2007). The 2005 *Annual Report to Parliament on Immigration* (CIC 2005b) has already recognized the potential of the Provincial Nominee Program for "supporting the regionalization of immigrants to centres outside Canada's three largest cities" (page 18).
2. The variable used measures education upon landing only. Further education, not observed here, is probably an important contributor to these patterns.

■ References

- Citizenship and Immigration Canada. 2001. *Towards a more balanced geographic distribution of immigrants*. Special Study. May. Strategic Research and Review Unit. 65 p.
- 2005a. Citizenship and Immigration Canada. 2005. *Recent Immigrants in Metropolitan Areas: Canada—A Comparative Profile based on the 2001 Census*. April. Catalogue no. MP22-20/1-2005E. 105 p.
- 2005b. Citizenship and Immigration Canada. 2005. *Annual Report to Parliament on Immigration, 2005*. Catalogue no. Ci1-2005. 54 p.
- Citizenship and Immigration Canada. 2007. "Canada's new government to help attract Francophone immigrants to rural Prince Edward Island." October 12, 2007, News Release.
<http://www.cic.gc.ca/english/departement/media/releases/2007/2007-10-12c.asp> (accessed January 17, 2008).
- Frenette, Marc and René Morissette. 2003. "Will they ever converge? Earnings of immigrants and Canadian-born workers over the last two decades." Statistics Canada Catalogue no. 11F0019MIE. Analytical Studies Branch Research Paper Series, no. 215. 20 p.
<http://www.statcan.ca/english/research/11F0019MIE/11F0019MIE2003215.pdf> (accessed January 17, 2008).
- Hum, Derek and Wayne Simpson. 2004. "Economic Integration of Immigrants to Canada: A Short Survey." *Canadian Journal of Urban Research*. June. Vol. 13. Institute of Urban Studies, University of Winnipeg.
- Li, Peter S. 2003. "Initial Earnings and Catch-Up Capacity of Immigrants." *Canadian Public Policy*. Department of Sociology, University of Winnipeg. Vol. 29, no. 3, p. 319-337.
- Picot, Garnett, Feng Hou and Simon Coulombe. 2007. "Chronic Low Income and Low-income Dynamics Among Recent Immigrants." Statistics Canada Catalogue no. 11F0019MIE. Analytical Studies Branch Research Paper Series, no. 294. 48 p.
<http://www.statcan.ca/english/research/11F0019MIE/11F0019MIE2007294.pdf> (accessed January 17, 2008).

The dynamics of housing affordability

Willa Rea, Jennifer Yuen, John Engeland and Roberto Figueroa

Shelter is the biggest expenditure most households make and its affordability can have an impact on wellbeing. For this reason, housing affordability is closely watched by a wide range of stakeholders—from housing advocates to policy analysts—interested in housing and the broader welfare of Canadians.

Measuring affordability involves comparing housing costs to a household's ability to meet them. One common measure is the shelter cost-to-income ratio (STIR). The 30% level is commonly accepted as the upper limit for affordable housing. Those who spend 30% or more have been, and continue to be, the subject of intense study—do they do so out of choice, having the means and preference to spend more than the norm; or out of necessity, having low income and possibly being in housing need.

Housing affordability is also a critical input to Canada Mortgage and Housing Corporation's (CMHC) core housing need indicator.¹ The core housing need indicator "identifies those households unable to obtain market housing that is in adequate condition, of suitable size and, at the same time, affordable" (CMHC 1991). The information is used by governments to help design, deliver, fund and evaluate social housing programs.

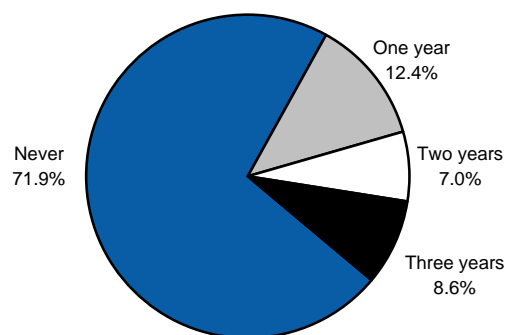
Up to now, STIRs have described affordability at a particular point in time. No source followed households over time, collecting both incomes and shelter costs. While Statistics Canada's Survey of Labour and Income Dynamics (SLID) provides household income over a six-year period, it does not normally collect data on shelter costs. So, for the last five years, CMHC has sponsored a module of housing questions and now this information enables a first-ever longitudinal review of housing affordability (see *Data sources and definitions*).

This report, co-authored by CMHC and Statistics Canada, focuses purely on the dynamics of housing affordability, not on core housing need. It examines the likelihood of spending 30% or more of household income on shelter, how often this occurs, whether it is occasional or persistent, and contrasts those spending 30% or more to those spending less.

Housing affordability profile

Cross-sectional estimates indicate that around one-fifth of Canadians lived in households spending more than the affordability benchmark in any one year between 2002 and 2004. Longitudinally, however, less than one-tenth lived in households that persistently spent above the benchmark between 2002 and 2004. Another one-

Chart A Less than 10% of people lived in households persistently exceeding the affordability benchmark



Source: Statistics Canada, Survey of Labour and Income Dynamics, 2002 to 2004.

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Data sources and definitions

The **Survey of Labour and Income Dynamics (SLID)** is a household survey that uses computer-aided telephone interviews to collect information on income, labour, education and, since 2002, housing. Between January and March, interviewers collect information from the previous calendar year regarding labour experiences and income, educational activity, and family relationships. Demographic characteristics of family and household members, and information about their dwellings and shelter costs represent a snapshot as of the end of each calendar year. The response rate averaged 77% during the three-year study period covered in this report. SLID covers all individuals in Canada, excluding residents of the three territories, residents of institutions and persons living on Indian reserves or in military barracks, and those who are homeless. Overall, these exclusions amount to less than three percent of the population.

SLID samples are selected from the monthly Labour Force Survey (LFS) and thus share the latter's sample design—an area frame and a stratified, multi-stage design that uses probability sampling. The total LFS sample is composed of six rotation groups, with one-sixth of the sample being replaced each month. The SLID sample comprises two panels, each consisting of two LFS rotation groups—roughly 17,000 households. A panel is surveyed for six consecutive years. A new panel is introduced every three years, so two panels always overlap.

SLID provides both cross-sectional and longitudinal estimates. The longitudinal estimates in this report are based on two panels covering the years 2002 to 2004—the last three years of panel 3 and the first three years of panel 4.

Shelter cost-to-income ratio

Owner shelter costs include mortgage payments, property taxes, condominium fees, and utility payments² (heating, water and electricity). Renter shelter costs consist of rent payments plus any utilities not included in the rent. Total annual household shelter costs are compared with total annual before-tax household income, which includes transfers from government. Income is collected for each person 16 years of age and over and then aggregated into household income. Approximately 85% of SLID respondents allow the use of their tax data as an alternative to answering the survey questions, improving data quality and reducing response burden.

Households spending less than 30% of their incomes on shelter are classified as meeting the affordability standard. However, those spending 30% or more are not necessarily experiencing housing affordability problems. Many who spend a higher percentage do so by choice.

CMHC's 'core housing need' classifies only those who could not afford suitable and adequate housing in their locality as being in housing need. Based on this indicator, 20% of households in the 2001 Census spent more than the housing affordability standard, but only 12% were in core housing need.

The study universe

For longitudinal analysis, it is necessary to work at the person level rather than the household level since the household universe is dynamic. Households form, change, and dissolve due to birth, marriage, divorce, death, and the comings and goings of members, making it difficult to follow households over time. Therefore, household characteristics (including shelter costs, incomes, and STIRs) are attached to each household member.

Results present the numbers and percentages of people living in households with the various characteristics. To facilitate comparisons between longitudinal and cross-sectional estimates, most of the cross-sectional analysis was also done at the person level.

Certain exclusions from the population were necessary. The first step, for longitudinal analysis, was to eliminate persons not present for all three years.

To simplify interpretation, people in the following households were also excluded: those with household incomes or shelter costs less than or equal to zero, those where a household member operates a farm, and those with more than one economic family (i.e. at least one person in the dwelling was not related by blood, marriage or adoption). This removed approximately 8% of the sample from cross-sectional analysis with the largest exclusion coming from the third criterion.

Positive incomes and shelter costs are essential to interpret the STIR. Households can report negative incomes when, for instance, income from self-employment or investment includes losses that are larger than gains. Such households usually depend on alternative monetary sources such as loans, savings or capital gains. But these data are not collected in SLID, so it is not possible to assess how much money the household has to live on. Similarly, it is difficult to interpret the STIR if a household reports that it pays nothing for shelter when, for example, the use of a dwelling comes as part of employment compensation.

Farm operators are excluded because their shelter costs and farm operating costs may be so blended together that it is hard to obtain a reliable estimate of the actual shelter cost.

The exclusion of households with more than one economic family was done because the members of some of these households may make their housing decisions at the family or individual level and any household level estimate might be difficult to interpret. (A household consists of all the people living in a dwelling, whereas an economic family consists only of those who are related by blood, marriage or adoption living together in a dwelling.) In a roommate household, each of the roommates would have different incomes, although each might share the rent equally. A STIR calculated based on their total shelter costs and the sum of their incomes would not have the same meaning as a STIR calculated for a family or an individual living alone.

Finally, the models were run only on the adult population (16 years of age and over), because certain questions (for example, about Aboriginal status, immigration status and education level) are not asked of those under age 16.

Sample distribution for the models

The first model compared the characteristics of those who ever (at least one year between 2002 and 2004) spent 30% or more of household income on shelter with those who never did so.

The second model focused on the population persistently spending 30% or more of household income on shelter, in this case for the full 3-year study period. The sample was divided into *persistently* and *never + occasionally*.

Model 1 regresses the *ever* indicator and Model 2 regresses the *persistently* indicator against the socio-demographic and geographic characteristics of Canadians and the households in which they live. Income was not included in the models because it is part of the calculation of the characteristic of interest—STIR.

fifth lived in households occasionally (one or two years) spending above the benchmark. In total, about 28% lived in households that *ever* exceeded the affordability benchmark during the study period (Chart A).

Lower-income households more likely to exceed housing affordability benchmark

Household income is a key determinant of STIR. On average, income-constrained households have higher shelter cost burdens and are more likely to surpass the affordability benchmark. In fact, in 2004 over 80% of people in households exceeding the benchmark fell into the bottom 40% of the income distribution (Table 1). In contrast,

those with incomes in the top 40% accounted for only about 7% of people exceeding the affordability benchmark—likely spending more out of choice, not necessity.

Nearly 58% of people in the lowest income group lived in households spending more than the affordability benchmark. Their median STIR, around 50%, tends to be a consequence not only of their low income but also of their relatively high shelter costs.³ For owners it may be because of high mortgage payments—once mortgages are paid off, STIRs naturally drop considerably. Tenants may find that, unless they are in subsidized housing, accommodation cannot be obtained below a certain rent. In addition, families in this situation may live in cities with more

expensive housing, need a bigger dwelling to accommodate a larger family, or lack the social or financial resources to seek less expensive accommodation.

The most obvious reason for low household income is a low-paying job, but other causes are also possible: only one earner, family breakup, job loss, and business or investment losses (especially for the self-employed). Some households with low income may have other revenue sources—capital gains, savings, loans, gifts or even charitable support.

In addition, some of these high STIRs are only transitory. Finding a job, getting married or moving are examples of events that could lower the STIR. Longitudinal data enable the identification of households making these transitions and tracking movements above and below the benchmark. Instead of considering households above or below the affordability benchmark at a given point in time, it is possible to see whether they are above or below the benchmark for one, two or three years (Table 2).

Like cross-sectional estimates, the longitudinal numbers show that as household income increases, a lower proportion of people live in households that ever spend above the affordability benchmark. However, these estimates are higher than annual estimates. As would be expected, over a longer period of time, more people live in households spending above the affordability benchmark.

In addition, the higher the income, the greater the percentage difference between the longitudinal and cross-sectional estimates. As household income increases, the turnover or change in those living in

Table 1 Cross-sectional estimates of people living in households spending above and below the affordability benchmark by income quintile, 2004

	Share within income quintile	Cumulative share spending 30% or more	Shelter cost	Household income	STIR
	%	%	\$	\$	%
Bottom 20%					
30% or more	57.9	57.4	9,000	17,417	51.0
Less than 30%	42.1	...	4,416	24,742	20.1
Second quintile					
30% or more	23.5	80.6	15,983	39,887	39.3
Less than 30%	76.5	...	6,720	41,625	16.5
Middle quintile					
30% or more	12.7	93.2	23,233	62,323	36.0
Less than 30%	87.3	...	9,426	62,949	15.0
Fourth quintile					
30% or more	5.2	98.3	31,258	87,196	34.6
Less than 30%	94.8	...	12,104	88,671	13.7
Top 20%					
30% or more	1.7	100	44,570	124,383	35.2
Less than 30%	98.3	...	13,823	135,885	9.6

Note: Household income not adjusted for family composition and size.
Source: Statistics Canada, Survey of Labour and Income Dynamics.

households spending 30% or more on shelter also increases. People with higher incomes do not tend to spend above the benchmark repeatedly or persistently. Instead, new people are entering as others are leaving the group from one year to the next, which leads to the higher longitudinal estimates.

Another way of looking at this is through the share of those persistently (all three years) exceeding the affordability benchmark compared with those ever exceeding it (at least one year). In the lowest income group, almost half of those ever exceeding the benchmark did so for all three years. In contrast, only 7% of those with the highest incomes did so. Thus, the higher the income, the larger the proportion of people moving back and forth across the affordability benchmark, indicating that the causes of exceeding the benchmark may often be temporary. But in the lower income groups, especially the lowest, a much higher proportion have STIRs persistently exceeding the benchmark, indicating less ability to adjust incomes or shelter costs.

Who exceeds the affordability benchmark most often?

As expected, a higher proportion of renters spend above the affordability benchmark (Table 3). In 2004, roughly one-third of renters (paying either market or subsidized rent) lived in households spending above the affordability benchmark, compared with less than one-quarter of owners with mortgages and 1 in 25 owners without mortgages. Longitudinally, well over 40% of renters ever exceeded the benchmark over the 2002 to 2004 period, a much higher proportion than for owners. Those changing tenure during

Table 2 Longitudinal estimates of people living in households spending above and below the affordability benchmark by income quintile, 2002 to 2004

	Share within quintile income	Shelter cost	Household income	STIR
	%	\$	\$	%
Bottom 20%				
Less than 30% all 3 years	37.3	4,216	27,341	17.9
30% or more 1 or 2 years	32.4	7,195	24,113	32.2
30% or more all 3 years	30.2	9,920	19,109	52.7
Second quintile				
Less than 30% all 3 years	62.8	6,413	44,756	14.9
30% or more 1 or 2 years	29.5	12,205	43,652	30.2
30% or more all 3 years	7.8	18,491	42,166	43.2
Middle quintile				
Less than 30% all 3 years	77.5	9,118	64,239	14.5
30% or more 1 or 2 years	18.9	16,375	62,604	28.0
30% or more all 3 years	3.7	24,907	63,138	39.1
Fourth quintile				
Less than 30% all 3 years	86.2	11,663	88,763	13.6
30% or more 1 or 2 years	12.7	21,184	84,724	26.7
30% or more all 3 years	1.1	33,136	86,870	35.6
Top 20%				
Less than 30% all 3 years	95.8	13,861	131,817	10.3
30% or more 1 or 2 years	3.9	29,552	126,971	26.2
30% or more all 3 years	0.3	39,885	113,379	35.2

Note: Household income not adjusted for family composition and size.

Source: Statistics Canada, Survey of Labour and Income Dynamics.

this period were much more likely ever to exceed the benchmark, but less likely to exceed it persistently. While this indicates that changing tenure could be associated with temporary affordability difficulties, the study period is too short to properly understand all the dynamics.

Those living alone and female lone-parent families are the most likely to spend above the benchmark: 42% and 44% respectively in 2004, more than double the proportion in the population as a whole (20%). Those living alone must pay the entire shelter cost themselves and rely on only one income; those supporting children alone face the additional challenge of needing to pay for larger accommodation.

Those whose family type changed over the 2002 to 2004 period are among the most likely ever to spend above the benchmark (39%), compared with the national average (28%). As with tenure-changers, their three-year rate (7%) was very much lower, and below the national average.

Other attributes—years since immigration, visible minority status, and certain geographical locations—also seem to be associated with higher rates of ever or persistently exceeding the affordability benchmark. Recent immigrants, in particular, notably exceeded the benchmark, both cross-sectionally and longitudinally. Their percentages declined as time in Canada increased.

Table 3 Cross-sectional and longitudinal rates of exceeding the affordability benchmark

	Cross-sectional			Longitudinal	
	2002	2003	2004	Ever	Persis- tently
			%		
Both sexes	19.4	19.6	20.0	28.1	8.6
Men	18.5	18.6	19.2	26.5	7.6
Women	20.3	20.6	20.8	29.7	9.6
0 to 19 years old	21.5	21.5	21.9	30.7	9.8
20 to 29 years old	21.3	21.6	21.7	33.1	6.5
30 to 49 years old	19.3	19.9	20.3	28.1	8.7
50 to 64 years old	16.9	16.9	17.7	23.5	7.9
65 years old or more	16.8	17.0	16.9	24.4	9.3
Owners, with mortgage	21.5	22.0	23.1	30.5	10.2
Owners, without mortgage	3.5	3.6	4.0	5.9	1.1
Owners, change in mortgage status	...	...	...	24.9	0.8
Renters, market	32.0	38.4	34.3	43.1	19.2
Renters, subsidized	33.9	32.7	33.1	45.1	15.1
Renters, change in subsidy status	...	...	...	56.4	24.3
Changed tenure	...	...	...	42.8	6.5
Ottawa-Gatineau	16.1	20.6	19.4	23.8	7.3
Toronto	23.9	25.2	28.9	36.0	11.9
Vancouver	30.7	30.3	33.1	44.0	16.4
Montréal	20.8	17.2	17.4	25.3	9.0
Calgary	15.3	21.3	18.6	26.8	8.1
Edmonton	16.7	16.4	13.7	24.9	5.5
Victoria	22.2	23.5	21.7	30.5	8.8
Other CMAs	18.0	17.9	17.3	24.8	7.5
Rural	13.4	14.1	14.8	20.5	5.7
Moved between these places	...	...	...	41.4	6.6
Married, without children	11.7	11.8	11.6	16.0	4.2
Married, with children	15.8	16.5	17.5	24.3	7.3
Unattached individual	40.9	41.3	41.6	46.9	22.9
Female lone parent	48.6	45.2	44.2	57.4	27.6
Male lone parent	27.8	24.8	27.4	25.7	12.8
Other family type	17.7	18.2	18.5	23.6	5.3
Changed family type	...	...	...	38.6	7.1
Disabled	23.1	22.6	23.4	30.1	10.5
Not disabled	17.5	17.8	18.1	25.8	6.8
Aboriginal	23.6	25.2	23.4	36.7	10.4
Non-aboriginal	18.6	18.7	19.1	27.0	8.0
Visible minority	28.6	29.8	31.3	43.7	13.2
Not visible minority	17.4	17.4	17.6	25.1	7.4
0 to 9 years since immigration (2002)	36.5	36.9	37.6	54.0	17.3
10 to 19 years	27.7	31.4	33.1	39.5	14.1
20 to 29 years	24.2	23.0	25.1	35.7	10.3
30 to 39 years	19.0	16.4	19.2	24.6	7.8
40 years or more	14.4	16.7	14.5	22.3	6.8
Non-immigrant	18.4	18.5	18.8	26.7	8.1
Some high school	20.6	20.9	20.8	29.4	9.5
High school graduate education	18.7	18.8	19.8	27.6	8.1
Postsecondary without certificate	21.1	21.1	20.8	30.1	9.1
Postsecondary with certificate	16.8	16.9	17.9	25.3	7.3
Bachelor's degree	14.0	15.3	14.4	21.1	5.5
Postgraduate degree	15.4	12.3	13.7	19.3	5.2

Note: Characteristics constant all three years for longitudinal estimates.

Source: Statistics Canada, Survey of Labour and Income Dynamics, 2002 to 2004.

Geographically, Vancouverites were more likely to live in households exceeding the benchmark, 33% in 2004 and 44% ever over the three years. Like those who changed tenure or family type, a relatively high percentage (41%) of those changing place of residence exceeded the affordability benchmark at least once during the three-year period. But the higher STIRs again seemed to be temporary—only 6.6% persistently exceeded the benchmark, well below the average of 8.6%.

Who is more likely to spend 30% or more of household income on shelter costs?

The factors contributing to exceeding the affordability benchmark can be explored using two regression models. The first compares the characteristics of those who *ever* spent 30% or more of their household income on shelter costs with those who never did so. The second compares those who *persistently* spent above the benchmark with those who had at least one year below it.

One in five probability of living in a household spending 30% or more for shelter

The first model predicts that the average⁴ Canadian had a probability of about one in five (21%) of ever living in a household spending 30% or more of income on shelter over the 2002 to 2004 period (Table 4). However, the probability (based on the second model) of persistently exceeding the affordability benchmark was much lower (4%).

Table 4 Probability of exceeding the affordability benchmark

	Ever	Persistently	Share of population
	Probability		%
National average	21.3	3.9	100.0
16 to 19 years old	19.7	3.1	6.3
20 to 29 years old	21.7	2.8*	15.0
30 to 49 years old (ref)	20.9	3.9	41.6
50 to 64 years old	21.5	4.6	22.5
65 years old or more	22.6	4.7	14.6
Owners, with mortgage	34.2	10.3	35.7
Owners, without mortgage	5.2*	0.8*	27.4
Owners, change in mortgage status	25.7*	0.8*	8.6
Renters, market (ref)	33.3	11.9	13.4
Renters, subsidized	29.7	5.5*	2.1
Renters, change in subsidy status	38.9	12.1	3.1
Changed tenure	35.4	4.8*	9.7
Ottawa-Gatineau (ref)	18.9	3.2	3.5
Toronto	26.4*	5.4*	15.1
Vancouver	31.6*	7.0*	6.4
Montréal	16.9	3.4	10.9
Calgary	19.9	3.4	2.8
Edmonton	20.7	2.8	3.0
Victoria	28.0*	4.3	0.9
Other CMAs	19.9	3.7	42.8
Rural	18.6	3.4	10.4
Moved between these places	28.0*	3.2	4.2
Couple family (ref)	15.8	3.0	66.1
Men living alone	39.6*	11.0*	4.2
Women living alone	48.2*	16.3*	6.5
Female lone parent	44.9*	13.8*	2.3
Other family type ¹	23.6*	3.5	7.6
Changed family type	34.9*	4.3*	13.3
Disabled	24.1*	4.9*	36.5
Not disabled (ref)	19.8	3.4	63.5
Aboriginal	27.6*	4.8	3.0
Non-aboriginal (ref)	21.1	3.9	97.0
Visible minority	27.1*	4.8	11.7
Not visible minority (ref)	20.6	3.8	88.4
0 to 9 years since immigration (2002)	39.2*	8.3*	4.2
10 to 19 years	26.6*	6.2*	4.1
20 to 29 years	26.8*	4.6	3.0
30 to 39 years	23.9	4.8	3.2
40 years or more	23.0	3.4	3.6
Non-immigrant (ref)	20.0	3.7	81.8
Some high school education	25.0*	4.8*	21.5
High school graduate	23.2*	4.1	14.6
Postsecondary no certificate	22.3*	4.8*	12.0
Postsecondary certificate (ref)	19.5	3.4	26.9
Bachelor's degree	14.7*	2.5*	9.7
Postgraduate degree	12.6*	2.1*	4.9
Education unknown	27.7*	5.5*	10.4

* Significantly different from the coefficient of the reference group (ref) at the 5% level.

1. Includes male lone parents.

Note: Characteristics constant for all three years, unless otherwise indicated.

Source: Statistics Canada, Survey of Labour and Income Dynamics, 2002 to 2004.

Individuals and families living through changes affecting their incomes or shelter costs see corresponding changes in their STIRS and, hence, their probabilities of ever or always spending 30% or more of their incomes on housing. Movers, those who change tenure, and those whose family situation changes (perhaps through divorce, marriage or other family changes) are particular examples of those whose circumstances have changed.

Age is not a strong factor in determining the probability of ever spending 30% or more on shelter costs. None of the age groups in the first model had probabilities significantly different from the reference category (age 30-49) of ever having a STIR of 30% or more. For the second model, only the 20-29 age group had a significantly lower probability than those aged 30 to 49 of persistently exceeding the affordability benchmark. However, even though this difference was significant, it was not substantially lower. Perhaps there are a variety of reasons why the 20- to 29-year age group was significantly different from the reference category. This is a group in transition. Some still live at home with their parents and therefore their shelter costs and income reflect their family's situation rather than their own. Those who have moved out may be saving to buy a house and live in inexpensive accommodation to do so. If they have not yet started a family, they will not need the larger, more expensive accommodation required by families. Note that, while many in this age group share accommodation with roommates, these households are excluded from this study.

Subsidized renters less likely than market renters to persistently spend 30% or more for shelter

Renters have the highest median STIRs (Table 5). They are also the most likely to ever spend above the affordability benchmark and, with the exception of subsidized renters, to persistently spend above this benchmark. The first model shows that, for market renters, the probability of ever spending 30% or more on shelter is one in three. The probability drops to one in eight for persistently spending above this benchmark and is even lower for subsidized renters at one in eighteen. This is the case even though the median income for subsidized renters is only half that of market renters. Thus, the second model provides additional evidence that rent subsidies have an effect.

While it may seem counterintuitive that subsidized renters have higher STIRs than market renters, they would be much higher without rent subsidies. If subsidized renters had paid the median market rent of \$8,300 rather than their subsidized rents, their median STIR would have been 42% instead of 26%. The median shelter costs of renters subsidized for all three years were 40% below those of market renters. This helps make their shelter costs much more affordable when compared with their very low median incomes.

Owners without mortgages had the lowest STIRs and only a 5% probability of ever spending 30% or more of household income on shelter, far below the 26% of the next lowest tenure group, owners changing mortgage status.

While the 36% of Canadians who are owners with mortgages have about the same probability as market renters of ever exceeding the affordability benchmark, they do so under totally different circumstances. Owners with mortgages had the highest median incomes (\$79,300) and also the highest median shelter costs (\$15,300). Having the highest incomes, they are better able to afford spending a higher percentage of income on shelter. And these high shelter payments include mortgage principal that builds equity.⁵ In contrast, market renters had median incomes only half those of owners with mortgages, but median shelter costs that were more than half.

While the nearly 10% of households that changed tenure during the three years had a relatively high probability of ever spending 30% or more of income on shelter, they were less likely to do so on a persistent basis. It may be that their tenure change is associated

Table 5 Median shelter cost-to-income ratio, shelter cost and income, 2002 to 2004

	STIR	Shelter cost	Household income ¹
	%	\$	\$
Tenure			
Owners, mortgage all 3 years	19.6	15,282	79,306
Owners, no mortgage all 3 years	7.8	4,817	62,413
Owners, change in mortgage status	13.1	9,456	76,080
Renters, market, all 3 years (ref)	22.5	8,301	39,572
Renters, subsidized, all 3 years	26.4	5,004	19,547
Renters, change in rent subsidy status	27.0	7,146	27,445
Changed tenure	20.1	9,975	54,984
Geography			
Ottawa-Gatineau	15.7	11,025	79,436
Toronto	19.0	12,976	76,758
Vancouver	21.0	12,047	65,089
Montréal	15.9	8,120	57,405
Calgary	17.5	11,742	74,805
Edmonton	16.1	10,189	72,551
Victoria	16.3	8,260	69,814
Other CMAs	15.8	8,369	60,863
Rural	13.5	5,842	51,286
Moved between places	19.7	9,680	56,468
Family type			
Female lone parent	26.8	8,180	30,504
Women living alone	25.6	5,817	22,870
Men living alone	22.3	6,187	30,813
Changed family type	19.8	9,041	55,176
Couple family	14.9	10,300	74,311
Other family type ²	14.7	7,312	55,594

1. Not adjusted for family size.

2. Includes male lone parents.

Source: Statistics Canada, Survey of Labour and Income Dynamics.

with short-term high STIRs but that, in the longer term (in this study, three years), their situation improves. The change in tenure may be associated with such varied circumstances as a move that temporarily increases shelter costs faster than income or a move to adjust to family breakup and a drop in income.

Toronto and Vancouver residents stand out

“Location, location, location”—so often heard in real estate, can also be used about shelter costs. Housing costs are highest in Canada’s largest metropolitan areas. Are these higher costs reflected in higher prob-

abilities of exceeding the housing affordability benchmark? The model suggests that people living in Vancouver and Toronto, two of the largest and the two most expensive cities in Canada, had significantly higher probabilities of ever or persistently exceeding the affordability benchmark compared with those in Ottawa-Gatineau, the reference category.

Torontonians shoulder the highest median shelter cost of all metropolitan areas, but do so on one of the highest median incomes, which mitigates their STIRs. This leaves them with the second highest STIR. At 21%, Vancouverites have the highest median STIR.

Residents of Montreal, Calgary, Edmonton, other CMAs and rural areas have about the same probability of spending above the benchmark as Ottawa-Gatineau residents. Residents of Victoria, accounting for the smallest population share of all the centres in this study, had a relatively high probability (28%) of ever spending 30% or more on shelter. However, in terms of persistently exceeding the affordability benchmark, they were not significantly different from Ottawa-Gatineau.

Finally, as noted, people living in households whose circumstances changed tended to have higher STIRs. Those who moved between metropolitan areas had a significantly higher probability (28%) of ever exceeding the affordability benchmark than those living in Ottawa-Gatineau all three years. But in terms of persistently exceeding the benchmark, movers were not significantly different—perhaps it just takes time to find a good job and affordable shelter in a new city.

Family-related transitions important in housing affordability

Family living arrangements are not static. Various events change family composition—marriage, divorce, separation, death, or the departure or return of grown-up children. Between 2002 and 2004, 13% of the population changed family type. In order to compare families that changed with those that did not change, a separate category was created.⁶

Female lone-parent families had the highest STIRs (27%), followed by women and men living alone. All three of these groups had median incomes less than half that of couple families. Those living alone had median shelter costs that were less than two-thirds those of couples, but female lone-parents paid almost 80% of what couples paid for shelter, which is why their STIRs were the highest.

Couple families, the most common type, account for 66% of all people in Canada. For them, the probability of ever spending more than the affordability benchmark is 16% and the probability of doing so persistently is just 3%, both well below the national average. Couple families benefit from having the highest median income, which offsets their high shelter costs, giving them almost the lowest median STIR.

In contrast, those living in the remaining family types were significantly more likely to ever spend 30% or more on shelter—especially female lone-parents and women living alone. These two family types also had the highest probabilities of persistently spending above the benchmark. Being smaller, these families are not able to benefit from more than one income (whether from government transfers or a salary). Perhaps even more importantly, employed women's average earnings are still substantially lower than men's, even for those employed on a full-time basis. In 2003, women working full time, full year earned \$36,500, about 71% of their male counterparts (Statistics Canada 2005).

Those whose family type changed deserve special mention. Like those who moved or changed tenure, their probability of ever exceeding the benchmark was elevated—much higher than for couples, though not as high as for women living alone or female lone-parents. Their probability of always exceeding the benchmark was also significantly higher than for couples, though not by much. Families who add or lose members may be able to make adjustments that reduce their STIRs after a year or two, whereas women living alone or bringing up children by themselves do not have such flexibility.

Recent immigrants and visible minorities have high probabilities of ever spending more than the housing affordability benchmark

More than 70% of immigrants arriving since 1982 belong to a visible minority group. For this reason, the findings for recent immigrants and visible minorities are discussed together.⁷

The high proportion of recent immigrants who are also visible minorities is not the only pertinent similarity between these two groups. Both also tend to live in the largest urban centres, where shelter costs are highest. For example, in 2001, 86% of immigrant households versus 58% of non-immigrant households lived in census metropolitan areas and both groups are

more likely than Canadians in general to live in Toronto and Vancouver. In 2001 the proportion of visible minorities living in these two cities was four times larger than for those who were not part of a visible minority. Just over 40% of all visible minorities, compared with 11% of those who were not visible minorities, lived in Toronto. For Vancouver, the figures were 18% and 5% (CMHC forthcoming).

Another similarity between visible minorities and recent immigrants is family size. Visible minority families in 2002 averaged 3.8 people compared with 2.9 for families that were not visible minorities. Similarly, recent immigrant families averaged 3.7 for those in Canada less than 10 years and 3.9 for those here for 10 to 19 years. For the Canadian-born, the average family size was 3.0. Larger families tend to require larger accommodations, pushing up shelter costs. However, larger families can also generate more income through the efforts of additional earners or from transfer payments. In fact, while median household incomes are similar for those who are visible minorities and those who are not, and for immigrants (except the very recent ones) and the Canadian-born, shelter costs are much higher for visible minorities and recent immigrants (Table 6).

Given their tendency to live in the largest, most expensive cities and their larger families, it is not surprising that both recent immigrants and visible minorities had significantly higher probabilities of spending 30% or more of income on shelter at least once during the three years. For immigrants (including those who are and those who are not visible minorities), this higher probability declines with the length of time they have lived in Canada—those in Canada 40 years or more had probabilities not significantly different from the Canadian-born. Immigrants in Canada for less than 10 years had the highest probability of ever exceeding the affordability benchmark (39%). This dropped to 23% for those in Canada for 40 or more years.

Results are similar for immigrants persistently exceeding the affordability benchmark. Recent immigrants were significantly more likely than the Canadian-born to exceed the benchmark and this probability dropped as the years in Canada increased, until no significant difference from the Canadian-born was seen. For visible minorities, however, no significant difference from those who were not visible minorities was seen in the probability of persistently exceeding the affordability benchmark.

Table 6 Median shelter cost-to-income ratio, shelter cost and income by selected characteristics, 2002

	STIR	Shelter cost	Household income ¹
Visible minority status	%	\$	\$
Yes	21.1	12,111	61,949
No	15.9	8,728	62,898
Years since immigration			
0 to 9	25.6	12,756	49,300
10 to 19	20.8	12,800	64,522
20 to 29	17.7	11,537	73,813
30 to 39	14.4	7,975	73,143
40 and more	14.1	6,316	49,245
Canadian born	16.0	8,852	63,435
Aboriginal status			
Yes	19.0	8,286	50,365
No	16.4	9,088	63,206
Disability status			
Yes	17.1	7,425	51,274
No	16.2	10,116	69,999
Education			
Some high school	16.9	6,801	45,691
High school diploma	16.6	8,807	59,200
Postsecondary without certificate	17.2	9,706	65,597
Postsecondary with certificate	16.3	9,455	65,431
Bachelor's degree	14.7	11,231	85,584
Postgraduate degree	13.5	12,115	97,039
Unknown	18.3	10,053	61,497

1. Not adjusted for family size.

Source: Statistics Canada, Survey of Labour and Income Dynamics.

Aboriginal households more likely to spend more than benchmark, but not persistently

Unlike immigrants, Aboriginals living off reserve do not congregate in Toronto and Vancouver.⁸ Only 11% of Aboriginal Canadians lived in these two CMAs compared with 22% of non-Aboriginals. This difference likely accounts for their lower median shelter costs, \$8,300 versus \$9,100. But their lower shelter costs are associated with even lower incomes, resulting in STIRs that are higher than for non-Aboriginals.

Aboriginals living off reserve were significantly more likely than non-Aboriginals to ever exceed the affordability benchmark, but no more likely to do so persistently. Aboriginals had a higher rate of moving over the three-year period—17% versus 12% for non-

Aboriginals—and, as already seen, households that moved were more likely to exceed the affordability benchmark.

As noted, Canadians moving between metropolitan areas had a significantly higher probability of ever exceeding the affordability benchmark, but not of persistently exceeding it. Perhaps it is the higher mobility of Aboriginal Canadians that causes them to have a similar pattern to movers, as it may take time to find a good job and affordable shelter in a new city.

On the other hand, other characteristics of Aboriginal housing include higher rates of crowding or unsuitable housing (as measured by the National Occupancy Standard) and higher rates of living in a unit in need of major repairs (Chart B).⁹ Aboriginals may be living in inadequate or unsuitable accommodation to lower their rents.

Disabled more likely to exceed affordability benchmark

Those who self-identified as disabled at least once during the three years had significantly higher probabilities than the non-disabled of ever or persistently exceeding the affordability benchmark. The disabled were also more likely to live in families where the

major source of income came from government transfers (including old age security) rather than wages and salaries (Chart C).

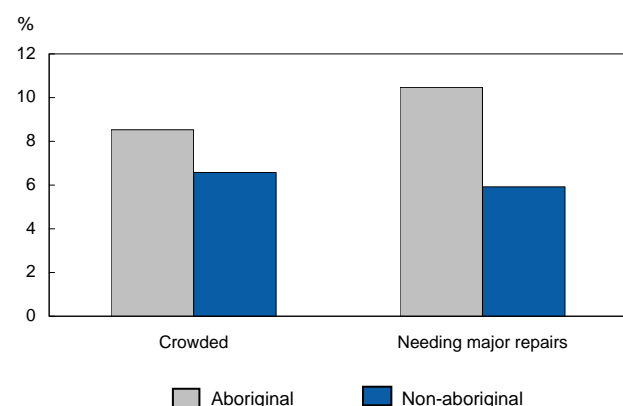
Higher education: higher earning power and lower STIRs

As would be expected, compared with those who received some kind of postsecondary certification other than a bachelor's degree, those with less education have significantly higher probabilities of ever or persistently exceeding the affordability benchmark. Similarly, those with more education (bachelor's or postgraduate degrees) have significantly lower probabilities of doing so (Table 4).

Conclusion

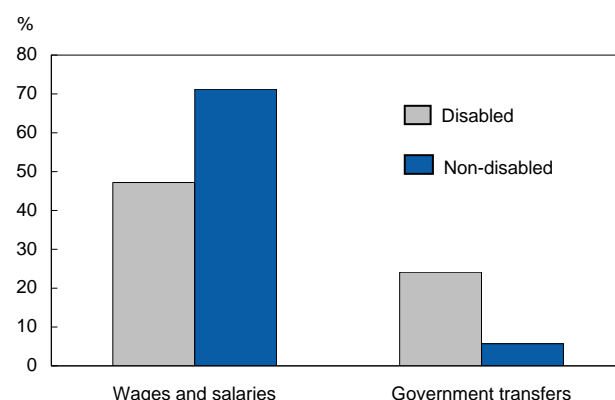
The traditional cross-sectional analysis of housing affordability using shelter cost-to-income ratios (STIRs) has been extended by adding longitudinal data. While a stable 20% of Canadians live in households spending above the affordability benchmark for shelter in any single year, when measured over a three-year period, 28% reported living in a household ever exceeding the benchmark—12% for one year, 7% for two years and 9% for all three years. Hence, roughly

Chart B Aboriginal Canadians more likely to live in housing that is crowded or in need of major repairs



Source: Statistics Canada, Survey of Labour and Income Dynamics, 2002 to 2004.

Chart C The disabled more likely to live in households where major source of income is government transfers



Source: Statistics Canada, Survey of Labour and Income Dynamics, 2002 to 2004.

one-third of those exceeding the benchmark at least once during the study period can be considered to be persistently doing so, while the other two-thirds are moving in and out of this state. However, three years is rather a short period. Some of the seemingly transient group may be ending or starting a prolonged period of exceeding the benchmark.

To identify the factors associated with spending above the affordability benchmark, two logistic regression models examined the correlates of living in a household either persistently (all three years) or ever (at least one year), having a STIR of 30% or more. Both models corroborated the cross-sectional and longitudinal analyses. The attributes associated with the highest probabilities of living in a household spending above the affordability benchmark were: living alone, being a female lone parent, renting, being an immigrant, or living in Vancouver or Toronto.

In addition, those living in households experiencing some kind of transition between 2002 and 2004 had a higher probability of exceeding the benchmark at least once during the period. Such transitions included renters with a change in rent-subsidy status, those who changed from owner to renter or vice versa, those who changed family type (for example, marrying or divorcing), and those who moved between cities. Notably, those experiencing these transitions did not exceed the benchmark persistently.

And renters in subsidized housing for all three years of the study period, while experiencing probabilities similar to market renters for exceeding the benchmark in at least one year, had lower probabilities of persistently doing so—this despite having median incomes approximately half that of market renters.

Perspectives

■ Notes

1. Core housing need refers to those whose housing is overcrowded, in need of major repairs, or costs 30% or more of household income and who could not afford to rent adequate, suitable and affordable housing in their local housing market for less than 30% of total before-tax household income.
2. Utility costs are imputed onto the SLID database for both renters and owners based on census data.
3. Median STIRs in this report include households with STIRs equal to or greater than 100%. Overall, roughly 3% of households have such STIRs. However, since a given income group (or other sub-population) may have a

higher or lower percentage, the effects of this inclusion may vary. Normally, CMHC excludes these households from its affordability studies since it is difficult to interpret their financial circumstances. Possible reasons for STIRs greater than 100% include: different reference periods for shelter and income; the collection of shelter costs that seem too high (perhaps because, if a business is operated from home, it is difficult to separate shelter costs from business expenses); fluctuations in self-employment income; and the household having revenue other than standard income to put toward shelter.

4. Setting all model variables to their mean values mimics an 'average' Canadian in the sample.
5. The principal portion of a mortgage payment helps build equity and therefore household wealth. Thus, owners with mortgages who spend 30% or more of their income on shelter (i.e. they do not meet the affordability benchmark) are, unlike renters, contributing to their wealth. However, the breakdown of mortgage payments into principal and interest is often not known by respondents and is not asked in SLID.
6. 'Family type' categories used in this report are: couple families, female lone-parents, women living alone, men living alone, other family type and changed family type. Categories are assigned to individuals based on all members of the family, even though children under 16 years of age are not included in the models. Also, households with more than one economic family are not part of this study. Couple families include those with and without children (under 18). This category includes married, common-law and same-sex relationships. Female lone-parent families include at least one child and the mother must be younger than 65. The category 'other family type' includes male lone-parent families and couples or lone-parent families with other relatives living with them. Those who changed family type during the three-year period could have married, separated or divorced, had a death in the family, had children turn 18, or had relatives (including children 18 or over) leave home or take up residence with them.
7. Immigrants are those born outside Canada and who have been given the right to live in Canada permanently by immigration authorities. Visible minority status is defined based on three questions: mother tongue, ethnic or cultural group of ancestry, and country of birth. Recent immigrants are defined based on the 'years since immigration' variable. For this report, those who immigrated in the 20 years before 2002 are recent immigrants. Those who immigrated in the 9 years before 2002 are the most recent immigrants.
8. Those in the Aboriginal category indicated at least one of the following: that they were a Treaty Indian or a Registered Indian as defined by the Indian Act of

Canada; or that their ancestors were Cree, Micmac, Métis or Inuit. This method of defining Aboriginal is different from the census definition. In the census, an identity approach is taken and those in the Aboriginal category answered yes to at least one of the following: that they were an Aboriginal person; that they were a member of an Indian Band or First Nation; or that they were a Treaty Indian or a Registered Indian as defined by the Indian Act of Canada. The SLID definition gives a higher estimate for off-reserve Aboriginals: 629,000 (aged 16 and over) in reference year 2001 compared with 471,000 (aged 15 and over) on the 2001 Census. SLID's estimate includes those with Aboriginal ancestry.

9. Overcrowded dwellings do not have enough bedrooms for the size and make-up of resident households, according to National Occupancy Standard (NOS) requirements. Enough bedrooms based on NOS requirements means one bedroom for each cohabiting adult couple; unattached household members 18 years of age and over; same-sex pairs of children under age 18; and additional boys or girls in the family, unless there are two opposite sex siblings under 5 years of age, in which case they are expected to share a bedroom. A household of one individual can occupy a bachelor unit (i.e. a unit with no bedroom) (CMHC 1991).

■ References

- Statistics Canada. 2005. *Women in Canada: A Gender-based Statistical Report*. Fifth Edition. Social and Aboriginal Statistics Division. Statistics Canada Catalogue no. 89-503-XPE 2005. Ottawa. 309 p.
<http://www.statcan.ca/english/freepub/89-503-XIE/0010589-503-XIE.pdf> (accessed December 18, 2007).
- Canada Mortgage and Housing Corporation. (forthcoming paper) "2001 Census Housing Series: Canada's Visible Minorities." *Research Highlight*. Socio-economic Series. Ottawa.
- Canada Mortgage and Housing Corporation. 2004. "2001 Census Housing Series Issue 7 Revised—Immigrant Households." *Research Highlight*. December. Socio-economic Series 04-042. Table 2, p.2. Ottawa. 26 p.
- Canada Mortgage and Housing Corporation. 2004. "2001 Census Housing Series Issue 3 Revised—The Adequacy, Suitability, and Affordability of Canadian Housing." *Research Highlight*. April. Socio-economic Series 04-007. Appendix Table 4, p. 9. Ottawa. 10 p.
- Canada Mortgage and Housing Corporation. 1991. *Core Housing Need in Canada*. Ottawa. 20 pages.