Draft

Cohort Progress toward Homeownership and Household Formation: Young Immigrant Cohorts in Los Angeles and Toronto Compared

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Abstract

As immigrants adapt to their new country, they not only increase their homeownership propensities, but they also become more likely to form independent households. But how do they compare with native-born residents, who also progress over time? This paper examines residential assimilation of five young immigrant cohorts in Los Angeles and Toronto over a five year period in the early 2000s. Results show that while immigrants enjoy significant progress, there are large variations between sub-groups. The Chinese have been cast as housing "high achievers", attaining homeownership by compressing rates of household formation. In contrast, "low" achievers, such as black immigrants, have the highest rates of household formation alongside the lowest rates of ownership. Regarding cross-country differences, we interpret that racial groups share the same culture and having a similar desire to own homes in both countries, and that variable rates of household formation represent a household strategy to achieve homeownership in the face of different assimilation contexts. The findings strongly support the need to account for household formation in the study of homeownership attainment.

INTRODUCTION

The promotion of homeownership has been a key component of U.S. and Canadian housing research, and for good reason. Research shows that homeownership has a long lasting impact on the well-being of residents (Boehm and Schlottmann 1999; Rohe, Van Zandt, and McCarthy 2002). It is therefore not surprising that it is widely used a key indicator of immigrant well-being and residential assimilation (e.g., Alba and Logan 1992; Krivo 1995; Rosenbaum 1996; Haan 2005).

Thus far, immigrant homeownership attainment has almost exclusively been measured at the household level (e.g., Alba and Logan 1992; Rosenbaum 1996; Krivo 1995; Coulson 1999; Borjas 2002). This unit of analysis has important limitations since it ignores household formation strategies, or the effect that forming independent households has on homeownership propensities (Yu and Myers forthcoming; Miron 1988). Ignoring household formation may be especially problematic among new immigrants and young people, since they are more likely to save money by staying with compatriots, friends, or extended kin (Blank 1998). As new immigrants adapt to their host country and as young people grow older, they not only become homeowners, but they also form more independent owned and rented households. We hypothesize here that these two process are not independent of one another, and that this explains a good deal of the variation between immigrant groups, both within and across countries.

Both the U.S. and Canada attract a large number of immigrants from Asia, Latin America, and Africa. Most of these new arrivals are young, have

little socioeconomic resource to begin with, and start this new phase of their housing careers from very low level. Furthermore, many of these immigrants (roughly 75% in Canada and 33% in the United States) choose immigrant gateway cities, such as Los Angeles (which accepts 12% of US newcomers[1]) and Toronto (where 40% of all new Canadians live), as their destination. Consequently, many newcomers enter the same housing market, but this by no means implies that they follow the same trajectory in residential assimilation. While the Chinese are housing "high achievers" in both countries (Haan 2007; Painter, Yang, and Yu 2003), black immigrants seem to struggle (Haan 2007; Painter, Yang, and Yu 2003).

Even within subgroups there are significant differences (Painter, Yang, and Yu 2003). For example, even though both Asian Indian and Chinese immigrants are highly educated "human capital" migrants in the United States, the Chinese have much higher rates of homeownership (Yu and Myers 2007; Haan 2007). We know very little about the extent to which gaps like these stem from differences in the rates of household formation.

While both the U.S. and Canada are popular immigrant destinations, there are important contextual differences that likely affect residential trajectories in the two countries. The first factor is housing policy. For instance, mortgage interest is tax-deductible in the U.S. but not Canada, which lowers the cost of homeownership relative to renting. Also, the two countries have different mortgage interest rates and down payment requirements. The second is the housing market itself; as one example of

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[1] New immigrants or newcomers refer to those who come to the host country in the last 5 years.

this, housing price in recent years fluctuated much more significantly in US gateway regions than it did in Canada's. Third, immigration policies have attracted different types of immigrants to each country. While Canada favors highly skilled immigrants, most recent immigrants to the U.S. came through family ties (Borjas 1993). These factors all point to the prospect of large contextual differences faced by immigrant groups in Canada and the United States. Juxtaposed against this is the considerable research on the cultural and social significance of owning a home, suggesting that context is much less important than culture, and that differences may not be as great as originally imagined.

Against this backdrop, this paper studies the residential assimilation of five immigrant groups in Los Angeles and Toronto, simultaneously examining homeownership attainment and household formation, and comparing them to a native-born reference cohort. We examine the same ethno-racial groups (Asian Indians, Blacks, Chinese, Mexicans, Whites, and white native-born respondents) in the two countries in an attempt to "control" for culture, positing that observed differences in residential patterns that exist after controlling for key individual characteristics are more likely to be contextual. Similarities across groups lend more weight to arguments about the centrality of culture to understand homeownership attainment and household formation.

This paper extends the recent literature on residential assimilation by bringing to bear the cohort methods used in the analysis of immigrant housing trajectories (Myers and Lee 1998) and examining immigrants'

household formation and homeownership attainment within the same framework (Yu and Myers forthcoming). Furthermore, it advances previous studies by comparing similar groups across fairly distinct housing markets.

BACKGROUND
Two trajectories of immigrants' housing attainment

One key debate about immigration and residential assimilation is the degree at which new immigrants adapt to their host society. Housing outcomes have been used in the literature as important indicators (e.g., Yu 2006; McConnell and Akresh 2008; Alba and Logan 1992).

The literature thus far offers two contrasting views, "assimilation" and "stratification" theories, to explain how immigrants adapt to their host society. Assimilation here refers to the integration of immigrants in the host society as the direction and eventual outcome (Gordon 1964). In more recent literature, assimilation is treated as a process of attenuation of ethnic differences instead of an end-state achievement (Alba and Nee 1997 ; 2005). In other words, the expectation is for a process of ongoing and attenuating differences, rather than a group or individual passing a particular threshold.

Although gaps with the host society are expected to one day be small under assimilation, this does not mean that initial gaps won't sometimes be large. With few exceptions (e.g., Yu 2006; Painter, Yang, and Yu 2004), new immigrants in general lack credit history and financial knowledge, both of which are likely to take some time to reverse and will hurt homeownership attainment. As a result of these and other factors, immigrants are expected to have low homeownership rates. Since sharing a residence is an important

coping strategy for immigrants in general and for new immigrant arrivals in particular (McConnell and Akresh 2008; Blank 1998), there should also be a low propensity for forming independent households in the early disruptive period after arrival.

It is important to note that the low rates of homeownership and household formation initially expected in the assimilation model are temporary. As immigrants adapt to the host society, they become more upwardly mobile and, consequently, more acculturated to the host society-- two key preconditions for subsequent assimilation (Massey 1985). Immigrants improve occupational mobility, they increase English proficiency, they establish permanent residency, and they develop a credit history over time (Bean and Stevens 2003). This model also leads to the expectation that English proficiency will positively affect homeownership, and that there will eventually be little difference between immigrant groups in the determinants of homeownership and household formation.

As part of this assimilation process, immigrants increasingly form independent households and achieve homeownership (Alba and Logan 1992; Blank 1998), suggesting that duration is a key determinant of immigrant assimilation as measured by homeownership and household formation.

A response to assimilation theory is the stratification model which emphasizes enduring barriers to homeownership and household formation. Under this scenario, observed disparities would persist after accounting for relevant socioeconomic and demographic factors, and after immigrants have

spent decades in the host country. There are three possible reasons listed below for residential stratification.

First, residential choice is an intimate decision. A racial/ethnic majority group is more resistant to residential integration across racial/ethnic lines than to accept social mixing in schools and workplace, especially if the group is racially stigmatized (Farley 1996; Farley, Fielding, and Krysan 1997). Racially segmented housing markets restrict the residential choice of certain ethnic groups, producing differences that persist over the longer term (Kain and Quigley 1972; Wachter and Megbolugbe 1992; Straszheim 1974).

Second, racial discrimination is one of the biggest challenges to immigrants and minorities (Gordon 1975; Reimers 1998; Henry 1989; Hulchanski 1993). Despite the fact that many immigrant groups have been in their host countries for a long time, they continue to have trouble catching up to the native-born (Frenette et al. 2003). Although this has been shown to be true for the labor market, there is also supportive evidence in the housing market. For instance, research on potential discrimination in mortgage applications in the United States shows disproportionate impacts on minorities and minority neighborhoods (Reibel 2000; Munnell et al. 1996).

The third explanation for stratification is that immigrant background and the context of reception are important determinants of immigrant assimilation (Rumbaut and Portes 2001; Zhou 1997). Immigrant groups have shown large variations in their assimilation, and sometimes even a pattern of perpetual ethnic differences. The stratification model may be particularly pertinent today because each new wave of immigrants since the 1960s has

been progressively larger than the previous one and the trend is likely to persist. More importantly, each new wave of immigrants have become more linguistically isolated, geographically concentrated, and less endowed (Borjas 1999). At the same time, American and Canadian societies have become more socio-economically stratified and unequal (e.g., Myles, Picot, and Pyper 2000; Massey 1995; Bean and Bell-Rose 2003), likely making assimilation a more strenuous process. Evidently, alarmists have recently raised the possibility that Mexicans and other Latino immigrants may not be assimilating into American society (Huntington 2004). The debate on assimilation and stratification is particularly pertinent because of the continuous flow of new immigrants to the U.S. and Canada and because of the intense public debates surrounding present and future immigration policy.

Cross-country analyses are especially fruitful for the assimilation-stratification debate, because they enable comparisons of similar groups, arriving at similar times, under different policy regimes and ecological contexts. Consequently, similarities in ethno-racial housing trends across countries are more likely to be 'pure', in that they are more likely to reflect group characteristics than simply contexts of reception. For example, it would be more credible to discuss the cultural significance of homeownership for the Chinese if high levels were witnessed in both Los Angeles and Toronto; whereas high levels in one region and low levels in another lends weight to the importance of contextual determinants.

The role of household formation

One important and understudied aspect of homeownership attainment for immigrants is household formation (Yu and Myers forthcoming). In a simplistic yet widely accepted view, a homeownership decision is only made and measured at the household level, so that a higher homeownership rate for a group implies better access to homeownership, simply because more household dwellings are owned. Little recognized is the third variable in the homeownership decision: people have a choice not to form their own independent households. When a person chooses to leave on their own, they form another observation, thereby inflating or depressing homeownership rates. In other words, rising rates of household formation could overshadow homeownership progress, since the increase in independent household inflates the denominator used to calculate homeownership rates.

Ignoring household formation may be particularly problematic for the study of residential assimilation. Newly arrived immigrants are least likely to form independent households, and they are most likely to share residence with others in multiple family dwellings (Haan 2007). Moreover, immigrant groups have different rates of household formation, reflective of their.

Moreover, immigrant groups have different rates of household formation, reflecting differences in culture and socioeconomic status. Consequently, homeownership disparities between ethno-racial groups will change once household formation is controlled in the analysis of homeownership attainment; for the same reason, homeownership trajectories could also change; so could explanations linking high or low homeownership levels to cultural differences between groups.

Further Limitations of existing studies

In addition to the weakness noted above, most studies use cross-sectional methods to study residential assimilation. This is problematic for two major reasons. Residential assimilation is conceived as the attenuation of differences between immigrants and native-born residents, a process which is longitudinal in nature. While immigrants improve their housing outcomes as they age and their duration in the host country extends, native-born residents also make progress and improve housing outcomes over time. Therefore, it is necessary to measure not only gaps between immigrant groups at particular points of time, but also over time.

Second, there are substantial variations between immigrant arrival cohorts. Immigration to the U.S. and Canada has accelerated over time, and each new wave of post-1965 immigration differs from previous arrivals in terms of cohort size, countries of origin, and the path of immigration (Fix and Passel 2001; Martin and Midgely 2003; Massey 1995). 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). As a result, immigrant cohorts may have different trajectories of residential assimilation, and it is difficult to use cross-sectional analysis to parse out these cohort variations and life-cycle effects. A cohort approach has shown to be a valid supplement to widely used cross-sectional practices (e.g., Yu and Myers 2007; Myers and Lee 1996).

Finally, there is very little research that distinguishes between the effects of culture versus context, limiting the explanatory potential of these

studies. By comparing how groups from the same source regions fare in their destination country in the early years, it becomes possible to control for the effect of culture, and to speak more confidently about how important context is for explaining both immigrant homeownership levels overall, and differences between groups.

Research questions

Building on the discussion above, four specific questions are addressed in this paper:

1) What is the overall residential attainment of the five immigrant groups between 2000/2001 and 2005/6?

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

3) To what extent do socioeconomic factors explain the housing gaps between the five immigrant groups and the native-born reference group?

4) To what extent are the residential shifts of the five immigrant groups aligned with the precepts of residential assimilation theory?

In addition to these questions will be an overarching interest in comparing the United States and Canada, as represented by Los Angeles and Toronto. These gateway cities are well-qualified to represent the two countries, because they contain 12% and 40% of all recent immigrants in each country, respectively . We hypothesize that, given the similarities between the chosen groups across countries, any observed differences are likely to be contextual,

and that observed similarities supports the presence of unobserved group characteristics like cultural preferences.

DATA AND METHODS

The sample

We focus on five immigrant ethno-racial groups that have either a large or growing presence in each country: non-Hispanic whites, blacks, Asian Indians, Chinese, and Mexican immigrants. Native-born whites of non-Hispanic origin are also included as a reference group.

For immigrants, the sample includes a single arrival cohort, namely those who came to the destination country in 1985-94 and remained in Canada or the U.S. until the early 2000s. By focusing on this cohort we can observe net changes in homeownership and household formation over the five year period in the early 2000s, i.e., after they have lived in the destination country for an average of 10 years and their duration increases to an average of 15 years. After immigrants' initial period of adjustment in the host countries, they stabilize and begin to accelerate their housing careers (Myers and Lee 1998). This interval is an important stage of residential assimilation.

In addition, much of the analysis centers on the birth cohort that was age 25-34 in 2000 and 30-39 in 2005. We use this selection criterion for both native-born residents and immigrants, because it is the prime period for housing attainment and pivotal for establishing residential trajectories (Kendig 1990; Miron 1988). In addition, the majority of immigrants come to

Canada and the U.S. in their 20s and 30s. Immigrants began to accelerate their housing careers after 5-10 years in the host countries. We also limit our sample to those who worked at least 30 hours per week so that all the observations in our study are not dependent on others and are theoretically able to form independent households if they so choose. In sensitivity analysis, we tested these results using different selection criteria (e.g., 25 and 35 hours), and found them to be robust.

For birth years and immigrant arrival years, observations in Toronto are delayed by one year [2]. This is because the Canadian Census data are available for 2001 and 2006, while the US census and American Community Survey data are available for 2000 and 2005. We want to have consistent birth years and immigrant arrival years for both study areas, necessitating the one-year lag for Canada.

Our data sources include U.S. Decennial Census Public Use Microdata for 2000, American Community Survey Public Use Microdata for 2005 (Ruggles et al. 2003), and the confidential 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 Los Angeles Consolidated Metropolitan Statistical Area and Toronto Metropolitan Area, which are home to about 17

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[2] For Toronto, we include those who were born in 1966-1975. For immigrants, we only include those who came to Canada in 1986-1995. We track them from 2001 to 2006.

million and 5 million residents respectively. Both metropolitan areas attract large numbers of new immigrants and are primary immigrant gateways. Toronto welcomes roughly 100,000 newcomers every year, or 40% (be consistent with page1) of the overall Canadian total, whereas L.A. opens its doors to more than 180,000 new immigrants each year, or 12% of the U.S. total.

Both Toronto and Los Angeles have a large and growing stock of detached, semi-detached and condominiums, catering to the wide tastes of would-be buyers. Although housing on average costs more in L.A. than in Toronto, financing has also (until recently) been easier to obtain, leveling the differences in opportunity structures. As a result, immigrants face some of the same frontiers in each city as they make the decisions to form independent households and/or buy a home.

The five immigrant groups

Five distinct immigrant ethnic groups are selected for analysis. The first 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 few difficulties with residential assimilation.

Similar to white immigrants with respect to countries or origin, black immigrants also come from a variety of countries. Most black immigrants in Los Angeles came from Africa. In comparison, many black immigrants in Toronto were from Africa or the Caribbean. Previous studies have shown that black immigrants face many challenges in both countries (Freeman 2002; Darden and Kamel 2000).

Different from white and black immigrants, who came from many different countries, we restrict Mexican-origin immigrants to come solely from Mexico. They have a very long history in Los Angeles and they represent by far the largest group of immigrants. Mexican immigrants also are notable for their very low education and income levels on average (Krivo 1995; Ortiz 1996). In comparison, there are very few Mexican immigrants in Toronto, although the amount has begun to increase rapidly in recent years.

In contrast to Mexican immigrants, Asian-origin immigrants tend to have higher educational levels and exhibit more rapid economic advancement in destination countries. Chinese and Asian Indian immigrants are selected as two distinct ethnic groups from among the set of Asian immigrants. They too have specific countries of origin and came from China and India respectively. Although they share some common attributes, such as generally high educational levels and economic mobility, they have different histories of migration and of occupational pursuits (Hing 1993; Barringer, Gardner, and Levin 1993). As a result, they have rather different residential patterns. In L.A., Asian Indian immigrants are scattered across the metropolitan area, while the Chinese are concentrated in suburban ethnic enclaves (Jensen 1988;

Skop and Li 2005). In Canada, there is considerable evidence of both Chinese and Asian Indian ethnic enclaves (Fong and Wilkes 2003).

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 city. The selection of white native-borns does not imply that immigrant groups will aspire to residential patterns of their native-born majority, but that the native-born will provide a useful comparison point. Traditional theories of residential assimilation typically hypothesize a narrowing of differences in residential attainment between immigrants and native-born white majorities, which is the long-term outcome in a modern society (Massey 1985). Accordingly, selection of this group is most appropriate when seeking a native-born reference group against which to compare residential behavior of the different groups.

Cohort longitudinal analysis

There are two potential concerns about the methods and measures used in this study. The first is about the variable "length of time since immigration" (derived from census year and reported year of immigrant arrival) which is used to measure the assimilation process of the foreign born. Redstone and Massey (2004) report that immigrants may misreport their duration due to multiple trips they took between the U.S. and their countries of origin. Ellis and Wright (1998) have also shown the inconsistencies are particularly significant among new immigrant arrivals because of circular

migration and because many newly arrived are temporary visitors to the host countries. Myers (2004) reveals that settled immigrants are much less subject to the measurement error. That is why we include more settled immigrants in the study. Moreover, those concerns about measurement errors are further mitigated when data are structured in cohorts instead of cross-sections.

The second concern concerns cohort analysis. Migration could change cohort membership over time. Some immigrants leave traditional immigrant gateways after a period of time, either through emigration or secondary migration to another destination. If more (or less) successful immigrants are more (or less) likely to depart, it would bias the effect of duration on our residential outcome variables. The best defense against such bias is to control for differences in human capital that proxy the notions of "success" that form the foundation for bias. Moreover, we have a relatively short study period of five years, so cohort membership should experience relatively small changes.

We will be focusing primarily on a single arrival cohort composed of those who arrived 1985-94 (1986-1995 in Toronto) and observed over the five year period in the early 2000s. Our focus is on the degree of assimilation achieved between 2000 and 2005 (between 2001 and 2006 in Toronto), thus measuring movement toward assimilation after behaviors have stabilized following the first, disruptive decade after immigration.

The model

We employ multinomial logistic regression models used in previous studies, such as Clark and Mulder (2000) and Leppel (1986), to estimate the probability of an individual being a non-head (coded as 0), a renter head (1), or an owner head (2). This method has been recently used in Yu and Myers (forthcoming) and treats household formation and ownership as a joint decision manifested in three unranked categories. The multinomial specification allows us to look specifically at household formation and how it changes over the study period. We do so by examining the coefficients on key variables that influence people's decisions to rent or own, relative to being a non-householder.

Multinomial logit regression yields relative risk ratios, which are the exponentiated values of multinomial regression coefficients. The interpretation of relative risk ratios is similar to odds ratios in a logistic regression. Although it is appropriate to use multinomial logit regression here, the method also has its disadvantages. First, multinomial logit regression produces multiple comparisons and a large number of parameters, which encumbers interpretation. Second, relative risk ratios are not easily compared and understood. As a partial remedy to these problems, we graph relative risk ratios and generate predicted probabilities.

The model used in this analysis is specified as follows:

$H = RACE + IMMIGR + GENDER + X + Z$

H = householder status (Non-head or non-householder = 0, renter householder = 1, and owner householder = 2),

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RACE    =    racial/ethnic group,
IMMIGR =     immigrant or not,
GENDER=      individual's gender,
X       =    individual's socioeconomic characteristics, and
Z       =    local housing price and rent.
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DESCRIPTIVE FINDINGS

Figure 1 reports homeownership rates by racial/ethnic groups in both

Los Angeles and Toronto over the study period in the early 2000s. Here, we

use the traditional household level measure of homeownership, and only

include householders who work more than 30 hours per week.

There are a number of findings. First, consistent with previous studies

(e.g., Painter, Yang, and Yu 2003; Haan 2005), Chinese immigrants

immediately have very high homeownership levels in both Los Angeles and

Toronto. After the five year period, the Chinese are still among the highest in

homeownership rates, eclipsed only by Asian Indians in Toronto. Second,

Asian Indian immigrants have very high rates of homeownership in Toronto

and their homeownership rate increases over the period. The same cannot be

said of their counterparts in Los Angeles. Third, black immigrants have very

low homeownership rates in both places, with L.A blacks posting slightly

higher rates than those in Toronto. Fourth, white immigrants fare much

better in Toronto than they do in L.A, whereas native-born whites do well in

both metros. Furthermore, white immigrants approximate same-metro

native-born respondents quite closely. Fifth, Mexican immigrants in Los

Angeles have the lowest level homeownership of all groups, a finding also

consistent with previous studies (e.g., Kochhar and Gonzalez-Barrera 2009;

Yu and Myers 2007). Sixth, both Asian Indian and Mexican immigrants in Los

Angeles experience little or no progress in homeownership attainment over time, whereas in Toronto the progress is very high (Mexicans nearly double their rate in just five years).

Figure 1 about here

Recall that Figure 1 focuses on the household, which does not consider household formation; let us now look at how these results change based on household formation. Figure 2 shows headship status by ethno-racial grouping. Each bar has three levels of shade which represent the share of owner householders, renter householders, and non householders. [3]

Figure 2 about here

A number of findings are similar to those in Figure 1. First, there are large variations between racial/ethnic groups in headship status. Second, whites have similar headship rates in both Los Angeles and Toronto. Third, headship rates increase over time and the non-head shares of the total decrease for all the study groups. More households are formed as people age and as immigrants become more adapted to the host countries. Fourth, Mexican immigrants in L.A. have relatively low rate of household formation which change little over the study period.

There are also important differences. First, the Chinese have very low rates of household formation, particularly in Toronto. It seems that their high homeownership stems in part from their very low rate of renter household

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[3] Owner heads refer to those who are the householders of owner occupied housing units. Renter heads refer to those who are the householders of renter occupied housing units. Non-heads refer to those who are not household heads or householders. Once again, the sample only includes people who worked more than 30 hours per week.

formation. In fact, the Chinese do not have higher rates of owner household formation than blacks, except that blacks have very low homeownership rates. The same story applies to Asian Indian immigrants in Toronto. Second, Asian Indian immigrants in Los Angeles have fared quite well and improved their household formation substantially over time. Their low homeownership rate is largely the result of their high renter household formation, and owner head rates are quite close to those in Toronto. Third, black immigrants are the most likely to form households in general and renter households in particular. In fact, less than 20% of black cohort in Los Angeles did not form independent households in 2005. Finally, people in Toronto have a lower overall rate of household formation than those in Los Angeles, suggesting that the higher homeownership rates in Toronto are largely due to lower rates of household formation in general and low rate of renter household formation in particular. People in Los Angeles are more likely to form independent households than those in Toronto, and when independent households are formed, people in Los Angeles form more renter households than those in Toronto. Against this backdrop, ownership rates, both across groups and between cities, are not as different as previously thought.

Covariates

As with homeownership, the variations in household formation could be a result of the socioeconomic status and human capital each group has. Therefore, it is necessary to control for these covariates in a multivariate framework. The following is a list of independent variables and the descriptive statistics of the variables, which are reported in Tables 1 and 2

for Los Angeles and Toronto respectively. The mean values are computed and reported by each racial/ethnic group for the years 2000 and 2005 in Los Angeles and 2001 and 2006 in Toronto. The percent share of each attribute is reported under each variable, excepting personal income, housing prices, and rent.

Tables 1 and 2 about here

Age. Age is an especially critical dimension of residential assimilation, because homeownership and household formation depend so greatly on age. A series of birth cohorts are specified and their residential outcomes traced as the cohort grows 5 years older. The reference group for the age analysis is the cohort age 25-34 in 2000 and 30-39 in 2005. The behavior of other birth cohorts in the sample is expressed as a deviation from this reference cohort.

Gender. Traditionally, males have been more likely to be designated as household heads, although the likelihood has declined among younger cohorts. There are also large differences between racial/ethnic groups and between immigrants and the native-born in terms of the likelihood (Myers 1992).

Income. Income is the economic foundation of housing attainment, and immigrants tend to have lower income than native-born whites. In Los Angeles, Mexican immigrants have the lowest income of all, followed by black and Chinese immigrants (see Table 1), whereas Asian Indian immigrants have the highest income of all groups. Native-born whites and white

immigrants have similar income levels. The income levels in Toronto are largely reflective of those in Los Angeles with some exceptions (see Table 2). Asian Indian immigrants have relatively low income, while Mexican immigrants have similar incomes as other immigrant groups.

Not surprisingly, as people age and immigrants adapt to the host countries, their incomes increases. However, the improvement varies between groups. Mexican immigrants in Los Angeles saw the smallest improvement of all groups. Native-born whites in both metropolitan areas have progressed in a similar fashion with respect to their income.

Human capital differences. Educational attainment is the principal measure of human capital, serving as a proxy for future earnings. Education is expected to have a positive effect on household formation. In this study, the education variable will have three categories, which are (1) no high school diploma, (2) high school diploma or some college, and (3) college degree or better. Those who have high school diploma or some college education will be the reference group.

There are extreme differences between immigrant groups (see Table 1). Asian immigrants in general have higher educational attainment than Mexican immigrants, while native-born, non-Hispanic whites have the highest educational attainment of all groups. Table 1 shows that all groups have slightly higher levels of educational attainment over time. Better educated households have more choices in the housing market, even after controlling for income differences. This can be interpreted as measuring an additional

human capital effect (including parental resources that supported that education and may also be supporting present home purchase). Once human capital, income, and English proficiency are controlled, it is not clear how much difference will remain between the study groups.

Marital status. Marital status is another factor affecting housing attainment (Sweet 1990). Married couples are more likely to form independent households and also buy homes. But the married partners form households jointly, which constrains their prospects for individual headship. In contrast, previously married individuals have acquired housing experience living as a married couple but no longer need to share their headship with a partner. As a result their individual household formation and homeownership may exceed that of married persons. The three categories representing marital status are (1) never married, (2) currently married, and (3) formerly married. Those who are currently married will be the reference group.

In general, immigrants are more likely to be married than native-born whites. Black immigrants are the notable expectation. Not surprisingly, people become more likely to be married over time; the number of formally married also increases.

English proficiency. The economic incorporation of immigrants is aided by English proficiency, which is also pertinent to the willingness of immigrants to expand their residential areas. Our Asian groups generally show greater proficiency speaking English than do the Mexican immigrants in Los Angeles, while the Chinese tend to have lower English proficiency than

Asian Indian immigrants (see Tables 1 and 2). Both black and white immigrants have high level of English proficiency.

Housing price and rent. Local housing price and rent is linked to the relative cost of ownership. Housing price and rent have increased in Los Angeles for all groups, while Toronto residents have seen relatively small changes in housing price and rent, where income, housing price, and rent are all adjusted for inflation.

MULTIVARIATE RESULTS

To better assess the dynamics of residential assimilation, we need to trace cohorts over time. Only in this way can we separate their initial status from the net changes achieved over the study period by specific groups of people. As discussed above, for this analysis we focus on members of the 1985-94 arrival cohort (1986-1995 arrival cohort in Toronto). Estimation results in relative risk ratios (RRR) of the determinants are presented as relative risk ratios in Table 3.

Table 3. about here

Each reported 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-householder. 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.

The baseline group is the probability of being a non-householder, which is omitted from the table.

Interpretation of the coefficient estimates is straightforward. The status of the five immigrant groups observed in each year (2000 or 2005 in Los Angeles and 2001 or 2006 in Toronto) is given by the relative risk ratios relative to the reference group. In this case, the reference group is female, native-born whites of non-Hispanic origin who are currently married and have high school diploma but without college education, and who speak English well. The reference group is given the value 1.000.

Let us first examine the roles of other covariates in household formation. As expected, males are more likely to be householders in general and owner householders in particular. Income, educational attainment, and English proficiency are all positively associated with household formation. After the five year period, 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 formally married become more numerous. Those who are formally married have the highest propensity of household formation.

Finally, higher housing price encourages renter household formation and deters owner household formation. The reverse is true in places of high

rent cost. The results on the covariates in Los Angeles largely mirror the findings in Toronto, which increase our confidence about the comparability of the results in the two study areas.

To better understand variable household formation, we graph the relative risk ratios of individual racial/ethnic groups show in Table 3. As discussed, the reference group is native-born whites of non Hispanic origin. Figure 2 shows the results in the two study areas over the period of early 2000s. There are two sets of bars in the figures. The light bar shows the relative risk ratios of being a renter householder relative to being a white renter householder, while the darker bar reports the relative risk ratios of being an owner householder relative to being a white owner householder.

Figure 2 about here

After controlling for the covariates, how have immigrant groups fared relative to the native-born white cohort? Keep in mind that as the native-born white cohort grows older, they experience significant improvement in their housing attainment, suggesting that assimilation for immigrants is a "moving target."

First, white immigrants have a similar propensity for household formation to native-born whites. The finding is consistent in both study areas and over time.

Second, black immigrants are very different from our original expectations and from previous studies. They have very high rates of

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household formation in both study areas. The reason behind their low homeownership seems to be their high rate of renter household formation. In other words, they have formed far more renter households than other groups. In fact, black low homeownership rate (measured at the household level) does not seems to be a sign of distress. They have formed many more households per capita than other groups.

Third, Chinese in both areas and Asian Indian immigrants in Toronto have low rates of household formation, forming far fewer owner 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 housing "high achievers" stand out much less when the unit of analysis switches to the individual.

Fourth, in stark contrast to the finding drawn from Figure 1 which shows Asian Indian immigrants have lower homeownership rate over time in Los Angeles, Figure 2 indicates that they have higher rates of household formation, thereby expanding the denominator used to calculate homeownership rates. Meanwhile, their probability of owner household formation has increased. Once household formation is taken into consideration, it is no longer a cause for concern to observe the declining homeownership rates among Asian Indian immigrants.

Finally, Mexican immigrants in LA have experienced a little improvement in housing attainment. Adjusting for the other relevant factors explain part of the housing gaps. The result is consistent with the one drawn

from the traditional homeownership measure. In contrast to Mexican immigrants in Los Angeles, those in Toronto have fared better and improved their housing outcomes over time.

Major findings

Our results reveal several interesting and informative differences between groups and countries. First, although both countries have similar 'hierarchies of access' to owner-occupied housing across ethno-racial groups, adjusted levels in Canada are, on the whole, higher for groups than they are for the United States. These differences exist despite the deductibility of mortgage interest in the United States, and the relative ease with which it was possible to receive mortgage funding in L.A. during the study period. Furthermore, they persisted after controlling for differences in housing price between the two metropolitan areas. It seems that owning a home is now a more actualized component of the 'American dream' for immigrants in Canada than it is in the United States.

Second, we show that reporting differences in homeownership is misleading unless the differences in household formation practices between groups are taken into account. Once these differences are removed, the hierarchies in both countries flatten considerably, as it did for Yu and Myers in a US-only study (forthcoming). This is particularly true for Canada, where it appears that some groups (particularly Chinese and Asian Indians) boost their access to homeownership by living in multiple family dwellings. For

some odd reason, Asian Indians are much less likely to do this in the United States.

Comparing across countries, we conclude that house prices have an effect not only on homeownership propensities, but also on rates of household formation. In Toronto, where housing is comparatively inexpensive, we see higher rates of both homeownership and household formation than in Los Angeles. From 2001 to 2006, the increase in immigrant household formation is also more pronounced. What is more interesting is that differences between groups across countries also exist. In LA, some groups (Chinese and Asian Indians) do not appear to get the benefit from forming multiple family dwellings to the extent that their Canadian counterparts do. Blacks in both countries have high incidences of multiple family residence, and fairly low levels of homeownership. In the end, we present homeownership propensities across groups and countries that are adjusted for variations in household formation, leveling ethno-racial differences significantly.

Perhaps the most interesting difference between countries is with Mexicans. In the United States, there are high levels of co-residence, with only a moderate effect on the propensity to live in owner-occupied housing. In Canada, by contrast, there are fewer multiple family dwellings but higher levels of homeownership. Although the Mexican sample in Toronto is no doubt more highly selected, the differences are interesting nonetheless, and represent yet another cautionary tale about attempting to essentialize ethno-racial differences.

Discussion and Conclusion

In this paper we compare the housing trajectories of recent immigrants in their formative early years. We draw comparisons between five groups and the native-born, showing that distinct trajectories emerge early on between groups, and that future research would do well to explicitly model these differences in trajectories, either through using the double cohort method of Myers et al (1996), or by interacting ethno-racial indicators with duration when working with a single cross-section. Otherwise, the duration main effect is merely an approximation of all groups combined, describing no single group with an acceptable level of precision for comparing the utility of competing theories of immigrant integration.

Another contribution of this paper has been to illustrate the profound impact that household formation has on homeownership propensities. As with ignoring group differences in duration effects, household formation is a central part of the homeownership story, because groups use formation practices to attain a home of their own. This was seen for Asian Indians in Toronto and the Chinese in both metropolitan areas, suggesting that decisions about household formation and homeownership are jointly made for members of some groups. Interesting future work could look at how household formation relates to other outcomes, such as language attainment, satisfaction with life in a new country, entrepreneurship, repatriation behavior, etc. In addition to being reflective of cultural differences, it also represents a household-level strategy to cope with scarcity and adversity.

The most unique contribution of this paper, however, lies in its comparative focus. We show that immigrant incorporation and settlement processes are not only culturally or contextually specific, but that they are instead culturally *and* contextually specific. Some groups fare quite differently in one context relative to another. Perhaps the best example of this would be Asian Indians, which exhibit fairly low rates of household formation and high homeownership rates in Toronto, but the opposite in L.A. Mexicans and Blacks are other interesting cases in point, although not as poignant as Asian Indians.

These results point to the presence of an interaction effect between groups and their host society, something that hasn't been studied to our knowledge in great detail. Groups appear to react to contexts of reception differently, and make individual and household-level adaptations to cope with the peculiarities of their new surroundings. In some ways, looking at groups within only one country translates to a sample size of one, thereby limiting the ability to essentialize groups or make statements about differences between them. By comparing across countries, we are able to avoid this 'fish in a fish bowl' phenomenon to some extent, and to identify the existence of a culture-context interaction. A fruitful goal of future research would be to turn to these questions.

Despite its strengths, this study also has several limitations. One is that the observation period was a rather unique time in both metropolitan regions, particularly in L.A. Remember that this was the height of the sub-prime mortgage boom, which likely had a differential impact on the ethno-

racial purchasing patterns. As a result, it may be difficult to extend the results forward into the future, since some groups will likely not follow the same trajectories of their predecessors. Housing price depreciations, alongside recent economic turmoil, will no doubt create new incentive structures for new Americans and Canadians, creating ever-new opportunities for follow-up studies.

One of the other major limitations in this study is our inability to confirm, beyond country of origin and time of arrival, how similar the groups under observation really are. Numerous unobserved factors (wealth, plans to stay, access to credit, etc.) impact homeownership, and we must assume here that all of these factors are the same for groups across countries. Follow-up research, perhaps with the New Immigrant Survey and the Longitudinal Survey of Immigrants to Canada, could rectify some of these problems.

The limitations we outline above are not unique to this study. Any historical period is unique in how homeownership is structured for would-be buyers. Furthermore, any arrival cohort faces different opportunities and constraints in a given housing market, and this is likely to encourage them to react differently. In Toronto, for example, the Portuguese and Italians that came in the 1960s and 70s used their construction skills to transform neighborhoods of cheap, run-down, housing into highly desirable places to live, thereby increasing their wealth and facilitating their residential mobility. Had they either not had these skills, or the opportunity to exercise them, they may not have been able to secure the high rates of ownership that they

enjoy today. Similarly, low interest rates and easy access to credit during the study period for this study likely created differential opportunities for group members. Some groups appear to be more likely to jump at the opportunity to sub-prime mortgages, whereas others were not. Factors like this make our study period unique, but the fact that there were differential uptake rates only supports our contention that it is the interaction between culture and context that are important for understanding household formation and homeownership attainment.

Reference:

Alba, Richard, and John R. Logan. 1992. Assimilation and Stratification in the Homeownership Patterns of Racial and Ethnic Groups. *International Migration Review* 26 (4):1314-1341.

Alba, Richard, and Victor Nee. 1997. Rethinking Assimilation Theory for a New Era of Immigration. *International Migration Review* 31 (4):826-874.

———. 2005. Rethinking Assimilation Theory for a New Era of Immigration. In *The New Immigration: An Interdisciplinary Reader*, edited by M. M. Suarez-Orozco, C. Suarez-Orozco and D. Qin-Hilliard. New York: Routledge.

Barringer, Herbert R., Robert W. Gardner, and Michael J. Levin. 1993. *Asians and Pacific Islanders in the United States*, *The Population of the United States in the 1980s*. New York: Russell Sage Foundation.

Bean, Frank D., and Stephanie Bell-Rose, eds. 2003. *Immigration and opportunity : race, ethnicity, and employment in the United States*. 1st paper cover ed. New York: Russell Sage Foundation.

Bean, Frank D., and Gillian Stevens. 2003. *America's newcomers and the dynamics of diversity*. New York: Russell Sage Foundation.

Blank, Susan. 1998. Hearth and home: The living arrangements of Mexican immigrants and US-born Mexican Americans. *Sociological Forum* 13 (1):35-59.

Boehm, Thomas, and Alan Schlottmann. 1999. Does Home Ownership by Parents Have an Economic Impact on Their Children? *Journal of Housing Economics* 8 (3):217-232.

Borjas, George J. 1993. Immigration Policy, National Origin, And Immigrant Skills: A Comparison Of Canada And The United States. In *Small differences that matter : labor markets and income maintenance in Canada and the United States*, edited by D. E. Card and R. B. Freeman. Chicago: University of Chicago Press.

———. 1999. *Heaven's door : immigration policy and the American economy*. Princeton, N.J.: Princeton University Press.

———. 2002. Homeownership in the immigrant population. *Journal of Urban Economics* 52 (3):448-476.

Clark, William A. V., and Clara. H. Mulder. 2000. Leaving home and entering the housing market. *Environment and Planning A* 32 (Part 9):1657-1672.

Coulson, N. Edward. 1999. Why Are Hispanic- and Asian-American Home-ownership Rates So Low?: Immigration and Other Factors. *Journal of Urban Economics* 45 (2):209-227.

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 (2):53-76.

Ellis, Mark, and Richard Wright. 1998. When Immigrants Are Not Migrants: Counting Arrivals of the Foreign Born Using the U.S. Census. *International Migration Review* 32 (1):127-144.

Farley, Reynolds. 1996. *The New American Reality: Who We Are, How We Got Here, Where We Are Going*. New York: Russell Sage Foundation.

Farley, Reynolds, Elaine L. Fielding, and Maria Krysan. 1997. The Residential Preferences of Blacks and Whites: A Four-Metropolis Analysis. *Housing Policy Debate* 8 (4):763-801.

Fix, Michael E., and Jeffrey S. Passel. 2001. *U.S. Immigration at the Beginning of the 21st Century--Testimony before the Subcommittee on Immigration and Claims Hearing on "The U.S. Population and Immigration" Committee on the Judiciary U.S. House of Representatives*. Washington, D.C.: Urban Institute Press.

Flippen, Chenoa A. 2001. Racial and Ethnic Inequality in Homeownership and Housing Equity. *Sociological Quarterly* 42 (2):121-149.

Fong, Eric, and Rima Wilkes. 2003. Racial and Ethnic Residential Patterns in Canada. *Sociological Forum* 18 (4):577-602.

Freeman, Lance. 2000. Minority Housing Segregation: A Test of Three Perspectives. *Journal of Urban Affairs* 22 (1):15-35.

———. 2002. Does Spatial Assimilation Work for Black Immigrants in the US? *Urban Studies* 39 (11):1983-2003.

Frenette, Marc, Vincent Hildebrand, James Ted McDonald, and Christopher Worswick. 2003. Occupational Mobility of Immigrant Men: Evidence from Longitudinal Data for Australia, Canada and the United States. In *Canadian Immigration Policy for the 21st Century*, edited by C. M. Beach, A. G. Green and J. G. Reitz. Montreal & Kingston: McGill-Queen's University Press.

Gordon, Milton M. 1964. *Assimilation in American Life: The Role of Race, Religion, and National Origins*. New York: Oxford University Press.

———. 1975. Toward a General Theory of Racial and Ethnic Groups Relations. In *Ethnicity: Theory and Experience*, edited by N. Glazer and D. P. Moynihan. Cambridge: Harvard University 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 (12):2191 - 2212.

———. 2007. Do I Buy with a Little Help from My Friends? Homeownership-Relevant Group Characteristics and Homeownership Disparities among Canadian Immigrant Groups, 1971-2001 Review of *Housing Studies* 22 (6):921-944.

———. 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 (2):433-465.

Henry, Frances. 1989. *Housing and Racial Discrimination in Canada: a preliminary assessment of current initiatives and information*. Toronto: Policy and Research, Multiculturalism and Citizenship.

Hing, Bill Ong. 1993. *Making and remaking Asian America through immigration policy, 1850-1990*, *Asian America*. Stanford, Calif.: Stanford University Press.

Hulchanski, David. 1993. Barriers to Equal Access in the Housing Market: The Role of Discrimination on the Basis of Race and Gender. Toronto: Centre for Urban and Community Studies, University of Toronto.

Huntington, Samuel P. 2004. *Who are we? : the challenges to America's national identity*. New York: Simon & Schuster.

Jensen, Joan M. 1988. *Passage from India : Asian Indian immigrants in North America*. New Haven: Yale University Press.

Kain, John F., and John M. Quigley. 1972. Housing Market Discrimination, Home-ownership, and Savings Behavior. *American Economic Review* 62 (3):263-277.

Kendig, H.L. 1990. A Life Course Perspective on Housing Attainment. In *Housing Demography: Linking Demographic Structure and Housing Markets*, edited by D. Myers. Madison, WI: University of Wisconsin Press.

Kochhar, Rakesh, and Ana Gonzalez-Barrera. 2009. Through Boom and Bust: Minorities, Immigrants and Homeownership. Washington DC: Pew Research Center.

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

Leppel, Karen. 1986. A Trinomial Logit Analysis of Household Composition. *AREUEA Journal* 14 (4):537-556.

Martin, Philip, and Elizabeth Midgely. 2003. Immigration: Shaping and Reshaping America. In *Population Bulletin*. Washington, D.C.: Population Reference Bureau.

Massey, Douglas S. 1985. Ethnic residential segregation: a theoretical synthesis and empirical review. *Sociology and Social Research* 69 (3):315-350.

———. 1995. The New Immigration and Ethnicity in the United States. *Population and Development Review* 21 (3):631-652.

McConnell, Eileen D., and Ilana R. Akresh. 2008. Through the front door: The housing outcomes of new lawful immigrants. *International Migration Review* 42 (1):134-162.

Miron, John R. 1988. *Housing in postwar Canada : demographic change, household formation, and housing demand*. Kingston, [Ont.]: McGill-Queen's University Press.

Munnell, Alicia H., Geoffrey M. B. Tootell, Lynn E. Browne, and James McEneaney. 1996. Mortgage Lending in Boston: Interpreting HMDA Data. *American Economic Review* 86 (1):25-53.

Myers, Dowell. 1992. *Analysis with Local Census Data: Portraits of Change*. Boston: Academic Press.

———. 2004. Accuracy of Data Collected by the Census Question on Immigrants' Year of Arrival. Working Paper. PDRG04-01. Los Angeles: Population Dynamics Research Group, University of Southern California.

Myers, Dowell, and Seong Woo Lee. 1996. Immigration Cohorts and Residential Overcrowding in Southern California. *Demography* 33 (1):51-65.

———. 1998. Immigrant Trajectories into Homeownership: A Temporal Analysis of Residential Assimilation. *International Migration Review* 32 (3):593-625.

Myles, John, Garnett Picot, and Wendy Pyper. 2000. Neighbourhood inequality in Canadian cities. In *Analytical Studies Branch Research Paper Series, No. 160*. Ottawa: Statistics Canada.

Ortiz, Vilma. 1996. The Mexican-Origin Population: Permanent Working Class or Emerging Middle Class? In *Ethnic Los Angeles*, edited by R. Waldinger and M. Bozorgmehr. New York: Russell Sage Foundation.

Painter, Gary, Lihong Yang, and Zhou Yu. 2003. Heterogeneity in Asian American Homeownership: The Impact of Household Endowments and Immigrant Status. *Urban Studies* 40 (3):505-530.

———. 2003. Homeownership Determinants for Chinese Americans: Assimilation, Ethnic Concentration, and Nativity. *Lusk Center Working Paper Series* 2003-1001.

———. 2004. Homeownership Determinants for Chinese Americans: Assimilation, Ethnic Concentration, and Nativity. *Real Estate Economics* 32 (3):509-539.

Ray, Brian K., and Eric G. Moore. 1991. Access to home ownership among immigrant groups in Canada. *Canadian Review of Sociology and Anthropology* 28 (1):1-29.

Redstone, Ilana, and Douglas S. Massey. 2004. Come to Stay: An Analysis of the U.S. Census Question on Immigrants' Year of Arrival. *Demography* 41 (4):721-738.

Reibel, Michael. 2000. Geographic variation in mortgage discrimination: Evidence from Los Angeles. *Urban Geography* 21 (1):45-60.

Reimers, David M. 1998. *Unwelcome strangers : American identity and the turn against immigration*. New York: Columbia University Press.

Rohe, William, Shannon Van Zandt, and George McCarthy. 2002. Home Ownership and Access to Opportunity. *Housing Studies* 17 (1):51-61.

Rosenbaum, Emily. 1996. Racial/Ethnic Differences in Home Ownership and Housing Quality, 1991. *Social Problems* 43 (4):403-427.

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.

Rumbaut, Ruben, and Alejandro Portes. 2001. *Ethnicities : children of immigrants in America*. Berkeley ; New York: University of California Press ; Russell Sage Foundation.

Skop, Emily, and Wei Li. 2005. Asians in America's Suburbs: Patterns and Consequences of Settlement. *Geographical Review* 95 (2):40-54.

Straszheim, Mahlon R. 1974. Housing Market Discrimination and Black Housing Consumption. *The Quarterly Journal of Economics* 88 (1):19-43.

Sweet, James A. 1990. Changes in the Life-Cycle Composition of the United States Population and the Demand of Housing. In *Housing Demography: Linking Demographic Structure and Housing Markets*, edited by D. Myers. Madison, WI: University of Wisconsin Press.

Wachter, Susan M., and Isaac Megbolugbe. 1992. Racial and Ethnic Disparities in Homeownership. *Housing Policy Debate* 3 (2):333-370.

Yu, Zhou. 2006. A Different Path to Homeownership: The Case of Taiwanese Immigrants in Los Angeles. *Housing Studies* 21 (4):555-584.

———. 2006. Rising Taiwanese Identity among Taiwan Immigrants in the U.S., 1990-2000. Paper read at Population Association of America Annual Meeting.

Yu, Zhou, and Dowell Myers. 2007. Convergence or Divergence in Los Angeles: Three Distinctive Ethnic Patterns of Immigrant Residential Assimilation. *Social Science Research* 36 (1):254-285

———. forthcoming. 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*.

Zhou, Min. 1997. Segmented Assimilation: Issues, Controversies, and Recent Research on the New Second Generation. *International Migration Review* 31 (4):975-1008.

Table 1. Homeownership Rates and Headship Rates by Racial/ethnic Groups in Los Angeles and Toronto

Homeownership Rates

		Los Angeles			Toronto		
		2000	2005	Change	2001	2006	Change
Native-born	White	38.5	55.4	16.9	46.9	68.9	22.0
Foreign-born	White	29.1	45.9	16.8	50.6	71.6	21.1
	Black	24.0	46.9	22.9	20.4	39.8	19.4
	Asian Indian	36.2	31.3	-5.0	64.7	86.6	21.9
	Chinese	49.9	55.9	6.0	65.9	81.1	15.2
	Mexican	22.6	26.2	3.6	30.8	56.5	25.7
	Total	427,102	417,228		111,936	126,951	

Headship Rates

		Los Angeles			Toronto		
		2000	2005	Change	2001	2006	Change
Native-born	White	54.2	61.0	6.7	42.2	54.0	11.8
Foreign-born	White	51.1	56.3	5.3	45.4	52.7	7.3
	Black	64.3	82.7	18.4	53.4	58.5	5.0
	Asian Indian	48.9	71.2	22.3	30.6	35.9	5.3
	Chinese	37.8	58.1	20.3	23.7	37.6	13.9
	Mexican	47.8	49.1	1.4	54.2	64.6	10.4
	Total	819,292	764,132		265,467	238,487	

Note: Sample observations in Los Angeles only include people who were born in 1965-1975. For immigrants, only those who came to the destination countries in 1985-94 are included. For birth years and arrival years, sample observations in Toronto are delayed by one year. Those who were not employed or worked less than 30 hours per week were excluded from the sample. The data universe for homeownership is household, while for headship is population.

Table 2a. Summary Statistics for Los Angeles, 2000 and 2005

| | Native-born | | Immigrants | | | | | | | | | |
| | White | | White | | Black | | Asian Indian | | Chinese | | Mexican | |
Year	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005
Personal Income (1000s)	49.1	67.8	43.9	61.7	32.3	39.3	60.6	91.5	39.9	46.5	22.4	23.3
Education												
College Degree or Better	0.42	0.46	0.41	0.54	0.28	0.46	0.71	0.88	0.57	0.67	0.02	0.05
High School Dip. W/ College	0.52	0.50	0.47	0.38	0.63	0.48	0.24	0.11	0.34	0.26	0.29	0.35
No High School Diploma	0.06	0.04	0.13	0.08	0.09	0.05	0.05	0.01	0.10	0.07	0.69	0.60
Marital Status												
Married	0.46	0.55	0.54	0.64	0.44	0.65	0.76	0.81	0.50	0.75	0.65	0.67
Never Married	0.44	0.32	0.35	0.22	0.40	0.33	0.23	0.08	0.45	0.21	0.29	0.25
Formally Married	0.10	0.13	0.11	0.14	0.16	0.02	0.01	0.10	0.05	0.04	0.05	0.08
English Proficiency												
Speak English Well	1.00	1.00	0.92	0.96	0.95	0.98	0.99	0.98	0.87	0.79	0.48	0.36
Speak English Not Well	0.00	0.00	0.08	0.04	0.05	0.02	0.01	0.02	0.13	0.21	0.52	0.64
Housing Price and Rent												
The 25th Percentile Housing Price (log)	12.0	12.9	12.1	13.0	12.0	12.7	12.0	13.0	12.0	12.9	12.0	12.7
Area Median Rent (log)	6.74	7.01	6.70	7.02	6.69	6.86	6.75	7.01	6.74	7.01	6.73	6.85
# Obs.	543605	526354	24256	31359	3228	4353	5294	9662	14743	17293	228166	175111

Note: Sample only include people who were born in 1965-1975. For immigrants, only those who came to the destination countries in 1985-94 are included. Those who were not employed or worked less than 30 hours per week were excluded from the sample.

Table 2b. Summary Statistics for Toronto, 2001 and 2006

	Native-born		Immigrants									
	White		White		Black		Asian Indian		Chinese		Mexican	
Year	2001	2006	2001	2006	2001	2006	2001	2006	2001	2006	2001	2006
Personal Income (1000s)	49.4	63.3	43.3	51.4	32.5	38.3	35.2	38.0	35.2	44.8	30.4	40.6
Education												
College Degree or Better	0.39	0.40	0.24	0.26	0.11	0.15	0.27	0.24	0.31	0.35	0.16	0.29
High School Dip. W/ College	0.54	0.54	0.60	0.62	0.77	0.78	0.47	0.61	0.41	0.50	0.80	0.58
No High School Diploma	0.07	0.05	0.16	0.11	0.12	0.07	0.26	0.15	0.28	0.15	0.04	0.13
Marital Status												
Married	0.49	0.64	0.65	0.77	0.43	0.49	0.86	0.93	0.61	0.73	0.74	0.71
Never Married	0.47	0.30	0.28	0.14	0.44	0.36	0.09	0.03	0.33	0.19	0.08	0.00
Formally Married	0.03	0.06	0.07	0.08	0.13	0.16	0.04	0.04	0.06	0.08	0.19	0.29
English Proficiency												
Speak English Well	1.00	1.00	0.98	0.99	1.00	1.00	0.97	0.98	0.84	0.84	1.00	1.00
Speak English Not Well	0.00	0.00	0.02	0.01	0.00	0.00	0.03	0.02	0.16	0.16	0.00	0.00
Housing Price and Rent												
The 25th Percentile Housing Price (log)	12.4	12.6	12.4	12.6	12.4	12.5	12.3	12.6	12.4	12.6	12.4	12.6
Area Median Rent (log)	6.98	6.96	6.98	6.97	6.96	6.95	7.01	6.97	6.97	6.97	6.99	6.96
# Obs.	232845	207156	14733	13075	7072	7070	7808	8082	2865	3008	144	96

Note: Sample only include people who were born in 1966-1976. For immigrants, only those who came to the destination countries in 1986-95 are included. Those who were not employed or worked less than 30 hours per week were excluded from the sample.

# Table 3. The relative risk ratios of the determinants of household formation in Los Angeles and Toronto

|	Los Angeles				Toronto			
	2000		2005		2001		2006	
Obs.:	819,292		764,132		265,467		238,487	
Log likelihood :	-746,841		-404,656					
Pseudo R2 :	0.112		0.114					
Varaibles	Renter Householder	Owner Householder	Renter Householder	Owner Householder	Renter Householder	Owner Householder	Renter Householder	Owner Householder
Gender (Omitted: Female)								
Male	2.832 ***	5.618 ***	1.650 ***	2.025 ***	1.152 ***	2.446 ***	1.412 ***	2.377 ***
Personal Income (1000s)	1.005 ***	1.013 ***	0.999 ***	1.006 ***	1.006 ***	1.013 ***	0.998 ***	1.005 ***
Racial/ethnic Groups (Omitted: Native-born Non-Hispanic White)								
Immigrants: Non Hispanic White	0.937 ***	0.731 ***	0.776 ***	0.769 ***	1.083 ***	1.125 ***	1.025	1.045 *
Black	2.035 ***	1.574 ***	3.015 ***	3.537 ***	2.261 ***	0.906 *	1.993 ***	0.887 ***
Asian Indian	0.757 ***	0.467 ***	2.090 ***	0.650 ***	0.570 ***	0.612 ***	0.359 ***	0.649 ***
Chinese	0.480 ***	0.996	0.810 ***	1.221 ***	0.272 ***	0.757 ***	0.350 ***	0.727 ***
Mexican	1.130 ***	0.674 ***	0.916 ***	0.659 ***	2.164 ***	0.894	2.100 **	1.385
Education (Omitted: High School Dip. W/ College)								
College Degree or Better	1.331 ***	1.319 ***	1.086 ***	1.243 ***	1.211 ***	1.123 ***	1.188 ***	1.394 ***
No High School Diploma	0.977 **	0.722 ***	0.817 ***	0.627 ***	0.943 **	0.886 ***	1.144 ***	0.740 ***
Marital Status (Omitted: Married)								
Never Married	1.061 ***	0.286 ***	2.354 ***	0.667 ***	1.094 ***	0.198 ***	2.739 ***	0.549 ***
Formally Married	1.958 ***	0.732 ***	4.571 ***	1.329 ***	2.665 ***	0.955	5.720 ***	1.614 ***
English Proficiency (Omitted: Speak English Well)								
Speak English Not Well	0.938 ***	1.557 ***	0.956 ***	2.026 ***	1.724 ***	1.146	1.464 **	1.039
Housing Price and Rent								
The 25th Percentile Housing Price (log)	2.768 ***	0.250 ***	2.944 ***	0.445 ***	5.870 ***	0.143 ***	9.741 ***	0.446 ***
Area Median Rent (log)	0.113 ***	5.816 ***	0.142 ***	2.370 ***	0.993 ***	1.002 ***	0.989 ***	1.002 ***

* 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 race/ethnicity, 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 English proficiency, it is "Speak English well."

Figure 1. Homeownership Rates by Racial/ethnic Groups, Los Angeles and Torotno
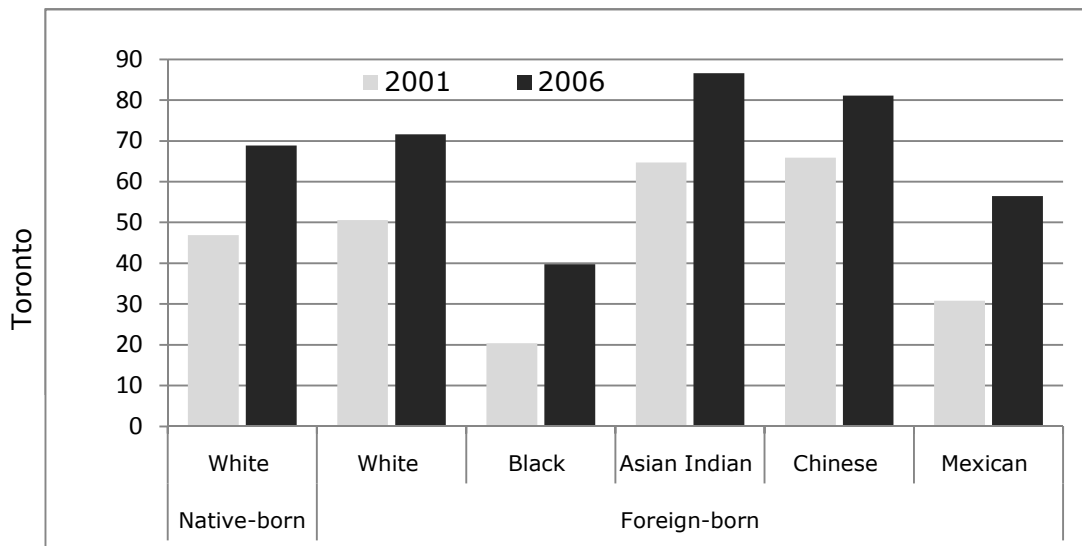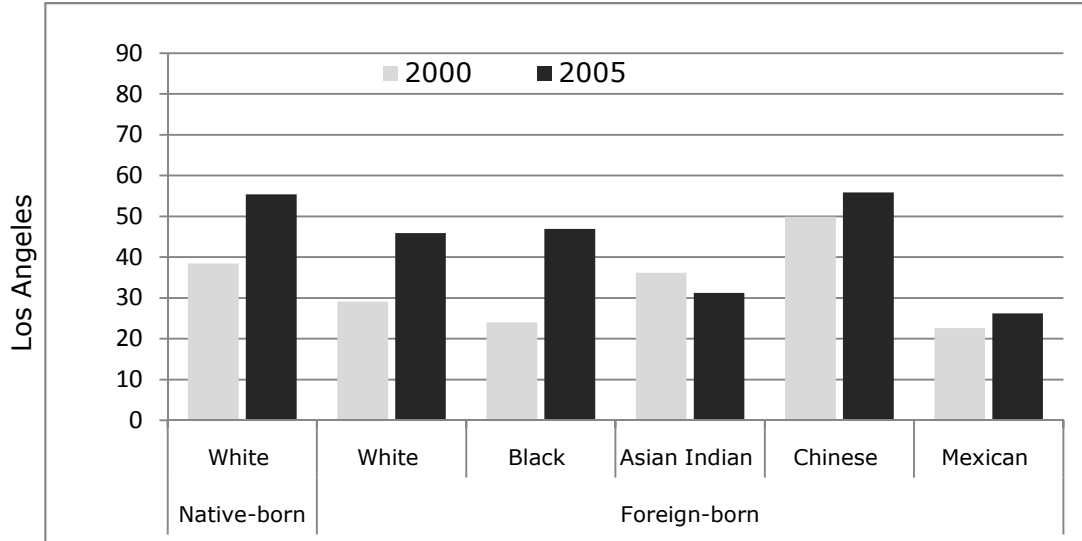
Figure 2. Headship Rates by Race/ethnicity and Immigrant Status
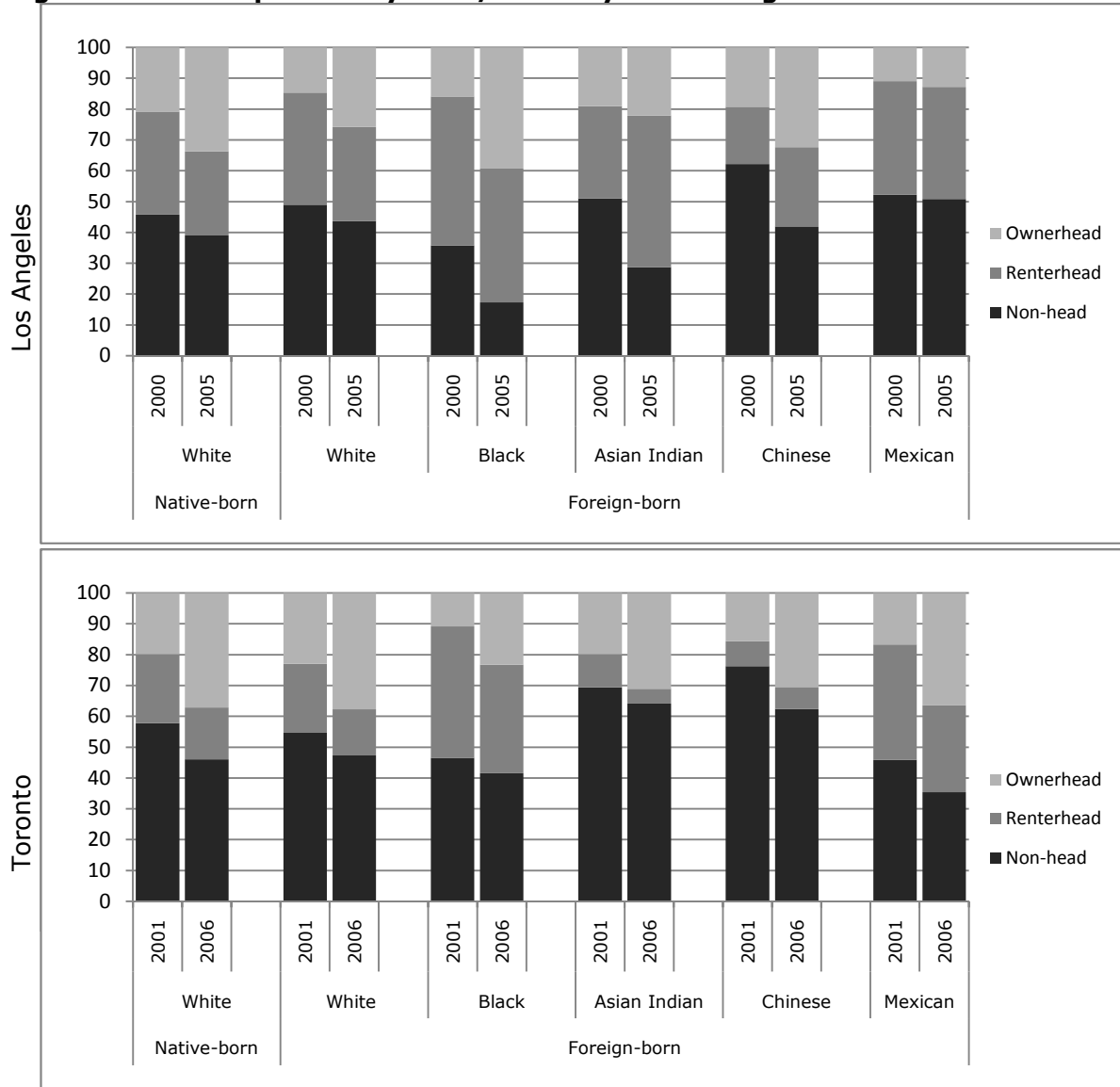
Figure 3. Relative Risk Ratios by Race/ethnicity: Assessing Variable Household Formation