



Authors:

Stuart A. Gabriel
Director and Lusk Chair in
Real Estate

USC Lusk Center for Real Estate
Professor of Finance and Business
Economics, Policy, Planning, and
Development

University of Southern California
Voice: 213.740.5000

Fax: 213.740.6170

E-mail: stuart.gabriel@marshall.usc.edu

Gary Painter

Associate Professor

School of Policy, Planning, and
Development

University of Southern California
Voice: (213) 740-8754

Fax: (213) 740-1801

E-mail: gpainter@usc.edu



RESEARCH BRIEF

INTRA-METROPOLITAN MOBILITY, RESIDENTIAL LOCATION, AND HOMEOWNERSHIP CHOICE AMONG MINORITY AND WHITE HOUSEHOLDS: ESTIMATES OF A NESTED MULTINOMIAL LOGIT MODEL

The sizable and persistent gaps in homeownership attainment, particularly among racial and ethnic minorities, is the subject of substantial academic research and policy debate (see, for example, Gabriel and Painter (2002), Painter, Gabriel, and Myers (2001), Rosenthal (2001), Coulson (1999), Gyourko and Linneman (1996), and Wachter and Megbolugbe (1992)). While the U.S. homeownership rate rose to a record high of almost 68 percent in 2002, the longstanding white-minority homeownership gap of 27 percentage points was little changed: about 74 percent of white households had achieved homeownership, compared with only about 48 percent of black and Hispanic households.

In 2002, the Bush administration articulated a policy goal of adding 5.5 million minority households to the ranks of U.S. homeowners by the end of the decade. That goal follows in the wake of similar policy initiatives by the Clinton administration, whereby the U.S. Department of Housing and Urban Development (HUD) specified a national homeownership goal of 70 percent by 2006. The HUD goal implied a full 15 percent reduction in the homeownership gap between white and minority households.

Homeownership is expected to confer significant benefits on minority populations and neighborhoods. Homeownership attainment typically is accompanied by increased consumption of housing services and improved housing conditions. Further, homeownership comprises a primary investment vehicle of American households; hence, elevated homeownership among minority households undoubtedly would serve to boost their wealth and economic status. Research also indicates that homeownership confers benefits to neighborhoods, in the form of improvements in property upkeep, safety, school quality, and other amenities (see, for example, Green and White (1997) and Coulson, et al. 2002).

While recent research provides new insights into the determinants of minority homeownership, the results do not fully explain the persistently damped homeownership rates of black households. To date, no studies have structured and jointly evaluated the mobility and residential location decisions that typically accompany the choice of housing tenure. The intra-metropolitan mobility and residential location choices of minority and white households may vary considerably, owing in part to those groups' different endowments, constraints, and locational preferences. Among minority households, various factors may work to limit mobility and choice of residential location, thus constraining the homeownership choice. An improved understanding of the

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linkages between those decisions and homeownership choice may yield new insights and better-informed policies to enhance minority homeownership.

OUR APPROACH

The study upon which this Brief is based estimates a three-level nested multinomial logit model of household intra-metropolitan mobility, residential location, and homeownership choice.¹ The study applies individual-level 1990 census data to test relevant economic, demographic, and neighborhood hypotheses in the Los Angeles Consolidated Metropolitan Statistical Area. The model is then simulated to assess the effects of changes in household endowments, neighborhood racial composition, and other amenities on the intra-metropolitan mobility, residential location, and tenure choices of minority and white households.

THE MODEL CAN BEST BE REPRESENTED BY THE FOLLOWING CHOICE STRUCTURE:

This framework allows location characteristics to influence the decision to own and the decision to move, while controlling explicitly for the role of mobility in homeownership choice. The integrated structure of the model also allows homeownership choice to affect location choice. Finally, this methodology allows us to simulate the impact of changes in household demographic, economic, and other characteristics on the likelihood that a household will choose to own a home and will choose to locate in a particular area. In that context, we evaluate the extent to which differentials between whites and minorities in household and locational characteristics affect the racial gap in homeownership.

Our data are drawn from the public use micro-data sample (PUMS) file of the 1990 decennial census. The data file is comprised of a 5% sample of all individuals living in Los Angeles, Orange, Ventura, Riverside, and San Bernardino counties. These counties of metropolitan Los Angeles comprise close to 11 million residents and are dramatically diverse in both their residential composition and in their array of

neighborhood living environments. For purposes of residential classification, households are placed into groups that resided in the City of Los Angeles, other parts of Los Angeles County, or the counties of Orange, Ventura, San Bernardino or Riverside during 1985 – 1990.

The data are sufficiently rich and numerous to identify differences between minority and white households in the economic, demographic, and neighborhood characteristics governing mobility, residential location, and tenure choices. The data provide excellent information on demographic factors (race-ethnicity, age, marital status, persons per household, workers per household, migrant origin and history) and economic factors (salary income, asset and other income, occupation and education level of the householder) that may influence a household's choice to move or buy a house. In addition, location characteristics such as house prices, rents, and population racial composition drawn from the PUMS and county-level crime rates drawn from Department of Justice records are included in the location choice model to control for housing market differences and differences based on household preferences.

RESULTS

The models were separately estimated for black, white, Latino, and Asian households. Sample sizes for the racially stratified models include 94,449 white households, 12,764 black households, 22,439 Latino households, and 12,158 Asian households. All variables are included in each racial grouping except that immigrant status is added for the Latino and Asian models for both the decision to own and the decision to move.

The results demonstrate that control variables are consistently important in decisions about homeownership, location, and mobility for each racial group. However, they also suggest numerous important variations across minority and white households. For example, marital status is much more important in lowering mobility for whites than for other ethnic groups. While income is important for all groups in determining the likelihood of buying a home, it

was most important for black households. The study also demonstrates that Latino immigrants are much less likely to own a home than are Latino native-born households. This effect is insignificant for Asians and is consistent with recent studies of immigrant populations (see Painter, et al. (2001) and Painter, et al. (2003)).

Notable also were differences in the results concerning household location choice by ethnic group. As expected, the estimated coefficients on the house prices difference terms are negative and significant throughout, while black households are found to be most sensitive to differences in house prices and rents. In addition, the increased presence of a minority population in a county exerts the largest positive influence on the location choice of black households. Finally, the difference in county crime rates lessens the likelihood that a household will move to a particular area, but it is not statistically significant in the Latino and Asian sub-samples.

MODEL SIMULATION

One benefit of estimating homeownership in the context of the nested logit model is that we can simulate changes in household characteristics and location characteristics on the decisions to own, on where households locate, and on whether they are likely to move. Figures 1-4 highlight the results of two sets of simulations for blacks and Latinos that chose to move during the study period.² These include both adjusting the socioeconomic characteristics of blacks and Latinos to that of whites and lowering crime rates in the City of Los Angeles to determine the effect of each simulation on the choice to own a house and on the choice of location.

Figure 1 shows the results of simulations that increase incomes and equate other socioeconomic characteristics to that of whites; specifically, homeownership rates for blacks more than double in the City of Los Angeles and Ventura County and experience substantial gains in all areas except Riverside County. The gaps fall most in those areas that are most expensive. Overall, the gaps in homeownership rates between whites and blacks falls from 29 to 12 percentage points. Figure 2 depicts a

similar simulation for Latinos. As with blacks, Latino homeownership rises dramatically in the City of Los Angeles and Ventura County, but Latinos experience larger gains in Orange County than do blacks. Overall, the gaps in homeownership rates between whites and Latinos falls from 18 percentage points to 6.

Figures 3 and 4 show a simulated 20 percent reduction in overall crime rates in the City of Los Angeles also has important implications for household moves. Among blacks and Latinos, the sizable reduction in the city's crime rate results in an approximate doubling its share of movers choosing to own, while the share of movers choosing to rent doubles for blacks as well. Households are drawn from all areas, largely including Orange, Ventura, and other parts of Los Angeles County. Among other things, this simulation points to the substantive local economic and development externalities of city policies to enhance public safety.

Finally, other simulations that highlight potential changes in house prices and rents and of minority concentrations in each study area show that renters are much more likely to respond to these changes than are owners. One would expect this to be the case, as it is easier for renters than for owners to adjust their locational choice.

SUMMARY AND CONCLUSIONS

This analysis is the first to model the household mobility, residential location, and homeownership decisions jointly. In so doing, the study applies individual level census data from the Greater Los Angeles Metropolitan region to estimate a three-level nested multinomial logit model of household mobility, homeownership tenure, and residential location choice. The approach recognizes that the tenure choices of minority and white households may vary importantly owing to the different preferences and constraints of those groups concerning intra-metropolitan mobility and residential location choice. The model is then simulated to assess the effects of changes in household endowments, neighborhood racial composition and other amenities on the intra-metropolitan mobility, residential location, and tenure choices of minority and white households.

THREE PRIMARY FINDINGS EMERGE FROM THE ANALYSIS:

Blacks have greater sensitivity to house price and income changes than do other groups. This suggests that blacks are more likely to increase homeownership as their economic status improves than are Latinos.

- 1) Equating the socioeconomic characteristics of minorities and whites closes the homeownership gap by more than 70 percent. The gains in home-ownership are found primarily in the more costly areas of the Los Angeles Metropolitan area
- 2) Changes in location characteristics can have dramatic impacts on households' residential choices. Changing house prices or minority concentrations have immediate impacts on the location of renter households but little impact on homeowners' residential choices. On the other hand, lowering crime rates will cause some renter households to become owners, and they will change owners' location choices.

In sum, our research findings underscore the fundamental importance of gains to minority economic status in the advancement of the homeownership goal. Perhaps more than any existent policy, the upward economic mobility of minorities would aid in their attainment of homeownership. This study also has important implications for real estate professionals who can use it to evaluate the impact of demographic trends on the demand for single-family and multi-family rental housing in different locations. In addition, this study finds important dynamics with respect to changing demand for owner-occupied and rental housing as locational characteristics change.

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¹ The full study can be found at http://www.usc.edu/schools/sppd/lusk/research/papers/pdf/wp_2003-1003.pdf.

² Many more simulations are discussed in the full study, available at http://www.usc.edu/schools/sppd/lusk/research/papers/pdf/wp_2003-1003.pdf.



USC Lusk Center for Real Estate
A joint Center of the
Marshall School of Business and the
School of Policy, Planning, and Development
University of Southern California

650 Childs Way • 331 Lewis Hall
Los Angeles, California 90089-0626
Tel: 213.740.5000 • Fax: 213.740.6170
Internet: <http://www.usc.edu/lusk>

Figure 1: African-American Homeownership Rates With White Household Socioeconomic Characteristics

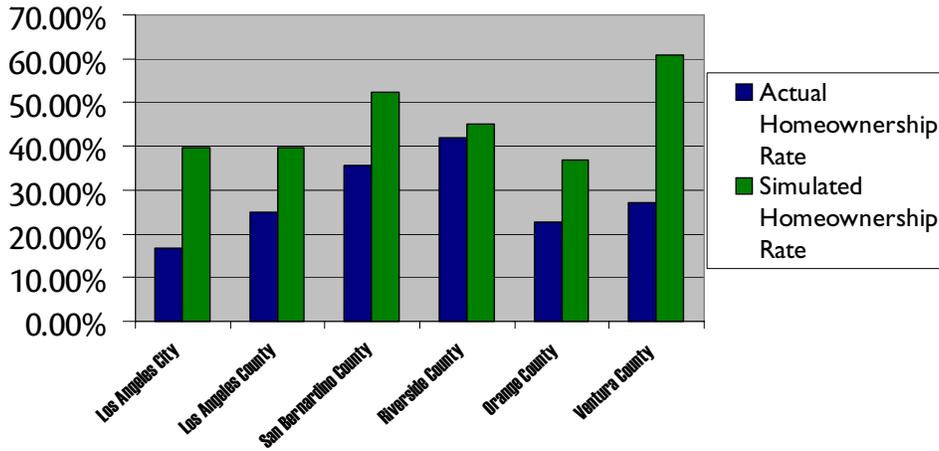


Figure 2: Latino Homeownership Rates With White Household Socioeconomic Characteristics

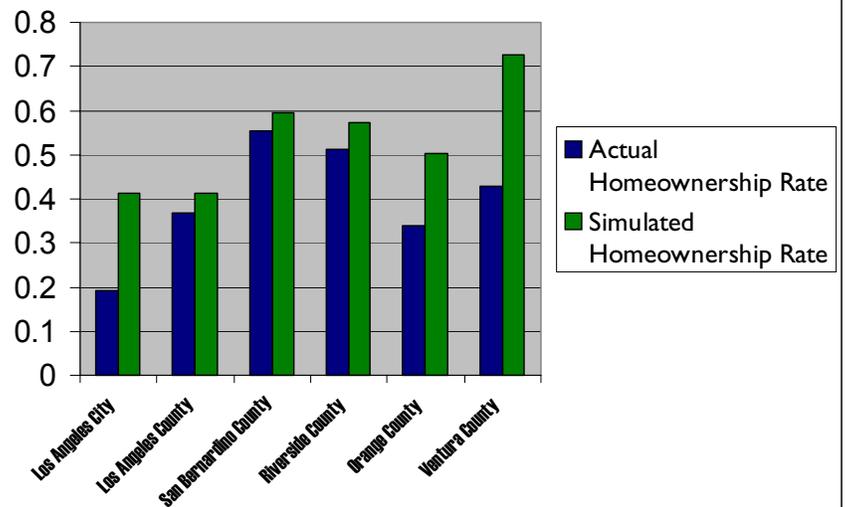


Figure 3a: Simulated Change in African-American Homeownership and Location Choice due to a 20% Reduction in Crime Rates in Los Angeles City

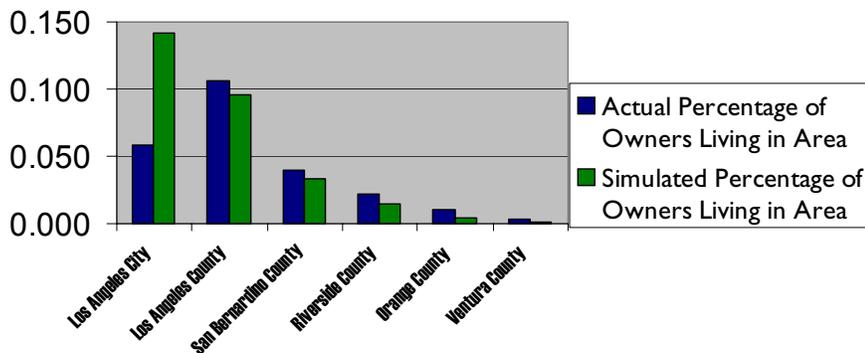


Figure 3b: Simulated Change in African-American Homeownership and Location Choice due to a 20% Reduction in Crime Rates in Los Angeles City

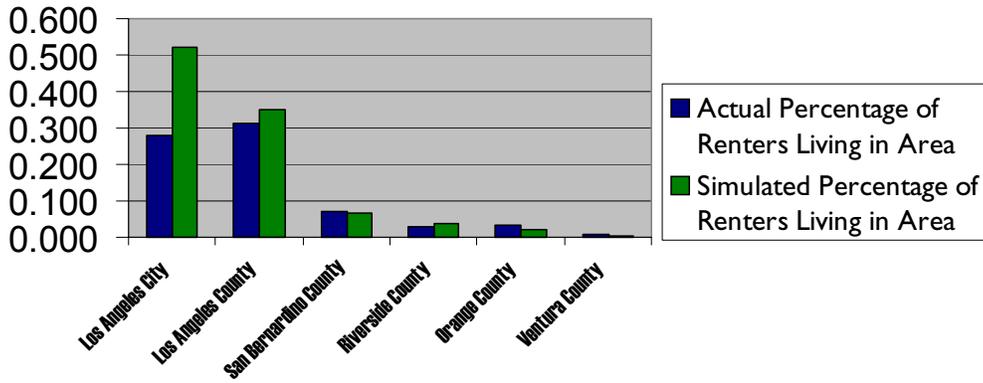


Figure 4a: Simulated Change in Latino Homeownership and Location Choice due to a 20% Reduction in Crime Rates in Los Angeles City

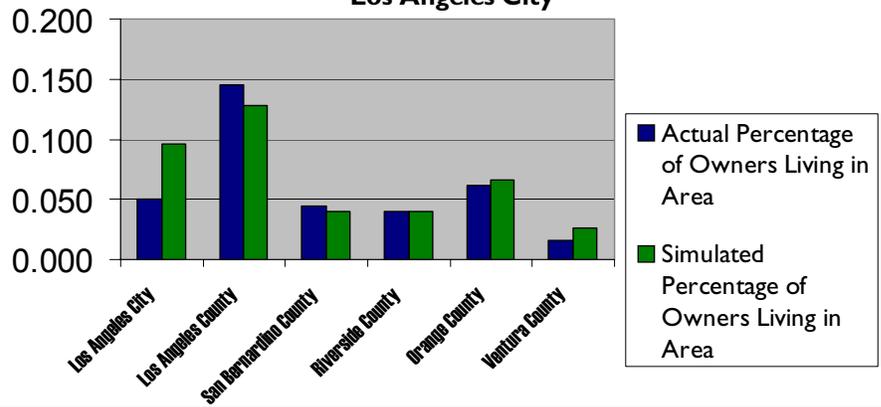


Figure 4b: Simulated Change in Latino Homeownership and Location Choice due to a 20% Reduction in Crime Rates in Los Angeles City

