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Housing Ownership Patterns of Immigrants in Canada¹

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Abstract

This paper investigates housing tenure among immigrant groups in Canada's three largest cities using data from the 1991 Canadian Census Public Use Sample Tapes. Due to the dichotomous nature of the dependent variable (i.e. whether one owns a house or not), a logistic regression is estimated to capture the effects of socio-economic and demographic variables on home ownership. The results show a wide variation in home ownership amongst immigrant groups after controlling for age, marital status, education, household type, income and period of immigration. Ownership rates are highest among immigrants of European/USA origin but very low for those of African/Caribbean origin. Asian immigrants also recorded the highest predicted probability of home ownership in Vancouver. Finally, the results also indicate that it takes on average six to eight years for the foreign-born population as a whole to attain the same rate of housing tenure as that of Canadians. With the exception of Montreal, immigrants of African/Caribbean origin in the other two cities, however, do not catch up with the Canadian-born population.

Keywords: Home tenure, ownership, immigrant

J.E.L. Classification: J31, J61

I. Introduction

This paper is part of a larger project being conducted by three other researchers at the Vancouver Centre for Excellence on Immigration (RIIM) on the expenditure patterns of Canada's immigrant population. This includes wealth or asset accumulation by immigrants, tax contributions, use of social programs, and food expenditure patterns. Home ownership is important for the immigrant and, for that matter, to the Canadian-born population for several obvious reasons. First, ownership provides shelter, a sense of security and a feeling of community as well as symbolic and psychological benefits. Secondly, for the immigrant population, home ownership may be viewed as a step toward assimilation into mainstream society (Alba and Logan 1992) since home-ownership is a sign of adaptation in that it represents a level of knowledge of the housing market and, more importantly, an indication of an immigrant's intention to remain in the host society for a long time.

This paper is motivated by the following reasons. First, estimates from the 1996 Family Expenditure Survey shows that housing accounts for about 27% of total expenditures for immigrants, the largest in a category of 13 major expenditure items.² With housing representing a significant proportion of household total expenditures, it provides a strong motivation to further analyze the characteristics and various issues associated with how immigrants respond to this market. Secondly, previous studies on the performance of immigrants in the Canadian economy have largely focused on the labour market and very little on the other markets.³ This paper attempts to partially fill this gap in the literature.

² These are food, shelter, household operation, furniture and equipment, clothing, transportation, health, personal care, recreation, reading, education, tobacco and alcohol and miscellaneous.

³ The exception is A. Shamsuddin and D. DeVoretz (1998), "Wealth Accumulation of Canadian and Foreign-Born Households in Canada," *The Review of Income and Wealth*, forthcoming.

There exist at least three reasons why *ex-ante* immigrant housing ownership patterns may differ from that of Canadians. First, immigrants are not randomly selected from abroad. Specifically, they are doubly selected. In the first stage, immigrants self-select and participate in a worldwide immigration market with several choices. In the second stage, Canada also selects immigrants from this pool of self-selected immigrants based on various labour market and demographic criteria. Thus, given these criteria, the income accumulation and hence housing ownership patterns may differ.⁴ Secondly, some immigrants may be subject to discrimination in financial markets because, with incomplete information on especially recent immigrants' credit backgrounds, financial institutions will strive to avoid adverse selection problems. This implies limited access to mortgages and other forms of financial assistance and thus differential home ownership patterns. Third, Canada's immigration policy has changed significantly over the years, with the principal source countries moving from Europe to Asia. Thus, the tastes, preferences and economic and cultural backgrounds of immigrants have become increasingly diverse from the Canadian-born population and this in turn may yield differential housing tenure propensities by birthplace. For example, larger extended families typically associated with immigrant families will lead to different housing choices. Using data from the 1991 Canadian census, Laryea (1997) estimated that the foreign-born population on average had a family size of 3.08 compared with 2.85 for the Canadian-born.

The primary objective of this paper, therefore, is to identify and examine the main factors influencing home ownership by birth status after controlling for demographic and socio-economic variables such as age, education, income, period of immigration and family composition. This paper also examines inter-metropolitan differences in home ownership by birth status. For the purposes of this paper, our focus will be on the three largest immigrant-receiving cities: Toronto, Montreal and Vancouver. The inter-metropolitan focus is important because regional location and population size may influence housing markets (Balakrishnan and Wu 1992). This is because, *a priori*, we expect housing ownership rates between immigrants and Canadians to be different for

⁴ See Shamsuddin (1995).

reasons alluded to earlier. Furthermore, immigrants are not a homogeneous group, thus it would be instructive to investigate how home tenure patterns of, say, Asian-born immigrants differ from that of European- or African-born immigrants. Finally, this paper will attempt to estimate assimilation by investigating the interaction between home ownership and years of residence in Canada. This latter point is a major point of departure from the Canadian literature.

The paper is organized as follows. The empirical literature on home tenure among immigrant and host country populations will be discussed next. This literature review will focus on studies in both Canada and other developed countries. The third section will be devoted to methodological and data issues. In the fourth section, I present a summary of the main findings. The final section concludes the paper.

II. Literature Review

A number of studies have explored the home-ownership patterns and attainment of immigrants. In the United States for example, Ong and Grigsby (1988) noted wide disparities in housing tenure amongst different immigrant groups in the Los Angeles area. Alba and Logan (1992) also compared the effect of English proficiency (indicator of assimilation) on home-ownership attainment among twelve major ethnic groups in the United States, *circa* 1980. They discovered that those who knew English well were more likely to be homeowners. Krivo (1995) also compared the housing-ownership attainment of Hispanics and Anglos in 1980. Krivo's study corroborated the findings of Alba and Logan. She also concluded from her regression estimates that the likelihood of ownership increased with length of U.S. residence. Nonetheless, the negative effect owing to foreign birth status on home ownership did not disappear for 36 years. Finally, Myers and Lee (1998) also explored the rate of advancement into home ownership of immigrants relative to the native-born in Southern California. Using a double-cohort method,⁵ they concluded

⁵ For a more detailed discussion on the double cohort method, see Myers and Lee (1996) and Myers (1996). Essentially, the double-cohort method enables longitudinal trends for immigrants, due to both aging and assimilation, to be distinguished from the cohort levels observable by cross-sectional techniques.

that recent immigrants as well as the young native-born achieve lower home ownership attainment levels than earlier immigrant arrivals or older cohorts.

To summarize the general findings from the U.S. literature, one observes that research on ethnic and racial differences in home ownership has focused primarily on spatial variation — ethnic segregation and constraints on minority housing choices. In this context, it has been argued that discrimination, both individual and institutional, contributed to disparities in home ownership between Blacks and whites.

Other Immigrant-receiving Countries

Research in Australia also found a stronger propensity on the part of immigrants to become homeowners. For example, Bourassa (1994) estimates a cross-sectional duration effect on ownership rates of 1.7 percentage points for each additional year of residence in Australia.

There have also been several studies on home tenure trends among the immigrant population vis-à-vis the native-born population in Israel. See for example, Semyonov, Lewin-Epstein and Spilerman (1996); and Lewin-Epstein, Elmelech and Semyonov (1997). In Israel, the state has played a larger role in immigrant housing markets than in other immigrant-receiving countries. In Israel, more than 90% of the land is publicly owned, and housing policies were developed not merely to accommodate the rapidly growing population but also as an instrument for achieving economic, political and national security goals (Lewin-Epstein, Elmelech and Semyonov 1997). The latter also noted that “. . . During the late 1950s and early 1960s, the state was faced with the challenge of absorbing an immigrant population of more than 1 million people . . . In conjunction with this, the government engaged in creating a geographic periphery as part of a population dispersion program. The policies implemented resulted in considerable variation in social, economic and demographic characteristics of communities and consequently substantial disparities in the value of housing. Those most vulnerable to state policies were immigrants who arrived as the policies unfolded” (op.cit. 1442). Lewin-Epstein, Elmelech and Semyonov established that country of origin and place of residence (whether peripheral or urban) had a strong influence on housing ownership patterns in

Israel. That research also established a strong correlation between the probability of ownership and years since migration. Furthermore, Jews of European origin were more likely to purchase a house compared to Asians and North-African Jews, with Jews of North-African descent registering the least probability.

In Canada, the literature has been dominated by research from a sociological perspective with emphasis on racial inequalities and ethnicity determining home tenure patterns. In particular, Balakrishnan and Wu (1992) suggest that disparities in the rates of home ownership may derive from ethnic differences. They suggest that higher rates of home ownership among certain ethnic groups may reflect a stronger need for establishing their social identity and seeking acceptance by the dominant groups. They also found high rates of housing ownership amongst the Italians and the Chinese, and low rates of ownership amongst Blacks and Aboriginal peoples using data from the 1986 Canadian population census. From an economics perspective, some studies in the Canadian literature have focused on the demand for housing with conflicting evidence about the role of immigrants. For example, Baxter (1990) and Schwaan (1990) conclude that immigration had a moderate effect on housing demand. On the other hand, studies by Marr and McCready (1989) and Miyake (1992) imply a stronger demand for housing by immigrants. In this paper though, my focus is on assimilation of immigrants via the housing market and not on housing demand and the impact on housing prices by immigrants. In Canada, federal policies on housing has been implemented by the Canada Mortgage and Housing Corporation (CMHC). The literature however does not suggest that housing legislation was geared toward the immigrant population specifically.

IV. Methodology and Sources of Data

The methodology adopted in this paper follows closely that of Chiswick (1978) and modified by Borjas (1985), which addressed the issue of labour market assimilation. Chiswick estimated a standard labour force model that predicted earnings based on years of experience, educational attainment and years since migration (YSM). The coefficient on YSM was then interpreted as the growth in earnings that corresponded to years in residence in the United States. Borjas (1985) extended Chiswick's work by incorporating

immigration-entry cohorts to examine differences in the impact of the time of arrival on assimilation into the labour market. The approach adopted in this paper is similar, except our focus is to capture assimilation into the housing market rather than the labour market. Furthermore, because the dependent variable in this analysis is dichotomous, a logistic regression model was estimated.

The data for this study is from the 1991 Canadian Census Public Use Sample tapes for individuals. From this file, all household maintainers⁶ in the age group 25-64 were selected since few will buy a home before age 25. Similarly, by age 65 many individuals will have retired. Thus the focus on the 25-64 age range is meant to target the economically active population. Since the bulk of the immigrant population is concentrated in the large metropolitan areas, and because this paper's focus is on inter-city comparisons, the sample was further limited to the Toronto, Montreal and Vancouver Census Metropolitan Areas (CMAs). According to Statistics Canada, in 1991 more than one-half of Canada's foreign-born population (57%) lived in the Toronto, Montreal and Vancouver CMA.⁷

Descriptive Statistics

Tables 1 to 4 summarize some of the descriptive statistics from the dataset. Table 1 shows the distribution of home tenure among the selected sample of household maintainers by selected metropolitan areas. This information is also summarized in Figure 1 as a bar graph.

⁶ Statistics Canada defines this individual as the one who contributes the greatest amount toward the payment for shelter expenses.

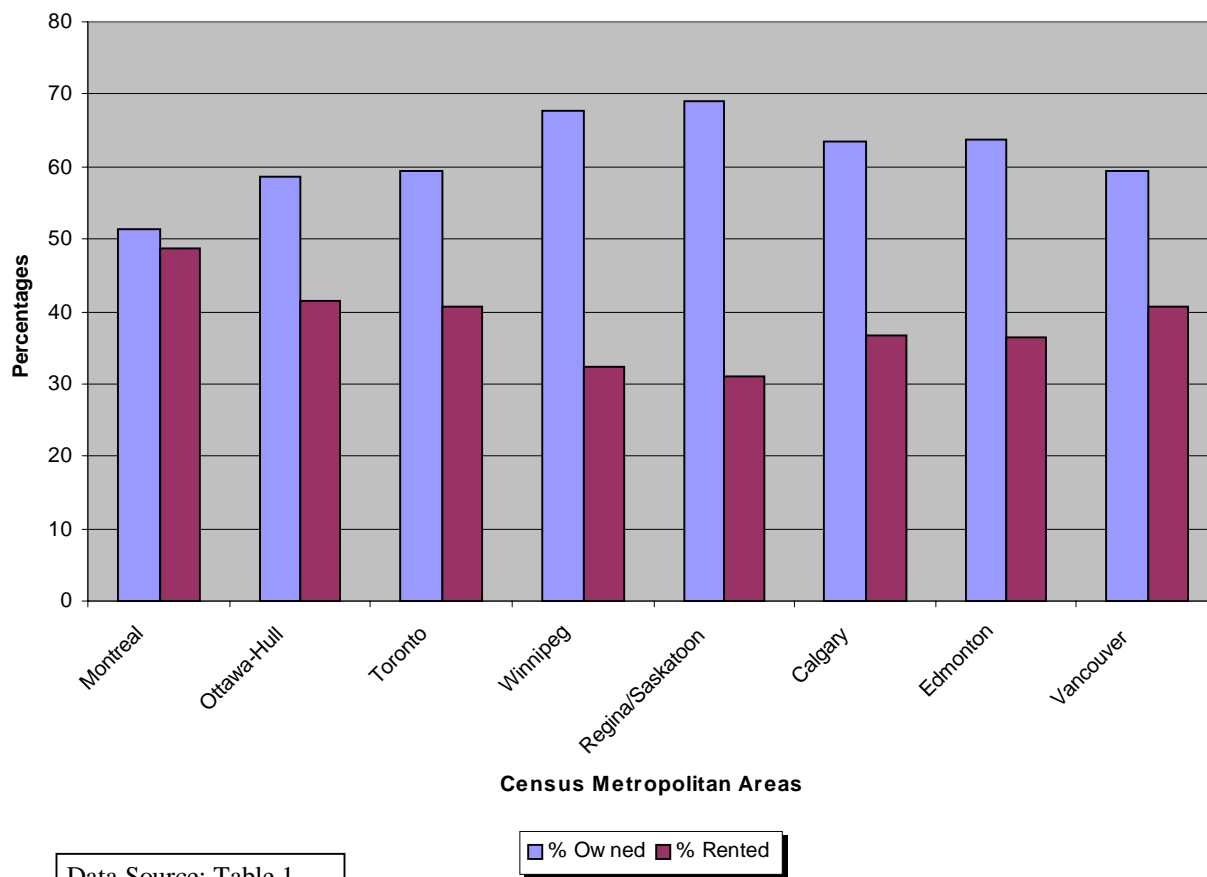
⁷ See Statistics Canada Report No. 96-311E

Table 1
Home Tenure by Selected Metropolitan Areas (1991)

<i>Metropolitan Area</i>	<i>Sample Size</i>	<i>% Owned</i>	<i>% Rented</i>
Montreal	28856	51.3	48.7
Ottawa-Hull	8322	58.5	41.5
Toronto	32675	59.4	40.6
Winnipeg	5466	67.6	32.4
Regina/Saskatoon	3347	69.0	31.0
Calgary	6733	63.3	36.7
Edmonton	7206	63.6	36.4
Vancouver	13897	59.4	40.6
Total	106502	58.4	41.6

Source: Author's calculations from the 1991 Canadian Census Public Use Sample Tapes.

Figure 1: Home Tenure by Selected Metropolitan Areas (1991)



The figures indicate that housing ownership is very high in the prairie cities, ranging from 63.3 percent in Calgary to 69.0 percent in Regina and Saskatoon. Montreal recorded the lowest rate of home ownership, i.e. 51.3 percent. This observation of low home-ownership rates is consistent with findings of Steele (1979), Ray and Moore (1991), Balakrishnan and Wu (1992) and Statistics Canada (1995). The relatively high home tenure rates in Winnipeg, Regina and Saskatoon could be attributed partly to lower cost of houses. See Table 2.

Table 2
Average Value of Dwellings by Selected Metropolitan Areas (1991)

<i>Metropolitan Area</i>	<i>Sample Size¹</i>	<i>Average \$ Value²</i>
Montreal	14755	\$128,303.71
Ottawa-Hull	4839	\$142,126.23
Toronto	19370	\$188,281.24
Winnipeg	3671	\$96,241.77
Regina/Saskatoon	2260	\$85,248.87
Calgary	4222	\$135,004.45
Edmonton	4494	\$115,352.18
Vancouver	8210	\$177,466.00
Total	61821	

Source: Author's calculations from the 1991 Canadian Census Public Use Sample Tapes.

Notes:

1. Sample size only consists of homeowners. That is why they are smaller compared to the sample size values in Table 1.
2. Statistics Canada defines this variable as the actual dollar amount expected by the owner if the dwelling were to be sold.

From Table 2 one observes that prices of houses in Winnipeg or Regina/Saskatoon is about \$100,000 lower than in Vancouver or Toronto. Furthermore, in the prairie cities most households live in rural areas, thereby making it easier for them to own their homes. For example, in 1991, 37 percent of the population in Saskatchewan lived in rural areas. In the other remaining provinces, the proportion of households living in rural areas ranged from 18 percent to 28 percent.⁸

⁸ See Statistics Canada Catalogue No. 11-008E, page 10.

Table 3 shows home tenure by selected demographic and socio-economic characteristics. These characteristics include age, sex, marital status, household type, education and income in 1990. All the relationships are in the expected direction.

Table 3
Home Tenure by Selected Demographic and Socio-Economic Characteristics of Household Maintainers (1991)

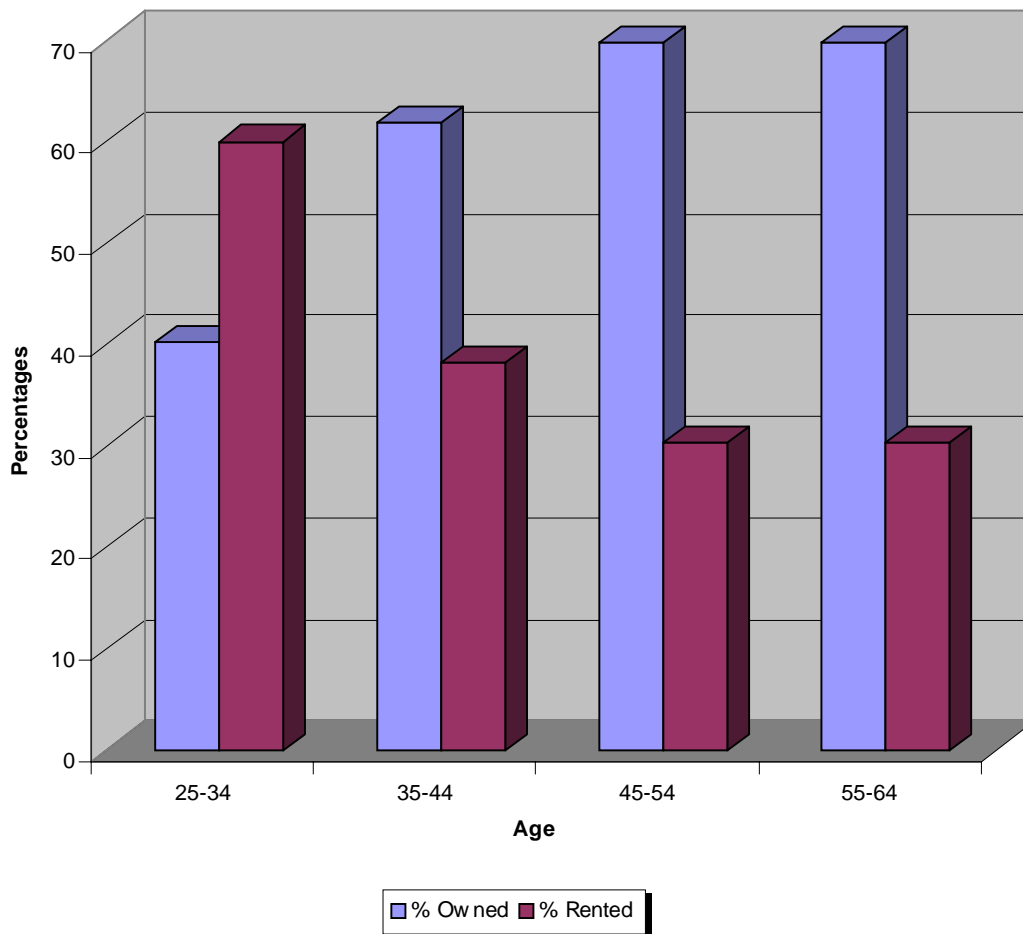
Characteristics	Sample Size	% Owned	% Rented
<i>Age</i>			
25-34	31696	40.1	59.9
35-44	33113	61.8	38.2
45-54	23305	69.7	30.3
55-64	18388	69.7	30.3
<i>Sex</i>			
Male	75140	65.5	34.5
Female	31362	41.4	58.6
<i>Marital Status</i>			
Married	62021	76.0	24.0
Single	22795	26.8	73.2
<i>Household Type</i>			
Separated/Div./Widowed	21686	41.3	58.7
H/W without children	21167	63.3	36.7
H/W with children	46174	77.2	22.8
Lone-parent families	10907	39.2	60.8
Other types	28254	31.5	68.5
<i>Education</i>			
High school or lower	39639	54.3	45.7
Trade sch/Non-Univ.	36329	58.5	41.5
University or higher	30534	63.6	36.4
<i>Income in 1990</i>			
Less than \$10,000	7466	20.0	80.0
\$10,000-\$29,999	20688	29.0	71.0
\$30,000-\$49,999	27211	51.8	48.2
\$50,000 or more	51137	79.4	20.6
Total	106502		

Source: Author's calculations from the 1991 Canadian Census Public Use Sample Tapes.

Table 3 indicates a strong correlation between age and attainment levels in housing tenure.

That is, home ownership increases from 40.1 percent to 69.7 percent as the age cohort of the household maintainer increases from 25-34 years to 55-64 years (see also Figure 2 below).

Figure 2: Home Tenure by Age Cohorts (1991)



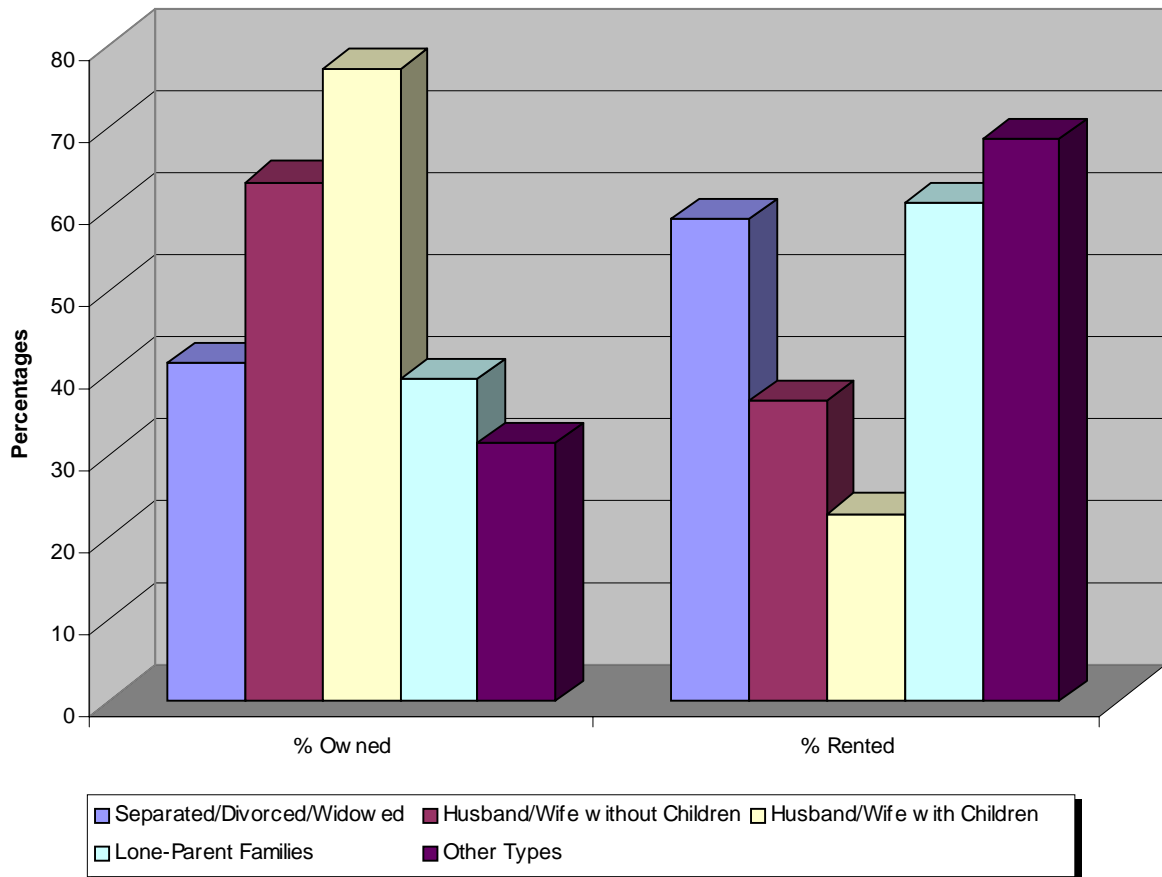
Data Source: Table 3

This relationship between age and home ownership is to be expected as the young are less likely to have accumulated enough capital to purchase their own homes (Shamsuddin 1995). Moreover, when a young couple have no children, the need for a house is somehow diminished. Home ownership by sex also shows significant differences, with

65.5 percent of men owning houses compared to 41.4 percent of women. This could be attributed to the fact that in families where husband and wife are both present, the husband is more likely to be the household maintainer. On the other hand, among lone-parent families where home ownership is very low, females are predominantly the household maintainers. Under marital status, married couples have the highest home ownership rates, i.e. 76 percent compared to 26.8 percent for singles. Separated, divorced or widowed individuals had a 41.3 percent ownership rate.

Under the category of household types, husband/wife families with children are most likely to own a home, 77.2 percent compared to 39.2 percent among lone-parent families and 31.5 percent for other types (non-family or multiple family) household maintainers (see Figure 3 below).

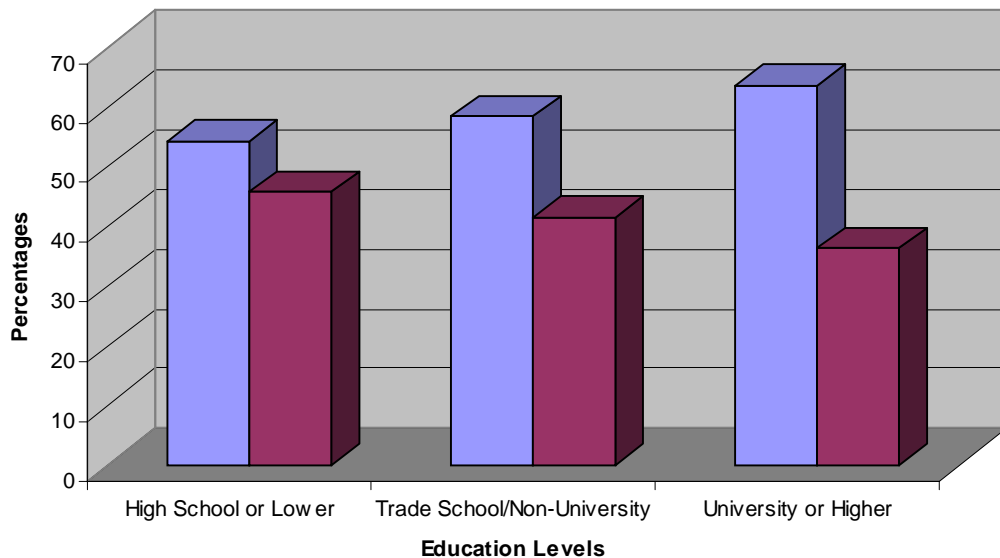
Figure 3: Home Tenure by Household Type (1991)



Data Source: Table 3

Home ownership rates were quite close for household maintainers of various educational backgrounds. For example, those who had some university education are only slightly more likely to own a home (63.6 percent) compared to those with high school or lower levels of education (54.3 percent). The weak relationship between education and home ownership is not borne out by the relationship between income and home ownership. Income has one of the strongest relationships to home ownership. The ownership rate was 79.4 percent among those with incomes of \$50,000 or more compared to 20 percent for household maintainers with incomes of less than \$10,000 (see Figures 4 and 5 below).

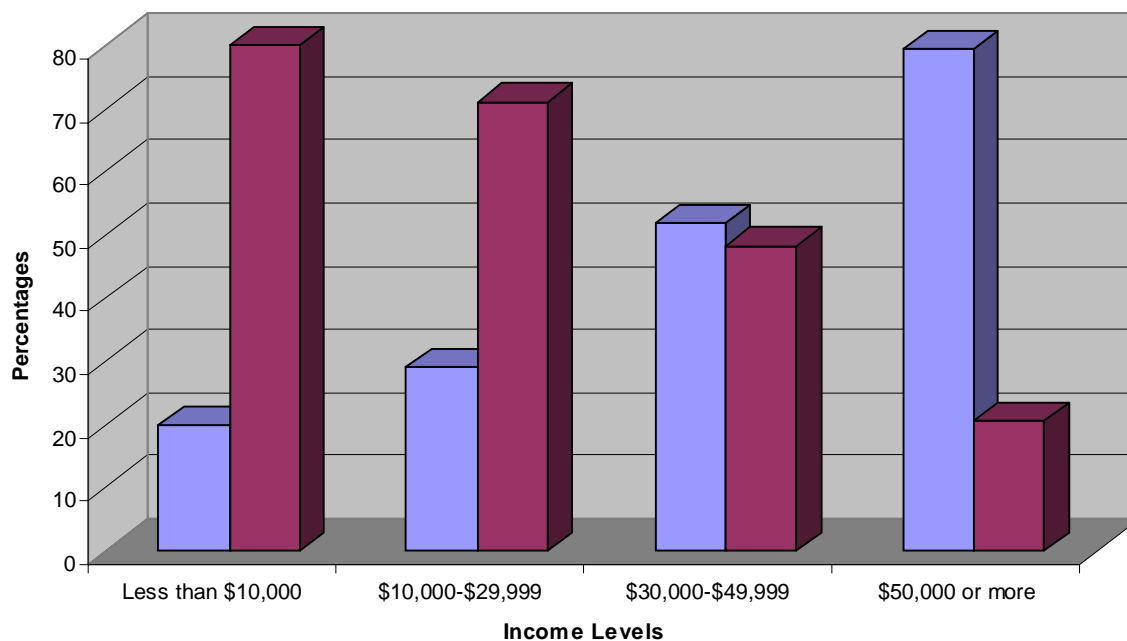
Figure 4: Home Tenure by Education Levels (1991)



Data Source: Table 3

■ % Owned ■ % Rented

Figure 5: Home Tenure by Income Levels (1991)



Data Source: Table 3

■ % Owned	■ % Rented
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Home tenure by birth status, period of immigration and country of origin of the household maintainer is examined in Table 4.

Table 4

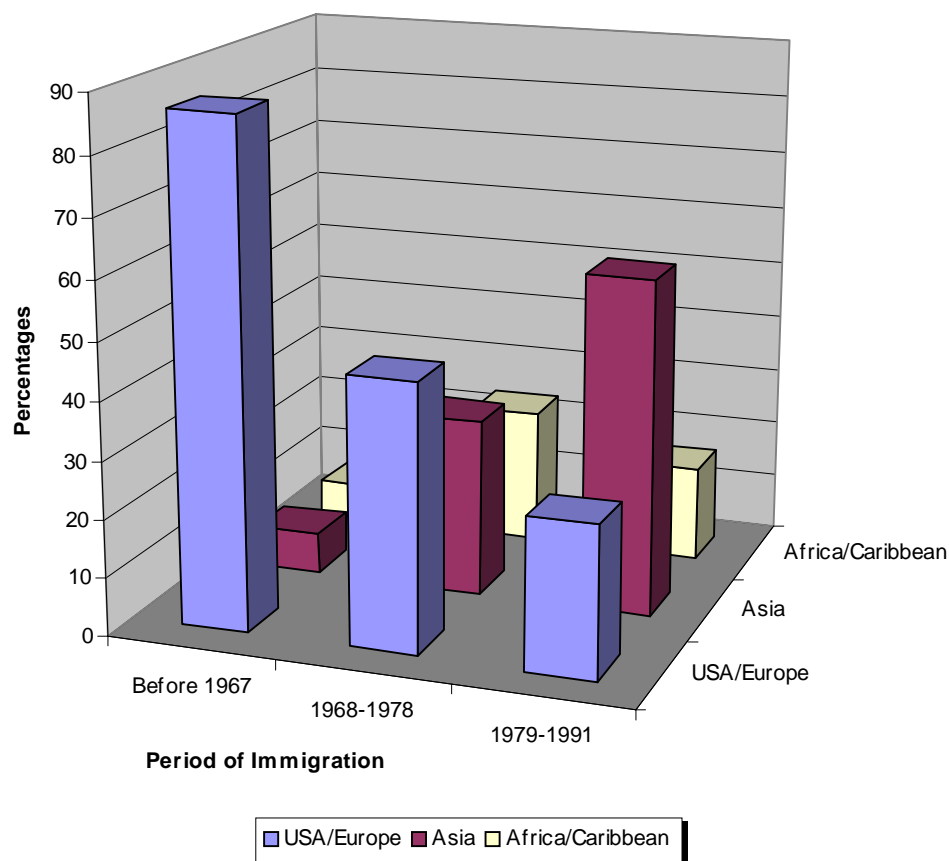
Home Tenure by Birth Status, Period of Immigration and Country of Origin of Household Maintainer

Characteristics	Sample Size	% Owned	% Rented
<i>Birth Status</i>			
Canadian-born	48049	53.9	46.1
Foreign-born	27379	60.5	39.5
<i>Period of Immigration</i>			
Before 1967	9669	76.9	23.1
1968–1978	8126	67.4	32.6
1979–1991	8323	41.3	58.7
<i>Country of Origin</i>			
USA/Europe	14343	69.5	30.5
Asia	7259	58.6	41.4

Africa/Caribbean	5766	40.8	59.2
Total	128914		

The foreign-born population is more likely to own their home (60.5 percent) compared to 53.9 percent for the Canadian-born. But home ownership also varies by country of origin. Immigrants born in the USA or Europe recorded the highest home ownership rates of 69.5 percent compared to 40.8 percent for those of African or Caribbean origins. Among immigrant household maintainers of Asian origins, 58.6 percent owned houses. Not surprisingly, the earlier the period of immigration, the higher the ownership rates. Earlier immigrants are more likely to be older and have had more time to accumulate enough capital to buy a home, compared to recent immigrants. Table 4 shows that for the immigrants who arrived before 1967, 76.9 percent of them owned houses compared to only 41.3 percent for recent immigrants, i.e. those who arrived between 1979 and 1991. A cross-tabulation of country of origin with birth status is also performed to shed more light on the issue of assimilation. (See Figure 6 below).

Figure 6: Housing Tenure by Period of Immigration and Country of Origin



The periods of immigration were chosen to reflect Canada's immigration policy. Before 1967, Canada adopted a closed-door immigration policy favouring immigrants from European-source countries. Then in 1967 a points system was put in place which, amongst other consequences, resulted in a substantial change in the composition of immigrants, with a rise in the flow from less-developed countries. Green (1976) characterizes the 1967 policy as an open policy, since country-of-origin was no longer a criterion. Then in 1978, another policy was enacted that emphasized family re-unification. This policy was in some sense also restrictive, since it reflected the view that some scrutiny was required to ensure that immigration costs did not exceed the benefits (Marr and Percy 1985). In summary, these major policy changes from a closed (prior to 1967) to open (post-1967) and then restrictive policy (post-1978) justifies the periods chosen. Furthermore, these immigration policies also reflect on the demand for housing and

housing choices. For example, the post-1978 policy which emphasized family reunification will lead to larger immigrant family sizes and thus the need for larger houses. Figure 6 clearly demonstrates this phenomenon amongst the Asian-born population. We observe that for the Asian-born, housing tenure was approximately 60 percent for the post-1978 cohorts, compared to 10 and 20 percent respectively for the pre-1967 and 1968–1978 cohorts.

IV. Empirical Results

The relationship between the various socio-economic and demographic variables on the one hand and home ownership on the other is very complicated. Some of the independent variables could be highly correlated among themselves, for example income and education. Thus, multivariate techniques were used to unravel the effect of the independent variables on home ownership, while controlling for other factors. Due to the dichotomous nature of the dependent variable, a logistic regression model was employed to investigate the impact of the independent variables on home ownership. The analysis is performed separately for Canadian-born, all foreign-born, 3 major immigrant groups and also by cities. The results of the untransformed logit estimates are summarized in Tables 5 to 7. Table 5 pertains to the Vancouver CMA, Table 6 summarizes the results from Toronto, and Table 7 Montreal.

Table 5
Untransformed Logit Estimates of Home Ownership Predictions (Vancouver CMA)

<i>Variables</i>	<i>Canadian Born</i>	<i>All Foreign Born</i>	<i>Europe & USA</i>	<i>Asia</i>	<i>Africa Caribbean</i>
<i>Age</i>					
25-34	-1.7918*	-1.4431*	-1.8819*	-1.1036*	-1.1018*
35-44	-1.1397*	-0.7754*	-0.9666*	-0.5391*	-0.7819**
45-54	-0.4753*	-0.4368*	-0.5033*	-0.2511	-0.5693
55-64***					
<i>HH-Type</i>					
H/W No Children	-0.0208	-0.0102	0.7657*	-0.4378**	-0.5516
H/W with Children	0.5781*	0.5023*	1.1029*	0.3151**	0.4412
Lone Parent	0.2515*	0.7831*	1.2015*	0.4307**	0.8304**
Other Types***					

<i>Income</i>					
<\$10,000	-2.1534*	-1.7862*	-1.6808*	-2.0227*	-1.3542*
\$10K-\$29,999	-1.6597*	-1.4885*	-1.3554*	-1.5287*	-2.1342*
\$30K-\$49,999	-0.9647*	-0.9643*	-0.9511*	-0.9611*	-1.0721*
\$50K or More***					
<i>Education</i>					
University	0.1738*	0.0570	0.0471	0.0541	0.6043**
Trade School	0.0920**	-0.0004	0.0657	0.0622	0.1648
High School***					
<i>Marital Status</i>					
Married	0.9941*	1.2244*	0.8371*	1.0755*	1.0372*
Single/Div/Sep.***					
<i>Period of Immigration</i>					
Before 1967		0.5428*	0.7912*	0.6544*	0.9798*
1967-1978		0.4888*	0.6349*	0.5531*	0.6243*
1978-1991***					
Constant	1.2370	0.6636	0.2023	1.0523	-0.1714
-2 x LL Ratio	3075.44	1399.68	830.89	478.95	122.64
N	8937	4960	2485	1943	376

Notes:

* Statistically significant at 0.01 level or better

** Statistically significant at 0.05 level

*** Reference category

Table 6

Untransformed Logit Estimates of Home Ownership Predictions (Toronto CMA)

<i>Variables</i>	<i>Canadian Born</i>	<i>All Foreign Born</i>	<i>Europe & USA</i>	<i>Asia</i>	<i>Africa Caribbean</i>
<i>Age</i>					
25-34	-1.6817*	-1.1837*	-1.3669*	-1.0581*	-0.9875*
35-44	-1.0301*	-0.6677*	-0.7671*	-0.4737*	-0.5628*
45-54	-0.6269*	-0.4403*	-0.4922*	-0.3107*	-0.2444
55-64***					
<i>HH-Type</i>					
H/W No Children	0.0712	-0.2766*	-0.1979**	-0.2179	-0.4804*
H/W with Children	0.8958*	0.3647*	0.6406*	0.0913	0.3035**
Lone Parent	0.6131*	0.2995*	0.7567*	0.1861	-0.0503
Other Types***					

<i>Income</i>					
<\$10,000	-1.8765*	-1.8855*	-1.7028*	-1.9106*	-2.2931*
\$10K-\$29,999	-1.5327*	-1.6598*	-1.4560*	-1.6077*	-2.2242*
\$30K-\$49,999	-0.9622*	-1.0577*	-0.9669*	-1.1358*	-1.1678*
\$50K or More***					
<i>Education</i>					
University	0.7005*	0.0457	-0.2036*	0.1863*	0.3604*
Trade School	0.3241*	-0.0849**	-0.2085*	0.1263	0.2559*
High School***					
<i>Marital Status</i>					
Married	1.1767*	1.3178*	1.3999*	1.0266*	1.0136*
Single/Div/Sep.***					
<i>Period of Immigration</i>					
Before 1967		1.5708*	1.5736*	1.3355*	1.5512*
1967-1978		1.0920*	1.3815*	0.9659*	1.1466*
1978-1991***					
Constant	0.4886	-0.1292	-0.2181	0.3200	-0.6443
-2 x LL Ratio	5888.57	6313.12	2887.23	1295.16	1474.24
N	16302	16373	8748	4078	3466

Notes:

* Statistically significant at 0.01 level or better

** Statistically significant at 0.05 level

*** Reference category

Table 7

Untransformed Logit Estimates of Home Ownership Predictions (Montreal CMA)

<i>Variables</i>	<i>Canadian Born</i>	<i>All Foreign Born</i>	<i>Europe & USA</i>	<i>Asia</i>	<i>Africa Caribbean</i>
<i>Age</i>					
25-34	-1.1996*	-1.0636*	-1.5034*	-0.7054*	-0.6811*
35-44	-0.5115*	-0.3991*	-0.4906*	-0.1314	-0.3024
45-54	-0.2545*	-0.1960**	-0.2443**	0.0541	-0.1195
55-64***					
<i>HH-Type</i>					
H/W No Children	0.4861*	0.2478**	0.4998*	0.0812	0.0425
H/W with Children	1.1395*	0.7378*	1.1597*	0.2001	0.6821*
Lone Parent	0.4925*	0.3087*	0.4914*	-0.0081	0.4263**
Other Types***					

<i>Income</i>					
<\$10,000	-2.1244*	-2.3405*	-2.0605*	-2.2744*	-2.8748*
\$10K-\$29,999	-1.6705*	-1.9325*	-1.7310*	-1.8416*	-2.3100*
\$30K-\$49,999	-0.8854*	-0.9981*	-0.9214*	-0.8734*	-1.1840*
\$50K or More***					
<i>Education</i>					
University	0.6388*	-0.1881*	-0.3435*	-0.2806	0.3708*
Trade School	0.4225*	-0.0568	-0.0736	0.2373	0.0758
High School***					
<i>Marital Status</i>					
Married	0.8898*	0.9237*	0.7387*	0.9226*	0.9656*
Single/Div/Sep.***					
<i>Period of Immigration</i>					
Before 1967		1.5915*	1.3174*	1.5414*	1.6148*
1967-1978		1.1564*	1.0508*	1.0774*	1.3032*
1978-1991***					
Constant	0.1189	-0.2843	-0.1189	-0.1493	-0.7424
-2 x LL Ratio	8559.02	2815.73	1184.93	448.21	835.15
N	22821	6035	3110	1238	1678

Notes:

* Statistically significant at 0.01 level or better

** Statistically significant at 0.05 level

*** Reference category

The results in these tables were as expected and most of the coefficient estimates were significant at the 1 percent level. The results show that household maintainers in the 25–34 age cohort were less likely to own their own homes compared to those in the 55–64 age cohort (i.e. the reference group). Likewise, those with incomes of less than \$49,999 were less likely to own their own homes compared to those with incomes of \$50,000 or more. Earlier cohorts of immigrants were also more likely to own a house compared to recent immigrants (1978 to 1991). Married couples are also more likely to own a house compared to singles, divorced or separated individuals. Likewise, households comprising husband, wife with children were more likely to own a house compared to the reference category. The results from the education variable were mixed. I expected those with university education to have a higher probability of home ownership compared to those with high school or lower levels of education. In some of the estimates, however, this

hypothesis was not validated, especially in the Montreal CMA (See Table 7). Except for the Canadian-born and immigrants of African or Caribbean descent, all the coefficients on the education variables were negative. The results in these tables to some extent reflect the descriptions in the summary statistics captured in Tables 1 to 4.

*Predicted Probabilities*⁹

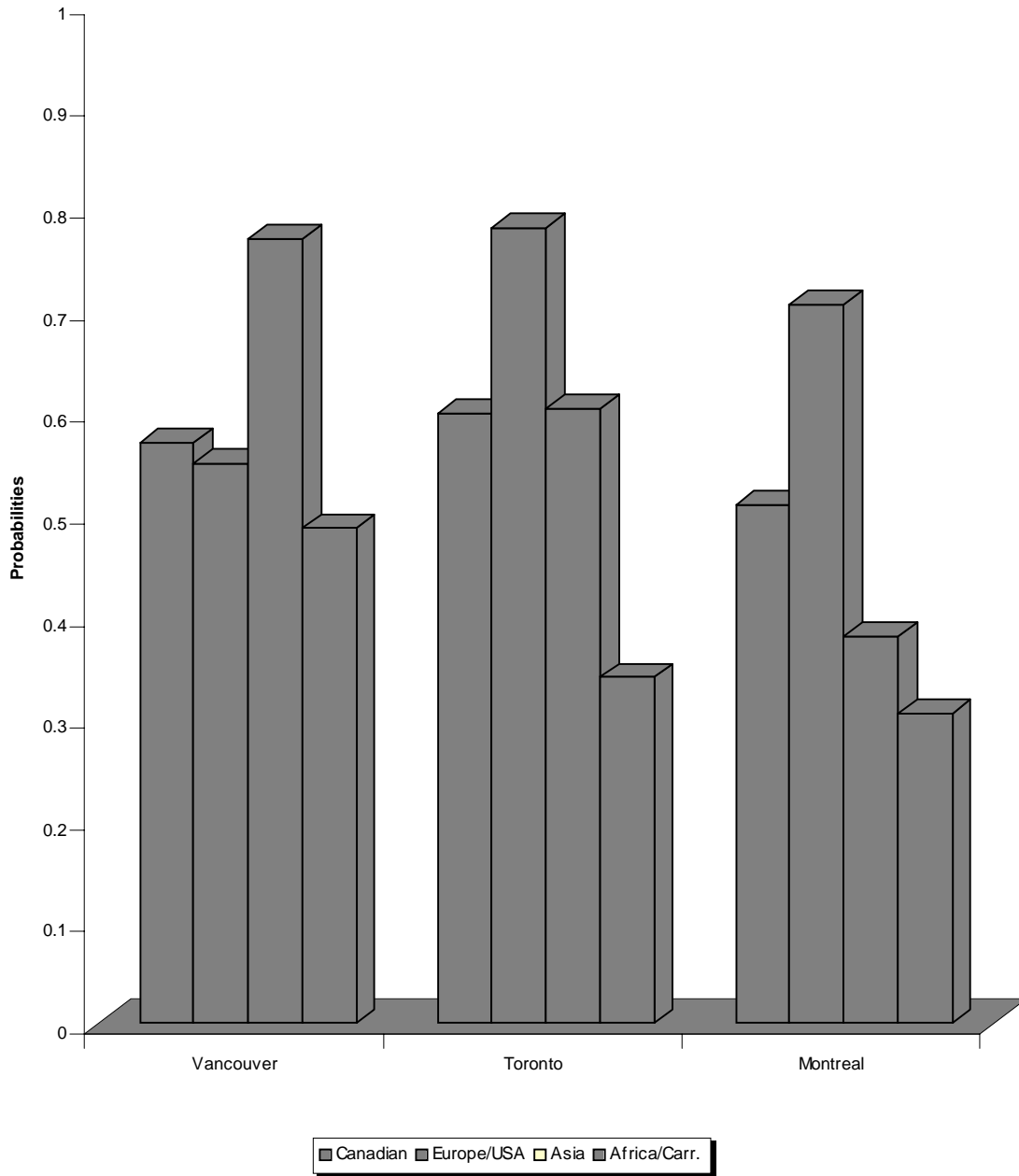
Using estimates from just the logistic regression, it is difficult to draw any direct conclusions as to the percentage of ownership predicted for the various immigrant groups. These untransformed logit estimates have to be transformed into predicted probabilities using both the coefficients from the logistic regressions and the mean values for the independent variables. The results have been summarized in Table 8 and Figure 7.

Table 8
Predicted Probabilities of Home-Ownership by Country of Origin

	Canadian-born	Europe/USA	Asia	Africa/Caribbean
Vancouver	0.5704	0.55	0.769	0.486
Toronto	0.5985	0.7801	0.6029	0.3397
Montreal	0.5091	0.7057	0.3803	0.304

⁹ This is calculated as $P = e^{bx} / (1 + e^{bx})$, where bx is the product of the logit estimates reported in Tables 5, 6 and 7 and the mean values of the independent variables.

Figure 7
Predicted Probabilities of Home-Ownership by Country of Origin



The results show that immigrants of African or Caribbean decent have the lowest predicted home ownership rate compared to the other immigrant groups and also in all the

three cities (Vancouver, Toronto and Montreal). The probabilities were 48.6 percent in Vancouver, 33.9 percent in Toronto and 30.4 percent in Montreal. For the Canadian-born population the predicted rate home ownership was fairly constant, ranging from 57 percent in Vancouver to 59 and 50.1 percent in Toronto and Montreal respectively. In Vancouver, Asian immigrants had the highest predicted probability of home ownership i.e. 76.9 percent. In both Toronto and Montreal, European/USA immigrants had the highest probability of home ownership, i.e. 78 percent and 70.5 percent respectively. The other interesting observation from Table 8 and Figure 1 is that the predicted probability of home ownership falls for all the immigrant groups and Canadians as one moves from Vancouver to Montreal.

Impact of Years Since Migration

One of the major objectives of this paper is to find out the length of time in residence in this country for each immigrant group to have the same rate of housing ownership as that of the host population. This captures the essence of assimilation. To directly capture the assimilation of immigrants in the housing market, the years since migration variable (YSM) is entered as a continuous variable in the logistic regressions. From these new estimates, housing ownership profiles were generated given different years of residence in Canada, while holding all other values at their sample mean values. These house ownership profiles were generated for all three cities. The results have been summarized in Figures 8-10. The housing ownership profiles all have a concave shape which is very consistent with economic theory.

Figure 8: Predicted Probabilities of Housing Tenure by Birth Status: Toronto

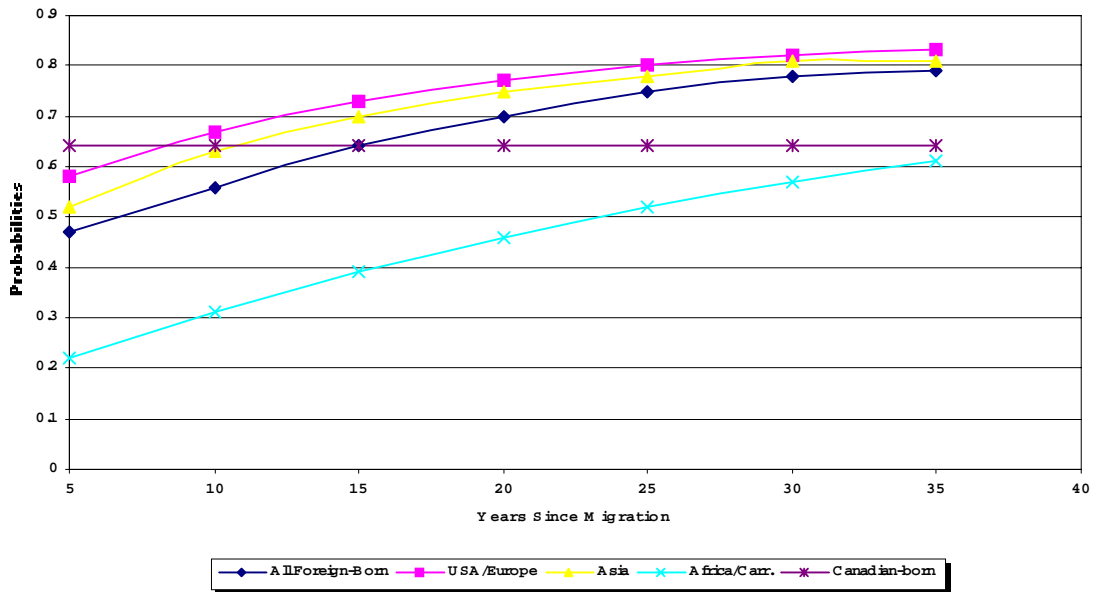


Figure 9: Predicted Probabilities of Housing Tenure by Birth Status: Vancouver

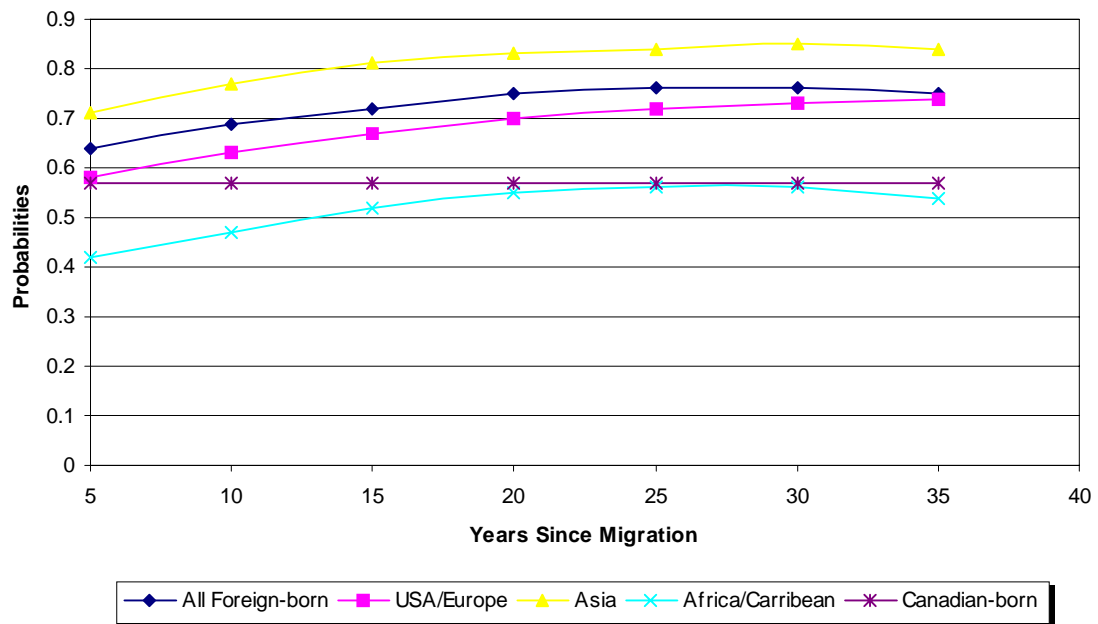


Figure 10: Predicted Probabilities of Housing Tenure by Birth Status: Montreal

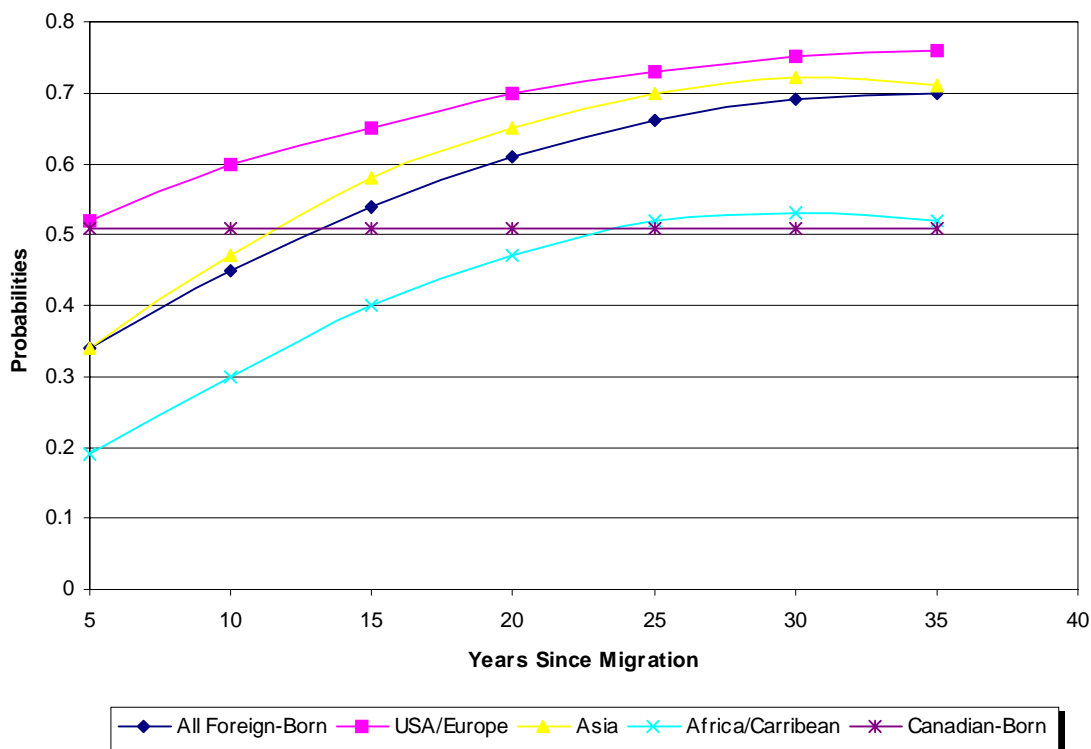


Figure 8 is the housing ownership profile for Toronto. The results here indicate that for the foreign-born population as a monolithic group, it takes on average, about 10 years in residence to catch up with the Canadian-born rate of housing ownership. Disaggregating the foreign-born population by country of origin we obtain very different catch up rates in housing tenure. For example, for USA/European born immigrants it only takes about 3 years to catch up, whereas Asians take about 6 years. African and Caribbean-born immigrants on the other hand never catch up. In Vancouver (See Figure 9), our results indicate that the foreign-born have a higher rate of housing ownership than the Canadian-born population, and this equally applies to Asian-born and USA/European-born immigrants. The reason for this is that the housing ownership assimilation profiles of these immigrant groups lies everywhere above that of the Canadian average. For African and

Caribbean born immigrants, however, the conclusions are the same as that of Toronto, i.e. they barely catch up. Figure 10 summarizes the results for Montreal. For the foreign-born population as a group, it takes about 8 years to catch up with the Canadian housing ownership rate. The results for the Asian and African born immigrants are 6 and 18 years respectively. The USA/European-born profile was higher than that of the Canadian average.

V. Conclusion

This paper examined housing tenure patterns of immigrants vis-à-vis the Canadian-born population using data from the 1991 Canadian census. Due to the dichotomous nature of the dependent variable, a logistic regression was estimated to ascertain the impact of various socio-economic and demographic variables on home ownership. From these logit estimates, predicted probabilities were also generated for the various immigrant groups and Canadian-born household maintainers, for Vancouver, Toronto and Montreal. Our results show that home tenure is a complex phenomenon influenced by factors such as age, marital status, household type, income, education and period of immigration. Furthermore, older, high-income married couples with children are more likely to own their homes compared to unattached young people. These patterns were consistent across the three cities in the study. These results corroborate other studies in the Canadian literature. See for example Balakrishnan and Wu (1992) and Ray and Moore (1991).

The other important finding of the study is that African/Caribbean immigrants recorded the lowest predicted probability of home ownership in all three cities. Balakrishnan and Wu (1992) obtained similar results using data from the 1986 Canadian census. They found that home ownership rates were low amongst Blacks and native peoples. In Vancouver, Asian immigrants recorded the highest probability of home ownership. In Montreal and Toronto, it was European/USA immigrants that had the predicted probability of home ownership.

To capture the assimilation of immigrants into Canadian society, housing-ownership profiles were generated for the various immigrant groups using the results from

the logistic regressions evaluated at their sample means. Our results indicated that it took on average between 6 to 8 years for immigrants as a whole to have the same rate of housing ownership as their Canadian-born cohorts. The results were quite different, though, for various immigrant groups across the three cities. With the exception of Montreal, the results also indicate that immigrants of African/Caribbean origin do not catch up with the host population.

These findings lead to some policy implications. Our findings suggest that not all immigrant groups have equal rates of housing ownership compared to the Canadian-born population. And some immigrants, particularly the African/Caribbean born are particularly vulnerable. To facilitate the assimilation process, policies should be put in place to assist these immigrants to own their own homes. For example, the government can provide or guarantee low-interest mortgage loans, or provide facilities for the down payment to prospective immigrant homeowners. Why African immigrants have the lowest predicted probability of home ownership, or why Asian immigrants have the highest predicted probability of home ownership in Vancouver, are questions beyond the scope of this paper, but which beg to be researched. For example, what role do ethnic social networks play in house-tenure patterns?

One possible explanation for the higher rates of housing ownership among immigrants of Asian and European origins could be found in their wealth-accumulation patterns. Shamsuddin (1995) found that immigrants had a strong preference for real assets such as homes and automobiles, financed primarily through borrowing, whereas Canadians preferred stocks and equities, financed primarily through reduction in their liquid asset demand.

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