

**Race, Nativity, and/or Legal Status? Investigating Differences
in Housing Cost Burden in Los Angeles***

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Housing costs are a substantial component of U.S. household expenditures. Those who allocate a large proportion of their income to housing often have to make difficult financial decisions with significant short-term and long-term implications. This study employs cross-sectional data from the first wave of the Los Angeles Family and Neighborhood Survey (L.A.FANS) collected between 2000 and 2002 to examine the likelihood of spending more than thirty percent of income on shelter costs. Multivariate analyses of U.S. born Latinos, Whites, African Americans, authorized Latino immigrants and unauthorized Latino immigrants focus on examining differences by race, nativity and legal status in the likelihood of being cost burdened. The results reveal substantial housing cost burden challenges in Los Angeles even before the current financial and housing crisis, with especially large and persistent disparities for unauthorized Latino immigrants relative to other groups.

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INTRODUCTION

Housing is the largest annual expenditure for U.S. households (Bureau of Labor Statistics 2009), comprising a substantial proportion of total household spending. Since the 1980s, policy makers, mortgage lenders, and housing assistance program personnel generally use a 30 percent rule of thumb in determining housing affordability (Stone 2006; Jewkes and Delgadillo 2010). Those spending more than 30 percent of their income on shelter costs are considered to be housing cost burdened. In 2001, 29 percent of U.S. households were cost burdened; by 2008, the proportion had risen to 36 percent of all households (Joint Center for Housing Studies 2010). As housing becomes increasingly unaffordable (Brennan and Lipman 2008), those in cost-burdened situations often have to make difficult decisions about how to spend their remaining income. For example, families who are severely cost burdened, spending more than fifty percent of their income on housing, allocate less money to transportation, food, health care, and insurance/pensions than those who are not severely cost burdened (Lipman 2005). Cost burdened households are less able to accumulate savings to offset unanticipated health and other emergencies, invest in education, or plan for retirement. Further, cost burdened homeowners can be in especially precarious positions, as homeowners with high housing costs have increased risks of losing their home to foreclosure (Bostic and Lee 2008).

As is true for nearly all domains of U.S. society, housing affordability problems vary by race/ethnicity and nativity. For instance, in 2005, 47 percent of both Black and Latino households were cost burdened relative to 28 percent of White households (Owens and Tegeler n.d.).¹ How immigrants fare vis-à-vis cost burden is important, given that they comprise an increasingly substantial component of the U.S. housing market (Myers and Liu 2005). Descriptive data indicate that immigrants bear higher housing costs and are more likely to be

cost burdened than the U.S. born (McArdle and Mikelson 1994; Schill, Friedman et al. 1998; Capps, Ku et al. 2002; Lipman 2003; Joint Center for Housing Studies 2008). Multivariate analyses of housing outcomes document substantial residual differences between immigrants and natives in the United States (e.g., Krivo 1995; Myers and Lee 1998; Painter, Gabriel et al. 2001; Borjas 2002; Krivo and Kaufman 2004) and among immigrants themselves (e.g., Borjas 2002; Hao 2007; McConnell and Akresh 2010).

Although race/ethnicity and nativity continue to shape daily life, the present social, economic, and political context suggests that legal status is an increasingly significant factor in American life, as well. Contemporary policymakers and voters are passing more state-level legislation focused on the benefits and rights of immigrants, especially immigrants without legal permission to live and work in the United States (Motomura 1999; Chavez and Provine 2009). Arizona's SB 1070 passed in 2010 is one prominent example. Other policies are directly related to housing. For example, only low-income immigrants who are either naturalized citizens or eligible non-citizens (e.g., permanent residents, refugees) can apply for federal housing vouchers to subsidize their rent (Basolo and Nguyen 2009). At the local level, more than forty communities have passed ordinances or employed other means to reduce the housing options of unauthorized immigrants, such as fining landlords who rent properties to unauthorized immigrants (Oliveri 2009).² These developments point to a growing division between unauthorized immigrants and those who are legally present in the United States.

Housing cost burden is one fruitful area, among many, for investigating the presence and degree of disparities by legal status.³ Yet, systematic analyses of housing outcomes that can distinguish among immigrants by authorization are rare. Most large-scale data sources, such as the American Housing Survey or the American Community Survey, can identify only whether

foreign-born individuals are naturalized citizens or non-citizens. However, there are important differences *among* non-citizens, as this category includes legal permanent residents on the path to naturalized citizenship, migrants with temporary visas, refugees and other humanitarian migrants, and persons without legal permission to be present in the country. Given such limitations, few studies of housing or residential mobility outcomes in the United States have been able to focus on more detailed contrasts among immigrants by legal status rather than citizenship (e.g., Capps, Ku et al. 2002; McConnell and Marcelli 2007; Cort 2010). To date, no published study has conducted multivariate analyses of housing cost burden that compare unauthorized immigrants with other groups.

The present work focuses on identifying disparities in the allocation of income to shelter costs by race/ethnicity, nativity, and legal status. Regression analyses concentrate on differences in the likelihood of being cost burdened for five distinct groups: U.S. born Whites, Latinos and African Americans, authorized Latino immigrants, and unauthorized Latino immigrants.⁴ Latino immigrants in these data are primarily from Mexico.⁵ Analyses of housing cost burden use the first wave of the Los Angeles Family and Neighborhood Survey (L.A.FANS), cross-sectional data collected in Los Angeles County between 2000 and 2002. The analyses concentrate on whether there are initial differences among groups and whether such differences remain after accounting for indicators of theoretical perspectives and background variables commonly employed in housing research.

Los Angeles is an appropriate site to investigate the linkages between housing affordability and race/ethnicity, nativity, and immigrants' legal status. Median rents and home prices are high in Los Angeles, compared with many urban areas of the United States (Brennan and Lipman 2008). Previous national studies of cost burden likely underestimate the impact of

housing costs on families and households in Los Angeles. Further, in 2000, Los Angeles had the largest Latino population in the United States, the seventh largest African-American population, and the fifth largest Non-Hispanic White population (Lewis Mumford Center for Comparative Urban and Regional Research 2001a). The Los Angeles area is home to the second largest foreign born population (Suchan, Perry et al. 2007) and the largest unauthorized immigrant population in the United States (Fortuny, Capps et al. 2007).

A primary innovation of this study is the detailed categorization of Latinos by nativity and legal status. This approach is useful for both empirical and symbolic reasons. For example, an unwelcoming climate vis-à-vis unauthorized immigration disproportionately affects immigrants from Latin America relative to those from other regions of the world. Indeed, estimates suggest immigrants from Mexico and Latin America account for more than 75 percent of all unauthorized immigrants in the U.S. (Passel 2006) and 85 percent of unauthorized immigrants in Los Angeles County (Fortuny, Capps et al. 2007). Yet, concerns about legal status are also relevant to Latinos, especially Mexican origin populations, more generally. Indeed, although the majority of Latinos are born in the United States (Pew Hispanic Center 2006); Mexican Americans and other U.S. born Latinos have been racialized as illegal immigrants (e.g., De Genova 2004; Chavez 2008; Cobas, Duany et al. 2009; Massey 2009). For these reasons, nativity and legal status are two important sources of variation in this heterogeneous population.⁶

Other advantages of the present study include the integration of diverse respondent variables and contextual indicators in the analyses. For example, L.A.FANS collected information about access to mainstream financial institutions. Other work reveals that U.S. financial access differs significantly between immigrants and natives (Osili and Paulson 2004) and is linked with higher cost burdens for authorized immigrants (McConnell and Akresh 2010).

A restricted version of L.A.FANS data identifies respondents' census tract of residence which this study merged with census data to develop indicators of neighborhood context. Alternative sources with larger sample sizes, such as the American Housing Survey of Los Angeles, do not include information at this geographic level. Finally, L.A.FANS collected information about individuals, families, and households that are routinely integrated in housing work. Thus, the analyses are able to control for a broad range of established and novel indicators relevant to racial/ethnic, nativity, and legal status differences in housing cost burden. Taken together, the results are expected to provide new information about differences among Latinos by nativity and legal status, disparities between unauthorized Latino immigrants relative to other groups, and the housing affordability challenges of native Whites, Latinos, and African Americans. The next section of the paper summarizes the theoretical perspectives and empirical results related to housing cost burden more generally before concentrating on disparities by race/ethnicity, nativity, and legal status.

EXPLANATIONS FOR HOUSING COST BURDEN

Human Capital, Life Course, and Context

Scholars draw from a variety of theoretical perspectives to explain variation in housing outcomes in the United States. The human capital perspective focuses on formal education as a human investment associated with higher wages and labor productivity (e.g., Mincer 1958; Becker 1993). Life course theory emphasizes the events, transitions, and social trajectories occurring over the life time (e.g., Elder Jr., Johnson et al. 2003). Both perspectives are linked with housing cost burden.⁷ For example, persons with more education tend to have lower

housing cost burdens than lesser educated individuals, perhaps due to their higher incomes (DeVaney, Chiremba et al. 2004; Elmelech 2004). Likewise, stage in the life course helps explain the allocation of income to shelter costs: married couples have lower cost burdens than other marital statuses (Oh 1995; DeVaney, Chiremba et al. 2004; Elmelech 2004; Luea 2008) and households without children have lower burdens than those with children (Elmelech 2004).

Individuals of different races, ethnicities, nativities, and social classes reside in different neighborhood contexts in the United States (e.g., Massey and Denton 1993; Dwyer 2007; Iceland and Scopilliti 2008) and within Los Angeles specifically (Charles 2006). Housing studies generally include variables to account for this diversity, such U.S. region (Coulson 1999; Kutty 2005; McConnell and Akresh 2008), housing costs or values of the neighborhood, metropolitan area, or state (Alba and Logan 1992; Painter, Gabriel et al. 2001; Myers, Painter et al. 2005; Rosenbaum and Friedman 2007; McConnell and Akresh 2010), and the proportion of recent immigrants, co-ethnics, or other races/ethnicities in the area (Krivo and Kaufman 2004; Woldoff and Ovadia 2009). This study controls for measures of human capital, stage in the life course, and local context to focus on identifying differences in cost burden by race/ethnicity, nativity and legal status, *ceteris paribus*.

Differences by Race/Ethnicity

Scholars often use the place stratification perspective to explain persistently negative outcomes in residential segregation and housing outcomes for minority groups relative to Whites (e.g., Charles 2006; Rosenbaum and Friedman 2007; Iceland and Nelson 2008). This theory suggests that the structural barriers supporting the U.S. racial/ ethnic hierarchy constrain the opportunities of non-Whites, particularly African Americans and Latinos, even when they have

similar socioeconomic resources as Whites (e.g., Alba and Logan 1993; Massey and Denton 1993; Charles 2006; Rosenbaum and Friedman 2007). For example, discriminatory practices against members of minority groups, such as less favorable mortgage terms and steering by real estate agents to certain neighborhoods or areas limit the housing options and upward mobility of Latinos, African Americans, and others relative to Whites (Massey and Denton 1993; Oliver and Shapiro 1995; Conley 1999; Galster and Godfrey 2005; Ross and Turner 2005; Bocian, Ernst et al. 2006; Roscigno, Karafin et al. 2009).

Many studies report unexplained racial/ethnic differences in housing cost burden in multivariate analyses, after accounting for other variables. However, the results do not consistently support the place stratification perspective regarding *which* groups are most likely to have housing affordability problems. For example, one national study of renters and homeowners shows that Whites are less likely to be housing cost burdened than persons of “Other races” such as Latinos, Asians, or Native Americans but are equally likely to be cost burdened as African Americans (DeVaney, Chiremba et al. 2004). Another study finds that White renters in New York City have about the same cost burden as African Americans but higher cost burdens than Puerto Ricans (Elmelech 2004). Still other work reports *no* difference in cost burden by race/ethnicity, *ceteris paribus* (Combs and Park 1994; Oh 1995; Luea 2008). For instance, Luea (2008) finds that White and “non-White” household heads allocate the same proportion of income to housing, after controlling for demographic variables and regional context.

Although previous empirical work is inconclusive about differences in housing cost burden by race/ethnicity, descriptive data for Los Angeles point to substantial disparities between White and non-White groups. Indeed, 2000 census data indicate that Latino homeowners in Los Angeles County spent 26.7 percent of 1999 household income on median

owner costs, African Americans spent 25.5 percent, and Whites spent 21.0 percent (Census Bureau 2000). These results may be partially due to the high housing costs of the area, minority groups' lower overall incomes and purchasing power in Los Angeles than their White counterparts (Farley 2001), and the discriminatory practices described earlier that increase the housing costs of Latino and African Americans relative to Whites. Given these possibilities and other research documenting the significant linkages of race, social class, and housing/neighborhood outcomes in Los Angeles (Charles 2006), I expect that U.S. born Latinos and African Americans have higher cost burdens than native Whites, after accounting for differences in human capital, the life course, neighborhood context, and other background variables. Although the place stratification perspective is not directly tested in the analyses, it offers a framework for explaining residual differences by race/ethnicity.

Differences by Nativity

Extensive research has established nativity differences in U.S. housing outcomes, such as the lower homeownership rates and housing wealth of immigrants relative to natives (e.g., Krivo 1995; Myers and Lee 1998; Painter, Gabriel et al. 2001; Borjas 2002; Krivo and Kaufman 2004). Researchers often use the assimilation framework to explain this variation in outcomes, suggesting that as immigrants become more integrated in the United States, their demographic and housing profiles will approach those of the native born (Alba and Logan 1992; Krivo 1995; Myers and Lee 1998; Alba and Nee 2003; Rosenbaum and Friedman 2007). Previous work shows that measures of assimilation, such as more U.S. experience and English fluency, do help explain variation in housing cost burden. For example, immigrants with longer residence in the U.S. or better English skills have lower cost burdens than more recently arrivals or those lacking proficiency in English (Borjas 2002; Elmelech 2004; Hao 2007; McConnell and Akresh 2010).

Descriptive patterns for Los Angeles show nativity gaps between immigrants and natives (Capps, Ku et al. 2002) and between foreign-born Latinos and U.S. born Latinos, Whites, and African Americans (McConnell and Ready 2005). Latino immigrants tend to have less education and lower incomes than their U.S. born counterparts (Pew Hispanic Center 2008) and may have less information about the housing market and resources to find housing than native-born Latinos and other natives. Therefore, I expect differences in cost burden by nativity, with Latino immigrants having higher cost burdens than U.S. born Latinos, all else considered. Given prior studies confirming the role of assimilation in shaping outcomes of immigrants, the results are likely to reveal that accounting for measures of assimilation may reduce some disparity between Latino immigrants and their native counterparts.

Differences by Legal Status

The segmented assimilation framework argues that immigrants may experience differentiated assimilation trajectories, based on variability in immigration policies related to the social/political context of reception, immigrant characteristics, and other factors (Portes and Zhou 1993; Portes and Rumbaut 2006). In the contemporary era, lacking legal status reduces the options for assimilation and upward mobility expected by advocates of the classic assimilation perspective described earlier. Prior research has documented the disadvantage of non-citizens vis-à-vis citizens in the housing domain (Coulson 1999; Clark 2003; Krivo and Kaufman 2004; Toussaint-Comeau and Rhine 2004). For instance, non-citizen immigrants in the U.S. have significantly less home equity than immigrants who are naturalized citizens and U.S. natives (Krivo and Kaufman 2004).

Other studies of housing or residential mobility differentiate by legal status, this is, between those who are legally present in the United States and immigrants lacking this

permission (Capps, Ku et al. 2002; McConnell and Marcelli 2007; Cort 2010). As these studies also use data for Los Angeles, they offer hints about how legal status may shape housing affordability in the present work.⁸ For instance, descriptive data reveal that undocumented immigrant families in Los Angeles have lower incomes and are more likely to report difficulties in paying for their housing than families headed by naturalized citizens or natives (Capps, Ku et al. 2002). Consistent with these patterns and the segmented assimilation perspective delineating the diverse trajectory of immigrants in the U.S., I expect that legal status is linked with housing affordability. More specifically, unauthorized Latino immigrants are hypothesized to have significantly higher cost burdens than authorized Latino immigrants. Moreover, given the legal status divisions that seem to be emerging in the United States, unauthorized Latino immigrants are expected to be uniquely disadvantaged relative to all other groups in the study, even after accounting for differences in human capital, stage in the life course, assimilation, and other factors.

DATA

The data come from the first wave of the Los Angeles Family and Neighborhood Survey (L.A.FANS) collected between April 2000 and January 2002 from about 3,000 households in Los Angeles County (Sastry and Pebley 2003). The purpose of L.A.FANS is to provide recent data to examine the relationships between neighborhoods and outcomes for children and adults (Sastry, Ghosh-Dastidar et al. 2006). The research design called for oversampling poor and very poor census tracts, used to represent neighborhoods, and oversampling households with children. Approximately 40 randomly selected households completed the survey in each of 65 census tracts. In-person interviews were conducted with respondents using computer assisted interviews in English and Spanish, depending on the language preferred by the respondent. L.A.FANS data

have been employed to investigate housing-related issues such as residential mobility and neighborhood choice (Clark and Ledwith 2006; Clark and Ledwith 2007; Cort 2010) and are generally representative of Los Angeles (Goldman, Smith et al. 2005; Clark and Ledwith 2006).

The present study employs the public and restricted versions of the household roster listing demographic information about the household, the adult file, the household file, and other modules. Randomly selected adults (RSAs) selected from the roster of full-time adult household residents provided information about their education, nativity, residential history, and other data; this information is contained in the Adult file.⁹ The household file was completed by a member of the RSA's immediate family who was the most informed about finances and includes information about income, assets, and housing characteristics. The analyses use a restricted-version of L.A.FANS data that identifies respondents' census tract of residence and is linked with the L.A. Neighborhood Services and Characteristics database (L.A.NSC), a publicly available database of census-tract level information created by L.A.FANS staff (Peterson, Pebley et al. 2007). All data files are linked so that each record includes information about the respondent and immediate family, household, and census tract. The analytic sample excludes respondents with missing data not available elsewhere in the L.A.FANS data, leaving a final analytic sample of 1,361.¹⁰ The final analytic sample includes native-born Whites, Blacks/African Americans, and Latinos, and immigrant Latinos. Approximately 72.5 percent of Latinos in the analytic sample, identify as "Mexican/Mexicano" or "Mexican American; which is nearly identical to the 72 percent of Latinos in Los Angeles County who identify as Mexican (U.S. Census Bureau 2000).¹¹ The complex sampling design of L.A. FANS is addressed in all multivariate analyses with the appropriate strata and cluster option in Stata 11.¹²

Dependent Variable

The housing cost burden indicator takes into account both gross housing costs and income and its straightforward calculation helps explain why it is the most commonly employed indicator of housing affordability (Jewkes and Delgadillo 2010). Housing cost burden is a binary variable with a value of one signifying spending 30 percent or more of income on housing and a value of 0 indicating spending less than 30 percent of income on housing. This variable is created using information about housing costs and income. L.A.FANS asked renters and owners with mortgages to provide information about the cost of rent or mortgage payments.¹³ For renters, housing costs comprise the annual total of rent payments provided in the survey. The survey asked homeowners with mortgages about whether their mortgage payments include property taxes and property insurance. L.A.FANS instruments did not ask homeowners without mortgages about their shelter costs. Therefore, in this study, housing costs for homeowners without mortgages comprise estimated taxes and property insurance. Some adjustments were needed for homeowners to better reflect housing costs.¹⁴ L.A.FANS did not ask renters or homeowners about utility or other housing-related expenditures; therefore, like other studies (DeVaney, Chiremba et al. 2004; Luea 2008), housing costs may be underestimated.¹⁵

Income includes salary and wages earned from employment, public assistance, and assets such as rental property, stocks and bonds. L.A.FANS collected information only about family income, that is, income earned by the RSA and RSA's immediate family (spouse/partner and/or children) rather than household income.¹⁶ To the extent that there are other income-earning members in the household that contribute towards housing expenditures, the housing cost burden measure could be overestimated. However, in nearly all cases, the RSA and their spouse/partner and children are the only members of the household.¹⁷

Independent Variables

Race/Ethnicity, Nativity, and Legal Status. Native born persons who identify as White, Black, or Latinos represent the three race/ethnic groups of interest. Contrasts to assess nativity differences are most appropriate between U.S. born Latinos and Latino immigrants. Immigrants are further differentiated by legal status. Authorized Latino immigrants are respondents who identify as Latino, were born in Mexico, Central America, or other parts of Latin America, and identify as a naturalized citizen, permanent resident, or reported having asylum, refugee status, temporary protected status, or a valid visa.¹⁸ L.A.FANS did not directly ask immigrants whether they lacked legal status in the United States. Unauthorized Latino immigrants responded negatively to questions about naturalized citizenship, permanent residence, asylum/refugee/temporary protected status, or stated that they have a visa that had expired. This procedure follows the “residual” methodology of identifying unauthorized immigrants used in official reporting (Hoefer, Rytina et al. 2010). Table 1 describes the measures used in the analyses.

Table 1 About Here

Life Cycle, Human Capital, Assimilation, and Local Context. Indicators representing the life course (married, age of respondent, number of children) and human capital (years of education) are included in the regressions. As the analyses already account for the nativity and legal status of Latinos, the assimilation model includes a variable indicating U.S. experience.¹⁹ Following Grief (2009), the study incorporates an indicator with a value for every respondent: the percent of his/her life spent in the United States.²⁰ Immigration and economic context of the neighborhood are denoted by the percent of census tract residents that are immigrants arriving

since 1995 and the median prices of residences in the tract. Following previous analyses of L.A.FANS data (Frank and Bjornstrom 2011), these characteristics are represented as location quotients (LQs) that compare the respondent's tract to the average for all census tracts in Los Angeles County tracts as provided in Census 2000 data. This approach provides measures of relative concentration that take into account the immigration and economic context of the county. LQs range from 0 to more than 1. For example, a value of less than 1 for the LQ of median home prices indicates that a respondent lives in a census tract with a median home price in 2000 that is lower than the average home price for L.A. County in 2000; an LQ of 1 represents a census tract with the same median home price as the county; and LQ of more than 1 means that the respondent lives in an area with higher priced homes than the county average.

Background variables. The analyses include a broad range of individual/ household characteristics and features of the housing unit. For instance, the analyses control for homeownership because there are important differences in housing cost burdens for renters versus homeowners (Chi and Laquatra 1998; DeVaney, Chiremba et al. 2004). Information about living arrangements is included, given other work reporting differences in household structure by race, ethnicity, nativity, and duration in the U.S. (Glick 2000; Lara-Cinisomo and Griffin 2007). Also included are indicators for respondent is currently employed, household head is female, the family receives income from public assistance, size of residence, respondent has moved within the previous year, and U.S. financial access (has bank account).²¹

ANALYTIC APPROACH

The analyses employ logistic regression to estimate the effect of housing cost burden on the independent variables.²² Three sets of analyses use identical specifications but have a different reference category. In one, the omitted group is U.S. born Whites, which allows for

contrasts by race/ethnicity, in another, U.S. born Latinos is the reference group to examine nativity differences from Latino immigrants, and in a third, unauthorized Latino immigrants are omitted to focus on legal status differences from authorized Latino immigrants and other groups.

The first baseline model estimates main effects and a second model introduces background variables. The third, fourth, fifth, and sixth models include background variables and indicators of the life course, human capital, neighborhood context, or assimilation, respectively. The seventh specification incorporates the full set of variables. The aim of this approach is to identify whether initial differences exist in the baseline model, whether disparities are present or absent across specifications, and identify differences that remain significant in the fully-specified model. Given the body of research demonstrating the connections between housing cost burden and background variables, human capital, life course, context, and assimilation (models 2-6), the discussion of results do not provide specifics of how these indicators are related to cost burden. However, the results section notes, when appropriate, whether accounting for these variables helps to explain differences among groups.

Descriptive Results

Table 2 provides unweighted descriptive statistics for the pooled sample and for each of the five groups. More than 62 percent of the analytic sample is Latino, of varying nativity/legal statuses. Regarding the outcome variable, about 44 percent of the pooled sample is cost burdened, spending more than 30 percent of income on housing costs.²³ Statistical tests of whether descriptives differ by group, not shown, achieve significance at the .05 level for many indicators. For example, unauthorized Latino immigrants are the most disadvantaged vis-à-vis

housing affordability: 69.6 percent are housing cost burdened. All the other groups are far less likely to encounter such challenges, with Whites being the least likely to be cost burdened.

Other characteristics that differ between groups include being a homeowner, having a checking or savings account, and years of education. Latino authorized and unauthorized immigrants are similar in some characteristics, such as years of education, but differ in the proportion of those spending more than half of their life in the United States. Neighborhood context also varies across groups. For instance, unauthorized Latino immigrants live in census tracts that are significantly more concentrated with respect to recent immigrants than both the average census tract in Los Angeles County (1.7, where 1 is equal to the Los Angeles County average) and the immigrant context of other groups (ranging from .7 to 1.5). Such differences underscore the importance of accounting for these variables in the regression analyses.

Table 2 About Here

Table 3 provides the odds ratios and robust standard errors for the indicators of interest. The top panel of Table 3 provides regression results when Whites are the reference group; U.S. born Latinos are the omitted group in the middle panel, and unauthorized Latino immigrants are the reference group in the bottom panel. Column 1 in Table 3 is the baseline model, column 2 is the model introducing background variables, other models control for differences in human capital (column 3), position in the life cycle (column 4), neighborhood context (column 5), and assimilation (column 6), and the full set of variables (column 7). The last row in each panel provides the design-adjusted F statistic, an appropriate indicator in analyses that account for sampling design (Heeringa, West et al. 2010). Appendix Table A presents the complete results for the final specification.²⁴

Table 3 About Here

Contrasts with White natives

Several notable patterns emerge from the contrasts between U.S. born Whites and other groups (top panel, Table 3). Most importantly, native Whites, African Americans, and Latinos are equally likely to be cost burdened in all specifications. There are no differences in the baseline model, in models controlling for a range of variables, or in the full model (columns 1-7, top panel), indicating the absence of initial or residual racial/ethnic disparities in the likelihood of being cost burdened. However, the results do hint at other differences between groups. Latino immigrants are more likely to be cost burdened than U.S. born Whites in all or nearly all specifications. Indeed, authorized Latino immigrants have odds of being cost burdened that range from 2.61 times higher than native Whites in the baseline specification to 1.61 times higher in the final specification (columns 1, 7). It is only in the human capital model that authorized Latino immigrants and White natives are equally likely to be cost burdened, suggesting that the lower education of authorized immigrants may help to explain observed differences in cost burden. Unauthorized Latino immigrants have higher odds across all specifications, but the size of the odds decline from the baseline model to the full model. In the final specification, they have more than triple the odds of being cost burdened compared to U.S. born Whites (column 7).

Contrasts with Latino natives

The middle panel of Table 3 presents the parameter estimates comparing U.S. born Latinos and other groups. Of most interest are the results for immigrant Latinos relative to Latino. The results identify nativity gaps, but with variation by immigrants' legal status. In the baseline model, authorized Latino immigrants have odds of being cost burdened that are 1.70

times those of U.S. born Latinos (column 1, middle panel). However, once background variables have been introduced (column 2), they are equally likely as Latino natives to be cost burdened. Differences remain insignificant in specifications incorporating measures of human capital, life cycle, neighborhood context, assimilation, and the full set of variables (column 3-7). Thus, all initial differences between U.S. born Latinos and their authorized immigrant counterparts are explained.

In contrast, unauthorized Latino immigrants have greater odds of being cost burdened than U.S. born Latinos in every specification. In the baseline model, unauthorized Latino immigrants are estimated to have nearly 6 times greater odds of being cost burdened than native Latinos (column 1). Controlling for the full set of variables reduces the difference in the odds between unauthorized Latino immigrants and native Latinos from the baseline model (odds ratios of 5.97 in column 1 and 2.71 in column 7, middle panel), suggesting that the covariates help account for some of the gap. Nevertheless, the final model shows that unauthorized immigrants have a significantly higher, and unexplained, likelihood of being cost burdened than U.S. born Latinos.

Contrasts with Unauthorized Latino Immigrants

Results presented in the bottom panel of Table 3 provide a formal contrast of unauthorized Latino immigrants with other groups. The results point to variation among Latino immigrants by legal status, as first suggested in the contrasts with Latino natives. For instance, the baseline specification indicates that authorized Latino immigrants have 71.6 percent lower odds of being cost burdened than their unauthorized counterparts (1-.2842, column 1, bottom panel). Although controlling for differences in background variables reduces the gap from 71.6 percent to 47.1 percent lower odds (1- 0.5288, column 2), the substantially lower odds of

authorized Latino immigrants remain across all other specifications. As authorized Latino immigrants have significantly less U.S. experience than the reference group (Table 2), the nearly identical odds ratios in models that control for U.S. experience (.5272, column 6) and those that do not (e.g., .5238, column 5) is notable. This suggests that a traditional indicator of assimilation, U.S. experience, does not help explain differences in cost burden between authorized and unauthorized Latino immigrants.

The results of the bottom panel confirm that, as expected, unauthorized Latino immigrants are disadvantaged in cost burden compared to all other groups. Contrasts presented earlier show that unauthorized Latino immigrants have higher odds of cost burden than U.S. born Whites and Latinos, irrespective of which variables are included in the specifications. The bottom panel shows these results and also reveals that U.S. born Blacks are less likely to be cost burdened relative to undocumented Latino immigrants, with 85.4 percent lower odds in the baseline model (1-.1463, column 1) and 79.4 percent lower odds in the full specification (1-.2062 column 7). Results for the final model indicate that the lower odds for all groups relative to undocumented Latino immigrants range from 48 percent lower (1-.5154, authorized Latino immigrants) to nearly 80 percent lower (1-.2062, U.S. born Blacks), all other things equal.

Predicted Probabilities of Cost Burden

Another way to explore between-group variation is to predict the probability that the average member of each group will be cost burdened. Figure 1 presents the predicted probabilities using the full specification of cost burden in column 7 of Table 3 and descriptive information from Table 2.²⁵ As might be expected from the multivariate results, Figure 1 shows that the predicted probability that the average unauthorized Latino immigrant in the sample would be cost burdened is very high, 69.5 percent. The predicted probabilities for average

African Americans and authorized Latino immigrants are 48.6 percent and 57.5 percent, respectively, compared with much lower probabilities predicted for U.S. born Whites and Latinos.

Figure 1 about here

Formal tests, not shown, examine whether the predicted probabilities differ across groups.²⁶ These tests indicate that the average White native in the sample has a significantly lower probability of being cost burdened than every other group, including native Blacks and Latinos. Turning to nativity, the average U.S. born Latino is predicted to have a lower probability of cost burden than either authorized or unauthorized Latino immigrants. Finally, although Figure 1 shows that the average unauthorized Latino immigrant in the sample has the highest probability of the outcome, tests indicate that it is not significantly different from the probability predicted for the average authorized Latino immigrant or African American in the sample. Thus, these results suggest that Latino immigrants and native minorities face significant housing affordability challenges in Los Angeles County.

DISCUSSION AND CONCLUSION

The analyses provide insight about the connections between race, nativity, legal status and spending more than 30 percent of income on housing costs. Regression results with U.S. born Whites as the reference group indicate that they have similar likelihoods as U.S. born Latinos and African Americans of being cost burdened, *ceteris paribus*. This finding is consistent with prior studies of cost burden revealing no differences between these groups (Combs and Park 1994; Oh 1995; Luea 2008). Although the hypothesis of racial/ethnic disparities in cost burden is not supported by the multivariate analyses, the predicted probability exercise suggests that it is

premature to conclude that average native Whites, Blacks, and Latinos have the same difficulties in affording housing. Indeed, the average Latino native or African American in the sample tend to have characteristics that give them significantly higher probabilities of being cost burdened than White natives. This pattern of results suggests that taking on a high housing cost burden is an involuntary action based on lack of resources or housing options, rather than a voluntary decision to reside in a larger house and access higher-quality neighborhoods.

Analyses with U.S. born Latinos as the reference group support the hypothesis about nativity: Latino immigrants *are* disadvantaged relative to their co-ethnic native peers. For authorized Latino immigrants, differences in some individual, family, and household characteristics fully explain their initial higher cost burden allocations relative to U.S. born Latinos. Controlling for this variation in background, there are no disparities between the two groups (columns 1 and 2, middle panel of Table 3). In the case of unauthorized Latino immigrants, the analyses reveal that they have higher odds of being cost burdened than Latino natives across all models, including the final specification. This sustained disadvantage hints that lacking legal status significantly disadvantages undocumented immigrants above and beyond nativity.

The last set of multivariate analyses formally tests hypotheses about the connection between legal status and housing cost burden. The results demonstrate substantial, persistent, and unexplained disparities in cost burden by legal status: authorized immigrants have significantly lower odds of being cost burdened than their undocumented immigrant counterparts in all models. This finding, together with the results for contrasts with U.S. born Latinos, indicates that legal status seems to be a more critical factor in shaping housing affordability than nativity. The regression results also suggest that the strong relationship between legal status and the housing

cost burden of Latino immigrants is not eliminated by having more U.S. experience. This is not to say; however, that nativity is inconsequential. The typical Latino immigrant in the sample, either authorized and unauthorized, has a much higher predicted probability of being cost burdened than the average U.S. born Latino. Finally, as hypothesized, the multivariate regression results indicate that unauthorized Latino immigrants are in a disadvantaged position relative to other Latinos and White and Black natives. The disadvantage for unauthorized Latino immigrants relative to others cannot be completely explained by differences in human capital, stage of the life course, assimilation, or other factors.

Taken together, this study provides an illuminating snapshot of differences in Los Angeles County. Most importantly, the regression results provide preliminary evidence of legal status as a significant demarcation in housing affordability. Further, the differences in housing cost burden between authorized and unauthorized Latino immigrants observed in this study points to legal status as leading to different trajectories of assimilation for immigrants. The allocation of a large proportion of income to shelter costs documented in this study, along with exploitative working conditions that many experience (Bernhardt, Milkman et al. 2009) surely constrains the ability of undocumented immigrants to achieve upward mobility and segments them from their authorized peers. These realities, together with the likelihood that they will be illegal for long periods, has widespread implications for unauthorized immigrants and their families, including their U.S. citizen children (Fix and Zimmermann 1999).

The consistency of the higher odds for unauthorized Latino immigrants across specifications and across race/ethnic, native and legal status groups implies that the boundary based on authorization appears to be fairly rigid. Yet, the study also reveals that average members of “legal” groups, namely authorized Latino immigrants and African Americans, also

have high probabilities of being cost burdened. Average White natives in the sample are very unlikely to be cost burdened. These results suggest that the widespread housing affordability problem in Los Angeles noted in other work (Los Angeles Housing Crisis Task Force 2000; Brennan and Lipman 2008) appears to follow the established contours of stratification of American society noted in extensive research (e.g., Massey and Denton 1993; Oliver and Shapiro 1995; Conley 1999; Feagin 2000; Bonilla-Silva 2006; Massey and Sánchez 2010). The present study suggests that, along with race and nativity, legal status is another layer of stratification that shapes housing cost burden in ways that are not yet fully understood.

There are many other avenues that need to be explored to disentangle the independent and interdependent linkages between housing outcomes like cost burden and race/ethnicity, nativity, and legal status. Future analyses should include non-Latino immigrants and Asian Americans. Recent work pointing to the heterogeneity in the experiences of “authorized” immigrants (e.g., Capps, Ku et al. 2002; Menjívar 2006; Brown 2011) suggests that, when possible, the authorized immigrant category could be further disaggregated. The present analyses of data collected in 2000 and 2002 is useful given that the latest housing boom began in approximately 1999 and peaked in 2005 (Goldman, Smith et al. 2005). However, using more recent data will also be important. Growing housing debt, declining housing prices, and the increasing unaffordability of housing has occurred over the decade (Joint Center for Housing Studies 2009). The impact of the current financial and housing crisis has particular relevance for Latinos, African Americans and others, given the concentration of subprime loans and foreclosures to minority borrowers and minority neighborhoods, their higher likelihood of being poor and higher unemployment rates (Hinojosa Ojeda, Jacquez et al. 2009; Nelson 2010). Clearly, additional scholarship on the sources of disparities in cost burden and other housing

outcomes will enhance our understanding of how race/ethnicity, nativity, *and* legal status operate in U.S. society.

REFERENCES

- Abrego, L. (2006). "I can't go to college because I don't have papers': Incorporation Patterns of Latino Undocumented Youth." Latino Studies 4(3): 212-231.
- Alba, R. and V. Nee (2003). Remaking the American Mainstream: Assimilation and Contemporary Immigration. Cambridge, MA, Harvard University Press.
- Alba, R. D. and J. R. Logan (1992). "Assimilation and stratification in the homeownership patterns of racial and ethnic groups." International Migration Review 26(4): 1314-1341.
- Alba, R. D. and J. R. Logan (1993). "Minority Proximity to Whites in Suburbs: An Individual-Level Analysis of Segregation." American Journal of Sociology 98(6): 1388-1427.
- Basolo, V. and M. T. Nguyen (2009). "Immigrants' Housing Search and Neighborhood Conditions: A Comparative Analysis of Housing Choice Voucher Holders." Cityscape: A Journal of Policy Development and Research 11(3): 99-126.
- Becker, G. S. (1993). Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education, Third Edition. Chicago, University of Chicago Press.
- Bernhardt, A., R. Milkman, et al. (2009). Broken Laws, Unprotected Workers: Violations of Employment and Labor Laws in America's Cities. New York, National Employment Law Project.
- Bitler, M. and C. Peterson (2004). LANFANS Income and Assets Imputations: Description of Imputed Income/Assets Data for LAFANS Wave 1. Santa Monica, RAND Corporation.
- Bocian, D. G., K. S. Ernst, et al. (2006). Unfair Lending: The Effect of Race and Ethnicity on the Price of Subprime Mortgages. Center for Responsible Lending. Washington D.C.
- Bonilla-Silva, E. (2006). Racism Without Racists: Color-Blind Racism and the Persistence of Racial Inequality in the United States. Lanham, MD, Rowman & Littlefield.
- Borjas, G. (2002). "Homeownership in the immigrant population." Journal of Urban Economics 52(3): 448-476.
- Bostic, R. W. and K. O. Lee (2008). "Mortgages, Risk, and Homeownership among Low- and Moderate-Income Families." American Economic Review 98(2): 310-14.
- Brennan, M. and B. J. Lipman (2008). Stretched Thin: The Impact of Rising Housing Expenses on America's Owners and Renters. Washington, DC, Center for Housing Policy.
- Brown, H. (2011). "Refugees, Rights, and Race: How Legal Status Shapes Liberian Immigrants' Relationship with the State." Social Problems 58(1): 144-163.
- Bureau of Labor Statistics (2009). Consumer Expenditures--2008. Table A. Average annual expenditures and characteristics of all consumer units and percent changes, Consumer Expenditure Survey, 2006-2008, U.S. Department of Labor. Washington D.C.
- Capps, R., L. Ku, et al. (2002). How Are Immigrants Faring After Welfare Reform? Preliminary Evidence from Los Angeles and New York City - Final Report. Washington, DC, The Urban Institute.
- Census Bureau, U. S. (2000). Census 2000 Summary File 3 (SF3) - Sample Data, Tables HCT40B, HCT40H, HCT40I. Median Gross Rent as a Percentage of Household Income in 1999. Tables HCT48B, HCT48H, HCT488I. Median Selected Monthly Owner Costs as a Percentage of Household Income in 1999 and Mortgage Status., <http://factfinder.census.gov>.
- Charles, C. Z. (2006). Won't you be my neighbor? Race, class, and residence in Los Angeles. New York, NY, Russell Sage Foundation.

- Chavez, J. M. and D. M. Provine (2009). "Race and the Response of State Legislatures to Unauthorized Immigrants." The ANNALS of the American Academy of Political and Social Science 623(1): 78-92.
- Chavez, L. (2008). The Latino Threat: Constructing Immigrants, Citizens, and the Nation. Palo Alto, CA, Stanford University Press.
- Chi, P. S. K. and J. Laquatra (1998). "Profiles of housing cost burden in the United States." Journal of Family and Economic Issues 19(2): 175-193.
- Christensen, K. and P. Esquivel (2010). Bell Property Tax Rate Second-Highest in L.A. County. *Los Angeles Times*. July 30.
- Clark, W. A. V. (2003). Immigrants and the American Dream: Remaking the Middle Class. New York, Guilford Press.
- Clark, W. A. V. and V. Ledwith (2006). "Mobility, Housing Stress and Neighborhood Contexts: Evidence from Los Angeles." Environment and Planning A 38(6): 1077-1093.
- Clark, W. A. V. and V. Ledwith (2007). "How Much Does Income Matter in Neighborhood Choice?" Population Research and Policy Review 26(2): 145-161.
- Cobas, J. A., J. Duany, et al., Eds. (2009). How the United States Racializes Latinos. Boulder, Co., Paradigm.
- Combs, E. R. and S. Park (1994). "Housing Affordability among Elderly Female Heads of Household in Nonmetropolitan Areas." 1994 Journal of Family and Economic Issues(15): 4.
- Conley, D. (1999). Being black, living in the red: Race, wealth, and social policy in America. Berkeley, University of California Press.
- Cort, D. (2010). Neighborhood Quality in a Diverse Context: Racial, Ethnic, Nativity, and Documentation Status Differences in Locational Attainment. Amherst, University of Massachusetts.
- Coulson, N. E. (1999). "Why are Hispanic and Asian-American homeownership rates so low? Immigration and other factors." Journal of Urban Economics 45(2): 209-227.
- De Genova, N. (2004). "The Legal Production of Mexican/Migrant "Illegality"." Latino Studies 2(2): 160-185.
- DeVaney, S. A., S. Chiremba, et al. (2004). "Life Cycle Stage and Housing Cost Burden." Financial Counseling & Planning 15(1): 31-39.
- Dwyer, R. E. (2007). "Expanding homes and increasing inequalities: US housing development and the residential segregation of the affluent." Social Problems 54(1): 23-46.
- Elder Jr., G. H., M. K. Johnson, et al. (2003). The Emergence and Development of Life Course Theory. Handbook of the Life Course. J. T. Mortimer and M. J. Shanahan. New York City, Kluwer Academic/Plenum Publishers.
- Elmelech, Y. (2004). "Housing inequality in New York City: Racial and ethnic disparities in homeownership and shelter-cost burden." Housing, Theory, and Society 21(4): 163-175.
- Espino, R. and M. M. Franz (2002). "Latino Phenotype Discrimination Revisited: The Impact of Skin Color on Occupational Status." Social Science Quarterly 83(2): 612 – 623.
- Farley, R. (2001). Metropolises of the Multi-City Study of Urban Inequality: Social, Economic, Demographic, and Racial Issues in Atlanta, Boston, Detroit, and Los Angeles. Urban Inequality: Evidence from Four Cities. A. O'Connor, C. Tilly and L. D. Bobo. New York City, Russell Sage: 34-.
- Feagin, J. R. (2000). Racist America: Roots, Current Realities, and Future Reparations. New York, Routledge.

- Fix, M. E. and W. Zimmermann (1999). *All Under One Roof: Mixed-Status Families in an Era of Reform*. Washington, DC, Urban Institute.
- Fortuny, K., R. Capps, et al. (2007). *The Characteristics of Unauthorized Immigrants in California, Los Angeles County, and the United States*. Washington, DC, Urban Institute.
- Frank, R., I. R. Akresh, et al. (2010). "Latino Immigrants and the U.S. Racial Order: How and Where Do They Fit In?" *American Sociological Review* 75(2): 378-401.
- Frank, R. and E. E. S. Bjornstrom (2011). "A Tale of Two Cities: Residential Context and Risky Behavior among Latino Adolescents in Los Angeles and Chicago." *Health & Place* 17(1): 67-77.
- Galster, G. and E. Godfrey (2005). "By words and deeds: Racial steering by real estate agents in the US in 2000." *Journal of the American Planning Association* 71(3): 251-268.
- Glick, J. (2000). "Nativity, Duration of Residence and the Life Course Pattern of Extended Family Living in the USA." *Population Research and Policy Review* 19: 179-198.
- Goldman, D. P., J. P. Smith, et al. (2005). "Legal Status and Health Insurance Among Immigrants" *Health Affairs* 24(6): 1640-1653.
- Greif, M. J. (2009). "Neighborhood Attachment in the Multiethnic Metropolis." *City & Community* 8(1): 27-45.
- Hao, L. (2007). *Color Lines, Country Lines: Race, Immigration and Wealth Stratification in America*. New York City, Russell Sage Foundation.
- Heeringa, S. G., B. T. West, et al. (2010). *Applied Survey Data Analysis*. Boca Raton, FL., CRC Press.
- Hinojosa Ojeda, R., A. Jacquez, et al. (2009). *The End of the American Dream for Blacks and Latinos: How the Home Mortgage Crisis is Destroying Black and Latino Wealth, Jeopardizing America's Future Prosperity and How to Fix It*, William C. Velasquez Institute.
- Hoefer, M., N. Rytina, et al. (2010). *Estimates of the unauthorized immigrant population residing in the United States: January 2009*. Washington, DC, Office of Immigration Statistics, U.S. Department of Homeland Security.
- Iceland, J. and K. A. Nelson (2008). "Hispanic Segregation in Metropolitan America: Exploring the Multiple Forms of Spatial Assimilation." *American Sociological Review* 73(5): 741-765.
- Iceland, J. and M. Scopilliti (2008). "Immigrant Residential Segregation in U.S. Metropolitan Areas, 1990-2000." *Demography* 45(1): 79-94.
- Jewkes, M. D. and L. M. Delgadillo (2010). "Weaknesses of Housing Affordability Indices Used by Practitioners." *Journal of Financial Counseling and Planning* 21(1): 43-52.
- Joint Center for Housing Studies (2008). *America's Rental Housing: The Key to a Balanced National Policy*. Cambridge, Harvard University.
- Joint Center for Housing Studies (2009). *The State of the Nation's Housing 2009*. Cambridge, MA, Harvard University.
- Joint Center for Housing Studies (2010). *The State of the Nation's Housing: 2010*. Cambridge, Harvard University.
- Krivo, L. J. (1995). "Immigrant characteristics and Hispanic-Anglo housing inequality." *Demography* 32(4): 599-615.
- Krivo, L. J. and R. L. Kaufman (2004). "Housing and Wealth Inequality: Racial-ethnic Differences in Home Equity in the United States." *Demography* 41(3): 585-605.

- Kutty, N. K. (2005). "A New Measure of Housing Affordability: Estimates and Analytical Results." Housing Policy Debate 16(1): 113-142.
- Lara-Cinisomo, S. and B. A. Griffin (2007). "Factors associated with major depression among mothers in Los Angeles." Womens Health Issues 17(5): 316-324.
- Lewis Mumford Center for Comparative Urban and Regional Research (2001a). Sortable Lists of Non-Hispanic White, Non-Hispanic Black, and Hispanic Populations. Albany, New York, State University of New York-Albany.
- Lipman, B. (2003). America's newest working families: Cost, crowding, and conditions for immigrants. New Century Housing. Washington DC, Center for Housing Policy.
- Lipman, B. (2005). Something's Gotta Give: Working Families and the Cost of Housing. New Century Housing: Volume 5, Issue 2. Washington, DC, Center for Housing Policy.
- Los Angeles Housing Crisis Task Force (2000). In Short Supply: Recommendations of the Los Angeles Housing Crisis Task Force. Los Angeles, Los Angeles Housing Department.
- Luea, H. (2008). "The Impact of Financial Help and Gifts on Housing Demand and Cost Burdens." Contemporary Economic Policy 26(3): 420-432.
- Massey, D. S. (2007). Categorically Unequal: The American Stratification System. New York, Russell Sage Foundation.
- Massey, D. S. (2009). "Racial Formation in Theory and Practice: The Case of Mexicans in the United States." Race and Social Problems 1: 12-26.
- Massey, D. S. and N. A. Denton (1993). American apartheid: Segregation and the making of the underclass. Cambridge, MA, Harvard University Press.
- Massey, D. S., J. Durand, et al. (2002). Beyond Smoke and Mirrors: Mexican Immigration in an Era of Economic Integration. New York, Russell Sage.
- Massey, D. S. and M. Sánchez (2010). Brokered Boundaries: Creating Immigrant Identity in Anti-Immigrant Times. New York, NY, Russell Sage Foundation.
- McArdle, N. and K. S. Mikelson (1994). The New Immigrants: Demographic and Housing Characteristics. Working Paper. Cambridge, Joint Center for Housing Studies.
- McConnell, E. D. and I. R. Akresh (2008). "Through the Front Door: Housing Outcomes of New Lawful Immigrants." International Migration Review 42(1): 134-162.
- McConnell, E. D. and I. R. Akresh (2010). "Housing Cost Burden and New Lawful Immigrants in the United States." Population Research and Policy Review 29(2): 143-171.
- McConnell, E. D. and E. A. Marcelli (2007). "Buying into the American dream? Mexican immigrants, legal status, and homeownership in Los Angeles County." Social Science Quarterly 88(1): 199-221.
- McConnell, E. D. and T. J. Ready (2005). The Roof Over Our Heads: Hispanic Housing in the United States. Notre Dame, IN, University of Notre Dame, Institute for Latino Studies and Esperanza, USA.
- Menard, S. (1995). Applied Logistic Regression Analysis. Sage University Series on Quantitative Applications in the Social Sciences. Thousand Oaks, CA., Sage.
- Menjívar, C. (2006). "Liminal Legality: Salvadoran and Guatemalan Immigrants' Lives in the United States." American Journal of Sociology 111(4): 999-1037.
- Mincer, J. (1958). "Investment in Human Capital and Personal Income Distribution." Journal of Political Economy 66(4): 281-302.
- Motomura, H. (1999). "Federalism, International Human Rights, and Immigration Exceptionalism." University of Colorado Law Review 70: 1361.

- Myers, D. and S. W. Lee (1998). "Immigrant trajectories into homeownership: A temporal analysis of residential assimilation." International Migration Review 32(3): 593-625.
- Myers, D. and C. Y. Liu (2005). "The emergence of immigrants in the US housing market, 1970-2000." Urban Policy and Research 23(3): 347-365.
- Myers, D., G. Painter, et al. (2005). "Regional disparities in homeownership trajectories: Impacts of affordability, new construction, and immigration." Housing Policy Debate 16(1): 53-83.
- Nelson, A. A. (2010). "Credit Scores, Race, and Residential Sorting." Journal of Policy Analysis and Management 29(1): 39-68.
- Oh, D.-H. (1995). "Households With Rent Burdens: Impact on Other Spending and Factors Related to the Probability of Having A Rent Burden." Financial Counseling and Planning 6: 139-147.
- Oliver, M. L. and T. M. Shapiro (1995). Black wealth/White wealth: A new perspective on racial inequality. New York, Routledge.
- Oliveri, R. C. (2009). "Between a Rock and a Hard Place: Landlords, Latinos, Anti-Illegal Immigrant Ordinances, and Housing Discrimination." Vanderbilt Law Review 62(1): 55-124.
- Osili, U. O. and A. Paulson (2004). Immigrant-Native Differences in Financial Market Participation. Chicago, Federal Reserve Bank of Chicago.
- Owens, C. and P. Tegeler (n.d.). Housing Cost Burden as a Civil Rights Issue: Revisiting the 2005 American Community Survey Data. Washington, DC Poverty & Race Research Action Council.
- Painter, G., S. Gabriel, et al. (2001). "Race, immigrant status, and housing tenure choice." Journal of Urban Economics 49(1): 150-167.
- Passel, J. S. (2006). The Size and Characteristics of the Unauthorized Migrant Population in the U.S.: Estimates Based on the March 2005 Current Population Survey. Washington, DC, Pew Hispanic Center.
- Peterson, C. E., A. R. Pebley, et al. (2007). The Los Angeles Neighborhood Services and Characteristics Database: Codebook. Santa Monica, CA, RAND.
- Peterson, C. E., N. Sastry, et al. (2004). The Los Angeles Family and Neighborhood Survey Codebook. Santa Monica, CA, Rand.
- Pew Hispanic Center (2006). A Statistical Portrait of Hispanics at Mid-Decade. Washington, DC, Pew Hispanic Center.
- Pew Hispanic Center (2008). A Statistical Portrait of Hispanics in the United States, 2006. Washington DC, Pew Hispanic Center.
- Portes, A. and R. G. Rumbaut (2006). Immigrant America: A portrait. 3rd ed. Berkeley, University of California Press.
- Portes, A. and M. Zhou (1993). "The New Second Generation: Segmented Assimilation and Its Variants." Annals of the American Academy of Political and Social Sciences 530: 74-96.
- Rodríguez, H., R. Sáenz, et al., Eds. (2008). Latinas/os in the United States: Changing the Face of América. New York, Springer.
- Roscigno, V. J., D. L. Karafin, et al. (2009). "The Complexities and Processes of Racial Housing Discrimination." Social Problems 56(1): 49-69.
- Rosenbaum, E. and S. Friedman (2007). The housing divide: How generations of immigrants fare in New York's housing market. New York City, New York University Press.

- Ross, S. L. and M. A. Turner (2005). "Housing Discrimination in Metropolitan America: Explaining Changes between 1989 and 2000." Social Problems 52(1): 152-180.
- Sastry, N., B. Ghosh-Dastidar, et al. (2006). "The Design of a Multilevel Dury of Childern, Families, and Communities: The Los Angeles Family and Neighborhood Survey." Social Science Research 35(4): 1000-1024.
- Sastry, N. and A. R. Pebley (2003). Non-response in the Los Angeles Family and Neighborhood Survey. Labor and Population Program Working Paper. Santa Monica, CA, RAND.
- Schill, M. H., S. Friedman, et al. (1998). "The housing conditions of immigrants in New York City." Journal of Housing Research 9(2): 201-235.
- Stone, M. E. (2006). "What is Housing Affordability? The Case for the Residual Income Approach." Housing Policy Debate 17(1): 151-184.
- Suchan, T., M. J. Perry, et al. (2007). Census Atlas of the United States. S. CENSR-29, U.S. Census Bureau: Washington D.C.
- Telles, E. E. and V. Ortiz (2008). Generations of Exclusion: Mexican Americans, Assimilation, and Race New York, Russell Sage.
- Toussaint-Comeau, M. and S. L. W. Rhine (2004). "Tenure Choice with Location Selection: The Case of Hispanic Neighborhoods in Chicago." Contemporary Economic Policy 22(1): 95-110.
- U.S. Census Bureau (2000). PCT11. Hispanic or Latino By Specific Origin. Census Summary File 1 (SF1) 100-Percent Data. Los Angeles, County. American Factfinder. 2000, January 18, 2011.
- U.S. Census Bureau (n.d.) Table 1197. Renters and Homeowners Insurance--Average Premiums by State: 2000 to 2004. Washington, DC, Bureau of the Census.
- Woldoff, R. A. and S. Ovadia (2009). "Not Getting Their Money's Worth: African-American Disadvantages in Converting Income, Wealth, and Education into Residential Quality." Urban Affairs Review 45(1): 66-91.

¹In this paper, Latino refers to men and women of Latino/Hispanic ethnicity, regardless of race. Whites and Blacks/African Americans are race groups who are not Hispanic.

²Such ordinances, like the one in Farmer's Branch, Texas, have been struck down as unconstitutional (Solis 2010; Oliveri 2009).

³Massey (2007) outlines how immigration policies are creating a "better" underclass of Mexican immigrants that may be even more disadvantaged than African Americans (157). Numerous studies document the difficulties that unauthorized immigrants, especially Mexicans and Central Americans, experience in the United States (Massey, Durand, et. al 2002; Abrego 2006; Menjivar 2006; Massey and Sánchez 2010).

⁴Unfortunately, due to the small sample size of Asians and Pacific Islanders and American Indians in the analytic sample and the documented heterogeneity of housing outcomes by nativity and specific groups among Asians (Painter et al. 2003), these groups are excluded from the analyses. This was also the case with immigrants identifying as White or Black.

⁵The L.A.FANS codebook shows that more than eighty percent of all immigrants in L.A.FANS data were born in Latin America: Mexico (60.1 percent), Central America (18.2 percent), or other Latin American countries (2.9 percent) (Peterson, Sastry, et al. 2004).

⁶Latinos in the U.S. vary along many dimensions, including national origin group, geographic location in the U.S., skin tone, social class, generation in the country, social, economic and legal context surrounding the arrival of

Latino immigrants (Espino and Franz 2002; Rodríguez, Sáenz, et al., 2008; Telles and Ortiz 2008; Frank and Akresh, et al. 2010).

⁷Other studies examining absolute housing costs show similar patterns to those described here (Krivo 1995, Charles 2006).

⁸One study of homeownership suggests that unauthorized immigrants may not *always* be disadvantaged relative to other groups (McConnell and Marcelli 2007).

⁹In households with children under 18, the mother of a randomly selected child was designated the primary care giver (PCG) and completed a parent questionnaire. In most households, the PCG and the RSA (randomly selected adult) were the same person (RSA/PCG) or in the same nuclear family. In other households, more than one nuclear family resided in the home, and the RSA and the PCG could be from different nuclear families and both families could have filled out the household survey depending on respondent selection criteria. This study includes only adults who filled out the adult module as the RSA or as the RSA/ PCG. Respondents from a “second” nuclear family were excluded, due to concerns about their correlated errors with the “first” family and the housing cost data that they provided. Multivariate analyses incorporate an indicator of residence in a nuclear family versus extended living arrangements to account for differences in household structure. See Peterson et al., (2004) for more details about respondent selection.

¹⁰2,543 RSAs fully completed the Adult module (Peterson, Sastry et al. 2004: Table 2.8). The analytic sample is smaller because of the exclusion of Asian natives and immigrants and other groups, foreign-born immigrants who identified as non-Hispanic White or Black (usually from Europe, the Middle East, and Africa), persons other than RSAs or RSA/PCGs as they did not complete some of the data modules employed in the analyses, respondents from a “second” nuclear family as described in footnote 10, and those with incomplete or missing data that was not available from other L.A.FANS files. Following another study (McConnell and Akresh 2010), the sample also excludes respondents who reported housing cost burdens of 100 percent or more, due to concerns about the quality of their housing cost and/or income data.

¹¹Although the analyses focus on nativity and legal status rather than a specific Latin American country or region, legal status categories do partially reflect different groups. For example, compared with Mexicans, eligible individuals from some Central American countries have access to temporary protected status or other statuses that place them in the authorized immigrant category. However, ancillary analyses, not shown, indicate no statistically significant difference between Mexicans, Central Americans, and “Other” Latinos in housing cost burden in specifications using the complete set of variables. This further confirms that, in this study, it is appropriate to distinguish among Latinos by nativity and legal status.

¹²Heeringa et al (2010) suggest comparing parameter estimates from regression models that address the complex sampling design with models that do not account for the complex survey design. The results of this contrast, not shown, confirm the importance of addressing design effects in the computation of odds ratios and standard errors.

¹³The L.A. FANS codebook indicates that 6.2 percent of the total sample is missing information on rent payments and 7.0 percent are missing mortgage payment information (Peterson, Sastry et al. 2004). An imputed income file created for L.A.FANS includes imputed data for rent and mortgage payment (Bitler and Peterson 2004); these data were used when housing cost data were missing.

¹⁴L.A.FANS asked homeowners about the value of their home and asked homeowners with mortgages whether the mortgage amount included taxes or property insurance. For homeowners who reported that their mortgage payment excluded one or both of these items, their housing costs were increased to reflect both their mortgage and these other items based on alternate information. For homeowners who reported that their mortgage payment does not reflect property taxes, their housing costs also include annual property taxes of 1.16 percent, the average property tax rate for Los Angeles County (Christensen and Esquivel 2010), based on the self-assessed value of their home provided to L.A.FANS. Housing costs for those whose mortgage payments do not reflect homeowners’ insurance premiums also include the average homeowners’ annual premium for California from U.S. Census Bureau data for the year that the respondent was surveyed: \$592 in 2000, \$599 in 2001, and \$660 in 2002 (U.S. Census Bureau n.d.). Housing costs for homeowners whose mortgage payments exclude both property taxes and insurance were increased using these techniques. Finally, housing costs for homeowners without mortgages are estimated property taxes and homeowners’ insurance based on the value of their home.

¹⁵Homeowners with mortgages can deduct mortgage interest and property taxes from their federal income taxes; this provides a significant tax savings that reduces their overall housing costs. Thus, any underestimation may be more likely for renters than for homeowners with mortgages.

¹⁶ The L.A.FANS codebook indicates that nearly 30 percent of the L.A.FAN's respondents are missing one or more components of income (Peterson, Sastry et al. 2004); the imputed income file is used instead.

¹⁷ Table 2, presented later in the paper, indicates that more than 94 percent of the pooled sample lives in households where the only half-time or greater residents are the RSA, their spouse/parent and the biological, step, adopted or foster children of the RSA or their spouse/partner.

¹⁸ L.A.FANS data does not uniquely identify immigrants who were granted asylum, refugee status, or temporary protected status.

¹⁹ A variable representing English fluency was not available in L.A.FANS. Although there is a measure of Spanish as the primary household language, it was not included in the analyses because: a) household language is not a direct measure of the respondent's or their family's fluency in English, and b) correlation analyses indicate that it is very highly correlated with other variables in the models.

²⁰ The percent of life variable has a value for every respondent with valid data about year of birth and country of birth and, for immigrants, their year of arrival. Correlation analyses, not shown, reveal that a binary variable of spending 50 percent or more of life in the United States is preferable to a continuous variable. Those with a value of 1 include immigrants who have spent more than half of their life in the United States and all native-born respondents.

²¹ Some variables represent the family rather than the household because L.A.FANS instructed respondents to answer financial questions in terms of their immediate family rather than everyone living in the household.

²² The general rule of thumb is that multicollinearity can be a serious problem when VIs are 10 or higher (Menard 1995). Collinearity diagnostics for every model indicate variance inflation factors (VIF) below 3.8 for every variable, with mean VIFs for all covariates below 2.1.

²³ Descriptives, not shown, indicate that the pooled sample spends a mean of 32.1 percent of income on shelter costs.

²⁴ Complete results for regression models in columns 2-6 are available from the author.

²⁵ Using descriptives provided in Table 2, each group is assigned the group's mean values for all continuous variables and modal values for the binary variables.

²⁶ 95 percent confidence intervals are generated around the difference between the predicted probability of each group relative to U.S. born Whites, U.S. born Latinos, and unauthorized Latino immigrants.

Table 1. Description of Variables Used in the Analyses

Variable label	Operationalization	Component set
Dependent Variable		
Cost Burden	1 if annual housing costs are 30% or more of annual income, 0 otherwise	Dependent variable
Independent Variables		
U.S. born Black	1 if respondent was born in U.S. and Non-Hispanic Black, 0 otherwise	
U.S. born White	1 if respondent was born in U.S. and Non-Hispanic White, 0 otherwise	
U.S. born Latino	1 if respondent was born in U.S. and Latino, 0 otherwise	
Authorized Latino immigrant	1 if respondent not U.S. born but authorized to be in country	
Unauthorized Latino immigrant	1 if respondent not U.S. born but authorized to be in country	
Recently moved	1 if moved to current residence in previous year, 0 otherwise	Control
Immediate family	1 if only members of household are respondent, the partner/spouse and children, 0 if other relatives or non-relatives reside in household	Control
Female head	1 if the household is headed by female, 0 otherwise	Control
Employed	1 if respondent currently is employed, 0 otherwise	Control
Bank account	1 if family has checking, savings, or money market account, 0 otherwise	Control
Receives public assistance	1 if family receives transfer/public assistance income	Control
Own home	1 if home is owned, 0 otherwise	Control
Number of rooms	Number of rooms in house/apartment excluding bathrooms	Control
Years of education	Respondent's number of years of education	Human Capital
Age between 18 and 29	1 if respondent is between 18 and 29 years of age, 0 otherwise	Life Cycle
Age between 30 and 44	1 if respondent is between 30 and 44 years of age, 0 otherwise	Life Cycle
Age between 45 and 59	1 if respondent is between 45 and 59 years of age, 0 otherwise	Life Cycle
Age 60 years or older	1 if respondent is 60 years of age or older, 0 otherwise	Life Cycle
Married	1 if respondent is married or living with a partner, 0 otherwise	Life Cycle
0 children	1 if 0 children in family, 0 otherwise	Life Cycle
1 to 3 children	1 if 1-3 children in family, 0 otherwise	Life Cycle
4 or more children	1 if 4 or more children in family, 0 otherwise	Life Cycle
LQ recent immigrant	Location quotient: percent of census tract are immigrants arriving after 1995	Contextual
LQ median price	Location quotient: median price of homes in tract, year before surveyed	Contextual
More than half of life in U.S.	Has lived in U.S. for 50 percent or more of life	Assimilation

Table 2. Distribution of Variables, by Race/Ethnicity, Nativity, and Legal Status Groups

	Pooled Sample	U.S. born Whites	U.S. born Blacks	U.S. born Latinos	Authorized Latino immigrants	Unauthorized Latino immigrants
Dependent Variable						
Cost burdened	44.1	26.1	38.0	38.5	48.2	69.6
Independent Variables						
Race/nativity/legal status	100.0	25.7	12.0	12.8	31.4	18.1
Recently moved	29.3	21.7	31.9	28.7	24.4	47.4
Immediate family	94.1	98.0	96.3	95.4	94.6	85.4
Female head	48.9	53.4	63.2	62.1	44.3	31.6
Employed	66.9	67.4	63.2	72.4	66.0	66.0
Bank account	55.8	86.0	60.1	70.1	47.1	15.0
Receives public assistance	27.0	41.4	63.8	42.0	29.7	21.9
Own home	37.0	66.9	37.4	42.0	29.0	4.5
Mean number of rooms	3.7	5.0	3.8	3.9	3.1	2.4
Years of education	11.6	15.4	13.6	13.2	9.0	8.5
Age	40.7	47.6	42.5	37.8	40.7	31.5
18-29 years	21.2	9.7	13.5	36.2	13.8	44.9
30-44 years	49.3	42.9	50.9	40.8	58.1	48.2
45-59 years	18.1	25.7	21.5	11.5	19.9	6.5
60 years or older	11.4	21.7	14.1	11.5	8.2	0.4
Married	59.2	60.6	32.5	58.0	64.6	66.4
Number of Children						
0 children	34.0	48.3	33.1	32.2	27.9	26.3
1-3 children	59.4	48.9	60.1	63.8	63.2	64.4
4 children or more	6.5	2.9	6.8	4.0	8.9	9.3
Location quotient of recent immigrants	1.2	0.7	1.1	1.1	1.5	1.7
Location quotient of median home price	1.0	1.4	0.8	0.9	0.9	0.8
More than half of life in U.S.	82.6	100.0	100.0	100.0	52.0	87.0
Total N	1361	350	163	174	427	247

Source: Los Angeles Family and Neighborhood Survey, Wave 1.
Percents may not equal 100.0 due to rounding.

Table 3. Logistic Regression Analyses of the Effects of Variables on Housing Cost Burden: Odds Ratios

US born Whites (reference)^a	1	2	3	4	5	6	7
	Baseline	Controls	Human Capital	Life Cycle	Contextual	Assimilation	Full model
U.S. born Black	1.3449 (0.3567)	0.8048 (0.2885)	0.8016 (0.2870)	0.6024 (0.2136)	0.8151 (0.2860)	0.8048 (0.2885)	0.6461 (0.2247)
U.S. born Latino	1.5391 (0.4469)	1.3433 (0.4737)	1.2036 (0.4232)	1.2264 (0.4335)	1.369 (0.4977)	1.3432 (0.4729)	1.1577 (0.4207)
Authorized Latino immigrant	2.613*** (0.4823)	1.9893*** (0.3910)	1.4065 (0.3083)	2.0834*** (0.4333)	2.0883*** (0.4179)	1.9813** (0.4506)	1.6144† (0.4160)
Unauthorized Latino immigrant	9.1925*** (2.3187)	3.7616*** (1.2993)	2.7404** (1.0098)	4.0566*** (1.6363)	3.9862*** (1.3443)	3.7581*** (1.3091)	3.1321** (1.3121)
F statistic ^b	0.1372	0.7539	1.668	1.3727	0.8804	0.6231	1.3353
US born Latinos (reference)	1	2	3	4	5	6	7
U.S. born Black	0.8738 (0.2855)	0.5991 (0.2927)	0.666 (0.3290)	0.4911 (0.2280)	0.5953 (0.2924)	0.5991 (0.2927)	0.5581 (0.2680)
U.S. born White	0.6497 (0.1886)	0.7444 (0.2624)	0.8307 (0.2921)	0.8153 (0.2882)	0.7304 (0.2655)	0.7444 (0.2621)	0.8637 (0.3138)
Authorized Latino immigrant	1.6977† (0.4984)	1.4808 (0.5701)	1.1685 (0.4485)	1.6987 (0.6718)	1.5254 (0.5719)	1.475 (0.6164)	1.3944 (0.5833)
Unauthorized Latino immigrant	5.9726*** (2.0670)	2.8001* (1.3541)	2.2767† (1.0901)	3.3075† (1.6748)	2.9117** (1.3627)	2.7978** (1.3661)	2.7053** (1.3488)
F statistic	0.0488	0.3249	1.4509	0.6240	0.8179	0.4886	0.6555
Latino unauthorized immigrants (reference)	1	2	3	4	5	6	7 ^b
U.S. born Black	0.1463*** (0.0493)	0.2139*** (0.0888)	0.2925** (0.1312)	0.1485*** (0.0654)	0.2045*** (0.0846)	0.2141*** (0.0897)	0.2062*** (0.0978)
U.S. born White	0.1087*** (0.0274)	0.2658*** (0.0918)	0.3649** (0.1345)	0.2465*** (0.0994)	0.2508*** (0.0846)	0.2661*** (0.0927)	0.3193** (0.1337)
U.S. born Latino	0.1674*** (0.0579)	0.3571** (0.1726)	0.4392† (0.2103)	0.3023* (0.1531)	0.3434* (0.1607)	0.3574* (0.1745)	0.3696* (0.1843)
Authorized Latino immigrant	0.2842*** (0.0567)	0.5288** (0.1524)	0.5132* (0.1413)	0.5136* (0.1701)	0.5238* (0.1499)	0.5272* (0.1549)	0.5154* (0.1659)
F statistic	0.0587	0.385	1.4688	0.6289	0.8492	0.4886	0.6555

Source: Los Angeles Family and Neighborhood Survey, Wave 1.

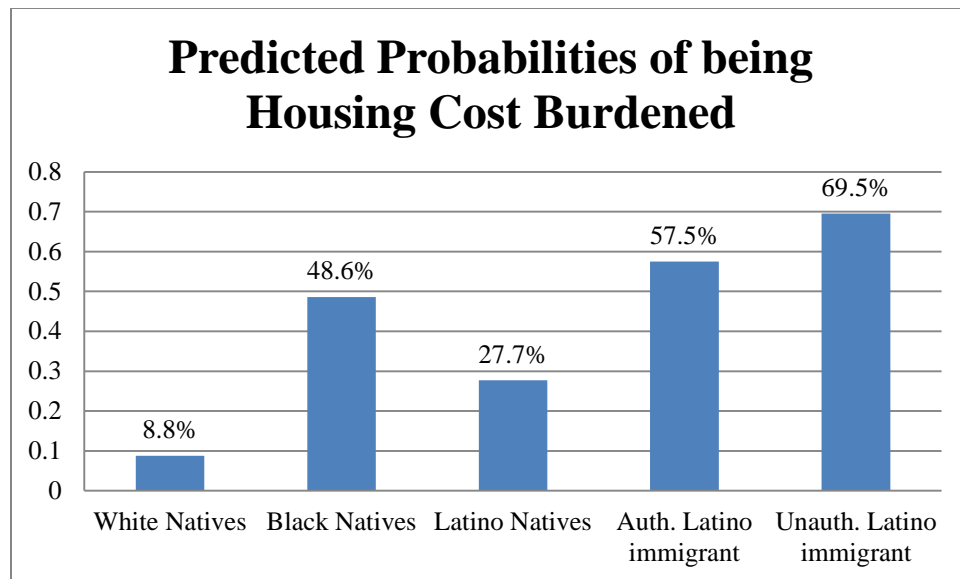
Notes: Standard Errors in parentheses. Baseline specification: main effects of race and nativity/legal status for Latinos; Controls: recently moved, immediate family, female head, employed, bank account, receives public assistance income, own home, and number of rooms; Human Capital: control variables and years of education. Life Cycle: control variables, married, categorical indicators of age and number of children; Contextual: controls and LQs for proportion recent immigrant and median home prices. Assimilation: controls and indicator for living 50 percent or more of life in the U.S.

^aThe complete results for the Full Model are presented in Appendix Table A.

^bA design-adjusted F test that is statistically significant indicates that the data is not a good fit for the model.

†p<.10, *p<.05, **p<.01, ***p<.001

Figure 1



Appendix Table A. Logistic Regression Analyses of the Effects of Variables on Housing Cost Burden:
Odds Ratios

	Full Model ^a
U.S. born Black	0.6461 (0.2247)
U.S. born White	---
U.S. born Latino	1.1577 (0.4207)
Authorized Latino immigrant	1.6144† (0.4160)
Unauthorized Latino immigrant	3.1321** (1.3121)
Recently moved	1.1791 (0.2462)
Immediate family	0.5346 (0.2072)
Female head	1.2414 (0.2446)
Employed	0.7594 (0.1680)
Bank account	0.3562*** (0.0863)
Receives public assistance	1.4888 (0.3649)
Own home	0.2329*** (0.0684)
Number of rooms	1.2714*** (0.0855)
Years of education	0.9211*** (0.0210)
Age (30-44 years omitted)	
18-29 years	1.6006 (0.4546)
45-59 years	1.2021 (0.3139)
60 years or older	1.0036 (0.4123)
Married	0.3119*** (0.0617)
Number of children (0 children omitted)	
1-3 children	1.8892* (0.4663)
4 or more children	0.8307

	(0.3614)
LQ recent immigrants	0.9131
	(0.0971)
LQ median price	1.197†
	(0.1212)
More than half of life in U.S.	1.1085
	(0.2807)
F statistic	1.3353
	(0.241)

Source: Los Angeles Family and Neighborhood Survey, Wave 1.

Notes: Standard Errors in parentheses.

^a These are results for Model 7 in the top panel of Table 3. Analyses when the reference group is U.S. born Latinos or Unauthorized Latino immigrants (column 7, top, middle and bottom panels of Table 3) rely on the same specification, and odds ratios and standard errors are identical beginning with the independent variable in the sixth row (“recently moved”).

†p<.10, *p<.05, **p<.01, ***p<.001