

RESEARCH REPORT

External Research Program



Cohort Progress Toward Household Formation and Homeownership



CMHC—HOME TO CANADIANS

Canada Mortgage and Housing Corporation (CMHC) has been Canada's national housing agency for more than 65 years.

Together with other housing stakeholders, we help ensure that the Canadian housing system remains one of the best in the world. We are committed to helping Canadians access a wide choice of quality, environmentally sustainable and affordable housing solutions that will continue to create vibrant and healthy communities and cities across the country.

For more information, visit our website at www.cmhc.ca

You can also reach us by phone at 1-800-668-2642 or by fax at 1-800-245-9274.

Outside Canada call 613-748-2003 or fax to 613-748-2016.

Canada Mortgage and Housing Corporation supports the Government of Canada policy on access to information for people with disabilities. If you wish to obtain this publication in alternative formats, call 1-800-668-2642.

**Cohort Progress Toward Household Formation and Homeownership:
A Comparison of Immigrant Visible Minority Groups in Canada and the United States**

Michael Haan, University of New Brunswick
Zhou Yu, University of Utah

This study was funded (or partially funded) by Canada Mortgage and Housing Corporation (CMHC) under the terms of its External Research Program. However, the views expressed are the personal views of the author and do not necessarily reflect the views of CMHC. CMHC's financial contribution to this study does not constitute an endorsement of its contents.

Executive Summary

Understanding present and future housing markets increasingly depends on the extent to which growing immigrant populations can satisfy their demands for appropriate housing. This report tracks the progress of household formation and homeownership attainment of white, black, South Asian, Chinese, Korean, and Filipino immigrants in the early 2000s and compares those in Canada with those in the United States, using native-born, non-Hispanic whites as a common reference group. We find evidence of similar levels of household formation, homeownership, and progress over time in both countries, which suggests that, despite the many differences between countries, the process of residential integration is remarkably similar for most groups. Only South Asians differ significantly across countries, and experience much better residential outcomes in Canada than they do in the United States.

We simultaneously model household formation and homeownership attainment at the individual level, hypothesizing them to be joint decisions. Results show that although homeownership levels are fairly similar across countries, there are considerable differences in housing trends between groups. Wide gaps remain between immigrant groups, and U.S. immigrants have a stronger propensity of becoming renters, despite gaining additional benefits by owning (such as tax deductible mortgage interest). Immigrants in both countries increase their homeownership rates over the five-year period, but not as quickly in Canada as in the U.S., although readers are reminded that the observation period pre-dates the U.S. housing meltdown.

This study is innovative because it models homeownership alongside household formation. This is important because newly arrived immigrants are the least likely to form single-family independent households, and the most likely to reside in multiple family dwellings. Consequently, homeownership disparities between visible minority groups are not as pronounced once household formation is controlled in the analysis of homeownership attainment. Second, most existing studies rely on cross-sectional analysis to study residential assimilation. This is problematic because residential assimilation is longitudinal in nature and there are substantial variations between immigrant arrival cohorts, something which can be addressed with a double cohort analysis.

All immigrant groups show a gradual but significant increase in demand for both renter and owner-occupied housing over time. This gradual increase in housing demand seems evident after immigrants have arrived in the host country for more than 10 years. The research findings also show that immigrants in both countries have by and large kept up with the progress of the native-born white cohort over the five-year period.

Résumé

La compréhension des marchés du logement actuels et futurs dépend de plus en plus de la situation de logement des populations croissantes d'immigrants : dans quelle mesure peuvent-elles satisfaire adéquatement leurs besoins en cette matière? Ce rapport suit la progression dans le temps de la formation de ménages et de l'accession à la propriété d'immigrants blancs, noirs, sud-asiatiques, chinois, coréens et philippins au début des années 2000 et compare ceux du Canada à ceux des États-Unis, en se servant de blancs non hispaniques nés au Canada ou aux États-Unis comme groupe de référence commun. Nous constatons des taux similaires de formation de ménages, d'accession à la propriété et de progrès dans le temps dans les deux pays, ce qui suggère que malgré les nombreuses différences entre les deux pays, le processus d'insertion résidentielle est remarquablement similaire pour la plupart des groupes. Seuls les Sud-Asiatiques diffèrent de façon significative entre les deux pays, et réussissent bien mieux leur insertion résidentielle au Canada qu'aux États-Unis.

Nous modélisons simultanément la formation de ménages et l'accession à la propriété au niveau de l'individu, en nous appuyant sur l'hypothèse selon laquelle il s'agit de décisions liées. Les résultats indiquent que même si les taux d'accession à la propriété sont relativement similaires dans les deux pays, il y a des différences considérables dans les tendances en matière de logement entre les groupes. De larges écarts demeurent entre les groupes d'immigrants, et les immigrants des États-Unis sont davantage portés à devenir locataires, en dépit des avantages additionnels associés à la propriété du logement (comme les intérêts sur les prêts hypothécaires déductibles du revenu imposable). Les immigrants des deux pays accroissent leur taux d'accession à la propriété au cours de la période de cinq ans, mais moins rapidement au Canada qu'aux États-Unis. On rappelle toutefois au lecteur que la période d'observation date d'avant l'effondrement du marché du logement aux États-Unis.

Cette étude est innovatrice parce qu'elle modélise parallèlement l'accession à la propriété et la formation de ménages. Une telle approche est importante parce que les immigrants nouvellement arrivés sont les moins susceptibles de former des ménages unifamiliaux indépendants, et les plus susceptibles d'habiter des logements multifamiliaux. En conséquence, les disparités de l'accession à la propriété entre les groupes de minorités visibles ne sont pas aussi prononcées une fois prise en compte la formation de ménages dans l'analyse de l'accession à la propriété. D'autre part, la plupart des études existantes se servent de l'analyse transversale pour étudier l'insertion résidentielle. Une telle approche est problématique parce que l'insertion résidentielle est de nature longitudinale et qu'il existe des variations considérables entre les cohortes d'arrivées d'immigrants, problème qui ne se pose pas avec l'analyse d'une double cohorte.

Chez tous les groupes d'immigrants, on assiste au fil du temps à une augmentation graduelle, mais significative de la demande de logements à la fois en location et en propriété occupante. Cette augmentation graduelle de la demande de logement semble évidente 10 ans et plus après l'arrivée des immigrants dans le pays hôte. La recherche conclut également que les immigrants dans les deux pays ont dans l'ensemble suivi le rythme de progression de la cohorte de blancs nés au pays pendant la période de cinq ans.



National Office

Bureau national

700 Montreal Road
Ottawa ON K1A 0P7
Telephone: (613) 748-2000

700 chemin de Montréal
Ottawa ON K1A 0P7
Téléphone : (613) 748-2000

Puisqu'on prévoit une demande restreinte pour ce document de recherche, seul le résumé a été traduit.

La SCHL fera traduire le document si la demande le justifie.

Pour nous aider à déterminer si la demande justifie que ce rapport soit traduit en français, veuillez remplir la partie ci-dessous et la retourner à l'adresse suivante :

Centre canadien de documentation sur l'habitation
Société canadienne d'hypothèques et de logement
700, chemin Montréal, bureau CI-200
Ottawa (Ontario)
K1A 0P7

Titre du rapport: _____

Je préférerais que ce rapport soit disponible en français.

NOM _____

ADRESSE _____

rue

App.

ville

province

Code postal

No de téléphone () _____

Cohort Progress Toward Household Formation and Homeownership: A Comparison of Immigrant Visible Minority Groups in Canada and the United States

Abstract

The extent to which growing immigrant populations translate into housing demand will help define future housing markets. This report tracks the progress of household formation and homeownership attainment of white, black, South Asian, Chinese, Korean, and Filipino immigrants in the early 2000s and compares those in Canada with those in the United States, using native-born, non-Hispanic whites as a common reference group. We focus on the arrival cohort that came to Canada or the United States between 1975 and 1994, and analyze the pace of attainment over a five-year period (2000 to 2005 for the US, 2001 to 2006 for Canada). We simultaneously model household formation and homeownership attainment at the individual level, hypothesizing them to be a joint decision, and control for individual characteristics and several metropolitan factors, such as unemployment rates, rent and median housing price. Results show that although homeownership levels are fairly similar across countries, there are considerable differences in housing trends between groups. While controlling for household formation flattens these differences, wide gaps remain and immigrants in the U.S. appear to have a stronger propensity of becoming renters. Immigrants in both countries have increased their homeownership rates over the five-year period, but not as quickly in Canada as in the U.S., although readers are reminded that the observation period pre-dates the U.S. housing meltdown.

Introduction

Since the late-1960s changes in immigration policy in Canada and the United States, both countries have attracted large numbers of immigrants from Asia, Latin America, Africa, and the Middle East. These newcomers are gradually replacing earlier waves of immigrants, who were largely from European countries. The impact of these changes were immediate and far-reaching: already by 1971, more newcomers to Canada cited areas other than Europe as their previous residence (2003), and nearly half of all residents in some Canadian cities identified as a visible minority¹ in the 2006 census.² In the United States, four states have become majority-minority states in which racial composition is less than 50% white of non-Hispanic origin.

Almost immediately after visible minority groups began to arrive in Canada and the United States (and, in fact, even slightly before the policy changes were implemented (Glazer and Moynihan 1963)), researchers began to question whether the frameworks used to understand the integration experiences of earlier waves of (predominantly white) immigrants could be used to illuminate those of more recent and diverse cohorts of newcomers. Although the research has produced many interesting results, concern about differential integration remains as relevant today as it was nearly 40 years ago.

¹ There are differences in terminology used across countries, and although the term ‘visible minority’ is not used in the United States, we use it here for consistency. Although technically the term is used to describe all non-white groups, here we use it in shorthand to describe immigrant visible minority groups. Native-born visible minority individuals are excluded from the samples used in this study. Similarly, the US term ‘household head’ is used in place of “primary household maintainer”.

² <http://www.statcan.gc.ca/daily-quotidien/100309/t100309a1-eng.htm>

To summarize the findings of this research, unexplained differences seem to emerge quickly between groups on nearly all outcomes of interest. Whether it be earnings (Lewin-Epstein and Semyonov 1992; Picot and Sweetman 2005), segregation (Fong 1994; Funkhouser 2000), interaction with the host society (Fong 1992; Lieberman and Waters 1987), or intermarriage (Alba and Golden 1986; Kalbach 2002), it seems that groups – whether defined by ethnicity, place of birth, or skin colour – have different integration experiences.

There are few instances where these differences are as pronounced as in US and Canadian metropolitan housing markets. Not only do visible minority groups have very different homeownership rates, but they tend to live in different neighbourhoods (Fong 1994; Fong and Wilkes 2003; Hou and Balakrishnan 1996), have access to different amenities (Myles and Hou 2004), and even move through the housing market differently as they age (Haan 2007a; Myers and Lee 1998). In total, this research suggests that members of different visible minority groups have different housing careers (Haan 2010). Controlling for housing relevant characteristics typically brings groups closer together, but unexplained differences nearly always remain (Myers 1999; Painter, Yang and Yu 2003c) even after immigrants moved away from traditional gateways and migrate to newer destinations (Painter and Yu, 2010). It has been a major hurdle for immigrants and visible minorities to achieve residential equality (as measured by homeownership) with whites in both countries (Farley 1996; Fong and Gulia 1999). To a certain extent, cultural preferences may also dictate housing preferences and living arrangement (Evans, Lepore, and Allen 2000; Kamo 2000)

The purpose of this report is to examine the extent to which differences in homeownership attainment stem from differences in the rates of household formation. What, for example, is the effect of expensive housing on one group versus another? These differences are assessed for visible minority groups, both within and across countries. In the sections below, the relevant literature on housing behaviour is first reviewed, followed by a series of research questions, a description of methodology and a presentation of results. The report concludes by discussing the relevance of the research findings.

The Context of Reception: Canadian and US housing markets

There are many similarities between Canada and the United States, including the economy, geography, culture, and welfare state structure. With the exception of Latino immigrants, immigration trends are also similar, with the two countries attracting immigrants from similar regions in recent decades. Furthermore, both countries have a large housing stock and a variety of housing types. Finally, both countries have witnessed a substantial increase in the rates of household formation after the Second World War and the rates have plateaued in recent decades (Miron 1988; Skaburskis 1994; Yu and Myers 2010a; Yu and Myers).

While both Canada and the United States are popular immigrant destinations, there are some contextual differences that may affect the trajectory of residential assimilation in the two countries. First, U.S. mortgage interest is tax-deductible, which lowers the cost of owning relative to renting. Second, the cost of borrowing is different between countries, and until recently, the United States had more aggressive lending policies and incentives. Third, housing prices have appreciated much more rapidly in the United States than in Canada during the study period. Fourth, immigration policies are quite different between the two countries; while Canada

favors highly skilled immigrants, most recent immigrants to the U.S. come through family ties. These factors all point to the prospect of large differences between immigrant groups in Canada and the United States, both in terms of household formation and homeownership attainment.

This study builds on our previous work, where we compared immigrant housing behaviour in Toronto and Los Angeles, immigrant gateways or the primary destination for immigrants to the two countries. We concluded our study by suggesting that immigrant incorporation and settlement processes were not only culturally or contextually specific, but that group behaviour was *itself* context specific, that groups of people will, on average, react to housing market characteristics differently, pointing to the presence of an interaction effect between groups and their host society.³ Here we test this more explicitly by including several metro-level controls, expanding the research areas, and including more birth and arrival cohorts. This, when considered alongside the comparative aspect of our study, allows us to look at the effect of different contexts while ‘controlling for culture’ by looking at the same arrival cohorts of visible minority groups in different countries. Because of extended sample size and expanded study area, we are more able to gauge the effect of growing immigrant population on housing demand.

We also advance our earlier work by adding Koreans and Filipinos to the study, two traditionally under-studied groups in the area of homeownership. The addition of these two groups enhances our understanding of a broader array of immigrant groups, while providing an opportunity to see whether there are general patterns across these groups. No other studies have compared six groups within and across countries.

Research Questions

Building on the discussion above, three specific questions are addressed in this report:

What are the overall housing attainment patterns of black, South Asian, Chinese, Korean, Filipino, white, and white native-born groups⁴ between 2001 and 2006 in Canada and between 2000 and 2005 in the United States?

After controlling for human capital and other factors (particularly household formation and metropolitan contextual variables), to what extent do these gaps change?

What proportion of the differences in homeownership attainment between groups can be attributed to household formation? For example, to what extent are the differences between the homeownership rates of Filipinos and Koreans a function of the differences in the propensity to form multiple family dwellings? How have the gaps in housing outcomes changed over the five-year period relative to the native-born white reference cohort?

³ One example of differential group behaviour would include how groups might handle expensive housing. Some might double up and assume a hefty mortgage because they fear further increases will price them out of the market, whereas others might choose to rent because they feel that housing prices are already inflated. These reactions could vary by group, and may be based on things such as the price of housing and attitudes towards renting in their previous country.

⁴ Whites in this analysis refer to non-Hispanic whites.

In addition to these questions is an overarching interest in comparing the United States and Canada. We hypothesize that, 1) given the similarities between the chosen groups across countries, there should be similar patterns of attainment by particular visible minority groups (Filipinos in the United States should have similar housing behaviour to Filipinos in Canada, etc.), and 2) any observed differences that do exist are largely contextual; that is, they stem from peculiarities in national and regional housing markets. Unobserved factors such as mortgage rates and rules, changes in housing prices over time, and immigration regulations could be some of the characteristics that differ across countries and potentially affect homeownership.

Literature Review: Moving in to move up the homeownership hierarchy?

Most of the the time, in academic literature the attainment of owner-occupied housing marks a significant milestone in the integration process of an immigrant group. The reasons behind this are many, but include the research that shows that owner-occupied neighbourhoods tend to have more and better amenities (Myles and Hou 2004), that homeownership is the single largest investment that most households can make (Alba and Logan 1992), and that it provides one of the best hedges against inflation (Myers, Megbolugbe, and Lee 1998). As such, researchers typically consider a group with higher homeownership rates to be faring better in the housing market than those with lower rates (Myers and Lee 1998).

More recently, however, some evidence suggests that homeownership is being oversold, especially in the United States. At time of writing (May 2011), housing prices have been falling in many major US metropolitan areas for more than four years (Fannie Mae 2011), mortgage default rates are still very high, and many still struggle to make mortgage payments on their depreciating asset. According to a recent estimate by Zillow Inc, more than 28 percent of U.S. residential mortgage holders owe more than their properties are worth. Finally, despite the positive developments noted above, some have begun to argue that the US housing market has entered a 'double dip' recessionary phase.

Whether owning a home is positive or not, previous research shows that visible minority groups encounter different levels of access to owner-occupied housing in both Canada and the United States. While the Chinese move quickly into homeownership in both countries (Haan 2007; Painter, Yang and Yu 2003b), some other groups do not, particularly in the U.S. (e.g. Coulson 1999; Krivo 1995). Although access to owner-occupied housing hinges heavily on labour market success, there are instances where groups have ownership rates that are higher or lower than they 'should' be, based on the socioeconomic characteristics that are used in a regression model to explain ownership⁵. This mismatch has three implications: first, economic characteristics alone do not explain whether or not a household lives in an owner-occupied dwelling. Second, some individuals and groups develop strategies to surpass expectations. Finally, and most importantly, there is room in current explanatory models for additional characteristics to understand the homeownership decision.

One such addition has recently been proposed by Yu and Myers (Yu and Myers 2010a), and involves jointly modeling homeownership attainment and household formation. As immigrants

⁵ While the Great Recession in the U.S. has significantly damaged the housing market and exposed the limitation of homeownership, homeownership has been shown to have a positive effect on communities. Achieving homeownership is still an important hallmark of residential integration for immigrants.

adapt to their new country, they not only become homeowners but also form many more renter households. Meanwhile, as young people transition into adulthood and beyond, they are also more likely to live independently and eventually achieve homeownership. Based on traditional household based homeownership measure⁶, immigrant groups that have a stronger propensity of forming renter households would have relatively low homeownership rates. Most studies either ignore the role of household formation or treat household formation as a decision separate from homeownership attainment. This practice would be acceptable had all immigrant groups had a similar propensity for forming independent households. In reality, there are large variations in household formation between immigrant groups even after adjusting for all relevant variables. Therefore, ignoring household formation distorts our understanding about how and whether or not immigrants buy homes, and the extent to which this may differ between immigrant groups and their native-born counterparts.

To illustrate with an example, imagine two groups with very similar homeownership rates but different household formation practices. In total, Group A lives in 1,000 dwellings, all of them occupied by a single family. Group B lives in 1000 dwellings, but ½ are single-family dwellings and ½ are occupied by multiple families. Two-thirds of all dwellings for both groups are owned, but a greater proportion of multiple-families own in Group B than single families. All else equal, Group B will have more families (and, likely, individuals) living in owned accommodations than Group A, because they have more multiple family dwellings, even though the same number of dwellings are owned in each group. Presenting homeownership statistics only at the household level can therefore be misleading, since it does not capture the relationship between homeownership and household formation (Yu and Myers 2010). Arguably, Group B's homeownership rate is too high, because if the extra families formed independent households, they might not all own their new accommodation. Complicating our understanding even more is the fact that residential assimilation is not a status frozen in time; instead, it is a process that takes place over a period of time after immigrants have arrived and settled in the host country. It is therefore necessary to measure the housing trajectories of immigrant groups and whether they converge or diverge from the trajectory of the native-born reference group. As shown later in the report, adjusting for differences in household formation leads one to make different conclusions about a group's housing behaviour.

Analytically, adjusting for household formation entails jointly modeling homeownership attainment alongside a person's position within the household (Joint Center for Housing Studies 2010; Yu and Myers 2010). This, when coupled with a double-cohort design (described more fully below), results in a more accurate representation of individual and group-specific housing careers.

DATA AND METHODS

The Double Cohort Design

Typically, housing models are estimated on a single cross-section of data, which have the limitation of confounding duration, period and immigration cohort effects. The type of housing a immigrant person or family lives in depends on (among other things) their age, the period in

⁶ Traditional homeownership rates are measured at the household level and refer to percent of households that live in owner-occupied housing units.

which they came to Canada, and how long they've been there. In a single-cross section of data, it is impossible to identify age, period of arrival, and cohort effects.

With a 'double-cohort' design (Myers and Lee 1998; Myers, Megbolugbe, and Lee 1998), longitudinal birth cohorts can be created by placing people in the same age groups in times one and two by adding five years to an individual's age at time two (a person that is age 25-34 at time 1 will be 30-39 at time 2). This results in comparisons of similar groups at two points in time. Changes in the effect of other characteristics on homeownership over time can be measured by interacting variables of interest with a year of observation indicator.

This study focuses on the same five immigrant visible minority groups⁷, which have the largest presence in the two countries; they are Black, South Asian, Chinese, Korean, and Filipino. We also include white immigrants in the analysis. Three specific birth (born in 1946-1955, 1956-1965, and 1966-1975⁸) and arrival cohorts (native-born and arrived in 1976-85, 1986-95 in Canada⁹) are tracked over time from 2000 to 2005 in the United States and from 2001 to 2006 in Canada, using native-born whites¹⁰ as a common reference group. Data in the two countries have been carefully examined and matched to ensure comparability. For Canada, the 2001 and 2006 federal censuses are used, and data for the United States come from the 2000 census and the 2005 American Community Survey. Although the years used are slightly different between countries, it does ensure a five-year observation period for each country.

The unit of analysis for this study is individuals, and the sample is limited to those persons who are working 30 hours or more per week. In so doing, this study can examine the variations in household formation among immigrant groups and between immigrants and the native-born reference group.

Analytical Models

Given our belief that household formation is a major factor behind homeownership propensities and people make a joint decision on household formation and housing tenure, we divide our sample into whether they are a non-head, a renter head, or an owner-head, and use the information in the equation below to determine an individual's household status.

Expressed more formally, the model is as follows:

$$HS = \text{Age} + \text{Sex} + \text{Region} + \text{Educ} + \text{Marital Status} + \text{Migstat} + \text{Income} + \text{Vismin} + \text{Price at q25} + \text{Median Rent} + \text{Unemployment Rate}.$$

Where:

$$HS = \text{Householder status (2=head, owned dwelling, 1= head)}$$

⁷ We do not include Hispanics or Latinos in the analysis because of their relatively small population size in Canada.

⁸ 1945-1954, 1955-1964, and 1965-1974 in the U.S.

⁹ native-born and arrived in 1975-84, 1985-94 in the US.

¹⁰ In the United States, there is a large and growing portion of the native-born population that lists their race as Hispanic in the Census. There is no comparable group in Canada, and as a result this group is removed from both samples.

rented dwelling, 0=non-head).

Age = Age/birth cohort, coded as 25-34, 35-44 (ref.), and 45-54 at time 1. At time 2, five years are added to each group.

Sex = Sex of respondent (1=Male, 0=Female).

Region = Dummy variables to control for Region-specific homeownership Propensities (Ontario=Reference Group).

Educ = Indicators to control for attainment (<High school=Ref).

Migstat = Immigrant status of respondent (native-born, arrived 1975-1984, 1985-1994, arrived 1985-1994=Reference group).

Income = Personal income adjusted for inflation using Consumer Price Index (2000 basket, Canada, All Items,(<http://cansim2.statcan.ca>) and U.S. Consumer Price Index, All Items), logged.

Marital Status = Marital status of respondent.

Vismin=Visible minority status.

Price at Q25 = Value of owner-occupied housing at 25th percentile in Census Metropolitan Area in Canada or Metropolitan Statistical Areas in the U.S., adjusted for inflation, logged. Values in both countries are self-assessed.

Rent = Median rent in Census Metropolitan Area in Canada or Metropolitan Statistical Areas in the U.S., logged.

Unemployment = unemployment rates in Census Metropolitan Area in Canada or Metropolitan Statistical Areas in the U.S.

Further details about the variables used in this report, and their sample means are provided in Tables 1a (Canada) and 1b (United States).

Modeling Homeownership and Household Formation

As demonstrated by Haurin and Rosenthal (Haurin and Rosenthal 2007) and Yu and Myers (2010), the general homeownership model has sample selection bias because a household's tenure choice cannot be observed if that household has not yet been formed. In other words, traditional homeownership models may overlook variable rates of household formation as an important factor in homeownership attainment. Although there are a suite of sample selection correction models, this study uses a three-outcome multinomial logit model. This allows for the comparison of non-head to household heads that live in a rented dwelling, household heads that own their dwelling.

Of central interest in the regressions in this paper are the *vismin* coefficients. Convergence with the native-born in the models above can be defined as the difference between the *vismin* coefficient main effects, which denote disparities with the native-born at a point in time. Comparing *vismin* coefficients over time indicates the degree to which a group gains on the native-born over time. Across countries, these coefficients denote the relative gap that a group has with their respective native-born populations. It can therefore be thought of as a comparative indicator of household status in the host society.

The Sample

Our six immigrant visible minority groups have either a large or growing presence in each country. Native-born whites of non-Hispanic origin are also included as a reference group. For immigrants, the sample includes two arrival cohorts, namely those who came to the destination country in 1977-1986 and 1987-1996 in Canada (or 1976-1985 and 1986-95 in the U.S.) and remained in Canada or the U.S. over the early 2000s. By focusing on these two arrival cohorts we can observe net changes in homeownership and household formation after respondents have lived in the destination country for an average of 17.5 years. This interval is an important stage of integration, because immigrants have largely adapted to the host society (Myers and Lee 1998).

The analysis centers on the three birth cohorts that were aged 25-34, 35-44, and 45-54 in 2000/2001 and 30-39, 40-49, and 50-59 in 2005/2006. We use these age groups for both native-born residents and immigrants, because they are the mainstay in the workforce and in the housing market (Kendig 1990; Miron 1988). We also limit our sample to those who usually worked at least 30 hours per week so that all the observations in our study are not dependents and are theoretically able to form independent households if they so choose. Because of this selection criterion and because of the differences in the labour force participation rates between men and women, women are slightly underrepresented in the sample. In contrast to the decades before, labor force participation differentials between men and women have stabilized in recent years and are expected to continue like that in the future (Toossi 2002). In sensitivity analysis, we tested these results using alternative selection criteria (e.g., 20, 25 and 35 hours), and found them to be robust and largely consistent.

Our data sources include U.S. Decennial Census Public Use Microdata for 2000, American Community Survey Public Use Microdata for 2005 (Ruggles, Sobek, Alexander, Fitch, Goeken, Hall, King, and Ronnander 2003), and the Canadian Census microdata for both 2001 and 2006. Data in the two metropolitan areas have been carefully examined and matched to ensure comparability.

The Study Areas

This analysis is conducted in the 20 most populated Canadian Census Metropolitan Areas and the 20 most populated Metropolitan Statistical Areas in the U.S. and, home to about 20 million and 100 million residents respectively. The 20 US metropolitan areas are grouped into 7 different regions¹¹. About one in three Americans live in the top 20 metros, while roughly 2 in 3 live in Canada's 20 largest census metropolitan areas. To capture regional disparities, Canadian data are divided into 4 regions.¹² Both countries have attracted large numbers of new immigrants and immigrants have begun to disperse from traditional gateways to emerging areas.

¹¹ The sample includes top 20 metropolitan areas based on the population size. We base on Census Bureau information and group them into 7 regions. Pacific Division includes four metropolitan areas which are San Francisco-Oakland-Vallejo, CA, Riverside-San Bernardino, CA, Los Angeles-Long Beach, CA, and Seattle-Everett, WA. Mountain Division includes Phoenix, AZ. West North Central Division includes Minneapolis-St. Paul, MN. West South Central Division includes Dallas-Fort Worth, TX and Houston-Brazoria, TX. East North Central includes Chicago, IL, Detroit, MI, and St. Louis, MO-IL. Middle Atlantic Division includes New York-Northeastern NJ, Philadelphia, PA/NJ, and Pittsburgh, PA. South Atlantic Division includes Washington, DC/MD/VA, Atlanta, GA, Baltimore, MD, and Tampa-St. Petersburg-Clear water, FL.

¹² Canadian census metropolitan areas are coded according to the following criteria: West of Ontario: Vancouver, Victoria, Calgary, Edmonton, Winnipeg, Saskatoon, Regina, and Kelowna; Ontario: Toronto, Ottawa-

Both Canada and the U.S. have a large stock of detached homes, semi-detached homes and condominiums, catering to the wide tastes of would-be buyers. Although the cost of ownership has on average been slightly higher in the U.S. than in Canada, financing has (until recently) also been easier to obtain, leveling the differences in opportunity structures. As a result, immigrants face some of the same challenges in each country as they make the decisions to form independent households and/or buy a home.

The Six Groups

The first group selected for analysis is non-Hispanic white immigrants. Most white immigrants in Canada come from Eastern Europe or Great Britain and other commonwealth countries. In comparison, white immigrants in the U.S. are more varied in their countries of origin; the largest sending areas include Canada and Europe. Of all immigrant groups, white immigrants resemble the native-born white reference group most closely, so we hypothesize that white immigrants should have little difficulty with residential assimilation and should have similar levels of household formation to their native-born counterparts soon after arrival.

Similar to white immigrants with respect to countries of origin, black immigrants also come from a variety of countries. The vast majority of black immigrants in the U.S. came from Africa (Kent 2007). By comparison, many black immigrants in Canada were from Africa or the Caribbean. Early evidence has shown that black immigrants face many challenges in both countries (Darden and Kamel 2000; Freeman 2002; Ray, Papademetriou, and Jachimowicz 2004).

Different from white and black immigrants, who came from many different countries, Asian immigrants are much more concentrated in origin. They also tend to have higher educational levels and exhibit more rapid economic advancement in both destination countries than average immigrants. The first group is South Asian immigrants who came from selected countries-- Bangladesh, India, Nepal, Pakistan, and Sri Lanka (Tran, Kaddatz, and Allard 2005). We also include Chinese, Korean and Filipinos in the analysis. Asian immigrants have a sizeable presence in both Canada and the U.S.

What has not been examined to date are the differences in their residential trajectories across countries. To facilitate these comparisons, we select native-born, non-Hispanic whites as a reference group in each country. The selection of native-born whites does not necessarily imply that immigrant groups will aspire to residential patterns of this majority, but that the native-born will provide a useful comparison point. Traditional theories of residential assimilation typically hypothesize a narrowing of differences (homeownership rates, household density, neighbourhood characteristics, etc.) between immigrants and native-born white majorities. Accordingly, selection of this group is most appropriate when seeking a native-born reference group against which to compare residential behaviour of the different groups.

DESCRIPTIVE FINDINGS

Age is an important determinant of housing attainment, for several reasons. First, as individuals age they develop a stronger attachment to the labour market and accumulate more wealth,

Gatineau, Hamilton, London, Kitchener, St. Catharines – Niagara, Oshawa, Windsor, and Barrie; Quebec: Montréal, Québec, Sherbrooke; Atlantic: Halifax, St. John's

thereby allowing them to make large purchases. Second, they become more likely to have a family of their own, encouraging individuals to move into their own dwelling. As a result, we should expect to see an increase in both homeownership and independent household formation, both across birth cohorts and census years.

Table 2a shows that, in Canada, both per capita homeownership rates (defined as the percentage of persons in a group that own) and household formation rates (also referred to as headship rates which are defined as the percentage of persons in a group that are the householders/heads of households) do rise across birth cohorts. This occurs at both observation points. Furthermore, the same cohorts experience increases in both measures over time. Living independently is not only a hallmark of adulthood, but also an important stage in the housing career. Not surprisingly, young cohorts have made the largest improvement from their initially low levels.

Similar trends are evident on all measures in the United States (Table 2b). The only noteworthy difference across countries is that, excepting headship for 50-59 year olds in 2006, there are slightly higher headship and homeownership rates across the board. The differences are slight, however, and speak to the comparability of samples across countries.

Tables 2a and 2b list homeownership and household formation rates for everyone in the sample, regardless of their immigrant status. Most immigration research suggests that collapsing immigrants and the native-born glosses over the additional challenges that immigrants face when trying to integrate into their host society. As a result, it is often beneficial to separately examine the progress of individual immigrant cohorts. Both immigrant and the native-born cohorts experience considerable increases in homeownership, and more modest increases in headship, between 2001 and 2006.

Table 3a lists the homeownership and headship rates for the native-born and two cohorts of immigrants to Canada. As expected, there is a gradual increase in per capita homeownership rates and headship with time spent in Canada. That said, even though those that have been in Canada since 1976-1985 have similar homeownership rates as the native-born, differences in household formation are evident from the headship rates. Immigrants remain below the native-born in terms of headship, suggesting that there may be differences in how immigrant and native-born households form.

Similarly, in the United States (Table 3b) there is a gradual increase in both headship and homeownership with time spent in the host society, with the most recent cohort posting lower rates of ownership and headship than more established immigrants and the native-born. As with Canada, there is also a considerable increase in homeownership between 2000 and 2005, with a more modest increase in headship.

As with birth cohorts, the similarities between Canada and the United States are striking. In no instance is there more than a four percentage point difference in the homeownership or headship rates between countries.

Perhaps these similarities are not surprising; the differences between housing markets described in the literature review suggest several reasons why overall housing patterns may differ, but they give little reason to expect differences across age or immigrant groups. Unlike the basic trends by age and immigrant status shown above, however, there is considerable research that gives reason to expect differences by visible minority group. The United States has a long history of differential treatment by visible minority status, with Blacks experiencing particularly harsh treatment (Massey 1990). Canada has a different history of race relations, leading us to expect more egalitarian trends (Boyd 2002; Fong and Wilkes 1999; Ray and Moore 1991).

That said, research that focuses on homeownership attainment across cohorts shows the similarities to be more striking than the differences (Haan 2007a). This is particularly true when visible minority groups are composed entirely of immigrants, as is the case here. Although there are differences across groups *within* countries, the differences across like groups *across* countries are fairly minimal (Haan 2007a). Tables 4a (Canada) and 4b (U.S.) report homeownership rates by racial/ethnic groups in both Canada and the United States over the study period. Here, we present per capita homeownership, and only include individuals who work more than 30 hours per week. Data for Canada is presented and discussed first, followed by corresponding data for the United States.

Consistent with previous studies (e.g., Haan 2005; Painter, Yang, and Yu 2003), results for in Canada (Table 4a) show that in 2001, whites and Chinese immigrants have relatively high per capita homeownership rates, followed by South Asians, Koreans, Filipino, and Blacks which have much lower rates. Five years later, there is a substantial increase for all groups, with many groups increasing per capita homeownership rates by more than 10 percentage points. In other words, the owner householder share of the population has increased for all groups. What is also interesting is that in 2006, although all groups increased their access to owner-occupied housing (particularly relative to the native-born), the gaps between them changed very little. For example, the Chinese had a per capita ownership rate that was 11 points higher than Filipinos in 2001; by 2006, the gap was virtually identical, and had actually even increased slightly.

Turning now to headship rates, there seems to be no discernable pattern between headship and homeownership in Canada. In 2001, white native-born, white immigrants and black immigrants have the three highest levels of independent household formation, yet blacks have the lowest ownership rate and white native-born respondents have the highest. The same is true for 2006, and all groups increased their independent household formation rates.

In the United States, there is a high degree of similarity with Canada. Regarding per capita ownership, it is white native-born, white immigrant, Chinese and South Asians with the highest rates, Filipinos, Koreans, and Blacks with the lowest rates. Five years later, there is also evidence of an across-the-board increase, but little movement in the gaps between groups.

Also similar to Canada is the lack of a discernable relationship between ownership and headship in the United States. White native-born, white immigrants and black immigrants, and now South Asians have the highest levels of independent household formation. Blacks once again have the lowest ownership rates of all groups in 2000, and white native-born respondents have the highest rate. The same is true for 2005. Once again, although all groups increased their independent household formation rates and their rates of homeownership, the rates of attainment were very similar. Over the five-year period, the groups have not only formed many new households, but also purchased many homes. The rate of owner household growth has surpassed the rate of total household growth, highlighting the transition from rentership to ownership as people age and as immigrants become adapted to the host country.

To further illustrate the similarities across countries, consider Figure 1, which plots the proportion of individuals in our sample by the homeownership and headship status. The darkest bar on the bottom of each figure represents per capita homeownership rates of individual groups in the two years. Per capita homeownership here can also be understood as owner householder share of the population. The larger the dark bar, the higher the per capita homeownership rates. Meanwhile, the grey color bars in the middle represent per capita rentership rates or renter householder share of the population. The larger the grey bars, the higher the share of the population being renter householders. The grey bars and the dark bars combined together represent headship rates. Notice how in each instance the differences between visible minority groups is evident within countries, but not across countries for the same group. In other words, these results show that visible minority groups have similar housing experiences in each country, at least as measured by homeownership and household formation.

While headship rates are slightly higher in the U.S. for some groups, per capita rentership (grey bars) tends to also be larger. Both homeownership rates and household formation rates have increased over the five year period for all groups, while rentership has declined. For native-born whites, headship rates have been steady over the five year period. The increase in homeownership was the result of the decline in rentership. In other words, it is largely white renters (native-born and immigrant) that are buying homes over time. In contrast, many visible minority immigrants are not only buying homes, but also forming more independent households.

To summarize the results so far in this report, two main findings are evident. First, there are large variations between visible minority groups both in terms of ownership and headship status, without any clear trend evident between the two characteristics. In fact, the group with the highest rate of household formation (blacks) has the lowest ownership rate, and the group with the second-highest rate of household formation has the highest ownership rate (White native-born). At the other end of the spectrum, several groups with low rates of formation have high ownership rates (such as the Chinese), whereas others, like Filipinos, do not. Second, although there was an increase in both ownership and household formation for all groups in both countries over time, there is very little change in the gaps between immigrant groups. However, the differences in per capita homeownership have shrunk between immigrant groups and the native-born white reference group, suggesting the trajectories are converging. While the convergence is

evident in both countries, immigrants still lag behind in both household formation and homeownership attainment by the end of the observation period.

Multivariate Results

The descriptive results above illustrate that there are several similarities between Canada and the United States, and that there are sizeable gaps in both homeownership and household formation rates between groups in each country.

As important as these findings are, they may be driven by factors that have not yet been accounted for, like differences in income, education, employment status, and various other factors that likely affect residential behaviour. For this reason we present a series of multinomial logit models here to control for the influence of numerous other housing-relevant individual characteristics.

Multinomial logit regressions yield relative risk ratios (RRR), which are presented in Tables 5a and 5b. Each coefficient reflects the effect of a particular characteristic on one of the three types of household status, relative to the probability of being a non-head. Values higher than one mean that an individual is more likely to be a renter-head or owner-head¹³ than a non-head, and values lower than one imply the opposite. There are two columns for each model. The left column reports the probability of being a renter householder, while the right column shows the probability of being an owner householder. Separate models are estimated each year, and in all cases the baseline group is the probability of being a non-householder, which is omitted from the table.

Let us first examine the factors behind household formation in Canada. As expected, males are more likely to be owner-heads or renter-heads in general and owner householders in particular. Income, educational attainment, and English (English/French in Canada) proficiency are all positively associated with household formation. In the second year, personal income has a slight dampening effect on renter household formation.

The effect of marital status is more complex. Married couple households are the least likely to form renter households and they have a stronger propensity of becoming homeowners. After the five year study period, the number of formerly married individuals are more numerous. Those who are formerly married have the highest propensity of living independently and renting. People who have never been married (never married) are also called singles, while formerly married refer to divorcees or widowers. People who are formerly married tend to be older and more independent in terms of living arrangement. The omitted category is those who are currently married.

Finally, as we might expect, higher housing price encourages renter household formation and deters owner household formation. The reverse is true for increases in rent, where owner-headship increases. The results for these indicators in Canada largely mirror the findings in the

¹³ In the US Census, a householder is a person who is the head of a household.

U.S., further increasing our confidence about the comparability of the results in the two countries.

Turning now to the United States, males are once again more likely to be householders, a finding that is especially true for owner householders. Income positively predicts both headship and ownership in 2000, but has a negative impact on renter-headship in 2005. The propensity to be a renter-head is higher for 25-34 in both years relative to the 35-44 year olds, and lower for 45-54 year olds in both years.¹⁴ Married individuals are more likely to be both renter-heads and owner-heads. Language fluency also has a sizable impact on being an owner-head in both years, presumably because fluency is a proxy for familiarity of US housing market regulations and requirements.

The trend towards homeownership shown in table 3b persists here, with a negative propensity for independent rental household formation relative to the most recent arrival cohort. These trends are affected quite heavily by the price of housing. Increases in prices at the 25th percentile push ownership propensities downward and rental propensities upward, with increases in the median rent eliciting the expected opposite effect (rental propensities drop while ownership rises).

Differences Across Visible Minority Groups

After controlling for the covariates, how have immigrant groups fared relative to the native-born white cohort in both countries? To what extent have immigrants improved their housing outcomes over the five year period? Keep in mind that as the native-born white cohort grows older, they also improve their housing outcomes, suggesting that assimilation for immigrants is a "moving target." For immigrants, they are not only adapting to the new country, but also aging at the same time.

First, visible immigrant minority groups have largely similar performance in the two countries over time. This is true even after adjusting for other covariates. In some cases, immigrants have narrowed the differences in housing attainment from native-born whites. The remaining differences may be partially explained by culture preferences. However, there are large variations between groups.

Second, white immigrants have a similar propensity for household formation to native-born whites. The finding is particularly evident in Canada. In the U.S., white immigrants fare slightly worse than native-born whites in terms of per capita homeownership, and they are more prone to forming renter households than the native-born.

Third, black immigrants are very different from our original expectations and from previous studies. They have very high rates of household formation in both study areas, but the households they form are largely rental. In other words, from the same number of people, black immigrants have formed more renter households than other groups. The results suggest that when household formation is taken into consideration, the low homeownership rates observed for black immigrants are not necessarily a sign of socioeconomic disadvantage.

¹⁴ Readers are reminded that all cohorts age 5 years across census years, so 25-34 year olds are 30-39 at time 2, 35-44 year olds are 40-49 at time 2, and 45-54 years olds are 50-59.

Fourth, South Asian immigrants are most different across countries. As Figure 2 shows, South Asian immigrants are much more likely to form renter households than whites in the U.S., whereas in Canada they are more likely than the native-born to be non-heads. The differences may reflect the diverse origins of South Asian immigrants in the two countries.

Fifth, Chinese in both countries have low rates of household formation, forming far fewer renter households than, for example, black immigrants. While it is unclear whether the low rates of household formation is the result of cultural preference or market pressure, we can say that the Chinese (who have previously been labelled housing "high achievers" (Haan 2007b)) stand out much less when the unit of analysis switches to individuals.

Sixth, Korean immigrants are similar to South Asians. They have improved housing outcomes over the five years and they are more likely to form renter households in the U.S.

Finally, Filipinos have relatively low propensity for household formation in both countries.

To see how the earlier unadjusted differences between groups have changed with the addition of covariates, and to compare visible minority groups across countries, Figure 2 plots the relative risk ratios from the regressions in Table 5a and 5b:

Looking first at renter-head propensities, black immigrants have much higher propensities than all other groups in every instance but 2005 in the United States. In Canada, it is the Chinese with the lowest propensities to be renter-heads, followed closely by South Asians. In the United States, the results are more dispersed; several groups are more likely to be renter heads than the native-born, with big changes in propensities over time for South Asians and Koreans.

Regarding homeownership, Figure 2 illustrates the attenuation of homeownership disparities between nearly all groups and the native-born over time spent in the host society. It is interesting to note that for many in the United States, but not Canada, this occurred alongside an increase in the propensity to be a renter head, suggesting that the increase in owners came from the stock of non-heads. In Canada, increases in ownership relative to the native-born were, by and large, modest.

Conclusions

In a now-classic article on the socioeconomic stratification of ethnic groups, Shibutani and Kwan noted that "patterns of human experience, though infinitely varied, repeat themselves over and over again in diverse cultural contexts." (1965: 21). Results here lend weight to that statement, with the remarkable consistencies that are shown to exist across countries. We find evidence of similar levels of household formation, homeownership, and progress over time in Canada and the United States. This suggests that, despite the many differences between countries, the process of residential integration is remarkably similar. One exception to this statement would be South Asians, who experience much better residential outcomes in Canada than they do in the United States.

This study is innovative for several reasons. First, it overcomes the limitation of the conventional measure of homeownership, which is measured at the household level and ignores household formation (Yu and Haan, under review) (Yu and Myers 2010). Newly arrived immigrants are the least likely to form single-family independent households, and the most likely to reside in multiple family dwellings. Consequently, homeownership disparities between visible minority groups may not be as pronounced once household formation is controlled in the analysis of homeownership attainment. The most interesting comparison in this regard is between black and Chinese immigrants. The low homeownership rate (measured at the household level) of black immigrants masks the fact that blacks have a particular high level of renter household formation. In other words, with the same number of immigrants, black immigrants create a much larger demand for rental housing than Chinese immigrants. In contrast, the high homeownership rates of Chinese immigrants are the results of their relatively low rates of renter household formation. The Chinese have a much lower demand for rental housing, opting instead to remain non-heads, perhaps living with family, until they can enter the owner-occupied market. The Chinese seem to have very similar outcomes in both countries. While we are not able to directly test whether the Chinese are sharing with their family members or doubling up with roommates, it is clearly a topic for further examinations.

Second, most existing studies rely on cross-sectional analysis to study residential assimilation. This is problematic because residential assimilation is longitudinal in nature and there are substantial variations between immigrant arrival cohorts, something which can be addressed with a double cohort analysis. Evidently, more recent immigrant arrivals have lower socioeconomic status and worse housing outcomes than earlier arrivals in both the U.S. and Canada (Borjas 2002)(Haan 2005). The size of each arrival cohort has also changed significantly over time. Therefore, it is necessary to treat residential assimilation as a process instead of an outcome. The cohort approach has shown to be a valid alternative to the widely used cross-sectional analysis (e.g., Myers and Lee 1996; Yu and Myers 2007).

Third, all immigrant groups show a gradual but significant increase in demand for both renter and owner-occupied housing over time. This gradual increase in housing demand seems evident after immigrants have arrived in the host country for more than 10 years. Research findings have also shown that immigrants in both countries have kept up with the progress of the native-born white cohort over the five-year period. In some immigrant groups, the differences have shrunk over time. As shown in Figure 2, the homeownership disparities between native-born whites and most immigrant groups have shrunk over the five year study period. In fact, the Chinese had a higher propensity for homeownership than native-born whites at the end of the study period in the U.S.

Fourth, Korean and Filipino immigrants present two unique cases. The Filipinos have one of the lowest homeownership rates of all immigrant groups, even after adjusting for other covariates. In contrast, while the Korean are doing relatively well economically, they are not buying homes at the same rates as native-born whites. To the extent these two groups prefer to live in cities where rental housing is more abundant (Yu and Myers 2007), further analysis is necessary.

Finally, there is very little research that compares similar groups across countries. Comparing nearly identical groups (those that are similar in age, years since migration, visible minority

status, etc.) in two different policy contexts provides a rare opportunity to look at how context shapes socio-economic outcomes like housing. There are nearly no comparative studies on housing, so we feel that our contribution here is especially noteworthy. Most research looks at the behaviour of groups *or* the effect of environmental factors, but few consider these effects simultaneously.

Table 5b. The relative risk ratios of the determinants of household formation in Top 20 US Metropolitan Areas, 2000 and 2005

| | The U.S. | | | | | | | |
|--|------------------|-----|-----------------|-------------|------------------|-----|-----------------|-----|
| | 2000 | | | | 2005 | | | |
| | Obs (weighted): | | | | 20 295 050 | | | |
| Log likelihood : | | | | -20 474 638 | | | | |
| Pseudo R2 : | | | | 0,200 | | | | |
| Variables | Renter Household | | Owner Household | | Renter Household | | Owner Household | |
| Male Gender (Omitted: Female) | 3,983 | *** | 7,738 | *** | 2,153 | *** | 2,370 | *** |
| Personal Income (log) | 1,218 | *** | 2,292 | *** | 0,946 | *** | 1,708 | *** |
| Bith Cohorts (Omitted: Age 35-44 or 40-49 in the Latter Year) | | | | | | | | |
| Age 25-34 or 30-39 in the Latter Year | 1,102 | *** | 0,532 | *** | 1,224 | *** | 0,762 | *** |
| Age 45-54 or 50-59 in the Latter Year | 0,837 | *** | 1,202 | *** | 0,830 | *** | 1,139 | *** |
| Visible Minority Groups (Omitted: Native-born Non-Hispanic White) | | | | | | | | |
| Immigrants: Non Hispanic White | 1,614 | *** | 0,701 | *** | 1,858 | *** | 0,864 | *** |
| Black | 2,439 | *** | 0,721 | *** | 2,326 | *** | 0,840 | *** |
| South Asian | 1,890 | *** | 0,626 | *** | 2,829 | *** | 0,892 | *** |
| Chinese | 1,200 | *** | 0,870 | *** | 1,449 | *** | 1,053 | *** |
| Korean | 2,021 | *** | 0,569 | *** | 2,833 | *** | 0,810 | *** |
| Filipino | 0,840 | *** | 0,597 | *** | 1,001 | | 0,659 | *** |
| Education (Omitted: High School Dip. W/ College) | | | | | | | | |
| No High School Diploma | 1,054 | *** | 0,764 | *** | 1,108 | *** | 0,764 | *** |
| College Degree or Better | 1,251 | *** | 1,168 | *** | 1,138 | *** | 1,168 | *** |
| Marital Status (Omitted: Married) | | | | | | | | |
| Never Married | 3,274 | *** | 0,747 | *** | 5,816 | *** | 1,406 | *** |
| Formally Married | 8,069 | *** | 2,608 | *** | 10,962 | *** | 3,138 | *** |
| Language Proficiency (Omitted: Does not speak English/French) | | | | | | | | |
| Speak English/ (English/French in Canada) | 0,694 | *** | 1,560 | *** | 1,193 | *** | 3,053 | *** |
| Immigrant Status (Omitted: Immigrants Arrived between 1985 and 1994) | | | | | | | | |
| Immigrants Arrived between 1975 and 1984 | 0,733 | *** | 1,366 | *** | 0,596 | *** | 1,205 | *** |
| Metropolitan Housing Price and Rent | | | | | | | | |
| The 25th Percentile Housing Price (log) | 1,851 | *** | 0,450 | *** | 2,066 | *** | 0,676 | *** |
| Median Rent (log) | 0,291 | *** | 2,041 | *** | 0,257 | *** | 1,283 | *** |
| Regions in the US (Omitted: Pacific Division) | | | | | | | | |
| Mountain Division | 0,833 | *** | 1,272 | *** | 0,854 | *** | 1,154 | *** |
| West North Central | 1,146 | *** | 1,100 | *** | 1,096 | *** | 1,049 | *** |
| West South Central | 0,930 | *** | 1,089 | *** | 0,848 | *** | 1,132 | *** |
| East North Central | 1,242 | *** | 1,098 | *** | 1,167 | *** | 1,088 | *** |
| Middle Atlantic Division | 1,076 | *** | 1,044 | *** | 1,037 | *** | 1,061 | *** |
| South Atlantic Division | 0,732 | *** | 1,583 | *** | 0,650 | *** | 1,281 | *** |
| New England Division | 1,735 | *** | 0,793 | *** | 1,755 | *** | 0,913 | *** |

* p<0.05 **p<0.01 ***p<0.001 Two-tailed tests

Note: Non-head is the baseline group.

The reference group for gender is "female"; for minority, the reference group is "Native-born Non-Hispanic White"; for educational attainment it is "High school dip. w/ college"; for marital status, it is "currently married"; for Language proficiency, it is "Does Speak English"; for immigrant status, it is "the native-born"; for regions in the U.S., it is the Pacific Division.

References

- Alba, R. D. and J. Logan. 1992. "Assimilation and Stratification in the Homeownership Patterns of Racial and Ethnic-Groups." *International Migration Review* 26:1314-1341.
- Borjas, George J. 2002. "Homeownership in the Immigrant Population." *Journal of Urban Economics* 52:448-476.
- Boyd, Monica. 2002. "Educational Attainments of Immigrant Offspring: Success or Segmented Assimilation?" *International Migration Review* 36:1037-1060.
- Darden, Joe T and Sameh M Kamel. 2000. "Black and White Differences in Homeownership Rates in the Toronto Census Metropolitan Area: Does Race Matter?" *Review of Black Political Economy* 28:53-76.
- Evans, Gary W., Stephen J. Lepore, and Karen Mata Allen. 2000. "Cross-cultural differences in tolerance for crowding: Fact or fiction?" *Journal of Personality and Social Psychology* 79:204-210.
- Fannie Mae. 2011. "Economics and Mortgage Market Analysis." Fannie Mae Foundation, Washington, DC.
- Farley, Reynolds. 1996. "Racial Differences in the Search for Housing: Do Blacks and Whites Use the Same Techniques to Find Housing?" *Housing Policy Debate* 7:367-385.
- Fong, Eric. 1994. "Residential Proximity among Racial Groups in U.S. and Canadian Neighborhoods." *Urban Affairs Quarterly* 30:285-297.
- Fong, Eric and Milena Gulia. 1999. "Differences in Neighborhood Qualities among Racial and Ethnic Groups in Canada." *Sociological Inquiry* 69:575-598.
- Fong, Eric and Rima Wilkes. 1999. "The Spatial Assimilation Model Reexamined: An Assessment by Canadian Data." *International Migration Review* 33:27.
- . 2003. "Racial and Ethnic Residential Patterns in Canada." *Sociological Forum* 18:577-602.
- Freeman, Lance. 2002. "Does Spatial Assimilation Work for Black Immigrants in the US?" *Urban Studies* 39:1983-2003.
- Glazer, Nathan and Daniel Patrick Moynihan. 1963. *Beyond the Melting Pot: The Negroes, Puerto Ricans, Jews, and Irish of New York City*. Cambridge, MA: M.I.T. Press.
- Haan, Michael. 2005. "The decline of the immigrant home-ownership advantage: Life-cycle, declining fortunes and changing housing careers in Montreal, Toronto and Vancouver, 1981–2001." *Urban Studies* 42:2191 - 2212.
- . 2007. "The Homeownership Hierarchies of Canada and the United States: The Housing Patterns of White and Non-White Immigrants of the Past Thirty Years." *International Migration Review* 41:433-465.
- Haurin, Donald R. and Stuart S. Rosenthal. 2007. "The Influence of Household Formation On Homeownership Rates Across Time and Race." *Real Estate Economics* 35:411-450.
- Hou, Feng and T.R. Balakrishnan. 1996. "The Integration of Visible Minorities in Contemporary Canadian Society." *Canadian Journal of Sociology/Cahiers canadiens de sociologie* 21:307-326.
- Kamo, Yoshinori. 2000. "Racial and ethnic differences in extended family households." *Sociological Perspectives* 43:211-229.
- Kendig, H.L. 1990. "A Life Course Perspective on Housing Attainment." Pp. 133-156 in *Housing Demography: Linking Demographic Structure and Housing Markets*, edited by D. Myers. Madison, WI: University of Wisconsin Press.
- Kent, Mary Mederios. 2007. "Immigration and America's Black Population." *Population Bulletin* 62:3-16.

- Massey, Douglas S. 1990. "American Apartheid: Segregation and the Making of the Underclass." *American Journal of Sociology* 96:329-357.
- Miron, John R. 1988. *Housing in postwar Canada : demographic change, household formation, and housing demand*. Kingston, [Ont.]: McGill-Queen's University Press.
- Myers, Dowell and Seong Woo Lee. 1998. "Immigrant Trajectories into Homeownership: A Temporal Analysis of Residential Assimilation." *International Migration Review* 32:593-625.
- Myers, Dowell, Isaac Megbolugbe, and SeongWoo Lee. 1998. "Cohort Estimation of Homeownership Attainment among Native-Born and Immigrant Populations." *Journal of Housing Research* 9:237-269.
- Myles, John and Feng Hou. 2004. "Changing Colours: Neighbourhood Attainment and Residential Segregation Among Toronto's Visible Minorities." *Canadian Journal of Sociology* 29.
- Painter, Gary, Lihong Yang, and Zhou Yu. 2003. "Heterogeneity in Asian American Homeownership: The Impact of Household Endowments and Immigrant Status." *Urban Studies* 40:505-530.
- Ray, Brian K. and Eric G. Moore. 1991. "Access to homeownership among immigrants groups in Canada." *Canadian Review of Sociology and Anthropology* 28:1-28.
- Ray, Brian K., Demetrios Papademetriou, and Maia Jachimowicz. 2004. "Immigrants and Homeownership in Urban America: An Examination of Nativity, Socio-Economic Status and Place." Migration Policy Institute, Washington D.C.
- Ruggles, Steven, Matthew Sobek, Trent Alexander, Catherine A. Fitch, Ronald Goeken, Patricia Kelly Hall, Miriam King, and Chad Ronnander. 2003. *Integrated Public Use Microdata Series: Version 3.0*. Minneapolis, MN: Historical Census Projects, University of Minnesota, 2003.
- Skaburskis, Andrejs. 1994. "Determinants of Canadian Headship Rates." *Urban Studies* 31:1377-1390.
- Toossi, Mitra. 2002. "A century of change: the U.S. labor force, 1950-2050: With slower growth, aging, and increasing diversity, the profile of the U.S. labor force is undergoing a gradual, but significant, change." *Monthly Labor Review* 125:15-28.
- Tran, Kelly, Jennifer Kaddatz, and Paul Allard. 2005. "South Asians in Canada: Unity through diversity." *Canadian Social Trends* 11:20-25.
- Troper, Harold. 2003. "To farms or cities: a historical tension between Canada and its immigrants." Pp. 509-531 in *Host Societies and the Reception of Immigrants*, edited by J. Reitz. La Jolla: Center for Comparative Immigration Studies.
- Yu, Zhou and Dowell Myers. 2007. "Convergence or Divergence in Los Angeles: Three Distinctive Ethnic Patterns of Immigrant Residential Assimilation." *Social Science Research* 36:254-285
- . 2010a. "Misleading Comparisons of Homeownership Rates When the Variable Effect of Household Formation is Ignored: Explaining Rising Homeownership and the Homeownership Gap between Blacks and Asians." *Urban Studies (Routledge)* 47:2615-2640.

Visit our website at www.cmhc.ca