Immigrants' Housing Search and Neighborhood Conditions: A Comparative Analysis of Housing Choice Voucher Holders

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Abstract

Immigrants and their residential outcomes are of great interest to urban researchers and policymakers. The literature, however, provides little knowledge about the residential status of immigrants with publicly subsidized housing assistance. In this article, we draw on three streams of literature—assimilation, neighborhood effects, and housing policy—to investigate the residential choices and outcomes (neighborhood conditions) of immigrants who receive housing choice vouchers. We use primary survey data from a sample of voucher households from two local housing authorities in Orange County, California, to investigate housing search behavior, locational choice, and neighborhood conditions. The results of our regression analyses show that immigrants, compared with nonimmigrants, are more likely to receive assistance from friends or family in their housing search and that they tend to live in neighborhoods with relatively higher concentrations of immigrants overall. Immigrant status is not directly associated with worse neighborhood conditions; however, higher concentrations of immigrants are strongly associated with relatively worse neighborhood conditions. This finding indicates an indirect association between immigrant status and neighborhood conditions. We conclude with a discussion of the research and policy implications of these findings.

Introduction

Residential choice plays a critical role in the life trajectories of immigrants. It is both a predictor of potential opportunities and a measure of assimilation into a new society. Traditionally, immigrants have located in areas, usually urban, with populations similar to themselves. Language and cultural ties to the "old country" made the transition to a new society less difficult for immigrants and provided social support, including assistance with housing and job searches (Gordon, 1964; Wright, Ellis, and Parks, 2005). As immigrants assimilated, according to the traditional view, they moved away from their urban ethnic enclaves to suburban locales (Gordon, 1964; Massey, 1985). Scholars also identify the move to homeownership as a marker of assimilation for immigrants (Alba and Logan, 1992).

Sociological research suggests that socioeconomic status; residential location, such as suburbs versus central city; and housing tenure are important indicators of immigrants' assimilation. In fact, this research provides a rich understanding of immigrants' residential choices and the importance of housing and neighborhoods to their lives. This existing literature, however, examines the immigrant population as a whole or by ethnic group and does not often focus more narrowly on immigrants with lower incomes who receive housing assistance. For this reason, it does not directly inform housing policy and existing housing programs.

Federal housing policy serving lower income households is dominated by two approaches. The Low-Income Housing Tax Credit Program supplies capital to the producers of lower income housing and the Housing Choice Voucher Program (HCVP), or Section 8 tenant-based assistance, provides rental subsidies to individuals with low incomes. The HCVP offers a degree of residential choice to recipients of this assistance because voucher holders must find their own rental unit in the private market. The voucher program, however, has some programmatic limitations on a recipient's choice of a unit. First, the landlord must be willing to accept a renter with a voucher. Second, the unit must pass an inspection by the local housing authority (LHA) charged with administering the program. Third, the program essentially caps the rent allowed on the unit; the level of subsidy typically is the difference between 30 percent of the recipient's income and the Fair Market Rent (set annually by the U.S. Department of Housing and Urban Development) for the area.[1] Within these constraints, voucher holders can exercise their preferences in their residential location decisions.

Housing choice vouchers are available to immigrant households under certain conditions. Specifically, immigrants who are citizens or eligible noncitizens[2] may receive voucher assistance. Voucher holders, including immigrants, are allowed to move and retain their voucher assistance as long as they locate in an area with an LHA; however, research suggests that short moves intracity or

[1] Voucher holders may choose to live in a unit that exceeds Fair Market Rent, but they must pay the difference between the LHA's contribution and the rent for the unit and, at lease up, the voucher holder's share of the rent may not exceed 40 percent of his or her adjusted household income.

[2] A member of the household, not necessarily the head, must be an eligible noncitizen. Eligible noncitizens include permanent residents, refugees, and others. (See Aids Housing Corporation, Resource Library, Immigrants and Housing, available at http://www.ahc.org/resource_library/legal_cori.html, for the list of all eligible noncitizens.)

intracounty, rather than intercounty or interstate, are overwhelmingly the most common (Basolo and Nguyen, 2005; Varady and Walker, 2003). Federal housing policy has encouraged mobility from high-poverty neighborhoods to lower poverty neighborhoods through the Moving to Opportunity (MTO) program, HOPE VI, and the HCVP (Basolo and Nguyen, 2005; Briggs et al., 2008; Rubinowitz and Rosenbaum, 2000). Undergirding this policy is the proposition that lower poverty neighborhoods offer more opportunities for the poor, directly for jobs and schools or indirectly through transmission of knowledge about the dominant culture's expectations and behaviors (see Basolo and Nguyen, 2005; Briggs, 1997).

Housing policy researchers have extensively investigated the federal policy and related programs as well as the status of neighborhood conditions for recipients of housing assistance. This research, however, has not examined immigrants with voucher assistance and their neighborhood conditions. Our research begins to fill that gap in knowledge.

This article draws on three streams of literature—assimilation, neighborhood effects, and housing policy—to formulate research questions related to the residential choices and outcomes (as measured by neighborhood conditions) of immigrants with housing vouchers and compares them with nonimmigrants using these vouchers. We address the following three questions:

1. Are immigrants with vouchers more likely to have assistance from friends or family in their housing search than are nonimmigrants with vouchers?
2. Do immigrants with vouchers compared with nonimmigrants with vouchers tend to locate in neighborhoods with higher overall concentrations of immigrants?
3. Are immigrants with vouchers living in worse neighborhoods than are nonimmigrants with vouchers?

We investigate these questions for the whole sample and then explore them and related issues in one ethnic subgroup, Hispanics, in our sample.

The research examines voucher holders in two local housing authorities in Southern California, the Orange County Housing Authority and the Santa Ana Housing Authority. The analyses in this article use a unique data set that combines census information, key indicators from the LHAs' client files, and responses to a mail sample survey of voucher holders in the administrative jurisdictions of the two housing authorities.

The remainder of this article is organized into four major sections. First, we provide a brief overview of the relevant literature, including assimilation theories and related empirical results; neighborhood effects research; and housing policy studies examining poverty concentration, neighborhood conditions, and individual outcomes. In the next section, we restate the research questions in the context of existing literature and discuss the data collection methods. We then present the results of our data analyses for the sample as a whole and for a subset of the sample (Hispanics only). Finally, we discuss the findings from the analyses and their policy and research implications.

Immigrants, Assimilation, and Residential Choice

Extensive literature exists on immigrants and their living environments. Studies of ethnic, immigrant enclaves describe an active community life in the context of poor, urban neighborhoods (for example, see Gans, 1962). These studies and later studies of social networks suggest that immigrants benefit from their cultural ties and familiarity by living near each other. For example, the immigrant enclave can provide help in initial housing and job searches (Massey, 1986; Wright, Ellis, and Parks, 2005).

In the United States, the view that immigrants will eventually integrate into mainstream society is clearly captured in the conceptualization of the country as a melting pot. This integration involves the process of assimilation. Early work from Parks and Burgess of the Chicago School connected immigrants, their socioeconomic status, and residential location. Parks and Burgess observed a spatial sorting as new immigrants arrived in a city, occupying older neighborhoods, while the fortunes of earlier immigrants improved over time with resettlement to better neighborhoods. They also saw the assimilation process beginning with social interaction among groups at the borders of neighborhoods (Conzen, 1979).

As the study of assimilation developed theoretically, scholars focused on the movement of immigrants from the dominant culture of their native country to the dominant culture of their new nation (Gordon, 1964). From this perspective, acculturation was a necessary, but not sufficient, step in the assimilation process. Instead, Gordon (1964) argued that structural assimilation or the entry of the immigrant group into the institutions and clubs of the dominant society would lead to complete integration of the immigrant (or minority) group. Scholars elaborated on this theoretical formulation of the assimilation process with the recognition that this process occurs over generations (Alba and Nee, 1997; Waters and Jiménez, 2005).

The spatial assimilation model grew out of the earlier work on assimilation. In this model, as immigrants achieve improved socioeconomic status, they move away from their poor, urban (ethnic) enclaves to more affluent areas such as the suburbs (Alba et al., 1999; Friedman and Rosenbaum, 2007). Because the suburbs are associated with the dominant or majority group (typically White), immigrant mobility to suburban neighborhoods promises better residential environments and more opportunities for social integration (Friedman and Rosenbaum, 2007; Nguyen, 2004).

The concept of assimilation was further developed in the work of Alejandro Portes and his colleagues. They reconceptualized the ethnic enclave as "a concentration of ethnic firms in physical space" (Portes and Jensen, 1992: 418; see also Portes and Jensen, 1989), rather than as a residential concentration. This work was followed by the introduction of segmented assimilation (Portes and Zhou, 1993), which recognizes that not all immigrants follow the traditional assimilation trajectory of improved socioeconomic status and integration into the middle-class mainstream. Other paths lead to entrenched poverty and entrance into the underclass, while another involves accelerated economic status with "deliberate preservation of the immigrant community's values and tight soli-

darity" (Portes and Zhou, 1993: 82). More recently, Portes, Guarnizo, and Haller (2002) examined transnational[3] entrepreneurship in the context of immigrant economic adaptation.

Empirical studies of assimilation are abundant, offering a range of indicators to determine the assimilation level of a group. Socioeconomic progress measured by income, education, and occupation; English language use; intermarriage; political participation; familism (family-centered versus individual-dominant values); fertility; tenure (homeownership); and residential location and quality are all used as measures of immigrant assimilation (Clark, 2003; Massey, 1981; McConnell, Diaz, and Marcelli, 2007; Waters and Jiménez, 2005). The last of these measures, residential location and quality, is of particular interest to the spatial assimilation model. Empirical research generally supports the spatial assimilation model, finding that immigrant mobility to better, suburban neighborhoods follows improvement in household socioeconomic status (Adelman et al., 2001; Alba and Logan 1993; Rosenbaum and Friedman, 2007). Other research, however, shows that immigrants who are ethnic minorities may not take the typical path but rather choose to live in ethnic communities, even when their economic status has improved (Logan, Alba, and Zhang, 2002; Nguyen, 2004); they are increasingly building ethnic enclaves in suburban environments that may or may not be better neighborhoods (Alba et al., 1999; Friedman and Rosenbaum, 2007; Logan, Alba, and Zhang, 2002). Finally, some research suggests that the immigrant population is so diverse—racially and ethnically and in their location choices, central cities versus other neighborhoods—that generalizations about the so-called "typical immigrant neighborhood" are unwarranted (see Galster, Metzger, and Waite, 1999: 395).

Spatial assimilation assumes that mobility to the suburbs delivers improved residential conditions for immigrants. This corollary has a parallel in the housing policy literature. Specifically, federal policy supports moving households with housing assistance from poor, minority-concentrated, urban neighborhoods to lower poverty, more racially and ethnically diverse neighborhoods; the latter, in some cases, has involved suburban environments. In the next section, we briefly examine the literature related to this policy.

Neighborhoods, Poverty Concentration, and Housing Policy

Neighborhood effects are a long-standing interest in academic literature and policy literature. Researchers have studied the relationships between neighborhoods and various subject areas, such as economic opportunities (Kaplan, 1999), health behavior and outcomes (Acevedo-Garcia et al., 2004; Cohen et al., 2003), adolescent sexual behavior (Dupere et al., 2008), and crime (Hannon, 2005; Hipp, 2007a). Neighborhood concentration of poverty and related characteristics in many of these studies are considered the main correlates of negative outcomes for individuals, and much of the empirical evidence, usually correlational analyses, supports this assertion. Scholars have presented two general arguments. First, the relationship between neighborhoods and sustained, intergenerational poverty stems from the existence of a culture of poverty that perpetuates antisocial behaviors (Lewis, 1966; Murray, 1984). Second, the social structure maintains disparities between the poor, especially

[3] The term *transnationalism* has various definitions, but Portes, Guarnizo, and Haller wrote that it concerns "the continuing relations between immigrants and their places of origin and how this back-and-forth traffic builds complex social fields that straddle national borders" (Portes, Guarnizo, and Haller, 2002: 279).

those who are racial minorities, and others and denies them access to opportunities (Wilson, 1987). Theoretical development has posited more nuanced formulations of these relationships. Despite the multiple explanatory theories propounded in the literature (see Ellen and Turner, 1997; Joseph, Chaskin, and Webber, 2007), cause-and-effect relationships are not well understood (Briggs, 1997; Ellen and Turner, 1997). Notwithstanding this theoretical uncertainty, federal housing policy encourages poverty deconcentration with the goal of increasing opportunities for people with lower incomes.

A federal policy of poverty deconcentration has existed for decades. For example, the Housing and Community Development Act of 1974 supported deconcentration by income (Katz and Turner, 2001). Poverty deconcentration during this period, however, was inextricably tied to racial concentration and residential segregation (see Basolo and Nguyen, 2005; Bonastia, 2006). For example, the Gautreaux class action lawsuit pitted African-American public housing residents against the Chicago Housing Authority (CHA) and the U.S. Department of Housing and Urban Development (HUD) with a charge of discrimination against African Americans based on the siting of public housing developments in inner-city, African-American neighborhoods and the discouragement of African Americans from seeking location in so-called "White" public housing projects. The case was eventually resolved by the U.S. Supreme Court, which ordered the development of a plan to deconcentrate African Americans served by the CHA. The court-ordered plan moved thousands of poor, African-American households from the impoverished, primarily African-American neighborhoods of Chicago's inner city to the mostly White, and relatively more affluent, suburbs. (See Rubinowitz and Rosenbaum [2000] for a detailed discussion of the Gautreaux program.)

Researchers followed the Gautreaux program, anticipating differences in participants' outcomes from a change in their residential environment. Findings from this research indicate that households that moved to the suburbs had increased employment, higher efficacy levels, and better residential conditions, and children from these households had higher high school graduation rates (Rosenbaum 1995; Rosenbaum, Reynolds, and DeLuca, 2002; Rubinowitz and Rosenbaum, 2000).

The Gautreaux program spurred renewed interest in the potential for poverty deconcentration to open up opportunities for the poor. In 1994, the federal government implemented the MTO program in five metropolitan regions in the United States (Baltimore, Boston, Chicago, Los Angeles, and New York). The MTO program was designed as an experiment, with eligible participants (households with public housing or other housing assistance) randomly assigned into one of three groups: (1) an experimental group to be located in a low-poverty neighborhood, (2) a treatment group with housing vouchers without location constraints, and (3) a control group (existing public housing residents).[4]

Results from the MTO program have not been as dramatic as the findings from the Gautreaux program. Analyses, however, show a substantial proportion of households in the experimental group moved to lower poverty neighborhoods, had lower unemployment rates, had increased feelings of safety, and experienced improved mental health (adults and female youth only). Female youth had fewer undesirable behaviors, such as smoking marijuana, but male youth had an increase in undesirable behaviors (Goering and Feins, 2003; Kling, Liebman, and Katz, 2007; Kling, Ludwig, and Katz, 2005; Orr et al., 2003).

[4] See Comey, Briggs, and Weismann (2008) for a more detailed discussion of the experimental groups.

The existing findings from MTO have raised numerous questions and sparked debate in the literature (see Clampet-Lundquist and Massey, 2008; Comey, Briggs, and Weismann, 2008; Ludwig et al., 2008). Changes to worse neighborhood conditions after the initial move, either because of a subsequent move by the assisted household or neighborhood decline with the household staying in place, are important issues to understand in the context of this mobility program. Despite the mixed results from MTO, it is clear that the program did have positive outcomes along some dimensions and, therefore, poverty deconcentration continues to be a viable strategy for housing policy.

Another federal program seeking to deconcentrate poverty began in 1992. Hundreds of HOPE VI grants were awarded across the nation to LHAs seeking to revitalize public housing developments and deconcentrate poverty. This initiative called for the demolition of deteriorating public housing stock, the redesign of public housing development sites to foster mixed-income developments, and the provision of housing vouchers to many existing public housing residents to relocate to private-market rental units. Based on a sample of residents from five sites receiving a HOPE VI grant, findings from Buron, Levy, and Gallagher (2007) indicate that many residents (47 percent) leaving these public housing sites and using a voucher in the private market now live in lower poverty neighborhoods.[5]

The HCVP also includes policies favoring poverty deconcentration. LHAs are encouraged through the Section 8 Management Assessment Program to seek participation from rental housing owners in areas "located outside areas of poverty or minority concentration" (CFR §985.3(g)). Therefore, program policy implicitly recognizes potential positive outcomes by trying to open up opportunities to voucher recipients to live in more socially and economically diverse neighborhoods. The research on this aspect of the HCVP suggests that voucher recipients, especially minorities, continue to live in impoverished, low-opportunity neighborhoods (Basolo and Nguyen, 2005; Devine et al., 2003; Hartung and Hening, 1997; Newman and Schnare, 1997; Pendall, 2000; Wang, Varady, and Wang, 2008).

Policy research on the locational choices and residential conditions of people who receive housing assistance is relatively plentiful; however, we possess very little knowledge about immigrants who receive this assistance. Extant research shows that, although immigrants receive housing assistance at a slightly higher rate than do nonimmigrants[6] (Borjas and Hilton, 1996), only a small proportion of all immigrants, 6 to 7 percent, receive housing assistance (Khadduri and Martin, 1997). Research on immigrants in public housing suggests this housing assistance offers some improvement in neighborhood conditions for residents compared with nonassisted households; however, the results are mixed overall (Rosenbaum and Friedman, 2007). We could find no previous research that focused specifically on immigrants in the HCVP; however, Briggs (1998) provided some insights on the social networks of immigrants' children in the context of a housing mobility program in Yonkers, New York.

[5] See Buron, Levy, and Gallagher (2007) and Popkin et al. (2004) for a more detailed discussion of HOPE VI and its outcomes.

[6] Using the Survey of Income and Program Participation (1990 and 1991), Borjas and Hilton (1996) reported that the Average Monthly Probability that an immigrant household receives housing assistance is 5.6 percent (for a native-born household, it is 4.4 percent).

In this article, we begin to address the research gap by synthesizing knowledge from the three streams of literature—assimilation, neighborhood effects, and housing policy—to frame our research questions and by empirically investigating the residential choices and outcomes of immigrants who use housing voucher assistance.

Research Questions, Survey Methods, and Data Sources

This research offers an indepth examination of immigrants in the HCVP in suburban Orange County, California. Because data and research on immigrants with vouchers are relatively scarce, the unique data set used in this study offers a rare opportunity to gain a better understanding of this population.[7]

Research Questions

In framing our research questions, we benefited from social science theories and empirical work on assimilation of immigrants, neighborhood effects research, and existing studies of poverty and racial concentration, primarily from the housing policy literature. In general, our research questions relate to the residential choices and outcomes (as measured by neighborhood conditions) of immigrants who use housing vouchers compared with nonimmigrants who use these vouchers.

Our first research question investigates the premise that immigrants are unfamiliar with their new environments and, therefore, are more likely to rely heavily on their social ties when searching for housing. We operationalize social ties as friends or family and ask, "Are immigrants who use housing vouchers more likely to have assistance from friends or family in their housing search than are nonimmigrants who use vouchers?" Our second research question explores the propensity for immigrants, particularly first generation immigrants, to cluster in certain neighborhoods, which often are identified as ethnic, immigrant enclaves. We focus on immigrant neighborhoods in a general sense by asking, "Do immigrants who use housing vouchers vis-à-vis nonimmigrant voucher holders tend to locate in neighborhoods with higher concentrations of immigrants?" Finally, the third question examines the neighborhood quality of immigrants to determine if residential choice, as provided in the HCVP, results in better residential outcomes for this group compared with nonimmigrants who use vouchers. Specifically, we ask: "Are immigrants who use vouchers versus nonimmigrants who use vouchers living in worse neighborhoods?"

We also explore these questions and an additional question concerning location in ethnic neighborhoods for one subgroup in our sample. Specifically, we focus on Hispanic households for a within-group comparison of immigrant and nonimmigrant residential choices and neighborhood outcomes.

Survey Methods and Data Sources

The researchers and LHAs collaborated on developing and implementing a mail survey of voucher holders. Researchers created a draft questionnaire and staff members from both LHAs reviewed

[7] The authors collected the survey data used in this article as part of a larger, cross-sectional study examining residential location, residential satisfaction, and mobility of voucher holders in the administrative jurisdictions of two LHAs in Orange County, California: the Orange County and Santa Ana LHAs.

and commented on the instrument, resulting in minor revisions. The LHAs also recruited focus group participants to pretest the draft questionnaire. The researchers conducted two focus groups of voucher holders, one for each LHA. Members of the focus groups completed the draft questionnaire and offered their reactions to the instrument. Based on these participants' comments and observations, the questionnaire was revised to improve question clarity and flow.

The two LHAs helped the researchers select random samples of the LHAs' voucher holder populations. Orange County LHA randomly selected 2,010 names (with addresses) from its voucher client list (N≈8,100), or approximately 25 percent of its population of voucher holders (Orange County LHA oversampled family households at the request of the researchers). The Santa Ana LHA randomly chose 830 names (with addresses) from its client voucher list (N=2,558), or about 32 percent of the total (Santa Ana LHA oversampled households that had moved within the past 3 years at the request of the researchers).[8]

Nonresponse is always a concern in mail survey research. Our survey design followed Dillman's (2000) recommendations for optimizing response rates in mail surveys. In addition to the two LHAs' providing a complete sampling frame and our pretesting of the questionnaire with focus groups from the target population, we sent a well-crafted introduction letter that was signed by the lead researcher and a manager from the appropriate LHA. In addition, because Orange County's demographic profile includes a substantial number of Hispanics and Vietnamese, we included Spanish and Vietnamese translations of the letter. Finally, the survey was designed with multiple followup requests to nonrespondents.

We launched the survey in the spring of 2002 and concluded it in August of the same year. In total, 1,735 voucher holders responded to the survey; 1,268 (63 percent) of the Orange County LHA voucher holders and 467 (56.3 percent) of the Santa Ana voucher holders returned the questionnaire, for a total of 1,735 cases. Because of incomplete data for some records, the sample was reduced to 1,706 cases.[9] Although these response rates are good for a mail survey, nonresponse raises concerns about potential response bias. Considering the oversampling conditions on different subgroups of the two LHAs and the results of logistic regression analyses on the separate samples indicates some differences in respondents' sociodemographic profiles when compared with nonrespondents, we recommend caution in generalizing these results to the population of voucher holders.[10]

We combined the survey data from the two LHAs for the analyses discussed in this article. Our rationale for this decision is threefold. First, the two LHAs together manage about 57 percent

[8] The larger study investigated mobility in the voucher population. The Orange County LHA reported approximately 50 percent of its voucher clients were elderly, a group that tends to move less frequently; therefore, oversampling for the Orange County LHA was to ensure that family households (more mobile group) were adequately represented in the final response sample. The population of Santa Ana LHA voucher holders was relatively small (2,558); therefore, the sampling proportion was larger, and we requested oversampling of movers to ensure enough movers appeared in the final response sample.

[9] The dropped cases were missing substantial or key information. Retained cases did have occasional missing values on some items, which we filled with the mean or mode of the appropriate variable for the entire sample. For most variables and some analyses, we used all 1,706 cases, but for analyses using census tract data, we dropped 21 cases because the address information could not be geocoded with confidence.

[10] The logistic regressions used *response* versus *no response* as the dependent variable, with a set of sociodemographic variables extracted from the LHA client files as predictors. The full results of the response bias analyses are available from the authors on request.

of the total vouchers controlled by LHAs in the county[11]; therefore, combining the data allowed us to capture a significant proportion of the total countywide voucher population. Second, the relevance of selection into a particular LHA's administrative jurisdiction is uncertain because people who want voucher assistance often register for the waiting lists of multiple LHAs in a region and, thus, the receipt of the voucher could be from any of these LHAs. Also, voucher holders can move across LHA jurisdictions with their voucher, and Orange County LHAs cooperate to manage administrative issues associated with these moves, such as swapping of vouchers (see Basolo, 2003); therefore, a voucher holder who moves may or may not stay in the jurisdiction of the originating LHA. Third, as discussed earlier in this article, survey nonresponse leads us to take caution in generalizing to the population of voucher holders. Nevertheless, we present our study as an important, but initial, exploratory step toward gaining an understanding of immigrants in the voucher population.

The data used in this study come from several sources. Using a unique identifier, we merged the survey data to variables from the two LHAs' client data files.[12] We then geocoded and linked the client addresses from the LHA files to census tract identification numbers. We then downloaded and attached census tract data from the 2000 census to individual records using these identification numbers.[13] The census tract data are used in this study to represent neighborhoods[14]; therefore, the data set contains individual- and neighborhood-level variables.[15]

Context, Variables, and Preliminary Analyses

The preliminary analyses consider the context—Orange County, California—and the individual- and neighborhood-level variables.

Context

Orange County is a suburban area located between Los Angeles and San Diego Counties along the Pacific Coast. In 2000, Orange County's population was approximately 2.8 million, and it was considered relatively affluent; however, generalizations about the county mask the considerable variation between places and populations in the county. Some of the 34 cities in the county can be

[11] According to HUD, 17,911 vouchers were available in 2000; these vouchers were distributed among four LHAs in Orange County. See the "Picture of Subsidized Housing," available at http://www.huduser.org/picture2000/index.html.

[12] The survey responses provided the following variables: nativity status (a proxy for *immigrant*), *marital status, education, family/friends assisted* (whether friends or family assisted the voucher holder in his or her housing search), and *lives in central city* (whether the voucher holder lives in Santa Ana). Variables extracted from the LHAs' data files include *age, annual household income, gender, race, ethnicity,* presence of a dependent (a proxy for a child present in the home), and *monthly contract rent* for the voucher holder's housing unit.

[13] The census tract data include *percentage foreign born* (immigrants) within tracts, six indicators used to construct the *neighborhood conditions* index, and *percentage of Hispanics* within tracts.

[14] We are aware that the definition of a neighborhood, especially its boundaries, has been a longstanding issue within the literature and that research suggests that for some population characteristics the geographic designation of a neighborhood affects results of statistical analyses (see Hipp, 2007b). It is customary in neighborhood research, however, to use the census tract for data availability reasons.

[15] A correlation matrix of all variables used in the analyses of the full sample appears in the appendix.

described as "inner ring" suburbs, communities of older, lower quality housing that are showing decline similar to many central cities; but other cities, especially along the coast and newer inland development areas, are communities of higher quality and expensive housing. The county seat, the city of Santa Ana, is the central city of Orange County. It has the largest population in the county and is one of the county's oldest cities. The population in Santa Ana is largely Hispanic, 76.1 percent in 2000 (U.S. Census Bureau, 2002), and the city has the highest percentage of people living in poverty, 19.8 percent in 1999 (U.S. Census Bureau, 2002), of any city in the county.[16]

The population of Orange County is racially and ethnically diverse. Its composition, however, is different from that of California and the United States (see exhibit 1). The proportion of Asians in Orange County is higher, but the percentage of African Americans is smaller compared with California and the United States. Whites constitute a smaller segment of the population in Orange County compared with the United States, but they are a larger proportion of the population in the county compared with California as a whole. Slightly more than 30 percent of the population in Orange County is Hispanic, while in California the percentage is slightly higher (32.4 percent), and in the United States it is substantially lower (12.5 percent). Orange County also has a higher proportion of foreign-born people than either California or the United States, consistent with the designation of the Orange County-Riverside-San Bernardino Metropolitan Statistical Area as an "immigrant gateway"[17] (Singer, 2004).

Orange County has a relatively high annual household median income and a lower poverty rate compared with California or the United States; however, contract rent in the county is much higher than it is in the state or nation, and lower income households face the possibility of paying a significant

Exhibit 1

Population and Housing Characteristics, 2000

Characteristic	Orange County		California		United States	
	Number	Percent of Total Population	Number	Percent of Total Population	Number	Percent of Total Population
Race/Ethnicity						
African American	47,649	1.7	2,263,882	6.7	34,658,190	12.3
Asian	386,785	13.6	3,697,513	10.9	10,242,998	3.6
White	1,844,652	64.8	20,170,059	59.5	211,460,626	75.1
Other[a]	567,203	19.9	7,740,194	22.9	25,060,092	8.9
Hispanic	875,579	30.8	10,966,556	32.4	35,305,818	12.5
Foreign born	849,899	29.9	8,864,255	26.2	31,107,889	11.1
People in poverty (1999)	289,475	10.2	4,706,130	13.9	33,899,812	12.0
Annual median household income (1999)	$58,820	—	$47,493	—	$41,994	—
Monthly median contract rent	$861	—	$677	—	$519	—

[a] *Includes all other races and mixed race.*

*Source: U.S. Census Bureau, 2000 Census, Summary File 1 (*Race/Ethnicity*) and Summary File 3 (all other variables in exhibit)*

[16] Throughout this article, we use Census 2000 data rather than more recent data from the American Community Survey. Our decision is based on the assumption that 2000 census data is a better match to the survey data, which was collected in 2002.

[17] See Singer (2004) for definitions and categorizations of different types of immigrant gateways.

portion of their monthly income for housing costs. In fact, Orange County appears on the National Low Income Housing Coalition's (NLIHC's) list of most expensive jurisdictions for housing. NLIHC estimates that a worker making minimum wage ($8 an hour in California) would need to work 153 hours a week to afford a two-bedroom rental unit at Fair Market Rent (NLIHC, 2008).

Orange County's place and population diversity, its historically suburban character, socioeconomic disparities, high housing costs, and the relatively large representation of immigrants, taken together, are more characteristic of the western part of the United States (Ong, 1998) and present a context that is less frequently considered in the housing policy literature. The county's profile and gateway status, however, make it an intriguing case for the study of immigrants in the HCVP.

Variables and Preliminary Analyses

The data set contains both individual and neighborhood variables. Individual-level variables include *immigrant* (foreign born used as a proxy), sociodemographic characteristics (*age*, *gender*, *marital status*, *child present* in household, *White, not Hispanic*[18], *education*, and *annual household income*), and housing search information. Three neighborhood-level variables are in the data set: the *percentage foreign born in a census tract*, the *percentage of Hispanics in a census tract*, and a *neighborhood conditions* index created by combining six attributes that capture the economic and living conditions in a census tract. These attributes are one minus the poverty rate, median household income, one minus the percentage of households on public assistance, one minus the unemployment rate, one minus the overcrowding rate, and the reflection of population density. To build the measure, we summed the z-scores for the six attributes. This index ranged from -16.63 (worst conditions) to 12.23 (best conditions) and showed good internal consistency with an alpha of 0.870.[19]

The first question in the preliminary analyses concerns the size of the immigrant population in our sample. The data show that 68.5 percent of the voucher holders are immigrants (see exhibit 2). Although this result initially seemed surprising, considering the previously mentioned slight difference between the percentages of immigrants versus nonimmigrants receiving some form of housing

Exhibit 2

Voucher Holders in Sample by Immigrant Status

Group	Number	Percent
Immigrant	1,169	68.5
Nonimmigrant	537	31.5
Total	1,706	100.0

[18] We recoded race and ethnicity information into a dichotomous variable: *White, not Hispanic*, or not (that is, minority status). We chose this approach because of limited variation in important subgroups in our analysis. African Americans constitute less than 5 percent of the sample, and only a few cases were identified as "other race" (not African American, Asian, or White). Also, Asians were the largest racial group in the sample, but only 3.2 percent of these voucher holders were immigrants. In other words, we had limited variation for our central analyses without creating the more general minority status variable.

[19] We initially used a prima facie logic to identify attributes for the conditions index. We followed with an empirical analysis to construct an index with the highest Cronbach's alpha.

assistance, the large percentage of immigrants most likely is because of the region's status as a gateway for new arrivals to the United States.

We also examined a set of sociodemographic and other variables for immigrants and compared them with nonimmigrants in the sample. Exhibits 3a and 3b show that immigrants are noticeably different from nonimmigrants on all the variables. More than 56 percent of the nonimmigrants are White, not Hispanic, and nearly 90 percent of immigrants are racial or ethnic minorities. Furthermore, immigrants, on average, are older, less educated, male, and married, and they are more likely to live in the central city (Santa Ana), have a child in the household, have a higher annual household income, and pay more in monthly rent compared with nonimmigrants in the sample. Immigrants are more likely to have received assistance from friends or family in their search for

Exhibit 3

Characteristics of Voucher Holders by Immigrant Status

Exhibit 3a

Variable[a]	Immigrant	Nonimmigrant	X^2
	Mean[b]	Mean[b]	
White, not Hispanic	0.11	0.56	405.2***
Gender (male)	0.58	0.20	205.9***
Marital status (married)	0.70	0.17	412.9***
Child present (children)	0.69	0.56	30.8***
Education (high school graduate)	0.61	0.80	58.4***
Family/friends assisted	0.46	0.35	18.4***
Lives in central city	0.19	0.15	5.54*

[a] *Category shown by variable name or in parentheses coded 1; all others coded 0.*

[b] *The mean of a dichotomous variable is the percentage of cases coded 1.*

** p<.05. ** p<.01. *** p<.001.*

Exhibit 3b

Variable	Immigrant	Nonimmigrant	Mean Difference	t
	Mean (Standard Deviation)	Mean (Standard Deviation)		
Age	53.93 (13.11)	49.41 (15.97)	4.52	6.17***
Annual household income	$16,802.86 ($7,995.43)	$14,839.14 ($8,508.95)	$1,963.72	4.62***
Percentage foreign born in census tract[a]	0.43 (0.13)	0.34 (0.15)	0.09	12.55***
Neighborhood conditions[a]	– 0.51 (4.49)	1.11 (4.88)	– 1.61	– 6.67***
Monthly contract rent	$1,013.28 ($240.36)	$935.93 ($246.79)	$77.35	6.12***

[a] *Sample size of 1,706 drops to 1,685 for these variables due to insufficient address information for geocoding.*

** p<.05. ** p<.01. *** p<.001.*

housing and are more likely to live in neighborhoods with a larger proportion of immigrants. Finally, immigrants live in worse neighborhoods, on average, than do nonimmigrants.

The preliminary analyses give us an initial understanding of the immigrant group in the sample; however, these analyses are simple group comparisons. To fully investigate our research questions, we performed multivariate analyses that can account for potentially confounding associations among the variables. In the next section, we consider each research question by presenting results from the multivariate analyses.

Multivariate Analysis

The first research question examines the propensity for immigrants to use their social ties to facilitate their search for housing. Specifically, we consider if immigrants are more likely to have reported having assistance from friends or family in their housing search. The dependent variable, therefore, is dichotomous (*family/friends assisted* or not). Using logistic regression, we specified *immigrant* as the substantive independent variable and controlled for sociodemographic characteristics, including *age*, *gender*, *marital status*, *child present*, *White, not Hispanic* (minority status), *education* (high school graduation), and *annual household income*. The last of these variables, *income*, was positively skewed; therefore, it was transformed by its square root.

Exhibit 4 presents the results from the analysis. The coefficient for the immigrant variable is positive and significant at the p=0.01 level; that is, immigrants are more likely than are nonimmigrants to have assistance from friends or family when they search for housing. By exponentiating the coefficient for immigrant (exp[0.419]=1.520), the magnitude of the effect can be stated clearly. The odds of friends or family assisting in the housing search process of voucher holders in the sample is 52 percent higher for immigrants compared with nonimmigrants, net of other variables in the model. The only other statistically significant variable in the model is age. The effect is relatively small; that is, on average, the odds of receiving assistance from friends or family in the housing search process increases by 1.4 percent for every 1-year increase in the age of the voucher holder. The model chi square of 54.028 is statistically significant at the p=0.001 level.

Exhibit 4

Logistic Regression: Family/Friends Assisted in Housing Logistic

Variable	B	SE B	Exp(B)
Immigrant	0.419**	0.140	1.520
Age	0.014**	0.004	1.014
Gender	0.107	0.114	
Marital status	– 0.137	0.123	
Child present	– 0.241	0.140	
White, not Hispanic	– 0.155	0.138	
Education	0.037	0.109	
Annual household income[a]	0.000	0.002	
Model X^2 (with 8 degrees of freedom)	54.028***		

B = coefficient estimate. Exp(B) = exponential (B). SE B = standard error (B).

[a] Square root transformation.

** p<0.05. ** p<0.01. *** p<0.001.*

The second research question examines whether immigrants with vouchers, compared with nonimmigrants with vouchers, locate in neighborhoods with a higher proportion of immigrants in general. To answer this question, we specify an ordinary least squares (OLS) regression, using the *percentage foreign-born* (in census tract) as the dependent variable and, as in the previous analysis, identify *immigrant* as the primary independent variable, while controlling for the set of sociodemographic variables. As exhibit 5 shows, the coefficient for immigrant is positive and significant, indicating that immigrants tend to live in neighborhoods with a higher proportion of foreign-born people, holding the other variables in the model constant. Four of the seven coefficients for the sociodemographic control variables are also statistically significant. Males are more likely than women to live in neighborhoods with a higher percentage of foreign-born people, and married people are also positively associated with the dependent variable. Both being White, non-Hispanic (nonminority) and having at least a high school education are negatively associated with the percentage of foreign born in the neighborhood. For the model as a whole, the R^2 indicates 15.5 percent of the variation in the dependent variable is explained by the included variables.[20]

The last research question investigates the neighborhood conditions of voucher holders in the sample, again with a focus on immigrants. The dependent variable is the *neighborhood conditions* index and the independent variables are *immigrant*, the set of socioeconomic control variables, and three additional variables. First, we include the dichotomous variable, *lives in central city* or not, to capture the potential effect of living in Orange County's central city. Second, based on findings from our previous work (see Basolo and Nguyen, 2005), we include *monthly contract rent* in the specification.[21] Finally, considering the percentage of minorities (Not White and/or Hispanic) in

Exhibit 5

Ordinary Least Squares Regression: Percentage Foreign Born in Census Tract

Variable	B	SE B
Immigrant	0.031**	0.009
Age	0.000	0.000
Gender	0.022**	0.007
Marital status	0.023*	0.008
Child present	– 0.015	0.009
White, not Hispanic	– 0.078***	0.009
Education	– 0.025***	0.007
Annual household income[a]	0.000	0.000
Model R^2 = 0.155		

B = coefficient estimate. SE B = standard error (B).

[a] Square root transformation.

** p<.05. ** p<.01. *** p<.001.*

[20] We explored the possibility that receiving assistance from family and friends may be associated with location in census tracts with relatively higher percentages of foreign-born residents. We ran a model with the *family/friends assisted* variable and another model adding an interaction term, *family/friends assisted and immigrant*. The new variables were not statistically significant and only negligibly affected coefficients, standard errors, and the model R2; in other words, the substantive results from the original model are unchanged.

[21] It is possible that the inclusion of contract rent presents an endogeneity (simultaneity) problem, but excluding contract rent raises a misspecification issue (omitting a relevant variable). Our data set did not have strong candidates for instrumental variables and we determined results from a two-stage least square analysis would not improve our results.

the sample and the high number of immigrants from Asia and Latin America in Orange County, we add an interaction term to consider the effects of being a nonminority and an immigrant.

Exhibit 6 displays the results from two OLS regressions on neighborhood conditions. First, in model A, the coefficient for immigrant indicates that these households, on average, are less likely to live in better neighborhoods compared with nonimmigrants, controlling for the other variables in the model. Males, households with a child present, and voucher holders living in the central city also are associated with worse neighborhood conditions. Voucher holders who are White, not Hispanic (nonminority), have at least a high school education, and pay more in monthly rent tend to live in better neighborhoods. The interaction term is positive and significant; therefore, this finding suggests that the effect of being an immigrant in relation to neighborhood conditions depends on minority status. The R^2 for the overall model is 0.199.

In model B we add an independent variable, *percentage foreign born in census tract* (a proxy for percentage of immigrants in the neighborhood), to model A to explore the relationship between living in areas with relatively higher concentrations of immigrants and neighborhood conditions. The coefficient for this variable is highly statistically significant and boosts the explained variation to 58.1 percent. Clearly, a strong association exists between neighborhood conditions and the proportion of immigrants in neighborhoods. The inclusion of this variable also affects the results for other variables. Neither the main effects of immigrant and White, not Hispanic are statistically significant, nor is their interaction. Because the results shown in exhibit 4 indicate immigrant and the minority status variables are associated with the percentage of immigrants in neighborhoods, as a whole, our results suggest that immigrant and minority status are indirectly associated (through the percentage of immigrants in neighborhood) with neighborhood conditions. This type of relationship appears to be the case for the education variable as well. The coefficients and their standard errors for monthly contract rent and lives in central city change in model B, but the coefficients'

Exhibit 6

Ordinary Least Squares Regression: Neighborhood Conditions

Variable	Model A		Model B	
	B	SE B	B	SE B
Immigrant	– 0.801*	0.341	0.438	0.249
Age	0.014	0.009	0.150*	0.007
Gender	– 0.761**	0.236	– 0.085	0.171
Marital status	– 0.101	0.251	0.343	0.182
Child present	– 1.197***	0.308	– 0.745**	0.223
White, not Hispanic	1.163**	0.374	0.239	0.272
Education	0.559*	0.226	0.353*	0.164
Annual household income[a]	0.002	0.004	0.001	0.003
Monthly contract rent	0.004***	0.001	0.003***	0.000
Lives in central city	– 3.946***	0.277	– 0.796***	0.216
Immigrant*White, not Hispanic	1.118*	0.546	– 0.037	0.396
Percentage foreign born in census tract			– 23.482***	0.602
Model R^2 (adjusted)	0.199	0.581		

B = coefficient estimate. SE B = standard error (B).

[a] Square root transformation.

** p<.05. ** p<.01. *** p<.001.*

signs do not change direction and remain statistically significant at the p=0.001 level. The results for the control variables, age and gender, are less stable and appear affected by their correlations with the percentage of immigrants in neighborhoods.

The analysis of neighborhood conditions considered immigrants across all racial and ethnic groups. Next, we examine a subgroup with substantial representation in the immigrant population in Orange County and in our sample: Hispanics.

Hispanics

Hispanics constitute 20 percent (341 cases) of the voucher sample. Of these voucher holders, slightly more than 56 percent (191 cases) are immigrants. In exhibits 7a and 7b, it is clear that the differences in socioeconomic and other indicators for immigrants versus nonimmigrants in the Hispanic subsample are consistent with the sample as a whole; however, the measure of association for the comparisons of the groups for categorical variables and the t statistic for the analyses for the continuous variables are not all statistically significant ($p \leq .05$). Only the associations among immigrant and marital status, education, annual household income, lives in central city, percentage foreign born in census tract, and percentage of Hispanics in census tract are significant. For percentage of Hispanics in the census tract, the mean for all Hispanic voucher holders is 49 percent, which suggests that Hispanics in the sample tend to locate in ethnically concentrated neighborhoods.

We performed all three multivariate analyses and one additional analysis on this subset of the voucher sample. The logistic regression with *family/friends assisted* with the housing search as the dependent variable had no statistically significant coefficients, and the OLS regression on *percentage foreign born in census tract* had only one significant coefficient: high school graduates were less likely to live in neighborhoods with a larger proportion of immigrants. Neither of the two models had much explanatory power; we do not show the full model results here.

To better understand the residential choices of immigrant voucher holders in the Hispanic subsample, we explored the possibility that immigrants might be more likely to live in neighborhoods with their ethnicity more highly represented, net of socioeconomic effects. We ran an OLS regression with *percentage of Hispanics in the census tract* as the dependent variable and *immigrant* and the set of sociodemographic characteristics as the independent variables. Exhibit 8 shows the results. The coefficient for immigrant is not statistically significant, suggesting that immigrant is not associated with living in a more ethnically concentrated neighborhood when socioeconomic differences are taken into account. The only coefficient that is statistically significant is education, indicating that Hispanic voucher holders with a high school education are less likely to live in more ethnically homogenous neighborhoods compared with Hispanic voucher holders who did not graduate from high school. Overall, the model has very little explanatory power.

Finally, we investigate neighborhood conditions in the subsample. Exhibit 9 shows the results for the OLS regressions with the *neighborhood conditions* index (α=0.888 for this subset of the data) as the dependent variable. Model A reveals that the coefficient for *immigrant* is not statistically significant. The result for monthly contract rent indicates that paying more in rent is associated with having better neighborhood conditions. The coefficient for living in the central city is negative, as expected; that is, living in the central city is associated with worse neighborhood conditions.

The R^2 for this model is .172. In model B, using a method that is similar to our analysis for the whole sample, we add the *percentage foreign born in census tract* as an independent variable. This additional variable has the only significant coefficient, and the R^2 jumps to .691. This result clearly demonstrates a strong association between census tracts with a larger proportion of immigrants and poor neighborhood conditions.

Exhibit 7

Characteristics of Hispanic Voucher Holders by Immigrant Status

Exhibit 7a

Variable[a]	Immigrant[b]	Nonimmigrant[b]	X^2
	Mean[c]	Mean[c]	
Gender (male)	0.27	0.19	3.1
Marital status (married)	0.47	0.21	24.8***
Child present (children)	0.73	0.69	0.5
Education (high school graduate)	0.40	0.69	27.1***
Family/friends assisted	0.34	0.39	1.0
Lives in central city	0.36	0.21	8.25**

[a] *Category shown by variable name or in parentheses coded 1; all others coded 0.*

[b] *n=191 for immigrant; n=150 for nonimmigrant.*

[c] *The mean of a dichotomous variable is the percentage of cases coded 1.*

** p<.05. ** p<.01. *** p<.001.*

Exhibit 7b

Variable[a]	Immigrant	Nonimmigrant	Mean Difference	t
	Mean (Standard Deviation)	Mean (Standard Deviation)		
Age	48.48 (14.94)	45.72 (14.20)	2.76	1.73
Annual household income	$18,307.02 ($9,963.21)	$15,906.28 ($8,451.48)	$2,400.75	2.36*
Percentage foreign born in census tract[a]	0.42 (0.15)	0.37 (0.15)	0.05	2.77*
Percentage Hispanics in census tract	0.52 (0.28)	0.46 (0.24)	0.07	2.37*
Neighborhood conditions[a] (α=0.888)	– 1.01 (5.27)	0.01 (4.89)	– 1.02	– 1.83
Contract rent	$989.67 ($226.01)	$963.83 ($219.97)	$25.83	1.06

[a] *Total sample size of 341 drops to 337 for these variables due to insufficient address information for geocoding.*

** p<.05. ** p<.01. *** p<.001.*

Exhibit 8

Ordinary Least Squares Regression: Percentage Hispanics in Census Tract (Hispanic Subgroup)

Variable	B	SE B
Immigrant	0.006	0.026
Age	0.000	0.001
Gender	0.016	0.030
Marital status	– 0.008	0.028
Child present	0.033	0.039
Education	– 0.056*	0.026
Annual household income[a]	0.000	0.000
Model R^2 = 0.08		

B = coefficient estimate. SE B = standard error (B).

[a] Square root transformation.

** p<.05. ** p<.01. *** p<.001.*

Exhibit 9

Ordinary Least Squares Regression: Neighborhood Conditions (Hispanic Subgroup)

Variable	Model A		Model B	
	B	SE B	B	SE B
Immigrant	– 0.248	0.569	0.293	0.349
Age	0.017	0.026	0.012	0.016
Gender	– 0.684	0.667	0.260	0.410
Marital status	0.608	0.612	0.131	0.375
Child present	– 0.857	0.883	– 0.969	0.541
Education	1.057	0.567	0.171	0.349
Annual household income[a]	– 0.008	0.009	– 0.002	0.005
Monthly contract rent	0.003*	0.001	0.002	0.001
Lives in central city	– 4.154***	0.606	– 0.599	0.401
Percentage foreign born in census tract			– 27.930***	1.195
Model R^2	0.172		0.691	

B = coefficient estimate. SE B = standard error (B).

[a] Square root transformation.

** p<.05. ** p<.01. *** p<.001.*

Discussion

We need to emphasize several aspects of our study before we discuss our results. First, the voucher holders in the sample used in this study all reside in a county that is routinely characterized as suburban; however, a substantial variation exists across communities in the county. As a result, distinctions between urban and suburban are less clear. In fact, the county seat, Santa Ana, is the archetypical central city. Thus, examining immigrants in this suburban county did not constrain variation in neighborhood conditions; instead, it suggests the use of suburban location as a measure of assimilation may no longer be as relevant as it once was. Second, the immigrants in our sample do not represent typical foreign-born people. Because the voucher program is aimed at people with lower incomes, the immigrant voucher holders in our sample are relatively poor. Also, the immigrants in our sample had to navigate the housing assistance system, including gaining

knowledge of the HCVP, getting on a waiting list, and finding an acceptable housing unit. Third, our study had information on first generation immigrants only and is cross-sectional, at one point in time; thus, it is unsuitable for investigating intergenerational and intertemporal social and spatial mobility or making causal claims. Our study has several additional limitations. The data do not have the structure or characteristics necessary for more extensive analyses. For example, they are cross-sectional rather than longitudinal or panel data. In addition, the data do not have sufficient variation in immigrant status for the Asian subgroup and, as a result, we are unable to do a within-group or cross-group comparison (with Hispanics, for example). Also, this study examines immigrant voucher holders in one county in the United States and, therefore, may not apply more generally, although we suspect the results might be similar to studies of the voucher populations in other gateway regions. Despite these limitations, this study is valuable for its focus and findings on a subset of the voucher population that is generally neglected in the housing policy literature.

Several findings from this study are consistent with the assimilation literature. First, immigrants rely more on friends or family in their housing search; that is, they use social ties more than native-born voucher holders do for this activity. Second, immigrant voucher holders tend to live in neighborhoods with higher concentrations of immigrants in general. This finding suggests that immigrant enclaves are present in Orange County and that immigrant voucher holders tend to cluster in these enclaves. Additional analyses (not shown in this article; see footnote 19), however, did not reveal a relationship between location in immigrant enclaves and having help during the housing search from friends or family; neither the main effect of assistance nor the interaction (housing assistance and immigrant status) were statistically significant. Therefore, immigrants do not appear to have been influenced to locate in an immigrant enclave as a result of housing search assistance from friends or family, at least no more than nonimmigrants have been influenced; however, immigrants, on average, tend to live in neighborhoods with relatively high concentrations of other immigrants. This choice may occur because immigrants in the HCVP may be familiar with people who live in these neighborhoods and feel a level of comfort in these areas as they search for a rental unit or become aware of the neighborhoods through routine social interaction (rather than through explicit assistance from close social ties). Other explanations would explain why voucher holders in general might locate in these neighborhoods but not why immigrants are more likely to live there. Some explanations might be institutional—the LHA's list of possible rentals in the area may include neighborhoods with higher concentrations of immigrants. Another explanation may be more market-oriented—either the supply in these neighborhoods is higher (more landlords willing to rent to voucher holders) or these neighborhoods simply have more affordable rents.

The emphasis of the housing policy literature on neighborhood effects prompted us to examine the neighborhood conditions of the immigrant voucher holders in our sample. We find that immigrants do live in worse neighborhoods than do nonimmigrants. Because many of the immigrants in the region are racial/ethnic minorities, we included an interaction item in the model (immigrant and White, not Hispanic) and found the main and interaction effects statistically significant. In other words, the effect of being an immigrant in relation to neighborhood conditions is moderated by minority status. We interpret our results to find that immigrants who are racial/ethnic minorities are particularly vulnerable to negative outcomes in the form of worse neighborhoods; however, our analysis of neighborhood conditions was extended by adding the percentage foreign born in

census tract (proxy for percentage immigrants in neighborhood) as an independent variable in the model. The inclusion of this variable results in a highly significant and strong association between living in an immigrant enclave and relatively worse neighborhood conditions. The main effects of immigrant and minority status and the interaction effect of these two variables are no longer significant with inclusion of percentage of minorities in neighborhood in the model. We find, therefore, that residing in neighborhoods with a relatively larger immigrant population mediates the relationship between immigrant, as well as minority status, and neighborhood conditions. It appears that immigrant and minority status are only indirectly associated with neighborhood conditions, and it is the direct effect of location in an immigrant enclave that results in worse neighborhood conditions for immigrants and racial/ethnic minorities.

Our findings for the Hispanic subgroup show that immigrant status has little to do with residential choices and outcomes. Although in the simple comparison of Hispanic immigrants with Hispanic nonimmigrants, immigrants in this subgroup tend to live in more ethnically concentrated and immigrant-concentrated neighborhoods; these differences are no longer evident after controlling for sociodemographic characteristics. It is clear from this analysis, however, that living in the central city and in a neighborhood with a higher percentage of immigrants is associated with worse neighborhood conditions, regardless of immigrant status.

The findings in this article have a number of policy and research implications. For policymakers, the premise that neighborhoods matter to the access of opportunities for the poor must include a concern for immigrant households. If Orange County's voucher population reflects other immigrant gateway regions in the country, then this subset of the population is substantial, and policies to recognize their circumstances and provide strategies for upward mobility are critical to a long-term goal of moving voucher holders out of poverty. Portes and Zhou (1993) have raised doubt about the assumption that immigrant households will assimilate into the mainstream and argued that distinctly different trajectories exist for immigrants, with the least desirable being intergenerational poverty and integration into the underclass. Considering the immigrants in our sample tended to live in immigrant enclaves and these enclaves are associated with poor neighborhood conditions, the immigrants in our sample appear to be vulnerable to the negative effects of these neighborhoods; however, the underlying motivation for current policy to deconcentrate poverty may or may not correspond to immigrant voucher holders. Whether the rationale for moving out of high-poverty neighborhoods to lower poverty areas is because a move will (1) reduce any negative influence from neighborhoods of social disorder or (2) provide new opportunities for social contact and mobility, it may not apply to immigrants or, at least not uniformly across immigrants from different racial/ethnic groups. It may be that immigrant enclaves offer unique opportunities for first generation immigrants that will serve to improve their socioeconomic status in the future, or perhaps these enclaves are places of isolation that limit social mobility. Policy must be flexible enough to respond to the needs of immigrants with housing vouchers living in immigrant enclaves. Thus, flexible policy must take into account whether these enclaves are relatively better or worse neighborhoods, and whether they are coethnic or ethnically diverse neighborhoods. Currently, however, we simply do not know enough about the experiences and trajectories of immigrants in the HCVP to design a flexible policy to foster their social mobility.

The research implications from our study and discussion of policy needs are clear. The scarcity of studies on immigrants with voucher assistance indicates a wide-open research agenda. We agree, for housing policy purposes, that attempting to generalize to the population of immigrants is not a fruitful exercise. That is, a national, aggregate study of immigrants and their neighborhoods will not produce the type of knowledge necessary to craft flexible policy for the HCVP. Instead, researchers need to investigate immigrant voucher use, neighborhood location, and social outcomes for gateway and nongateway regions and for different racial/ethnic subgroups; it may be that generalization must be at a smaller scale. Finally, the ideal study would be longitudinal to strengthen and expand on our work, including determining if immigrants served by the HCVP achieve social mobility in the first generation or whether the benefits might accrue to the second generation. Longitudinal research of this kind would require a long-term research commitment to gather appropriate data through existing national surveys or support for more localized work by independent researchers.

Appendix

Exhibit A-1

Zero Order Correlations for Variables Used in the Analysis

	x1	x2	x3	x4	x5	x6	x7	x8	x9	x10	x11	x12
x1 Immigrant	1.000											
x2 Age	0.148**											
x3 Gender	0.347**	0.211**										
x4 Marital status	0.492**	0.065**	0.411**									
x5 Child present	0.134*	– 0.560**	0.022	0.199**								
x6 White, not Hispanic	– 0.487**	– 0.030	– 0.244**	– 0.326**	– 0.236**							
x7 Education	– 0.185**	– 0.042	0.007	– 0.029	0.030	0.170**						
x8 Annual household income	0.111**	– 0.195**	0.096**	0.148**	0.351**	– 0.114**	0.043					
x9 Monthly contract rent	0.147**	– 0.387**	0.073**	0.183**	0.533**	– 0.168**	0.012	0.380**				
x10 Lives in central city	0.057*	0.102**	– 0.016	0.029	– 0.153	– 0.117**	– 0.168**	0.037	– 0.027			
x11 Family/friends assisted	0.104**	0.143**	0.069**	0.027	– 0.097**	– 0.059*	– 0.019	– 0.037	– 0.046	– 0.011	0.032	
x12 Percentage foreign born in census tract	0.293**	0.105**	0.205**	0.299**	0.019	– 0.331**	– 0.146**	0.038	– 0.024	0.385**	– 0.084**	
x13 Neighborhood conditions	– 0.160**	– 0.041	– 0.115**	– 0.110	– 0.025	0.239**	0.145**	– 0.003	0.102**	– 0.339**	0.089**	– 0.747**

** p<0.05. ** p<0.01. *** p<0.001.*

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References

Acevedo-Garcia, Dolores, Theresa L. Osypuk, Rebecca E. Werbel, Ellen R. Meara, David M. Cutler, and Lisa F. Berkman. 2004. "Does Housing Mobility Policy Improve Health?" *Housing Policy Debate* 15 (1): 49–98.

Adelman, Robert M., Hui-shien Tsao, Stewart E. Tolnay, and Kyle D. Crowder. 2001. "Neighborhood Disadvantage Among Racial and Ethnic Groups: Residential Location in 1970 and 1980," *The Sociological Quarterly* 42 (4): 603–632.

Alba, Richard D., and John R. Logan. 1993. "Minority Proximity to Whites in Suburbs: An Individual-Level Analysis of Segregation," *American Journal of Sociology* 98 (6): 1388–1427.

———. 1992. "Assimilation and Stratification in the Homeownership Patterns of Racial and Ethnic Groups," *International Migration Review* 26: 1314–1341.

Alba, Richard D., John R. Logan, Brian J. Stults, Gilbert Marzan, and Wenquan Zhang. 1999. "Immigrant Groups in the Suburbs: A Reexamination of Suburbanization and Spatial Assimilation," *American Sociological Review* 64 (3): 446–460.

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

Basolo, Victoria. 2003. "Local Response to Federal Changes in the Housing Voucher Program: A Case Study of Intra-Regional Cooperation," *Housing Policy Debate* 14 (1/2): 143–168.

Basolo, Victoria, and Mai Thi Nguyen. 2005. "Does Mobility Matter? The Neighborhood Conditions of Housing Voucher Holders by Race and Ethnicity," *Housing Policy Debate* 16 (3/4): 297–324.

Bonastia, Christopher. 2006. *Knocking on the Door: The Federal Government's Attempt to Desegregate the Suburbs*. Princeton, NJ: Princeton University Press.

Borjas, George J., and Lynette Hilton. 1996. "Immigrant Participation in Means-Tested Entitlement Programs," *Quarterly Journal of Economics* 111(2): 575–604.

Briggs, Xavier de Souza. 1998. "Brown Kids in White Suburbs: Housing Mobility and the Many Faces of Social Capital," *Housing Policy Debate* 9 (1): 177–221.

———. 1997. "Moving Up Versus Moving Out: Neighborhood Effects in Housing Mobility Programs," *Housing Policy Debate* 8 (1): 195–234.

Briggs, Xavier de Souza, Kadija S. Ferryman, Susan J. Popkin, and María Rendón. 2008. "Why Did the Moving to Opportunity Experiment Not Get Young People into Better Schools?" *Housing Policy Debate* 19 (1): 35–91.

Buron, Larry, Diane K. Levy, and Megan Gallagher. 2007. *Housing Choice Vouchers: How HOPE VI Families Fared in the Private Market*. June, Brief #3. Washington, DC: The Urban Institute, Center on Metropolitan Housing and Communities.

Clampet-Lundquist, Susan, and Douglas S. Massey. 2008. "Neighborhood Effects on Economic Self-Sufficiency: A Reconsideration of the Moving to Opportunity Experiment," *American Journal of Sociology* 14 (1): 107–143.

Clark, William A.V. 2003. *Immigrants and the American Dream: Remaking the Middle Class*. New York: Guilford Press.

Cohen, Deborah A., Karen Mason, Ariane Bedimo, Richard Scribner, Victoria Basolo, and Thomas A. Farley. 2003. "Neighborhood Physical Conditions and Health," *American Journal of Public Health* 93 (3): 467–71.

Comey, Jennifer, Xavier de Souza Briggs, and Gretchen Weismann. 2008. *Struggling to Stay Out of High-Poverty Neighborhoods: Lessons from the Moving to Opportunity Experiment*. March, Brief #6. Washington, DC: The Urban Institute, Center on Metropolitan Housing and Communities.

Conzen, Kathleen N. 1979. "Immigrants, Immigrant Neighborhoods, and Ethnic Identity: Historical Issues," *Journal of American History* 66 (3): 603–615.

Devine, Deborah J., Robert W. Gray, Lester Rubin, and Lydia B. Taghavi. 2003. *Housing Choice Voucher Location Patterns: Implications for Participants and Neighborhood Welfare*. Washington, DC: U.S. Department of Housing and Urban Development. Available at http://www.huduser.org/publications/pdf/Location_Paper.pdf.

Dillman, Don. A. 2000. *Mail and Internet Surveys: The Tailored Design Method*. New York, NY: John Wiley & Sons.

Dupere, Veronique, Eric Lacourse, J. Douglas Willms, Tama Leventhal, and Richard E. Tremblay. 2008. "Neighborhood Poverty and Early Transition to Sexual Activity in Young Adolescents: A Developmental Ecological Approach," *Child Development* 79 (5): 1463–1476.

Ellen, Ingrid Gould, and Margery Austin Turner. 1997. "Does Neighborhood Matter? Assessing Recent Evidence," *Housing Policy Debate* 8 (4): 833–866.

Friedman, Samantha, and Emily Rosenbaum. 2007. "Does Suburban Residence Mean Better Neighborhood Conditions for all Households? Assessing the Influence of Nativity Status and Race/Ethnicity," *Social Science Research* 36: 1–27.

Galster, George C., Kurt Metzger, and Ruth Waite. 1999. "Neighborhood Opportunity Structures of Immigrant Populations, 1980 and 1990," *Housing Policy Debate* 10 (2): 395–442.

Gans, Herbert J. 1962. *The Urban Villagers: Group and Class in the Life of Italian-Americans*. New York, NY: Free Press of Glencoe.

Goering, John, and Judith Feins, eds. 2003. *Choosing a Better Life: Evaluating the Moving to Opportunity Social Experiment*. Washington, DC: Urban Institute Press.

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

Hannon, Lance E. 2005. "Extremely Poor Neighborhoods and Homicide," *Social Science Quarterly* 86 (5): 1418–1434.

Hartung, John M., and Jeffrey R. Henig. 1997. "Housing Vouchers and Certificates as a Vehicle for Deconcentrating the Poor: Evidence from the Washington, DC, Metropolitan Area," *Urban Affairs Review* 33 (3): 403–19.

Hipp, John R. 2007a. "Income Inequality, Race, and Place: Does the Distribution of Race and Class within Neighborhoods Affect Crime Rates?" *Criminology* 45 (3): 665–697.

———. 2007b. "Block, Tract, and Levels of Aggregation: Neighborhood Structure and Crime and Disorder as a Case in Point," *American Sociological Review* 72 (5): 659–680.

Joseph, Mark L., Robert J. Chaskin, and Henry S. Webber. 2007. "The Theoretical Basis for Addressing Poverty Through Mixed-Income Development," *Urban Affairs Review* 42 (3): 369–409.

Kaplan, David H. 1999. "The Uneven Distribution of Employment Opportunities: Neighborhood and Race in Cleveland, Ohio," *Journal of Urban Affairs* 21 (2): 189–212.

Katz, Bruce J., and Margery Austin Turner. 2001. "Who Should Run the Housing Voucher Program? A Reform Proposal," *Housing Policy Debate* 12 (2): 239–62.

Khadduri, Jill, and Marge Martin. 1997. "Mixed-Income Housing in the HUD Multifamily Stock," *Cityscape: A Journal of Policy Development and Research* 3 (2): 33–69.

Kling, Jeffrey R., Jeffrey B. Liebman, and Lawrence F. Katz. 2007. "Experimental Analysis of Neighborhood Effects," *Econometrica* 75 (1): 83–119.

Kling, Jeffrey R., Jens Ludwig, and Lawrence F. Katz. 2005. "Neighborhood Effects on Crime for Female and Male Youth: Evidence from a Randomized Housing Voucher Experiment," *Quarterly Journal of Economics* 120 (1): 87–130.

Lewis, Oscar. 1966. *La Vida*. New York: Random House.

Logan, John, R., Richard D. Alba, and Wenquan Zhang. 2002. "Immigrant Enclaves and Ethnic Communities in New York and Los Angeles," *American Sociological Review* 67(2): 299–322.

Ludwig, Jens, Jeffrey B. Liebman, Jeffrey R. Kling, Greg J. Duncan, Lawrence F. Katz, Ronald C. Kessler, and Lisa Sanbonmatsu. 2008. "What Can We Learn about Neighborhood Effects from the Moving to Opportunity Experiment?" *American Journal of Sociology* 114 (1): 144–88.

Massey, Douglas S. 1986. "The Settlement Process among Mexican Migrants to the United States," *American Sociological Review* 51: 670–684.

———. 1985. "Ethnic Residential Segregation: A Theoretical Synthesis and Empirical Review," *Sociology and Social Research* 69: 315–50.

———. 1981. "Dimensions of the New Immigration to the United States and the Prospects for Assimilation," *Annual Review of Sociology* 7: 57–85.

Massey, Douglas S., and Nancy Denton. 1987. "Trends in Residential Segregation of Blacks, Hispanics, and Asians: 1970-1980," *American Sociological Review* 52: 802–825.

McConnell, Eileen Diaz, and Enrico 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.

Murray, Charles A. 1984. *Losing Ground: American Social Policy, 1950–1980*. New York: Basic Books.

National Low Income Housing Coalition (NLIHC). 2008. *Out of Reach 2007-2008*. Available at http://www.nlihc.org/oor/oor2008/.

Newman, Sandra J., and Ann B. Schnare. 1997. " '….And a Suitable Living Environment': The Failure of Housing Programs to Deliver on Neighborhood Quality," *Housing Policy Debate* 8 (4): 703–41.

Nguyen, Mai Thi. 2004. "The Self-Segregation of Asians and Hispanics: The Role of Assimilation and Racial Prejudice," *Race and Society* 7 (2): 131–151.

Ong, Paul. 1998. "Subsidized Housing and Work Among Welfare Recipients," *Housing Policy Debate* 9 (4): 775–94.

Orr, Larry, Judith D. Feins, Robin Jacob, Erik Beecroft, Lisa Sanbonmatsu, Lawrence F. Katz, Jeffrey B. Liebman, and Jeffrey R. Kling. 2003. *Moving to Opportunity Interim Impacts Evaluation.* Washington, DC: U.S. Department of Housing and Urban Development, Office of Policy Development and Research.

Pendall, Rolf. 2000. "Why Voucher and Certificate Users Live in Distressed Neighborhoods," *Housing Policy Debate* 11 (4): 881–910.

Popkin, Susan J., Bruce Katz, Mary K. Cunningham, Karen D. Brown, Jeremy Gustafson, and Margery A. Turner. 2004. *A Decade of HOPE VI: Research Findings and Policy Challenges.* Washington, DC: The Urban Institute and The Brookings Institution.

Portes, Alejandro, Luis Eduardo Guarnizo, and William J. Haller. 2002. "Transnational Entrepreneurs: An Alternative Form of Immigrant Economic Adaptation," *American Sociological Review* 67 (2): 278–298.

Portes, Alejandro, and Leif Jensen. 1992. "Disproving the Enclave Hypothesis (a Reply to Sanders and Nee)," *American Sociological Review* 57 (3): 418–420.

———. 1989. "The Enclave and the Entrants: Patterns of Ethnic Enterprise in Miami Before and After Mariel," *American Sociological Review* 54 (6): 929–949.

Portes, Alejandro, and Min Zhou. 1993. "The New 2nd-Generation—Segmented Assimilation and Its Variants," *Annals of the American Academy of Political and Social Science* 530: 74–96.

Rosenbaum, Emily, and Samantha Friedman. 2007. *The Housing Divide: How Generations of Immigrants Fare in New York's Housing Market*. New York: New York University Press.

Rosenbaum, James E., Lisa Reynolds, and Stefanie DeLuca. 2002. "How Do Places Matter? The Geography of Opportunity, Self-Efficacy, and a Look Inside the Black Box of Residential Mobility." *Housing Studies* 17 (1): 71–82.

Rubinowitz, Leonard S., and James E. Rosenbaum. 2000. *Crossing the Class and Color Lines: From Public Housing to White Suburbia*. Chicago: University of Chicago Press.

Singer, Audrey. 2004. "The Rise of New Immigrant Gateways," *The Living Cities Census Series*. Washington, DC: The Brookings Institution. Available at www.brookings.edu/urban/pubs/20040301_gateways.pdf.

U.S. Census Bureau. 2002. United States Census 2000, Summary Files 1 and 3. Washington, DC: U.S. Census Bureau.

Varady, David P., and Carole C. Walker. 2003. "Using Housing Vouchers to Move to the Suburbs: How Do Families Fare?" *Housing Policy Debate* 14 (3): 347–82.

Wang, Xinhao, David Varady, and Yimei Wang. 2008. "Measuring the Deconcentration of Housing Choice Voucher Program Recipients in Eight U.S. Metropolitan Areas Using Hot Spot Analysis," *Cityscape* 10 (1): 65–90.

Waters, Mary C., and Tomás R. Jiménez. 2005. "Assessing Immigrant Assimilation: New Empirical and Theoretical Challenges," *Annual Review of Sociology* 31: 105–125.

Wilson, William Julius. 1987. *The Truly Disadvantaged: The Inner City, the Underclass, and Public Policy*. Chicago: University of Chicago Press.

Wright, Richard, Mark Ellis, and Virginia Parks. 2005. "Re-Placing Whiteness in Spatial Assimilation Research," *City & Community* 4 (2): 111–135.