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Is Gateway City Clustering behind Canada's Declining Immigrant Homeownership Rates?¹

by

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Abstract

Recently, homeownership rates have been dropping for Canadian immigrants. These declines, though substantial on their own, are particularly striking when they're read alongside the trends of the Canadian-born, who've experienced a comparative surge in recent years. Given that immigrants overwhelmingly cluster in Canada's 'gateway' census metropolitan areas (Toronto, Montréal, and Vancouver), this paper uses 2-stage least squares regression techniques and the 2001 census of Canada to identify whether a shift out of Toronto, Montréal, and Vancouver would improve national immigrant homeownership rates. The results show that although homeownership propensities are higher for those who live outside of gateway cities, these differences dissolve once location choice endogeneity is addressed, suggesting that relocation policies are unlikely to yield dramatic national gains.

Keywords: Immigrants, Migration, Homeownership.

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1. Introduction

Since 1985, nearly ³/₄ of all new Canadian immigrants have chosen to live in Montréal, Toronto or Vancouver. Their presence enriches these cities² in myriad ways, by feeding local labour markets, increasing the demand for housing, enhancing cultural diversity, and preventing population decline. Presumably, the benefits are reciprocal; newcomers who choose one of Canada's three 'gateway cities' enter regions that are well-adapted to welcoming newcomers (Edmonston 2002). They have a wide range of choices when it comes to employment, neighbourhoods, accommodations, etc. For these and other reasons, it is little wonder that most recent immigrants to Canada choose to live in one of its gateway cities.

At the same time, heavy immigrant influx into Montréal, Toronto, and Vancouver may also be a cause for concern. First, population growth in these areas – from both immigrants and the rural native-born – leads to infrastructure strain, as medical facilities, public transportation, roadway systems, and other services groan from the increased burden. Second, smaller Canadian cities receive virtually none of the benefits of immigration, even though they would probably welcome more newcomers than they currently do.³ Third, an increase in the demand for housing in gateway cities pushes prices skyward, possibly out of reach for many.

² Several terms are used interchangeably in this paper for the purposes of style and brevity. First, 'cities' is used to describe census metropolitan areas (CMAs); second, Montreal, Toronto and Vancouver will often be referred to as 'gateway cities', and all other CMAs will often be referred to as 'non-gateway cities'. Finally, the terms 'Canadian-born' and 'native-born' will be used interchangeably, as is often done in the immigrant literature.

³ As would Canada's rural regions, but since several CMA-specific indicators are used as explanatory variables in this paper, only respondents in census metropolitan areas will form the focus.

This paper identifies the extent to which a shift in immigrant settlement patterns would positively impact immigrant homeownership rates. It uses 2-stage least squares regression and the 2001 Census of Canada to determine whether immigrants who choose Canada's gateway destinations are at a disadvantage in terms of homeownership. Since homeownership is an excellent indicator of immigrant wellbeing (serving as a proxy for the presence of wealth, earnings stability, and protection from inflation and housing price shocks), this paper also takes a step towards identifying whether overall immigrant wellbeing would be improved by encouraging settlement outside of Canada's gateway cities.

The main finding of this paper is that, once the endogeneity of city choice is accounted for (discussed more fully below), there are no significant differences in homeownership propensities across gateway/non-gateway centres. Even when endogeneity is not addressed, however, differences in homeownership rates between gateway and nongateway regions are fairly small, and the degree of relocation that would be required to reverse recent declines is substantial, and improbable.

This paper proceeds as follows: first, the literature outlining the deteriorating economic well-being of Canada's recent immigrants is reviewed, followed by a discussion of the methodological issues associated with the geographic sorting of immigrants on unobserved characteristics. Next, a series of 2-stage least-squares regression results are presented that attempt to address this sorting, followed by a discussion of these results and their implications.

2. Literature Review

2.1 The Potential of Canada's 'New' Immigrants

Since the late 1960s, Canada (Ouebec included) has moved away from country-specific immigration policies to ones based on merit and humanitarian concerns, shifting the incoming flow away from Europe to the rest of the world (see Rekai (2002) for a review of these policies). The consequence of this has been that Canada's 'new' immigrants differ from their predecessors in several important regards: first, they are now frequently university-educated, suggesting that – transferability issues aside (Worswick 2004) – they are potentially better-qualified to immediately enter the middle and upper echelons of the Canadian labour market (Hou & Balakrishnan 1996). Second, they are on average older (Haan 2005b), so that many now have more work experience than both their predecessors and new Canadian labour market entrants. Third, many arrive with skills that are in high demand by Canadian employers, giving them a competitive edge here as well. Given that so many aspects of immigrant wellbeing flow at least partially from labour market indicators like these, immigrants today should be in a better position than ever before to enjoy affluence and wellbeing in Canada. Foremost among these benefits should be a "comfortable home in a good neighbourhood" (Murdie & Teixeira 2001).

As is now well known, however, this has not been the case. Immigrants now face high levels of employment mismatch and labour market precariousness (Galarneau & Morissette 2004, Vosko et al. 2003), their earnings have deteriorated (Baker & Benjamin 1994, Frenette & Morissette 2003), they now spend more time in poorer-quality neighbourhoods (Fong & Wilkes 2003, Hou 2004), and their homeownership rates have declined (Haan 2005b). Furthermore, the duration of this malaise appears to be lengthening in recent years (Frenette & Morissette 2003).

Although the facets of wellbeing listed above are no doubt interrelated, each has distinct sources, and should therefore be studied independently. For homeownership, which

is the primary focus of this paper, it is possible that an individual has gained appropriate employment yet remains unable to purchase a home or escape a poor neighbourhood, because they are in a market that is too expensive for them. Similarly, they could immediately buy a home due to their savings from another country, but they may not be able to find secure and suitable Canadian employment due to credential recognition problems. Finally, they may find themselves living in an owner-occupied dwelling in a good neighbourhood only because they are living with relatively affluent family members or coethnics. In each of these cases, the relationship between these characteristics differs, illustrating the need for standalone analyses.⁴

2.2 Potential Reasons for the Immigrant Homeownership Decline

Before discussing the possible reasons for the homeownership decline, it is useful to first illustrate the magnitude of the change in recent years (see also Haan (2005b)).

**** Table 1 here****

In 1981, roughly 67% of immigrants owned their homes, which was more than a 7-point advantage over the Canadian-born. By 2001, the immigrant rate had fallen by about three percentage points, while the Canadian-born population experienced a roughly four percentage point increase. This not only dissolved, but actually *reversed*, the immigrant advantage. When read in relative terms, the homeownership position of immigrants in Canada has slid downward by about 8 percentage points ((67.3-63.8) – (64.2-60.0) \approx 8) in the past 20 years.

Although the literature that seeks to explain the homeownership decline is scarce in Canada, several factors have been flagged as empirically important elsewhere for understanding other immigrant hardships, and can be used here for guidance. First, changes

⁴ Other outcomes, like labour market characteristics and neighbourhood quality, are also currently being studied by the author.

in the characteristics of immigrants themselves (e.g., skin colour, knowledge of charter languages, etc.) potentially introduce additional barriers to integration (Boyd 2003). Now, not only do many immigrants now speak languages that are quite far removed etymologically and phonetically from English and/or French, but many are now also non-white (Badets & Chui 1994). Although it is not the focus of this paper to compare rates across groups, or to assess the reasons behind any found differences, the sizable body of literature on homeownership differences across ethnic and/or visible minority groups (Balakrishnan & Wu 1992, Murdie et al. 1996, Murdie 1994, Ray & Moore 1991, Skaburskis 1996) should lead us to expect differences. Taken further, the declining homeownership rates of the past 20 years could therefore be a function of aggregate changes in immigrant skin colour composition.

Second, it seems that there have been increased hardships for *all* new entrants to the Canadian labour market, not just immigrants (Beaudry & Green 2000, Picot & Sweetman 2005, Vosko et al. 2003). Given the increased emphasis being placed on credentials and Canadian work experience, many new labour market entrants appear to be having greater difficulties getting good initial opportunities. Furthermore, there is mounting evidence that competition from the (older) domestic labour supply is becoming more intense (Picot & Sweetman 2005). Increases in unemployment and part-time employment rates have therefore risen over time for all new labour market entrants (Heisz et al. 2002). Since new immigrants are de facto new labour market entrants (at least to the Canadian labour market), they might feel these effects more severely. Homeownership is partially a function of labour market success (Miron 1988), so it is possible that labour market misfortunes are behind changes in homeownership rates.

2.3 The Importance of Location in Understanding the Dynamics of Integration

An additional, and potentially underappreciated, factor in explaining deteriorating immigrant outcomes is location choice. This might be particularly true for homeownership, given the differences in housing prices and the changes in these prices in recent years (Walsh 2005). The proportion of immigrants choosing to live in Toronto, Montreal and Vancouver has been increasing, so that it now stands at about three-quarters of all newcomers (Schellenberg 2004), so it is possible that the recent immigrant decline could be more accurately described as a tale of three cities than as a national trend. Consequently, in addition to the shifts in the characteristics of immigrants noted above, location choice might also be a factor behind declining homeownership rates. They may be losing access to homeownership in Montréal, Toronto or Vancouver, but not necessarily in other parts of Canada.

**** Table 2 here****

Table 2 supports this notion to some extent. In gateway CMAs, an almost 12 point immigrant homeownership advantage in 1981 dissolved almost entirely in 2001 ((63.1-51.7)-(60.9-59.7)), whereas immigrants in non-gateway CMAs experienced a much smaller change, with the advantage shrinking by about 6 percentage points ((73.7-65.1)-(70.8-67.8)). Consequently, the relative immigrant decline in non-gateway CMAs has been about half the size of that in gateway CMAs. This suggests that a large part of the recent homeownership decline for immigrants has indeed occurred in Montréal, Toronto, and Vancouver. It also implies that immigrants who choose not to live in Canada's gateway cities have enhanced access to homeownership – the table above indicates a cross-sectional 'bonus' of nearly 10 percentage points – and that a net shift out of these cities would help

improve slumping immigrant rates. The primary purpose of the remainder of this paper is to determine the extent to which this statement is true.⁵

3. Methodology

3.1 Data Source

Other than the 1981 homeownership rates presented in Tables 1 and 2, the data source for this paper is the 2001 Census of Canada master file. The master file contains the full record of every person that responded to the long-form questionnaire (20% of the Canadian population), providing much more detailed information than what's available in the public-use offering. The master files are also superior to the public-use files because of their sample size and data breadth, allowing for the estimation of fuller statistical models.

3.2 Sample Restrictions

The unit of analysis throughout this paper is the economic family, defined as either an unattached individual or as a union of two or more persons living in the same dwelling and related by blood, marriage, common-law, or adoption. The analysis is restricted to permanent Canadian residents who were either born in Canada or immigrated there, and are not presently living in institutions, collective dwellings or military quarters. The age of the highest earner was restricted to 25-65 in 2001, and the characteristics (year of arrival, socio-demographic variables, etc) of the highest earner is used to represent family characteristics. Only one person per economic family (the highest earner) is used in the model estimations.⁶

⁵ An early reader of this paper raised the question of collapsing Montréal, with its low homeownership rates, together with Toronto and Vancouver into an aggregate gateway city variable. Although it is true that homeownership rates are lower in Montréal than in either of the two cities, the proportion of immigrants that have headed to Montréal in the past 20 years has been declining, suggesting that the inclusion of Montréal is not likely to explain declines over time. If anything, including Montréal probably reduces the magnitude of the decline.

⁶ Admittedly, this is a choice that potentially affects results. In previous analyses, other household members were experimented with, but yielded essentially similar results.

3.3 Do Immigrants Really Have Lower Homeownership Rates in Gateway Cities?: the Issue of Endogeneity

One of the difficulties of accurately assessing the impact of location choice on housing access (or any other socioeconomic variable) is that it can not be determined exactly why households or individuals live in the city they do. It could be, for example, that immigrants living in Halifax or Winnipeg outperform those of Toronto and Montreal because they have been positively selected to move there by a lucrative job offer (an unobserved factor in the census). Had they not received this offer, they may have instead chosen to live in a gateway city; had they not moved where they did, they may not have been able to afford a home. City choice is therefore an endogenous variable, because it is itself contingent on numerous factors, at least some of which are unobserved. These factors would predict homeownership if they were observed.

The analytical consequence of this is that immigrants living in non-gateway CMAs probably differ from their gateway CMA counterparts on unobserved characteristics, and in a traditional framework, a city indicator will therefore not be uncorrelated with its error term, violating one of the basic assumptions of regression. Consequently, ordinary logit, probit or ordinary least squares regression results, or any conclusions made from these results, are likely to be biased.

Thanks to the work of several pioneering econometricians and methodologists, however, this problem is not insurmountable. In fact, it is possible to derive unbiased coefficients by estimating two equations – which, for this paper, would include one for city choice and one for homeownership. The propensity to live in a gateway city, the outcome for the first equation, can be used as a predictor in the second equation, which models homeownership. Inserting a predicted value for gateway city variable instead of the actual value purges the variable of its unobserved (and unwanted) component. This process, known as instrumental variable or 2-stage least-squares regression, potentially removes the endogeneity of city choice (it will be left in the error term of the first equation, which is not included in the second equation).

3.4 The Analytical Model

To model the probability of living in a gateway city (the first outcome), there are numerous studies that identify the determinants of city choice that can be used here to provide guidance (Aslund 2005, Bartel 1989, Cebula 2005, Kritz & Nogel 1994, Lieberson & Waters 1987, McDonald 2003, Newbold 1996, Scott et al. 2005, Zavodny 1999). The following equation employs as many of these indicators as possible:

Pr(Gateway CMA)= Age + Education + Family Type + Immigrant Chars. + Visible Minority Indicators + Labour Market Chars. + CMA Same-Group Size + CMA Relevant Labour Market Size + CMA Average Precipitation + CMA Crime Rate + CMA Unemployment Rate (1)

The predicted probability in equation 1 is then used as a regressor in equation 2, replacing the observed value for gateway/non-gateway city choice. For the second equation (which is of greater interest for this study) there is also a fairly well-established tenure equation that can be used (Alba & Logan 1992, Balakrishnan & Wu 1992, Gyourko & Linneman 1996, Haan 2005b, Krivo & Kaufman 2004, Skaburskis 1996). From these studies, the following model emerges:

Pr(Own) = Gateway CMA + Immigrant*Gateway CMA + Age + Education + Employment Characteristics + Family Type + Immigrant Characteristics + Visible Minority Indicators (2)

Researchers typically cite two concerns when estimating two-stage least-squares regressions. The first relates to the quality of the instruments being used (instruments are the variables that are used to predict the outcome for equation 1 but do not appear in equation

2), and the second is the extent to which the instruments in the first equation are uncorrelated with the second outcome (homeownership). As an attempt to allay the first concern, the instruments from the first-stage estimation are often assessed with an F-test to determine their joint statistical significance. Additionally, Bound et al. recommend reporting R^2 from a model that regresses the instrumental variables on the dependent variable (Bound et al. 1995). The results from both of these exercises will be presented in the results section.

The second concern can only be addressed theoretically. The primary requirement of two-stage least-squares regression is that the five instruments used in the first equation (city measures of relevant labour market size, unemployment rate, same-group size, crime rate, and average precipitation) will predict city choice but not homeownership. A fairly convincing argument can be made for each variable. First, as the Canadian cities of Calgary, Edmonton and Saskatoon have shown in recent years, it seems likely that employment opportunities (of which unemployment rates and labour market size attempt to proxy) will attract people to a city, but that it will not necessarily alter an individual's housing tenure decision (it seems more likely to expect that people will buy once they have stable employment, regardless of the economic conditions of their city).

Although same-group size and crime rate might affect *where* homes are bought in a city (a household might choose proximity or distance from same-group members or distance from crime-ridden areas), it seems unlikely that they'll determine *whether* they're bought. The next instrument, precipitation, is a proxy for good weather,⁷ and there is little reason to believe that homeownership rates differ between cities with weather differences. It is instead easy to see how good weather can attract would-be migrants, once again suggesting that average annual precipitation will predict the first outcome, but not the second.

⁷ Mean temperature in January was also considered to proxy weather, but these data could only be secured for 24 CMAS (instead of all 27).

3.5 The Variables

As shown above, there is a vector of fairly standard immigration, life-cycle, and socioeconomic variables that will be used to model both gateway city choice (equation #1) and homeownership (equation #2). The coding particulars and mean values for all of these variables appear in Table 3 below.

**** Table 3 here****

When comparing the means of gateway and non-gateway residents above, we can see that the differences are quite subtle. Gateway residents have slightly different age and economic family composition characteristics, they are slightly more likely to live in a multiple family dwelling, to be able to speak English or French, to be foreign-born, to hold a university degree, and to be a member of a visible minority group. The highest earner in a non-gateway city is more likely to hold a university degree, and to be enrolled in school, although the differences are once again slight. Perhaps the most notable difference between cities is the average number of years that immigrants have been in Canada, a difference that could partially explain why immigrant homeownership rates are higher in non-gateway centres.

In addition to the variables above there are characteristics used to estimate gateway/non-gateway city choice only. These characteristics include same-group size (coded as 0 for the native-born), relevant labour market size (coding information for this variable, as well as income, can be found in Appendix A), unemployment rate (standardized with mean 0 and standard deviation 1), annual precipitation (also standardized), the crime rate per 100,000 (standardized). Unlike the standard variables presented above, there are some noteworthy differences between gateway and non-gateway resident. Gateway dwellers are more likely to experience a much larger presence of same-group members, they have

access to a larger relevant labour market, they receive more annual precipitation, and enjoy a lower crime rate.

**** Table 4 here****

On a methodological note, since these characteristics are the same for everyone in a particular city, there are likely to be correlations between error terms. To remedy this, standard errors are corrected for intra-group clustering using STATA's cluster correction commands. The coding information for these variables appears in Table 4 below. Additionally, the variance inflation factor for these variables was generated to identify multicollinearity, and found to be well below 5 (a typical threshold value) in each case.

In sum, it appears that although the residents of gateway and non-gateway cities themselves are fairly similar, the characteristics of the cities themselves differ to some degree. In the following section, the extent to which these similarities and differences impact access to homeownership will be assessed, but first these factors will be used to create the endogenous gateway/non-gateway outcome variable in Table 6 below.

4. Results

The first set of estimates is for the endogenous variable gateway/non-gateway city choice. As with all models in this paper, city choice is estimated separately for immigrants and the Canadian-born.

**** Table 5 here****

Looking at the first model (which contains only the Canadian-born), several of the standard socioeconomic variables appear to be significantly correlated with living in a gateway CMA. All of the age coefficients are negative and significant, suggesting that younger people are more likely to live in gateway cities. All three family types (two adults with children, lone parent, and unattached individual) are significantly more likely to live in a

gateway city than the reference group 2 adults with children. Multiple family households and non-family households are also more common in Montréal, Toronto, and Vancouver.

After adjusting for all other characteristics, gateway cities are less likely to attract Canada's well-educated population. Both university graduates and those with postsecondary training are significantly more likely to live outside of gateway cities then are both those with only a high school diploma, and those without. As we saw earlier in Table 3, all visible minority groups are more likely than whites to live in a gateway CMA. Of all the visible minority groups, West Asians/Arabs are the next least likely Canadian-born group after whites to live in a gateway city.

Turning now to labour market characteristics, unemployment rates are slightly lower in gateway cities, and individuals are more likely to be working full time, to have more earners in the economic family, to earn slightly more, and to be self-employed. For most of these characteristics, however, the differences are slight but significant.

The final cluster of explanatory variables for living in a gateway city concerns city characteristics (note: same-group size was dropped because a value of zero was given for every Canadian-born respondent, thereby making it a constant). For the most part, there are few surprises here. The prospect of a large relevant labour market seems to attract the Canadian-born to gateway cities, as do higher annual precipitation levels and unemployment rates. The only negative predictor among city characteristics is the standardized crime rate, which reduces the probability of living in a gateway city by 5.8 percentage points. For crime, precipitation, and unemployment rates, it is important to remember that these variables are standardized to have a mean of zero and a standard deviation of one, so it is likely that these coefficients reflects relatively large jumps in the actual values of each

variable. Earlier versions of the models did not have these variables in standardized form, and the resulting coefficients were very small, though still significant.

Overall, these models do a decent job explaining variation in the outcome variable, with an R^2 value of 0.155. Most of the variation comes from the instrumental variables. Including only these five predictors result in an R^2 value of 0.14, which is nearly as high as the overall model. The F-value of 31.7 in a model with instruments as regressors only strongly suggests that the instruments are significantly correlated with the outcome variable, implying that they are of good quality (Bound et al. 1995).

Comparing immigrants to the Canadian-born, several differences emerge. First of all, the youngest cohort of immigrants in the study are the *least* likely to live in Montréal, Toronto, or Vancouver. For them, the probability of residents outside of these three cities is between 1 and 2 percentage points higher than it is for 25-34 year-olds. Family composition differences are much smaller than they were for the Canadian-born, except that immigrant lone parents do not differ from the reference group in terms of location choice, whereas they did among the Canadian-born. Education differences between the two groups are slight, although there is a much higher tendency among post-secondary Canadian-born graduates to live outside of gateway cities.

Consistent with other research, there is a much stronger propensity among recent arrivals to live in a gateway city than is the case among more established immigrants. All labour market variables except full-time status positively predict a gateway city choice. Unlike the Canadian-born, for immigrants the relationship between working full-time and living in Montréal, Toronto and Vancouver is negative. For visible minority status, the final vector of individual/household characteristics, all groups are more likely than whites to live in a gateway city.

Regarding city characteristics, several factors positively predict gateway city living. First, same-group size is a strong predictor, with a coefficient that is much larger than the corresponding coefficient for labor market size. Crime rates seem to deter immigrants more than they do the Canadian-born, and both precipitation and unemployment rates are positive predictors.

With immigrants, this model predicts city choice fairly well, with an R^2 value of 0.584. As with the Canadian-born, the overwhelming majority of the explained variance comes from the five city predictors. As with the Canadian-born, the F-value of excluded instruments is significant, with an even higher value of 58.7.

Although these results are interesting, the primary purpose of modeling city choice is to address its endogeneity, and use the newly-created variable to model homeownership. It is to these results that we will now turn.

**** Table 6 here****

As with the gateway/non-gateway models, results here are once again presented separately for immigrants and the Canadian-born. The first two models are estimated within an ordinary least squares regression framework, using the actual gateway city indicator, implying no controls for endogeneity, followed by results that use the predicted value for the endogenous variable. For the most part, the results between the two sets of models are identical (except for the significance of the gateway indicator for immigrants), and will therefore be presented together.

Age positively predicts ownership, as does being part of a two adult with children household. Multiple family households are more likely to be owned than are single-family households, and non-family dwellings are less likely to be owned. Fluency in English or French positively predicts ownership, and the negative immigrant entry effect gradually

attenuates over time. The negative quadratic term captures the nonlinearity of the relationship, and points to a flattening in propensities over time. Education and labour market characteristics both have the expected effects; education positively predicts homeownership, as do fulltime employment, income, number of earners in the household, and self-employment. Also consistent with the expectations discussed earlier is that most visible minority groups are less likely than whites to own their home. The only groups with statistically significant homeownership rates above whites are Chinese and Japanese, and this holds for both immigrants and the Canadian-born.

Looking at these models, several conclusions can be made. First, most of the factors that might be expected to predict homeownership under a basic life-cycle model do, pointing to a high level of concordance with other Canadian studies (Balakrishnan & Wu 1992, Haan 2005a, b, Ray & Moore 1991, Skaburskis 1996). Second, there are large and unexplained differences across visible minority groups in terms of access to homeownership (which, though an important topic, is not further discussed here. See Haan (2007) for a more in-depth treatment). Third, several standard life cycle and human capital characteristics differ between immigrants and the Canadian-born in terms of their effect on homeownership, suggesting that the characteristics of immigrants do not relate to homeownership in exactly the same way they do for the Canadian-born. Perhaps most notable among these are the wide differences that exist across educational attainment categories. Finally, there does appear to be a homeownership penalty for both immigrants and the Canadian-born who choose to live in gateway cities.

What Is the Effect of Endogeneity?

The coefficient for the gateway city indicator in the first set of results (from the ordinary least squares regression) points to a negative and significant effect of living in a gateway

city on homeownership propensities. This is true both for the native-born, where the 'penalty' for living in Montréal, Toronto, or Vancouver is about 7.4 percentage points, and for immigrants, who experience a 5.7 point decline. Regarding the immigrant homeownership decline shown in Table 1, were immigrants encouraged to move from gateway cities and into non-gateway cities, therefore, homeownership rates could *potentially* be restored, perhaps even to where they were in 1981.

Given the similarities for most results across the OLS and two-stage models, only the endogenous gateway CMA indicator in the two-stage regression will be discussed here. It was argued earlier that city choice is an endogenous variable, because there are significant unobserved characteristics that result in the dependent variable being correlated with its error term. For the Canadian-born, controlling for the endogeneity of city choice actually results in a *bigger* gap in the homeownership rates of gateway and non-gateway city dwellers. A 7.4 percentage point gap in ordinary least squares regression grows to over 10 points, suggesting that the homeownership rate of the Canadian-born would increase if more chose to live outside of gateway cities.

For immigrants, the opposite is true. A gap of 6.8 percentage points in favor of nongateway cities shrinks slightly to 5.7 points after removing endogeneity. What is noteworthy here, however, is that the coefficient is no longer statistically significant. This result suggests that the difference in immigrant homeownership propensities across gateway and nongateway cities is now statistically indistinguishable from zero. As argued earlier, the reasons behind higher homeownership rates in non-gateway cities appear to be due to characteristics that are unobserved in the census. When these differences are removed, gateway/nongateway differences dissolve.

4.1 The Gateway Effect on Immigrant Housing: Reversing Recent Declines.

Even though the differences for immigrants across gateway/non-gateway cities is no longer recognizable, to further illustrate the minimal impact of city choice, in the table below it is determined the extent to which recently documented immigrant homeownership declines *could* be mitigated by a net shift out of the expensive housing markets of gateway CMAs. Assuming city choice is not an endogenous variable (that is, that the coefficient for gateway CMA is still statistically significant in the immigrant models), what would homeownership rates be if there was the same proportion of immigrants in gateway cities as in 1981? Alternatively, at what point would immigrants regain their 1981 rate of 67.3%? In the table below, these questions are answered by generating a series of predicted homeownership probabilities while reallocating immigrants across CMAs⁸.

**** Table 7 here****

Using the actual 2001 distribution (the first row) yields a predicted homeownership rate of 63.8%, which is identical to the rate shown in Table 1.⁹ In the following rows, the proportion of immigrants living in gateway CMAs is reduced by about 10 percentage points to illustrate the effect of relocation. In the second row, rather than use an even 60%, the reduction is instead 9.6 percentage points, so that we can see what homeownership rates would be in 2001 if immigrants were distributed across gateway/non-gateway cities as they were in 1981. The rows that follow use an even 10 percentage point drop.

Clearly, the evidence linking city choice to homeownership rates is weak, even when the endogeneity of city choice is not addressed, and it is not until we reduce the

⁸ Moving only recent immigrants was also experimented with, but the results were very similar to those shown here.

⁹ To derive these predicted probabilities, the only values that were changed were the gateway city indicator. Coefficients from the regular OLS regressions are used here instead of two-stage least-squares results.

proportion of immigrants living in gateway cities to 20% that we see immigrant homeownership rates return to their 1981 rates.

5. Discussion and Conclusion: The 'Place of Place'

In recent years, the overwhelming majority of Canadian immigrants have chosen to call Montreal, Toronto or Vancouver home. At the same time, their access to homeownership has deteriorated dramatically. The primary aim of this paper has been to determine the extent to which these two trends are related. It was argued that gateway immigrants differ qualitatively from non-gateway immigrants, this assessment required first of all a determination of the factors that lead immigrants to make their destination choice. In addition to observed household and city characteristics, those who choose non-gateway destinations are often attracted by some unobserved factor, like a job offer, presence of family members, etc. These omitted variables probably not only affect the decision to move to a particular city, but they also provide enhanced access to homeownership, so that any observed differences in outcomes between gateway and non-gateway CMAs could flow, at least to some extent, from unobserved immigrant characteristics. This paper showed that once the unobserved correlates of location choice are removed, location has no discernible impact on immigrant homeownership rates.

Even when city choice is not treated endogenously, it was shown that the proportion of immigrants living in Montréal, Toronto, and Vancouver would have to decrease to approximately 20% - which is almost exactly an exact reversal of current migration patterns - before 1981 immigrant homeownership rates would once again be seen. Convincing 80% of Canada's immigrants to move out of gateway cities is obviously unlikely to occur. This paper suggests that future research on improving immigrant wellbeing – whether in Canada or in any other country where hardships have increased in recent history – should therefore instead remain focused on isolating the factors that prevent immigrants from buying homes in the cities in which they're presently in.

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Appendix 1: Coding Details for Selected Variables

- Economic Family Income is adjusted with an adult equivalence scale (Statistics Canada 1999), a useful modification because it provides a better indication of how much money a family actually has for shelter. The method entails dividing the total economic family income by a weighted proportion of the number of people assumed to live off this income. In this analysis, the first person in the economic family is given a weight of 1, and each additional adult (age 18 or older) has a weight of 0.4. Children are weighted at 0.3, unless the family is a lone parent family, in which case the first child is weighted at 0.4, and subsequent children are counted as 0.3 of a person. This tally is known as the adult equivalence factor, and the total economic family income is divided by this number to yield adult equivalent adjusted (AEA) income. The difference between this figure and regular total income can be substantial, and to give an idea of the difference, a family with two adults and two children age 18 or under has an AEA income that is exactly half of their regular income. Since unattached individuals have no dependents, no adjustment is made to their income. AEA income is then further adjusted using the consumer price index so that it is in 2000 dollars, and then divided into \$10000 increments (collapsing values for those with adjusted income of less than \$10000 and over \$50000).
- Identifying the **Relevant Labour Market Size** was achieved by identifying the highest earner's field of study, and linking this information to the top 3 fields of study of people by occupation in a particular city. If, for example, a person was trained in industrial design, the size of the relevant labour market would be calculated by summing the number of people in all occupations where industrial design was 1 of the top 3 fields of study among people already in the field.

Table 1: Immigrant Relative Homeownership Rates in Canadian Cities, 1981 and2001.10

	1981		2001		
	Immigrants	Canadian-Born	Immigrants	Canadian-Born	
Ownership Rates (%)	67.3	60.0	63.8	64.2	

Source: 1981 and 2001 Census of Canada Master Files

Note: Contains only observations where highest earner is age 25-65.

¹⁰ Since CMA boundaries have shift over time, and since there are more CMAs in 2001 than 1981, these rates are not directly comparable. Readers should treat these figures accordingly.

	1981		2001		
Ownership Rates (%)	Immigrants	Canadian-Born	Immigrants	Canadian-Born	
Gateway CMA	63.1	51.7	60.9	59.7	
non-Gateway CMA	73.7	65.1	70.8	67.8	

Table 2: Trends in Homeownership Rates in Gateway and non-Gateway CMAs

Source: 1981 and 2001 Census of Canada Master Files

Note: Contains only observations where highest earner was 25-65.

	Coding	Ī	lean
Life-Cycle Characteristics	Ū	Gateway	Non-Gateway
Age 25-34	Reference Category	0.23	0.23
Age 35-44	Dichotomous, 1=yes	0.33	0.32
Age 45-54	Dichotomous, 1=yes	0.27	0.27
Age 55-65	Dichotomous, 1=yes	0.17	0.18
Family Characteristics	•		
Married with Children	Reference Category	0.34	0.33
Married without Children	Dichotomous, 1=yes	0.34	0.35
Lone Parent	Dichotomous, 1=yes	0.06	0.06
Unattached Individual	Dichotomous, 1=yes	0.26	0.25
Household Characteristics			
Single Family Household	Reference Category	0.93	0.95
Multiple Family Household	Dichotomous, 1=yes	0.03	0.02
Non-Census Family Member	Dichotomous, 1=yes	0.04	0.04
Immigration Characteristics			
Speaks English/French	Dichotomous, 1=yes	0.99	0.99
Arrived Pre-1970	Reference Category	0.08	0.05
Arrived 1970-79	Dichotomous, 1=yes	0.08	0.04
Arrived 1980-89	Dichotomous, 1=yes	0.08	0.03
Arrived 1990-99	Dichotomous, 1=yes	0.13	0.04
Socio-Economic Characteristics	, ,		
Education			
Less Than Highschool	Reference Category	0.82	0.81
Highschool Diploma	Dichotomous, 1=yes	0.04	0.03
Post-Secondary Training	Dichotomous, 1=yes	1.32	1.31
University Degree	Dichotomous, 1=yes	10.33	10.33
Currently in School	Dichotomous, 1=yes	0.07	0.06
Labour Market			
# Earners in Economic Family	Continuous	1.32	1.31
Income	Continuous, logged	10.33	10.33
Unemployment Indicator	Dichotomous, 1=yes	0.04	0.04
Full-Time Employment Indicator	Dichotomous, 1=yes	0.82	0.81
Self-Employment Indicator	Dichotomous, 1=yes	0.07	0.06
Visible Minority Status	•		
Black	Dichotomous, 1=yes	0.04	0.01
Chinese	Dichotomous, 1=yes	0.06	0.02
Filipino	Dichotomous, 1=yes	0.02	0.01
Japanese	Dichotomous, 1=yes	0.00	0.00
Korean	Dichotomous, 1=yes	0.01	0.00
Latino	Dichotomous, 1=yes	0.01	0.01
South Asian	Dichotomous, 1=yes	0.05	0.01
South East Asian	Dichotomous, 1=yes	0.01	0.01
Western Asia/Arab	Dichotomous, 1=yes	0.02	0.01
White	Reference Category	0.76	0.92
Other Visible Minority	Dichotomous, 1=yes	0.01	0.00

Table 3: Coding Information for Variables that Appear in both Equations

Note: Years since migration is measured only for immigrants. Income refers to economic family income, and full time is defined as 30 hours of work or more in the weeks in which a respondent worked in 2000. The Canadian-born are excluded from the YSM calculation.

		Mean	
	Coding	Gateway	Non-Gateway
Same-group Size	Continuous, Logged	4.1	1.47
Relevant Labour Market Size	Continuous, Logged	5.17	4.27
Unemployment Rate	Continuous, Standardized	0.01	-0.01
Annual Precipitation	Continuous, Standardized	0.38	-0.38
Crime Rate per 100,000	Continuous, Standardized	-0.15	0.16

Table 4: Coding Information for Instrumental Variables in Equation #1

Note: all standardized variables have a mean of 0 and a standard deviation of 1. Same-group size refers only to immigrants. This variable is coded 0 for the Canadian-born.

	First-stage Regression	Results	
Independent Varia	ables	Canadian-Born	Immigrants
	25-34	Ref.	Ref.
Aqe	35-44	-0.007 ***	0.011 ***
°,	45-54	-0.033 ***	0.016 ***
	55-65	-0.035 ***	0.015 ***
Family	2 Adults with Children	Ref.	Ref.
Stucture	2 Adults no Children	0.018 ***	0.004 ***
	Lone Parent	0.028 ***	-0.005
	Unattached Individual	0.081 ***	0.017 ***
	Multiple Family Dwelling	0.055 ***	0.014 ***
	Non-Family Dwelling	0.012 ***	0.025 ***
Education	Less Than Highschool	Ref.	Ref.
	Highschool Diploma	0.017 ***	0.006 **
	Post-Secondary Training	-0 112 ***	-0.052 ***
	University Degree	-0 0.94 ***	-0.064 ***
	Currently in School	-0.004 *	-0.003
	Speaks English/French	0.353 ***	0.013 ***
Immigrant	Pre70	(dropped)	Ref
Characteristics	Immigrated 1970-79	(dropped)	0.037 ***
	Immigrated 1980-89	(dropped)	0.066 ***
	Immigrated 1990-99	(dropped)	0.000
Labour Market	# Farners in Economic Family	-0 007 ***	0.005
Characteristics		-0.007	0.003
onaracteristics		0.005 **	0.001
	Full Time Employment Indicator	0.005	0.001
	Self Employment Indicator	0.020	-0.000
Visiblo	Whites	0.045 Pef	0.012 Pof
Minority	Placks		0 164 ***
Status	Chiposo	0.120	0.104
Status	Filiping	0.215	-0.030
		0.203	0.075
	Japanese	0.224	0.202
		0.197	0.200
	South Asian	0.202	0.231
	South Asian	0.195	0.003
	West Asian Arch	0.105	0.124
	Other Visible Minerity	0.030	0.141
City	Same Croup Size (logged)	(dropped)	0.105 ***
Characteristics	Belovant Labour Market Size (logged)	(utopped)	0.105
Characteristics	Crime Rate per 100 000	0.017	0.000
	Precipitation Rate (standardized)	-0.050	-0.194
	Unemployment Rate (standardized)	0.041 ***	0.218 ***
Intercept	onemployment rate (standardized)	0.060 ***	-0 487 ***
Overall R2		0 155	0 584
Partial R2 (exclud	ed instruments only)	0.140	0.548
F(excluded instru	ments only)	31.7	58.7
# Observations		803669	298410

Table 5: Gateway/Non-Gateway City Choice across Canada's Census Metropolitan Areas, 2001 Census of Canada

Source: 2001 Census of Canada Economic Family File Created by Author

Note: Same-group size is coded zero for the Canadian-born. Coding details for income and relevant labour market size are in Appendix A.

	nden endent Verieblee		ression	2 SLS Reg	ression
Independent Variat	oles	Canadian-Born	Immigrants	Canadian-Born	immigrants
Gateway CMA		-0.074 ***	-0.068 **	-0.104 ***	-0.057
	25-34	Ref.	Ref.	Ref.	Ref.
Age	35-44	0.147 ***	0.078 ***	0.147 ***	0.077 ***
	45-54	0.188 ***	0.118 ***	0.188 ***	0.118 ***
	55-65	0.274 ***	0.166 ***	0.277 ***	0.166 ***
Family	2 Adults with Children	Ref.	Ref.	Ref.	Ref.
Stucture	2 Adults no Children	-0.111 ***	-0.038 ***	-0.113 ***	-0.039 ***
	Lone Parent	-0.279 ***	-0.206 ***	-0.280 ***	-0.204 ***
	Unattached Individual	-0.339 ***	-0.225 ***	-0.338 ***	-0.222 ***
	Multiple Family Dwelling	0.030	0.115 ***	0.035	0.113 ***
	Non-Family Dwelling	-0.049 ***	-0.047 ***	-0.051 ***	-0.050 ***
Education	Less Than Highschool	Ref.	Ref.	Ref.	Ref.
	Highschool Diploma	0.063 ***	0.000	0.063 ***	-0.001
	Post-Secondary Training	0.087 ***	0.021 ***	0.086 ***	0.021 ***
	University Degree	0.104 ***	0.011	0.105 ***	0.011 *
	Currently in School	-0.035 ***	-0.047 ***	-0.037 ***	-0.046 ***
	Speaks English/French	0.037 ***	0.017	0.052 ***	0.012
Immigrant	Pre70	(dropped)	Ref.	(dropped)	Ref.
Characteristics	Immigrated 1970-79	(dropped)	-0.035 ***	(dropped)	-0.036 ***
	Immigrated 1980-89	(dropped)	-0.093 ***	(dropped)	-0.094 ***
	Immigrated 1990-99	(dropped)	-0.237 ***	(dropped)	-0.238 ***
	Whites	Ref.	Ref.	Ref.	Ref.
Visible	Blacks	-0.115 ***	-0.161 ***	-0.109 ***	-0.164 ***
Minority	Chinese	0.126 ***	0.179 ***	0.141 ***	0.180 ***
Status	Filipino	-0.052 ***	-0.055 *	-0.039 *	-0.053
	Japanese	0.082 ***	0.073 **	0.093 ***	0.066 *
	Korean	-0.022	-0.045	-0.008	-0.052
	Latino	-0.136 ***	-0.178 ***	-0.141 ***	-0.180 ***
	South Asian	0.036	0.004	0.044	0.003
	Southeast Asian	0.008	-0.044 ***	0.029	-0.042 ***
	West Asian/Arab	0.025	-0.129 ***	0.040	-0.131 ***
	Other Visible Minority	-0.007	-0.008	-0.010	-0.010
Labour	Unemploved	-0.078 ***	-0.073 ***	-0.077 ***	-0.074 ***
Market	Employed Fulltime	0.034 ***	0.013	0.035 ***	0.013
Characteristics	# of Earners in E.F.	0.030 ***	0.039 ***	0.031 ***	0.040 ***
	Income (logged)	0.102 ***	0.080 ***	0.102 ***	0.079 ***
	Self-Employed	0.031 ***	0.024 ***	0.033 ***	0.025 ***
Intercept		0.515 ***	0.683 ***	0.508 ***	0.678 ***
R2		0 273	0.289	0 274	0.289
# Observations		803669	298410	803669	298410

Table 6: Housing Tenure across Canada's Census Metropolitan Areas, 2001 Census of Canada

Source: 2001 Census of Canada Economic Family File Created by Author

Note: Coding details for income and relevant labour size are in Appendix A

% living in Gateway Cities	Homeownership Rates	
70.1% (2001 percentage)	63.8%	
60.4% (1981 percentage)	64.5%	
50%	65.2%	
40%	65.9%	
30%	66.5%	
20%	67.2%	
10%	67.9%	

 Table 7: Predicted Immigrant Homeownership Rates under Several Distributional

 Scenarios