A TALE OF THREE CITIES:

HOUSING AND IMMIGRANTS IN CANADA

Barry Edmonston, Sharon M. Lee, and Zheng Wu

Department of Sociology and Population Research Group
University of Victoria
Victoria, BC

This paper is prepared for presentation at the annual meetings of the Population Association of America, April 15-17, 2010, Dallas, Texas. An earlier version of this paper was prepared for Metropolis British Columbia as part of a Final Report for a project on "Housing Cost Burdens for British Columbia's Immigrant Households". We thank Metropolis British Columbia for funding this research. Please direct correspondence to Barry Edmonston, be@uvic.ca.

February 28, 2010

SUMMARY

Access to affordable housing is among the most important concerns facing Canadians. This paper addresses the question of housing costs and affordability among immigrant households in Canada. Specifically, we ask whether immigrant households are more likely to be housing cost burdened, defined as spending more than one-third of household income on housing.

We analyzed public-use microdata from the 2001 Census. Descriptive analysis showed that more immigrant households (23 percent) are housing cost burdened compared with 18 percent of non-immigrant households. Immigrant and non-immigrant households are quite similar along several characteristics, including mean household income, percent that are homeowners (at about 65 to 66%), and mean number of wage earners (about 1.4). However, immigrants are more likely to live in more expensive housing areas, as indicated by median housing value and median monthly rent for place of residence. There are differences in type of household, with higher percents of married couple with children households and multiple family households among immigrants. Immigrant households are also slightly larger and are more likely to include children.

We estimated a logistic regression model to predict housing cost burden, controlling for factors such as age and education of householder, tenure, recency of immigration for immigrant householders, and place of residence in the logistic model. Once factors in the logistic model were controlled for, we found little difference in the percent of immigrant and non-immigrant households that are housing cost burdened, with about 19 to 20 percent experiencing housing cost burden. Much of the initial observed difference between immigrant and non-immigrant households is therefore due to factors included in the logistic model, particularly contextual factors. A key factor in why immigrant households seem to have higher levels of housing cost burden is place of settlement. Immigrants settle overwhelmingly in Canada's most expensive housing markets, such as the three large metropolitan areas of Toronto, Ontario; Montreal, Quebec; and Vancouver, British Columbia.

The findings raise several questions and issues. First, immigrant households that are housing cost burdened are concentrated in large urban areas, raising important issues for discussing urban housing policies, especially in Canada's largest cities with the highest proportions of immigrants. However, we note that many of these housing policy challenges will also apply to non-immigrants in the same urban areas. Second, although we found that the proportion of housing cost burdened immigrant households decrease with longer residence in Canada, more immigrants continually arrive in Canada each year, ensuring that finding affordable housing will be a continuing problem and challenge for immigrants. Finally, the ability of Canada's immigrants to find affordable housing has broader implications for the nation's immigration policies. Recent immigrants are a major source of population and labour force growth in many parts of Canada and have been critical to the nation's economic growth. Ensuring affordable housing for new immigrants is important for Canada's continued success in attracting the immigrants she needs as well as in facilitating the housing integration of immigrants.

INTRODUCTION

Housing researchers have studied several dimensions of housing problems, including housing affordability or cost burden, housing quality, and overcrowding. Households experiencing problems on one or more of these dimensions are usually defined as having critical housing needs (Canada Mortgage and Housing Corporation, 2004). In this study, we focus on housing affordability and cost issues because if households have to spend a disproportionate amount of money on housing, there will be less left for other important needs, such as food, clothing, health care, and other expenditures for both adults and children. The question of housing affordability has loomed large for many Canadians in different parts of the country (Canadian Mortgage and Housing Corporation, 2003, 2007, 2008; TD Economics, 2003).

We use the concept of housing cost burden in this research on housing affordability. Housing cost burden is a commonly used term to summarize whether a household experiences financial difficulty in accessing housing. While the concept has been used and measured in different ways, the underlying idea is fairly straightforward as it measures the percent of household income spent on housing. In this study, we use households as the unit of analysis and examine housing costs within household expenditures. We define housing cost burden as spending 30 percent or more of household income on housing: that is, a household is housing cost burdened if it spends 30 percent or higher of household income on housing, whether in rent or mortgage payment.

Previous studies have examined housing issues for various income (see for example, Conley, 2001; Pratt, 1986), ethnic (see for example Edmonston and Lee, 2000; Lewin-Epstein and Semyonov, 2000), and immigrant groups (see for example, Bauder et al., 2001; Edmonston and Lee, 2000; Ley et al., 2001; Ley and Tutchener, 1999; Lipman, 2003; Myers and Lee, 1998).

Because of the high volume of immigration to Canada in recent years, and the growing number of households whose members are foreign-born, especially in some of the largest metropolitan areas, this paper focuses on comparing levels of housing cost burdens for immigrant and Canada-born (non-immigrant) households. Immigration has been the main engine behind population growth in Canada in recent years and is a key factor in increased demand for housing as immigrants arrive and seek housing. Given that immigrant households tend to cluster in major metropolitan areas with higher housing costs, the issue of housing affordability affects immigrant households to a greater degree than for non-immigrant households, and has broader significance for urban housing policies (Ley et al., 2001; Canada Mortgage and Housing Corporation, 2006).

In this study, we address the following questions. First, are immigrant households more likely to be housing cost burdened? Second, if so, what are the factors associated with higher levels of housing cost burdens among immigrant households? Finally, given the findings, what are some implications for housing policy?

DATA AND METHODS

The primary data source for this study is the public-use microdata file of the 2001 census of Canada (Statistics Canada, 2003).[1]

For measuring housing cost burden, we used data from two census variables: household income and housing costs. The reference period, however, for these two variables differs. The census question on household income refers to the total income of the household (the sum of the total incomes for all household members) during the preceding year, that is, 2000. Housing costs, on the other hand, are the total average monthly payments made by either owner or renter

[1] We also examined restricted data from the 2001 census at Statistics Canada's Restricted Data Centre at the University of Victoria for another part of this project where detailed area codes were needed (see Part II of this report).

households. The exact reference period for housing costs is not precise. But one assumes, from a reading of the census question on housing costs that most household would interpret "total average monthly payments" to refer to the average for the most recent several months.

The calculation of housing cost burdened households is done in two steps. The first step involves calculation of the ratio of housing costs to household income. Because census data is for monthly housing costs, we first multiply reported total average housing costs by twelve and then divide annual housing costs by annual household income. The second step is to define housing cost burdened families as those who spend 30 percent or more of their household income on housing.

The difference in reference periods for household income and housing costs gives rise to some unusual examples in actual census data. Some householders report zero household income or negative household income but moderate housing costs. In actuality, one can imagine some cases in which such census data are, in fact, sensible. Consider, for example, someone who has just graduated from law school and, in their first year of employment, rents a fairly expensive condo. He or she might report in the 2001 census an income for 2000 that was zero (or negative) and, at the same time, that they had monthly rental housing costs of perhaps $1,200.

Because of the peculiarities in the reference period, we make two adjustments in the calculation of housing cost burdened households.[2] First, we exclude all households that report zero household income or negative household income. Second, we exclude households that have a ratio of housing costs to household income that is greater than one. For both of these types of households, the ratio of housing costs to household income is not interpretable and exists primarily because of the differences in reference period.

[2] These two adjustments are similar to those used in the calculation of housing affordability by Statistics Canada. See Canada Mortgage and Housing Corporation, 2003.

Immigrant status is measured by the nativity[3] of the householder.[4] If the householder reports that he/she is not a Canadian citizen at birth, the household is considered to be an immigrant household. Non-immigrant households refer to households where the householder reports Canadian citizenship at birth.

We begin with descriptive analysis to compare immigrant and non-immigrant households along selected characteristics such as housing tenure, age and education of householder, etc. In the multivariate analysis, we estimate a logistic regression model to predict whether a household is housing cost burdened, defined as a binary variable (see details below).

DESCRIPTIVE FINDINGS

- Table 1 About Here -

Overall, close to 20 percent of the households in the sample are housing cost burdened but more immigrant households are housing cost burdened (over 23 percent) compared with 18.4 percent of non-immigrant households (see first row, Table 1).[5] In spite of this difference,

[3] We define Canada-born as someone who is a Canadian citizen at birth. Most residents who are Canadian citizens at birth were born in Canada. Some, however, were born outside Canada with at least one parent who is a Canadian citizen; they derive their citizenship from their parent or parents. Immigrants are overwhelmingly born outside Canada and immigrated to Canada; some have now become naturalized Canadian citizens.

[4] We define as "householder" Person 1 (household reference person) listed on the census form. It is possible that Person 1 is not the householder (for example, someone or persons other than Person 1 maintain the household). We checked the data and note that for households with one household maintainer, Person 1 is the maintainer in about 94 percent of the cases. For households with more than one maintainer, Statistics Canada follows the procedure of selecting the first person listed as the household maintainer (usually Person 1). We believe that our definition of householder is reasonable for the purpose of this study.

[5] Based on the definitions used in this study and using the 2001 public-use census microdata, we estimate that 19.5 percent of households are housing cost-burdened. Using similar definitions and the complete (confidential) census microdata files, Statistics Canada (Canada Mortgage and Housing Corporation, 2003) reports that 20.8 percent of households spend 30 percent or more of their household income on housing. The slight difference between these two estimates – 19.5 and 20.8 percent – stems from two sources of misclassification. Statistics Canada relies on the original detailed census data, which shows actual monthly housing expenses and actual household income. For both

immigrant and non-immigrant households are similar along several characteristics, beginning with the percents that are homeowners (around 65 to 66 percent – see second row, Table 1). Mean and median annual household incomes (for 2000) are also relatively similar. Non-immigrant households report a mean annual household income of $58,202 compared with $56,125 for immigrant households and median annual household income of $56,000 while immigrant households report a slightly higher median household income of $58,000 (see Table 1). Both types of households have similar mean number of income earners (at 1.4)[6] and similar proportions receiving welfare (between 14 to 16 percent).

However, there are important differences between immigrant and non-immigrant households. First, immigrant households are slightly larger, with a mean household size of 2.9 compared with 2.5 for non-immigrant households. Second, household structure also differs, with higher percents of immigrant households consisting of a married couple with children (37 percent versus 26 percent) and containing multiple families (4 percent versus 1 percent). Given differences in household type, it is not surprising that immigrant households are more likely to include children – over 40 percent compared with 33 percent of non-immigrant households.

An important difference is that immigrant households are more likely to be found in more expensive housing areas. Compared to non-immigrant households, immigrant households are more likely to live in areas where the median monthly rent is higher ($725 per month compared

---

housing expenses and household income, the public-use microdata are bottom- and top-coded and, moreover for household income, are reported for 23 tabulated categories. For our calculations, we used the midpoints for household income categories and estimated midpoints for the bottom- and top-coded categories. Two types of misclassification result in our data analysis. Some households are misclassified as having higher annual housing costs than their annual household incomes and, as a result, are either incorrectly omitted or incorrectly included. Second, some households are misclassified as either incorrectly having a housing cost-burden of 30 percent or more or incorrectly as having a housing cost-burden as less than 30 percent. The net result of these two types of misclassification is that our estimates of housing cost-burdened families are slightly lower (1.3 percentage points lower) than those shown in Statistical Canada tabulations.

[6] The standard deviation for the number of wage earners in the household is larger for immigrant households – 0.6 compared to 0.5 for non-immigrant households. This suggests that immigrant households include a greater dispersion, with more households at the extremes.

to $600 per month) and where the median housing value is also higher ($180,000 compared to $120,000).[7] Since household income levels were fairly similar, this means that the typical ratio of housing costs to incomes would be higher for immigrant households, which is reflected in the higher percentage of housing cost burdened households among immigrants.

Table 1 also includes data on province and selected metropolitan area of residence. We note that immigrant households are more likely to reside in the provinces of Ontario and British Columbia, and the percents of immigrant households in Toronto (at 54 percent) and Vancouver (at 42 percent) are remarkably high.

A CLOSER LOOK AT HOUSING COST BURDENED HOUSEHOLDS

We provide a closer examination of households that are housing cost burdened in this section. As described in the preceding section, overall, one in five Canadian households spent one-third or more of their household income on housing in 2001. Of the 1.2 million housing cost-burdened households, 845,000 were headed by someone who reported themselves as Canada-born and 318,000 were headed by someone who came to Canada as an immigrant. Among non-immigrant households, 18.4 percent experienced housing cost burden while the level of housing cost burden is higher for immigrant households at 23.1 percent.

Age of Householder and Employment Status

- Figure 1 About Here -

[7] Statistics Canada's public use microdata files include an open-ended top code of $200,000 or more for the value of homes. Three metropolitan areas – Toronto, Vancouver, and Victoria – have more than 50 percent of their homes in the top category. For these three areas, the value of median value of housing was imputed as $250,000. This affects the calculation of the mean value of homes for immigrant and non-immigrant households. It does not affect the calculation of the median values shown in Table 1.

Figure 1 compares immigrant and non-immigrant households, categorized as elderly (householder is aged 65 and older) or non-elderly (householder is less than 65 years of age), by three income groups (low = annual household income of less than $25,000; moderate = annual household income from $25,000 to $74,999; and high = annual household income of $75,000 and higher), and by whether the householder is working (employed or looking for work) or not working (not employed and not looking for work).

Compared with Canada-born households, more immigrant households of various types are housing cost burdened (see Figure 1). No households where the householder is not elderly and where household incomes are defined as high experienced housing cost burden. The highest levels of housing cost burdened households are among non-elderly low income households (over 73 percent of immigrant households and 64 percent of non-immigrant households). Among non-elderly with moderate income households, over 22 percent of immigrant households, compared with about 13 percent of non-immigrant households, are housing cost burdened.

High levels of housing cost burdens are noteworthy for households with a non-elderly household head who is not working. For this type of household, over 38 percent of Canada-born and 43 percent of immigrant households are housing cost burdened. Among elderly households where the householder is not working, the levels of housing cost-burdens are also relatively high and quite similar among immigrant and non-immigrant households: 23 percent of Canada-born and 25 percent of immigrant households are housing cost burdened.

Region of Origin of Immigrant Households

- Table 2 About Here -

The level of housing cost burdened households among immigrant households varies by countries or regions of origin of the householder (see Table 2). While about 23 percent of immigrant households experience housing cost burdens, the level of housing cost burden is considerably higher for immigrant households where the householder is from the Middle East and "Other East and Southeast Asia" countries. On the other hand, households where the householders are from Europe or the Philippines have comparatively low levels of housing cost burdens.

A different perspective on housing cost burdened immigrant households, however, is seen when the question asked is "Which immigrant groups comprise housing cost burdened households?" In this case, more than 40 percent of immigrant housing cost burdened households have householders who are from Europe. This apparently strange finding occurs because, even though the likelihood of being a housing cost burdened household is lower for immigrants from Europe, European-origin immigrants comprise more than one-half of all immigrant households in Canada. In addition, more than one-in-ten immigrant housing cost burdened households originate from Latin American and the Caribbean, as a result of having higher levels of housing cost burdens and comprising a large share of recent immigrants.

Length of Residence in Canada for Immigrant Households

- Figure 2 About Here –

Levels of housing cost burdens decline considerably with length of residence in Canada among immigrant households (see Figure 2). Relatively high levels of housing cost burdens exist primarily for immigrant households who have resided in Canada for ten years or less. For

immigrant households arriving in the five years prior to the 2001 census (that is, arriving between 1996 to 2000), over 36 percent are housing cost burdened. Among immigrant households who arrived between 1991 and 1995, almost 29 percent are housing cost burdened. Between one-fifth to one-fourth of immigrant households arriving during 1971 to 1980 or 1981 to 1990 are housing cost burdened, meaning that a fifth to a quarter of immigrant households with ten to thirty years of residence in Canada are still experiencing housing cost burdens. It is only after forty or more years of residence in Canada that the level of housing cost burden for immigrant households is similar to those for Canada-born households, at around 18 percent.

Location/Place of Residence

- Table 3 About Here –

The conventional wisdom that housing affordability or cost burden is primarily a big city problem is only partly correct. As shown in Table 3, almost 90 percent of housing cost burdened immigrant households are located in census metropolitan areas. For immigrant households, therefore, location or residence in metropolitan areas is an important factor in whether such households are housing cost burdened. On the other hand, Canada-born housing cost burdened households more closely resemble the metropolitan residence of all Canadian households, with about 60 percent living in metropolitan areas. For Canada-born households, therefore, the problem of housing cost burdens is not confined to the nation's metropolitan areas since over 40 percent are in non-metropolitan areas.

- Figure 3 About Here -

For households looking for housing, the search is normally within the local housing market, but there are striking variations in the prevalence of housing cost burdened families across provinces and territories (see Figure 3). With the exceptions of Newfoundland and Labrador, and Prince Edward Island (where non-immigrant households have higher rates of housing cost burden) and New Brunswick (where there is no difference), levels of housing cost burdens are greater for immigrant households throughout the country. The disparity is particularly large in Quebec, Ontario, and Saskatchewan, where levels of housing cost burdens among immigrant households are 4 or more percentage points higher.

Household Income

- Figure 4 About Here -

Not surprisingly, given the definition of housing cost burden, the prevalence of housing cost burdened households is highest among the lowest income households and decreases with increased household income (see Figure 4). This holds for both immigrant and Canada-born households. However, as seen in Figure 4, immigrant households are more likely than Canada-born households to experience housing cost burdens at all household income levels. For example, for the poorest households – the ten percent reporting annual household incomes of $12,500 or less – about 73 percent of non-immigrant households are housing cost burdened compared with 78 percent of immigrant households. About one-fourth of immigrant households in the fifth household income decile – reporting household income of up to $47,500 – experience housing cost burdens, compared with 13 percent of non-immigrant households. We also note that the gap between immigrant and non-immigrant households widens with increased household

income; that is, if we compare the ratio of housing cost burdened households between immigrant and non-immigrant households, the ratio is larger with increased household income.

MULTIVARIATE ANALYSIS

Descriptive findings show that immigrant households have higher levels of housing cost burden. We continue our analysis by estimating a logistic regression model in the multivariate analysis. The model uses housing cost burdened households as the binary response variable – households are coded as either spending less than 30 percent of their household income on housing (coded as 0, or not housing cost burdened) or spending 30 percent of more of their household income on housing (coded as 1, or housing cost burdened). Table 4 presents results for the estimated logistic regression model. In addition to the estimated coefficients, standard error of the estimated coefficients, the associated Z-test for the estimates, and the two-tailed significance level, we calculated the predicted probability of the percent housing cost burdened for each variable (or category of each variable). Because the binary regression model is nonlinear, it is useful to calculate predicted probabilities in order to interpret the relationship between the explanatory variables and the outcome.[8] Table 4 shows predicted probabilities for binary and categorical explanatory variables. Predicted probabilities for continuous variables, such as age, are shown in separate figures.

We group the explanatory variables into the following categories: demographic (for example, age and sex), ethnicity, nativity, household type, number of persons in the household,

[8] We estimate the logistic regression models using Stata 10 statistical software. For the calculation of predicted probabilities, we use several post-estimation commands that have been developed by Long and Freese (2003: 131-149). We downloaded Long and Freese's post-estimation commands, called *spostado*, from www.indiana.edu/~jslsoc/stata.

presence of children in the household, housing tenure, median monthly rent for place of residence, province of residence, and metropolitan residence.

- Table 4 About Here -

Age. We include two variables – age and age-squared (divided by 100) – in order to test for a nonlinear relationship between age and the response variable. Housing cost burdens decrease with age and decrease at an increasing pace with age. Figure 5 shows the relationship between householder's age and the predicted probability of housing cost burdened families, holding all other factors constant.

- Figure 5 About Here -

More than 12 percent of younger households experience housing cost burdens. The level of housing cost burdens falls below 10 percent for households with householders who are 45 years of age or older. Decreases in housing cost burdens decrease at a faster pace for older householders, declining to less than 6 percent for householders who are 75 years of age and older. There are no marked differences in the relationship of householder's age and housing cost burdens for immigrant and Canada-born households.

Sex. Households headed by a male householder are slightly less likely to be housing cost burdened than those headed by females, as shown in Table 4 (19.4 percent versus 20.2 percent).

Household Income. Descriptive findings showed that household income is a key determinant of housing cost burden. Households with relatively low income have higher rates of housing cost burden. Among the highest income families – for example, families with reported

annual incomes of $100,000 or more – the level of housing cost burden is very low.[9] Figure 6 shows the relationship between household income and the predicted probability of being housing cost burdened.

- Figure 6 About Here -

The estimated relationship appears logistic in form: most low income households are housing cost burdened and most high income households are not. However, the relationship for households with annual household incomes of about $10,000 to $50,000 and probability of being housing cost burdened shows steep decreases. In the household income range of about $20,000 to $25,000, about one-half of households are housing cost burdened. This decreases sharply to about one-fourth among households with incomes of about $30,000. We observe no difference between immigrant and Canada-born households in the effects of household income on housing cost burdens.

Welfare Benefits. We code households as either receiving welfare benefits or not based on their reported sources of household income in the previous year. A household is coded as receiving welfare benefits if it reports $2,400 or more annual income from either Canada child tax benefits, employment insurance, or other government sources of transfer payments. We do not include old age security pensions or Canada pensions as welfare benefits. Households

[9] There is need for caution in the interpretation of the level of housing cost-burdens for higher income families. Because monthly housing costs are coded with an open-ended category of $1,100 or more – for both owner's major payments or a renter's monthly gross rent – the maximum annual housing costs is $13,100 or more. For families reporting household incomes of $44,000 or more, their housing cost-burdens are less than 30 percent even if they report the maximum category of monthly housing costs. Researchers who want to examine heavy housing cost-burdens for higher income families need to access the census microdata sets available at Statistic Canada's Research Data Centres. For the purpose of this analysis, interest focuses on lower income families. We recognize, however, that there may be modest levels of housing cost-burdens for higher income families.

reporting welfare benefits have just slightly lower probabilities of being housing cost burdened (19 versus 19.8 percent, see Table 4).

Ethnicity. Ethnic-origin codes are based on the census categories released in 2001 census public microdata files. For ease of analysis and interpretation, we recoded multiple ethnic-origin householders into three groups: British Isles, non-French, and other origins; French, non-British Isles, and other origins; and other multiple origins. As shown in Table 4, African and Aboriginal ethnic origin groups have considerably lower probabilities of housing cost burdens. On the other hand, Arab, West Asian, South Asian, and "other single origin" groups have markedly higher probabilities of being housing cost burdened.

Nativity. Although descriptive findings show that immigrant households have higher levels of housing cost burdens, differences from Canada-born households are primarily due to other factors, as reflected in the logistic regression results shown in Table 4. Once factors such as household income and place of residence are taken into account, there is essentially no difference in the likelihood of being housing cost burdened between immigrant and Canada-born households (19.6 versus 19.4 percent, see Table 4).

Household Type. The level of housing cost burdens varies substantially by household type. Housing cost burdens are lowest for multiple family households, at about 18 percent. On the other hand, housing cost burdens are highest for lone-parent households (22 percent) and households with two or more unrelated persons (21 percent) -- see Table 4.

Number of Persons. Housing cost burdens increase for larger households, reflecting higher costs of larger housing units. As shown in Figure 7, the percent experiencing housing cost burdens increases for both larger immigrant and Canada-born households. Smaller households with two or fewer persons have lower levels of housing cost burdens – about 8

percent or less – compared to larger households (up to 18 percent for households of 7 or more persons).

- Figure 7 About Here -

Presence of Children. Children add more persons to the household without adding to household income. However, the presence of children in the household is associated with just slightly higher levels of housing cost burdens. About 19 percent of households without children experience housing cost burdens, compared with 20 percent for households with children (see Table 4).

Housing Tenure. There is no significant difference in the level of housing cost burdens for owner or renter occupied housing. As shown in Table 4, whether a family rents or owns their house is not related to differences in housing cost burdens.[10]

Median Monthly Rent of Place of Residence. One might expect that housing cost burdens would increase in areas with higher housing costs. For this analysis, we calculate the median monthly rent for 30 places. The 30 places are the most detailed areas that can be analyzed using 2001 public use census microdata files. The places include each census metropolitan area (CMA) and each provincial non-metropolitan area. For example, we calculate the median monthly rent for the Halifax CMA as well as non-metropolitan Nova Scotia. For provinces that do not have a CMA, the province is taken to represent place of residence.

- Figure 8 About Here -

[10] This result differs from empirical results reported by Lipman (2003: Table 9) in the United States. Lipman finds that owner-occupied families have higher housing cost burdens than renters in U.S. metropolitan areas.

As shown in Table 4 and illustrated in Figure 8, there is a strong relationship between median monthly rent for place of residence and the predicted probability of housing cost burdens, holding other factors constant, for both immigrant and Canada-born households. In Canada's lowest housing cost areas, where median monthly rents are about $400, about 5 percent of households experience housing cost burdens. In the highest housing cost areas, where median monthly rents are $900, more than 16 percent of households are housing cost burdened. There are no differences between immigrant and Canada-born households in the relationship between median monthly rent for place of residence and predicted housing cost burdens.

Province of Residence. Do provincial differences in housing cost burdens persist after taking median monthly rent and other factors into account? The answer appears to be affirmative. Households in British Columbia and Ontario have higher levels of housing cost burdens than households in other parts of Canada. On the other hand, several provinces and territories (including Newfoundland and Labrador, Manitoba, Saskatchewan, and Yukon and Northwest Territories, and Nunavut) have lower levels of housing cost burdens, taking other factors into account (see Table 4). These results underline the importance of location as a contributing factor to housing cost burden.

Metropolitan Residence. Metropolitan areas have considerably higher levels of housing cost burdens, compared to non-metropolitan areas. As shown in Table 4, over 20 percent of households in metropolitan areas are housing cost burdened compared with 18 percent of households in non-metropolitan areas, again underlining the role of location in housing cost burden.

DISCUSSION

In this section, we revisit the three research questions that motivated the research. First, are immigrant households more likely to be housing cost burdened? Descriptive findings suggested that immigrant households are indeed more likely to experience housing cost burden, as over 23 percent were housing cost burdened compared with 18 percent of non-immigrant households. However, multivariate analysis showed that once factors such as demographic and socioeconomic characteristics and location and place of residence were controlled, the difference in level of housing cost burden between immigrant and Canada-born households disappeared. Therefore, it seems that immigrant households in Canada are no more likely to be housing cost burdened than non-immigrant households.

Our second research question was if immigrant households are more likely to be housing cost burdened, what are the factors associated with higher levels of housing cost burdens among immigrant households? Since we found that immigrant households are not more likely to be housing cost burdened once relevant factors were controlled, the answer to this question requires explanation of some of the factors in the logistic model that appear to underly the initial finding of higher levels of housing cost burden among immigrant households.

A key factor in why immigrant households seem to have higher housing cost-burden is place of settlement. Immigrants settle overwhelmingly in Canada's large metropolitan areas that are also the most expensive housing markets, such as large metropolitan areas of Ontario and British Columbia. While 22 percent of total households are headed by an immigrant householder, the percentage of immigrant households is higher in Ontario at 33 percent and British Columbia at 30 percent. When we look at metropolitan areas, the proportion of immigrant households in the most expensive housing areas is even higher: in Toronto, the majority of households are immigrant households at 54 percent, and in Vancouver, it is 42

percent. Other expensive housing metropolitan areas with high proportions of immigrant households include Calgary at 25 percent, Victoria at 23 percent, and Edmonton and Montreal, both at 22 percent. Initial settlement in these expensive housing markets leads to heavy housing costs, leading to higher levels of housing cost burdens among immigrant households. In addition, as results on the role of years of residence in Canada indicate, immigrants tend to continue to live in these large metropolitan high housing cost areas, thereby extending the period of being housing cost burdened

Therefore, to a large extent, settlement in expensive housing markets leads to heavy housing costs for immigrant and non-immigrant households alike. For the disproportionately high rate of settlement by immigrant households in these areas, this settlement pattern may be reasonable. While an outsider with a concern *only* for housing costs may wonder why immigrants would not locate in less expensive housing areas, one need consider the role of other factors that may be especially critical for immigrants, including the following. Is there suitable employment in the area for newcomers with little or no work experience in Canada? Do immigrants have family and friendship ties in the area that facilitate the search for housing, jobs, health care, schools, and other important needs? Does the area have a history of immigration and institutional arrangements that appear welcoming to immigrants, including greater ethnic diversity in neighbourhoods and schools? In the end, just as with other groups, immigrants consider many factors in selecting where to live. For many immigrants in Canada, the most appealing places continue to be the major metropolitan areas. Higher housing costs are probably seen as one disadvantage balanced against a broader set of reasons for locating in one of Canada's larger metropolitan areas.

Our final question was what are some implications of the findings for housing policy? Here our discussion is guided by two considerations: first, immigrants are not more likely to be housing cost burdened once relevant factors are considered, and second, immigrants' preference for residing in larger metropolitan areas with higher housing costs points to the importance of urban housing policies, particularly in Canada's three largest metropolitan areas – Toronto, Vancouver, and Montreal.

One policy implication of the findings is to provide immigrants with information on housing costs in different areas either prior to their arrival or soon after arrival in Canada. This could help immigrants decide where to settle, and reduce the high levels of housing cost burden among the most recent immigrants that our results show. Currently, Service Canada is the government of Canada's "one-stop service delivery network" and works in partnership with other government departments, agencies, and levels of government. It has a link to services for newcomers to Canada, but there is no specific institution or program to help immigrants enter the housing market, or provide information on average housing costs in different areas, except for the Resettlement Assistance Program that provides income support and financial assistance to cover housing and other living costs to government-assisted refugees. Instead, non-governmental organizations (NGOs) are allocated funds to provide basic housing orientation and refer immigrants to more specialized housing services. NGOs are generally not funded to help immigrants find housing. For example, in Toronto, there is a network of community agencies and NGOs funded by Citizenship and Immigration Canada to provide settlement and newcomer services, but there do not appear to be specific services on housing. For the most part, immigrants have to rely on friends and family members (if available) or fend for themselves to

find housing. This could explain why immigrants continue to settle in areas with high concentrations of immigrants given the minimal help that existing social networks provide.

The concentration of immigrants in the three cities of Toronto, Vancouver, and Montreal underlines the metropolitan context of housing needs among immigrants in Canada, an issue that has attracted previous study (Canadian Mortgage and Housing Corporation, 2006). While the supply of affordable housing in the cities have not kept pace with demand (for example, vacancy rates have been declining and rents have been increasing), there are important differences among the three cities that suggests the need to tailor housing policies to address the distinctive housing needs of immigrants in each city.

Montreal receives the largest share of refugees compared to Toronto and Vancouver. Montreal has a sizeable Latin American population, and has fewer affluent immigrants. Affordability is therefore a key critical housing need, and housing policies would have to emphasize increasing the stock of affordable housing. In the public sector, this would mean increasing the stock of social or public housing, and increasing financial assistance programs to low income immigrants. In the private sector, this would mean increasing mortgage and other lending programs to help immigrants purchase housing, as well as programs that help immigrants find affordable rental housing.

Toronto receives the largest and most complex flow of immigrants in Canada. While Asians are the largest group, there are immigrants from many other national and socioeconomic origins in Toronto. Given the complexity and diversity of immigrants in Toronto, housing policies in Toronto will probably have to be just as complex and diverse to respond to immigrants with different characteristics from diverse backgrounds , including increasing the

stock of social housing, affordable rental housing in the private sector, and expanded ways to help immigrants with mortgages and loans to purchase housing such as those described above.

Vancouver is not a major recipient of refugees. The majority of immigrants in Vancouver originate from East and South Asia, and Vancouver has a disproportionate share of wealthy immigrants. Still, the high cost of housing in Vancouver serves to underline that affordability is also a key housing issue for immigrants in Vancouver. Policies and programs that increase the stock of affordable rental and owned housing to help immigrants lower their housing cost burden would be needed.

Our final comments address the finding that immigrant households do not experience higher levels of housing cost burden compared with non-immigrant households once appropriate factors are controlled. This is the good news. The bad news is that almost 20 percent (or one-in-five) of all Canadian households are housing cost burdened. This is an important finding that contains implications for housing policies in different parts of the nation, but particularly in large metropolitan areas. Immigrant and non-immigrant households alike are hard-pressed to find affordable housing in these areas. Many of the policies discussed above in reference to immigrants' housing needs in the three major cities of Toronto, Vancouver, and Montreal also apply to non-immigrants. The bottom line is the need for cities to have housing policies that address the need for more affordable rental as well as for purchase housing to keep up with increased demand as the populations of Canada's larger urban centers continue to grow, from both new immigrants as well as domestic migration.

REFERENCES

Bauder, Harald, Johanna Waters, and Sin Yih Teo
2001. Impacts of immigration on British Columbia: population, labour markets, housing markets, and international linkages. *RIIM (Metropolis BC) Working Paper Series* Number 01-17.

Canada Mortgage and Housing Corporation
2003. "2001 Census Housing Series. Issue 1: Housing Affordability Improves," Research Highlights, Socio-economic Series 03-017. Ottawa: Canada Mortgage and Housing Corporation.

Canada Mortgage and Housing Corporation
2004. "2001 Census Housing Series. Issue 3 Revised: The Adequacy, Suitability, and Affordability of Canadian Housing," Research Highlight, Socio-economic Series 04-007. Ottawa: Canada Mortgage and Housing Corporation.

Canada Mortgage and Housing Corporation
2006. "The Housing Situation and Needs of Recent Immigrants in the Montreal, Toronto, and Vancouver CMAs: An Overview." Ottawa: Canada Mortgage and Housing Corporation.

Canada Mortgage and Housing Corporation
2007. *Affordable Housing: Frequently Asked Questions*. Downloaded from http://www.cmhc-schl.gc.ca/en/corp/faq/faq_002.cfm, July 25, 2007.

Canada Mortgage and Housing Corporation
2008. "The Dynamics of Housing Affordability," Socio-economic Series 08-002. Ottawa: Canada Mortgage and Housing Corporation.

Conley, Dalton
2001. "A Room with a View or a Room of One's Own? Housing and Social Stratification," Sociological Forum, 16(2): 263-280.

Edmonston, Barry
2006. "Who Owns? Homeownership Trends for Immigrants in Canada," Paper presented to the Atlantic Metropolis Centre, Halifax.

Edmonston, Barry and Sharon M. Lee
2000. "Homeownership and the American Dream: A Study of Homeownership Attainment among Asian Immigrants," Paper presented at the annual meeting of the American Sociological Association, Washington, D.C.

Krivo, Lauren J.
1995. "Immigrant Characteristics and Hispanic-Anglo Housing Inequality," *Demography*, 32 (4): 599-615.

Lewin-Epstein, Noah and Moshe Semyonov

2000. "Migration, Ethnicity, and Inequality: Homeownership in Israel," *Social Problems,* 47(3): 425-444.

Ley, David, Peter Murphy, Kris Olds, and Bill Randolph
2001. "Immigration and Housing in Gateway Cities: The Cases of Sydney and Vancouver," *RIIM (Metropolis BC) Working Paper Series* Number 01-03.

Ley, David and Judith Tutchener
1999. "Immigration and Metropolitan Housing Prices in Canada," *RIIM (Metropolis BC) Working Paper Series* Number 99-09.

Lipman, Barbara J.
2003. "America's Newest Working Families: Cost, Crowding, and Conditions for Immigrants," *New Century Housing* 4(3). Washington, D.C.: Center for Housing Policy, National Housing Conference.

Long, J. Scott and Jeremy Freese
2003. *Regression Models for Categorical Dependent Variables Using Stata*. Revised Edition. College Station, TX: Stata Press.

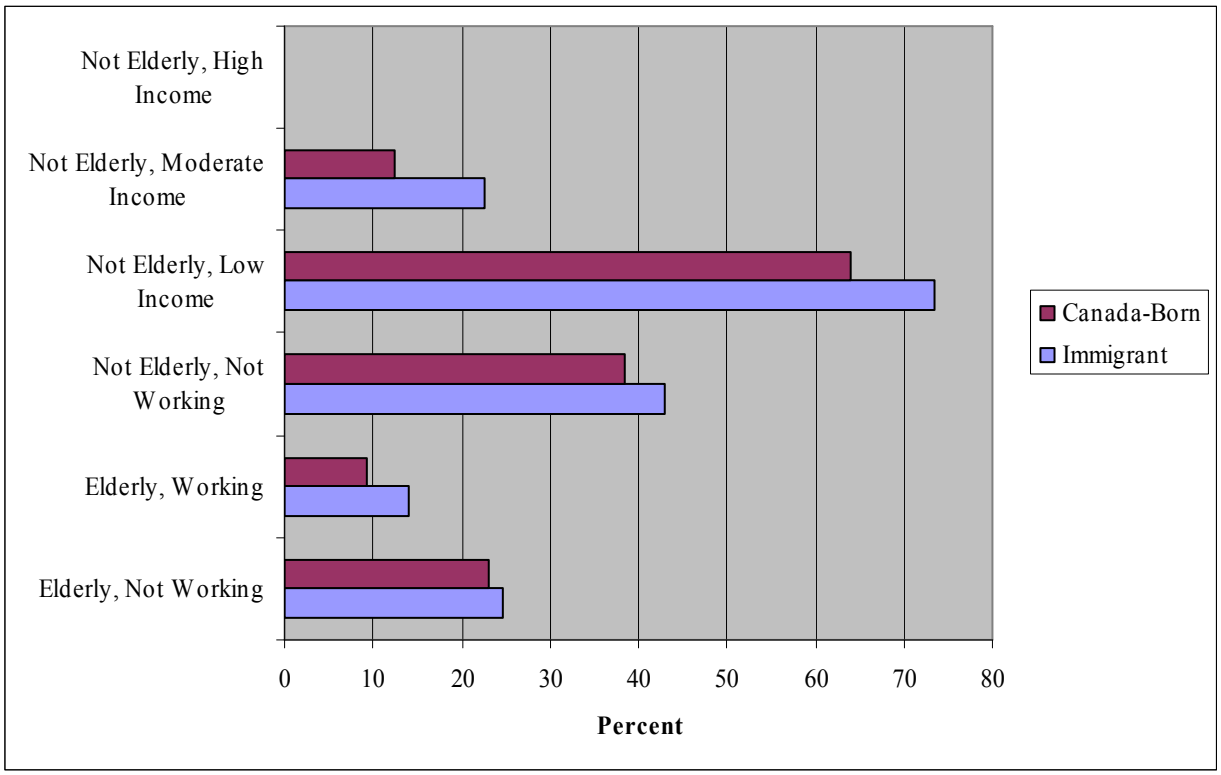
Myers, Dowell and Seong Woo Lee
1998. "Immigrant Trajectories into Homeownership: A Temporal Analysis of Residential Assimilation," *International Migration Review*, 32(3): 593-625.

Pratt, Geraldine
1986. "Housing Tenure and Social Cleavages in Urban Canada," *Annals of the Association of American Geographers,* 76(3): 366-380.

Statistics Canada
2003. *2001 Census Public Use Microdata File. Individuals File, User Documentation*. Ottawa: Statistics Canada.

TD Economics
2003. *Affordable Housing in Canada: In Search of a New Paradigm*. Toronto: TD Financial Group.

Figure 1: Percent of Housing Cost Burdened Households, by Nativity, for Types of Households by Employment Status and Age of Householder



Notes:

1. "Elderly" households are headed by someone who is 65 years of age of older. Non-elderly households are headed by someone who is less than 65 years of age.
2. "Working" households are headed by someone who is currently employed or looking for employment. Not working households are headed by someone who is not currently employed and who is not looking for employment; this type of person is defined as "out of the labour force" by Statistics Canada.
3. Low and moderate income households are headed by someone who worked fulltime for the entire year and had household income of $25,000 to $74,999. High income households have a household income of $75,000 or more.

Figure 2: Percent Housing Cost Burdened Immigrant Households by Year of Arrival

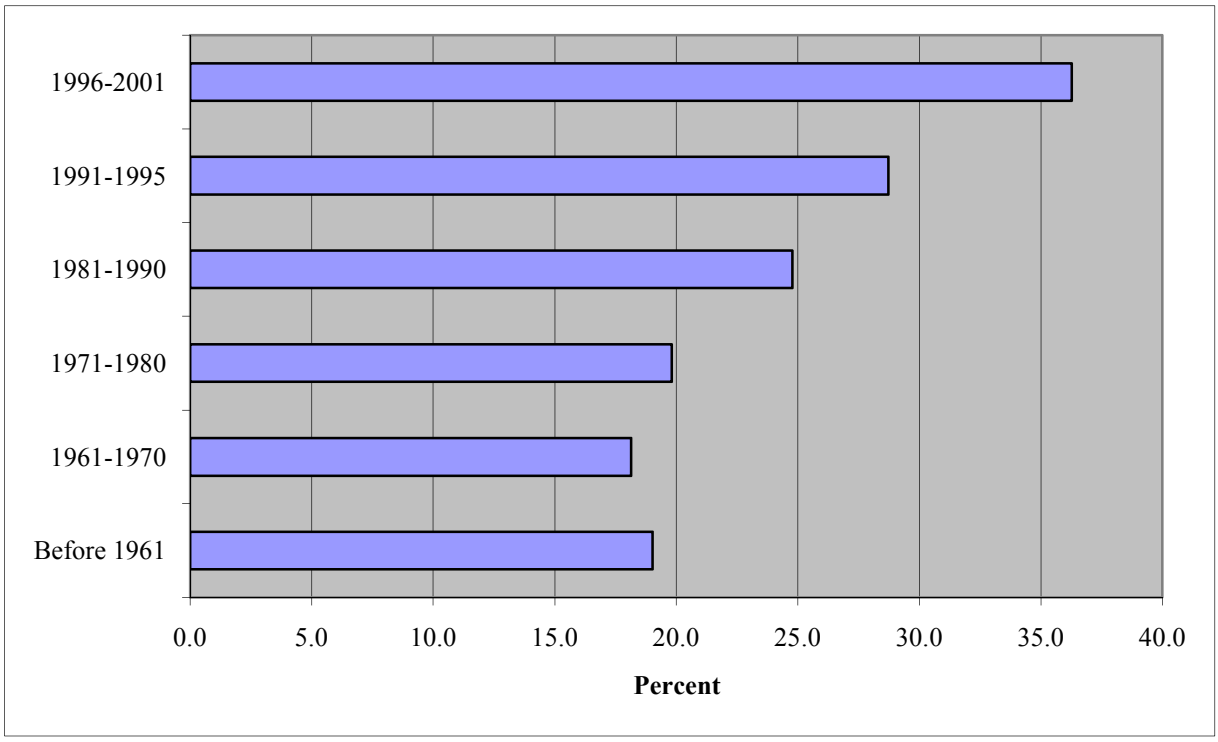


Figure 3: Percent Housing Cost Burdened Households by Provinces and Territories of Residence, by Nativity

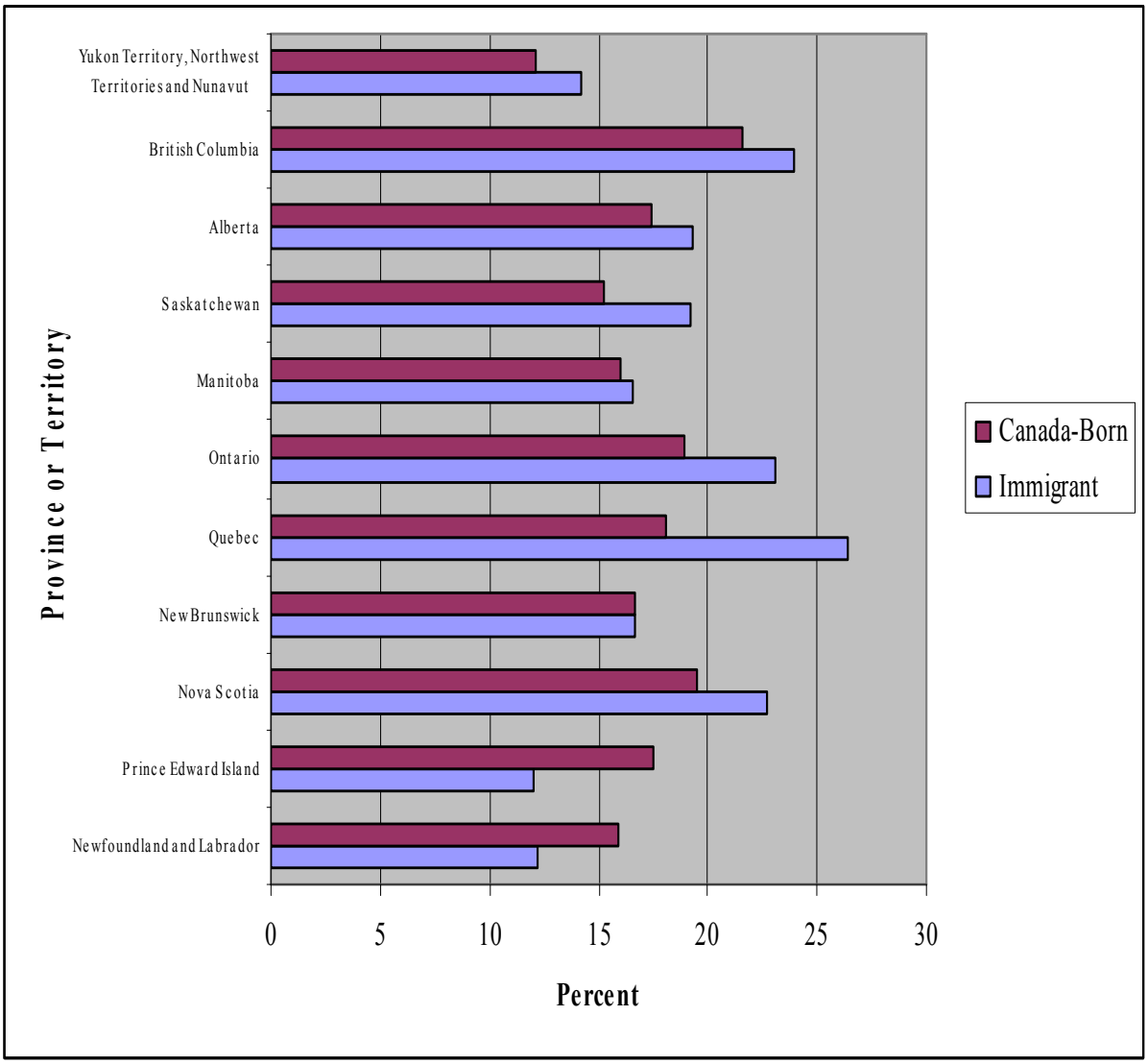


Figure 4: Percent Housing Cost Burdened Households by Household Income Deciles, by Nativity

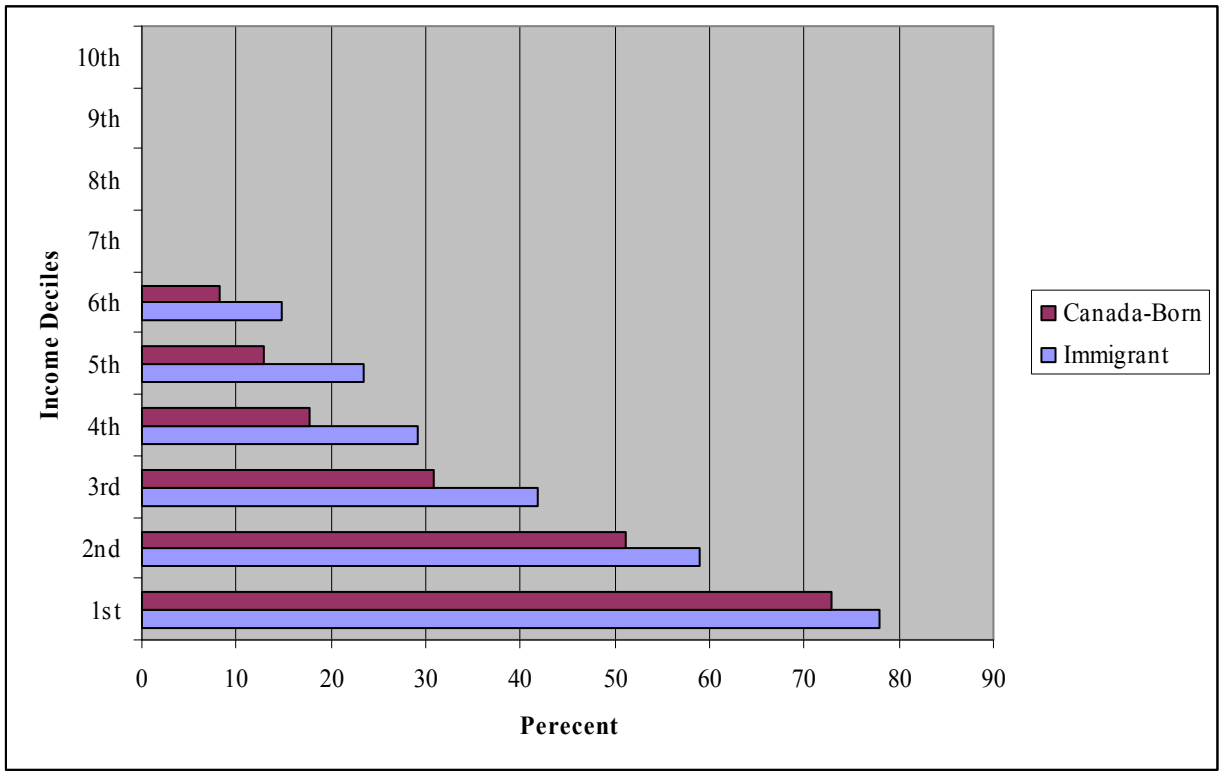


Figure 5: Predicted Probability of Housing Cost Burden Based on Householder's Age, for Immigrant and Canada-Born Householders

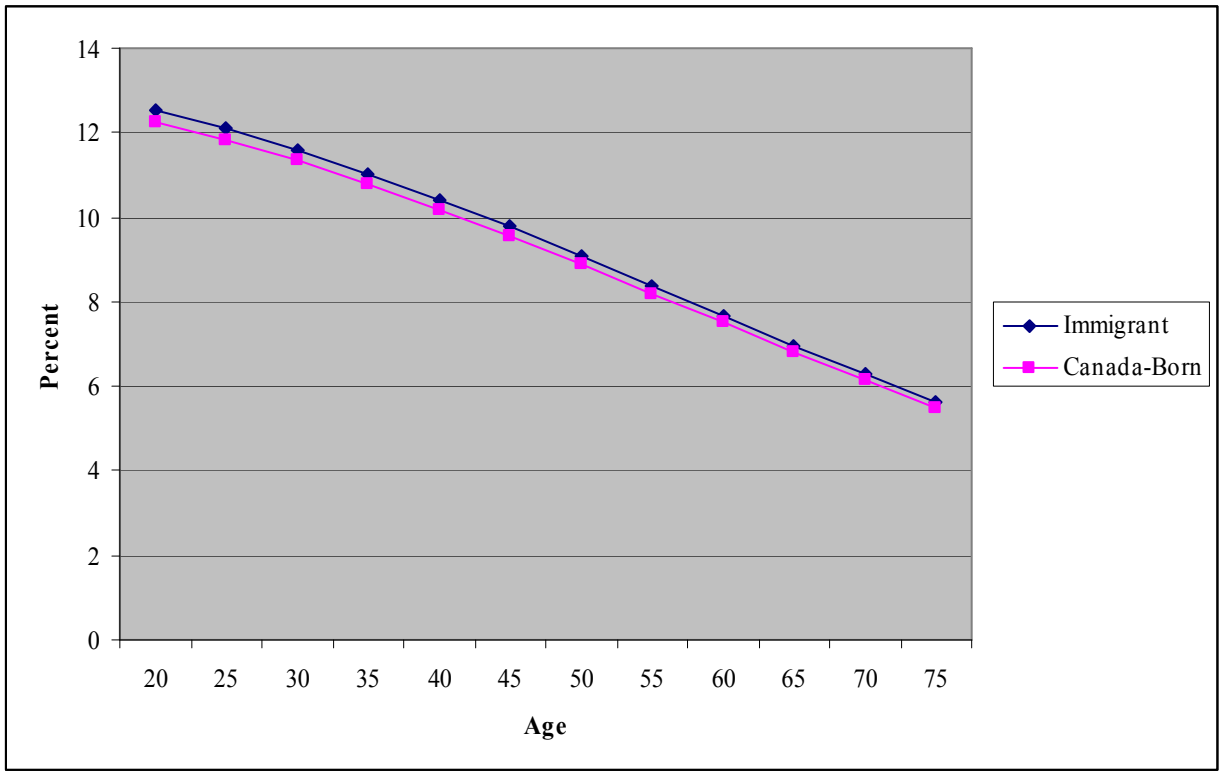


Figure 6: Predicted Probability of Housing Cost Burden Based on Household Income, for Immigrant and Canada-Born Householders

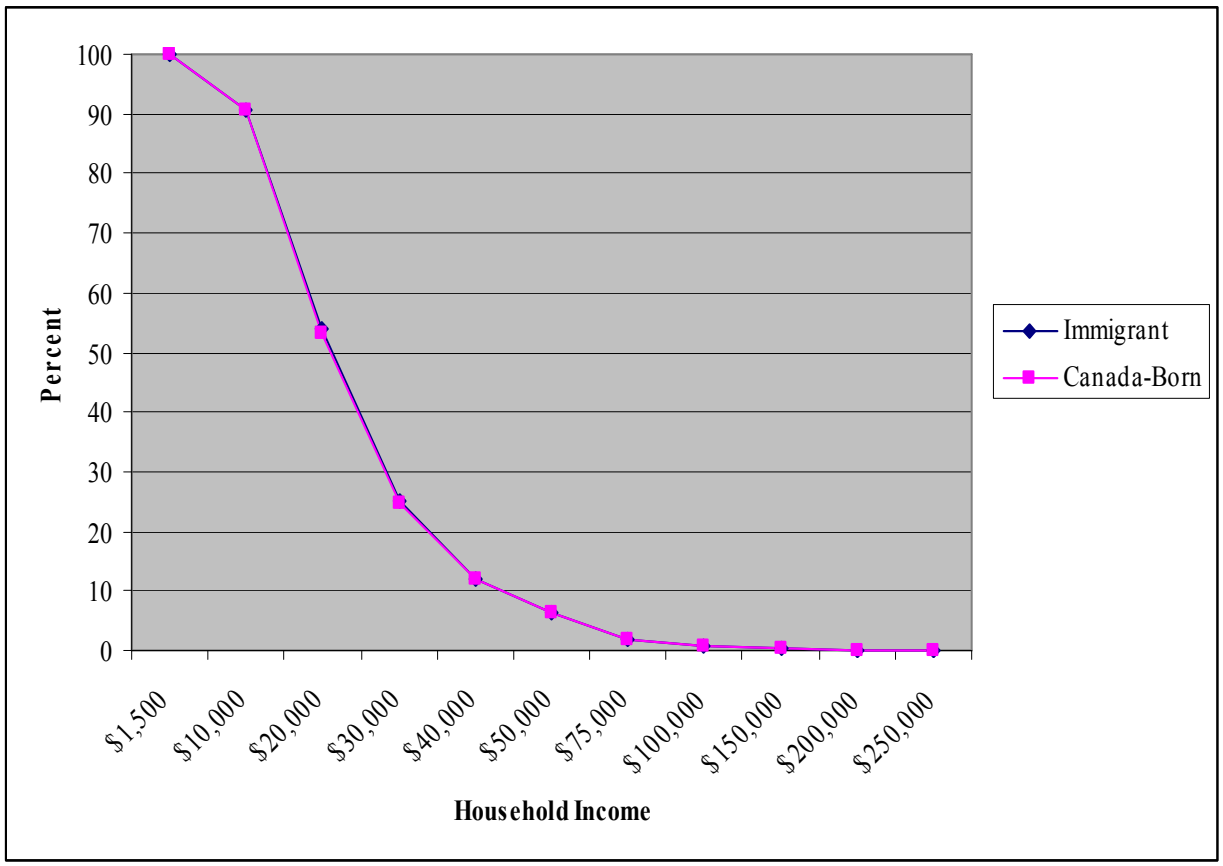


Figure 7: Predicted Probability of Housing Cost Burden Based on Number of Persons in the Household, for Immigrant and Canada-Born Householders

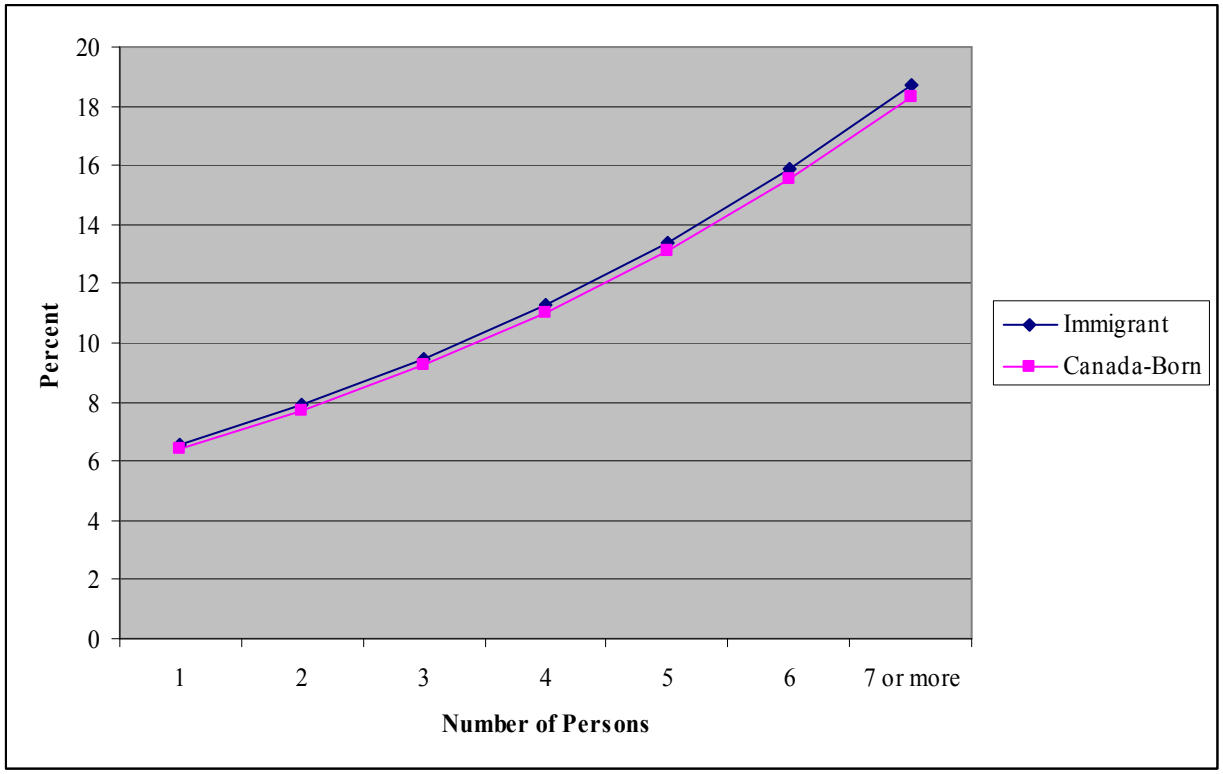


Figure 8: Predicted Probability of Housing Cost Burden Based on Regional Median Monthly Rent, for Immigrant and Canada-Born Householders

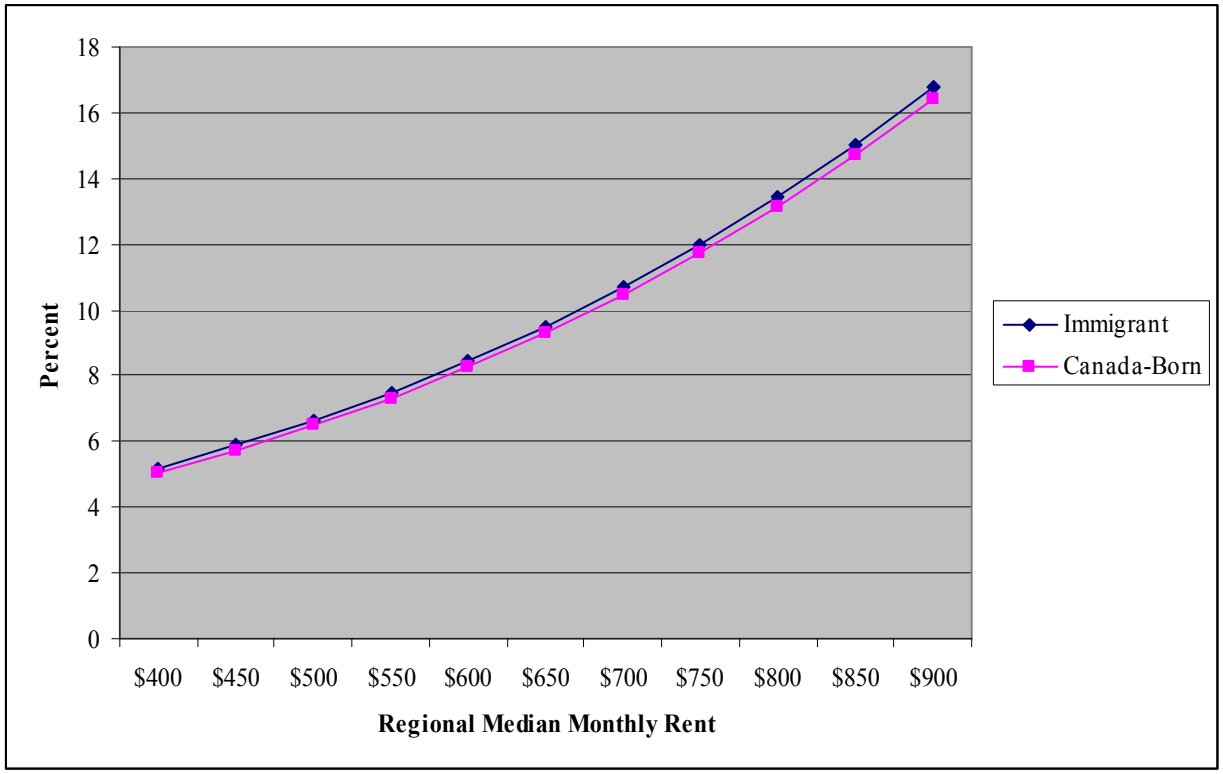


Table 1. Descriptive Statistics, Canada-Born and Immigrant Households, 2001

Variable	Canada-Born	Immigrant	Total
Percent Housing Cost-Burdened	18.4	23.1	19.5
Percent Homeowner	66.1	64.6	65.7
Household Income (in 2001 dollars)			
Mean	$56,125	$58,202	$56,581
Standard Deviation	$42,691	$46,701	$43,612
Median	$47,500	$47,500	$47,500
Number of Wage Earners			
Mean	1.4	1.4	1.4
Standard Deviation	0.5	0.6	0.5
Percent Receiving Welfare	15.9	14.2	15.6
Value of Home (if owned, 2001 dollars)			
Mean	$134,697	$185,057	$145,713
Standard Deviation	$71,800	$70,790	$74,547
Median	$120,000	$190,000	$132,000
Mean Monthly Rent (if rented, 2001 dollars)			
Mean	$618	$718	$641
Standard Deviation	$292	$329	$304
Median	$570	$679	$594
Household Size			
Mean	2.5	2.9	2.6
Standard Deviation	1.3	1.5	1.4
Household Type (in percentages)			
Married Couple, No Kids	19.9	20	19.9
Married Couple, With Kids	26.4	37.4	28.8
Common-law Couple, No Kids	6.2	2.2	5.3
Common-law Couple, With Kids	5.3	1.5	4.5
Lone Parent	10.1	10.8	10.3
Multiple Families	1.1	4.3	1.8
Single Person	27.1	21	25.8
Non-Family, 2+ Persons	3.9	2.9	3.7
Percent of Households with Children Present	32.9	40.4	34.6
Province of Residence (in percentages)			
Newfoundland and Labrador	97.7	2.3	100.0
Prince Edward Island	96.3	3.7	100.0
Nova Scotia	93.6	6.4	100.0
New Brunswick	96.1	3.9	100.0
Quebec	88.1	11.9	100.0
Ontario	67.1	32.9	100.0
Manitoba	85.4	14.6	100.0
Saskatchewan	92.8	7.2	100.0
Alberta	81.4	18.6	100.0
British Columbia	70.0	30.0	100.0
Yukon/Northwest Territories	88.4	11.6	100.0
Selected Metropolitan Areas (in percentages)			
Toronto	45.8	54.2	100.0
Vancouver	58.1	41.9	100.0
Calgary	75.1	24.9	100.0
Victoria	76.6	23.4	100.0
Edmonton	77.8	22.2	100.0
Montreal	77.8	22.2	100.0
Number of Households	8,716,703	2,405,722	11,122,425

Source: Authors' analysis of 2001 Census pubilc use microdata.

Table 2: Percent of Housing Cost Burdened Immigrant Households, by Country or Region of Origin of Householder

Country or Region of Origin	Percent Housing Cost Burdened	Percent Housing Cost Burdened of All Immigrant Households
USA	20.8	4.1
Europe	19.4	42.1
Middle East	36.7	6.4
South Asia	26.0	8.1
Hong Kong	25.2	3.3
China	27.1	6.0
Philippines	17.6	2.4
Vietnam	25.7	2.4
Other East and Southeast Asia	31.1	4.8
Africa	28.2	6.4
Latin America and Caribbean	28.3	13.0
Other Countries	21.5	0.9
All Immigrant Households	23.1	100.0

Table 3: Metropolitan Residence of Housing Cost Burdened Households, by Nativity and Metropolitan Residence for All Households

	Cost Burdened Households		All
	Immigrants	Canada-Born	Households
Metropolitan	88.5%	58.5%	61.6%
Non-Metropolitan	11.5%	41.5%	38.4%
All Areas	100.0%	100.0%	100.0%

Table 4: Logistic Regression Analysis of Housing Cost Burdened Households

Variable	Coefficient	Standard Error	Z	P>|z|	Predicted Probablity (percent housing cost burdened)[a]
Constant	28.0877	0.1774	158.33	0.00	
Demographic					
Age	-0.0008	0.0023	-0.36	0.72	---[b]
Age-Squared	-0.0160	0.0022	-7.37	0.00	---[b]
Sex (Female)	0.0000				20.2
Sex (Male)	-0.0969	0.0143	-6.77	0.00	19.4
Household Income (logarithm)	-3.0669	0.0158	-193.64	0.00	---[b]
Welfare Benefits (No)	0.0000				19.8
Welfare Benefits (Yes)	-0.0935	0.0173	-5.41	0.00	19.0
Ethnicity					
British Isles	0.0000				20.2
French	-0.0381	0.0366	-1.04	0.30	19.9
Other European	-0.1352	0.0250	-5.40	0.00	19.1
African	-0.7320	0.0877	-8.35	0.00	15.7
Arab	0.2408	0.0691	3.49	0.00	22.4
West Asian	0.2955	0.0827	3.57	0.00	22.9
South Asian	0.0987	0.0480	2.06	0.04	20.0
East and Southeast Asian	-0.1193	0.0379	-3.15	0.00	19.2
Latin American	-0.1759	0.0886	-1.98	0.05	18.8
Caribbean	-0.1580	0.0618	-2.56	0.01	19.0
Aboriginal	-0.5413	0.0536	-10.10	0.00	16.6
Canadian	-0.1111	0.0245	-4.55	0.00	19.3
Other Single Origin	0.3883	0.1610	2.41	0.02	23.9
Multiple: British Isles and Non-French	0.0306	0.0238	1.29	0.20	20.3
Multiple: French and Non-British Isles	-0.0288	0.0315	-0.92	0.36	19.9
Other Multiple Origin	-0.0478	0.0261	-1.83	0.07	19.8
Nativity					
Immigrant	0.0000				19.6
Canada-Born	-0.0248	0.0202	-1.23	0.22	19.4
Household Type					
Married Couples	0.0000				19.4
Common-Law Couples	-0.0302	0.0250	-1.21	0.23	19.2
Lone-Parent	0.3030	0.0245	12.38	0.00	22.0
Multiple Family	-0.1724	0.0667	-2.58	0.01	18.2
One-Person	0.0156	0.0226	0.69	0.49	19.5
Two or More Persons	0.2282	0.0334	6.84	0.00	21.3
Number of Persons	0.1980	0.0100	19.85	0.00	---[b]

Presence of Children						
	No	0.0000				19.2
	Yes	0.1884	0.0257	7.33	0.00	20.0
Housing Tenure						
	Owned	0.0000				19.5
	Rented	0.0028	0.0147	0.19	0.85	19.5
Median Monthly Rent for Place of Residence		0.0026	0.0001	25.72	0.00	---[b]
Province of Residence						
	NF	0.0000				16.0
	PE	0.3949	0.1037	3.81	0.00	18.4
	NS	0.4104	0.0638	6.43	0.00	18.5
	NB	0.3129	0.0685	4.57	0.00	17.9
	PQ	0.4526	0.0575	7.87	0.00	18.8
	ON	0.7204	0.0577	12.48	0.00	20.9
	MB	0.2007	0.0649	3.09	0.00	17.2
	SK	0.1345	0.0659	2.04	0.04	16.8
	AB	0.6124	0.0591	10.35	0.00	20.0
	BC	0.7506	0.0588	12.77	0.00	20.2
	YK, NW, and NU	-0.0349	0.2259	-0.15	0.88	16.0
Metropolitan Residence						
	Non-Metropolitan	0.0000				17.8
	Metropolitan	0.4427	0.0182	24.32	0	21.1
N=		300,884				
Log likelihood=		-89618.737				
Pseudo R2=		0.3955				

[a] Predicted probabilities are calculated for individual category, using the mean for all other variables. Probabilities are calculated using the *prvalue* command in Stata 10.

[b] Predicted probabilities for continuous variables are shown in separate figures.