

The Impact of Real Estate Market Knowledge on Tenure Choice: A Comparison of Black and White Households

Donald R. Haurin and Hazel A. Morrow-Jones

Ohio State University

Abstract

Homeownership is an important social and financial achievement for most U.S. households. Various explanations have been offered for the large and persistent gap in the ownership rates of black and white households, but studies have consistently fallen short of identifying all of the causes.

The data we used were derived from a survey of the residents of the Columbus, OH, area. We argue that differences in real estate market knowledge and information affect the tenure choice decisions of black and white households. We estimate a model that is augmented to include a measure of real estate knowledge and find that additional knowledge increases the likelihood of homeownership. This holds even when we account for the endogeneity of such knowledge. We conclude that differences in real estate knowledge contribute to explaining the racial gap in homeownership rates, a finding that can be addressed through public policy interventions such as counseling programs.

Keywords: Discrimination; Homeownership; Minorities

Introduction

Purchasing a home in the United States is a complicated financial transaction that requires knowledge of both the home-buying and the home-financing processes. However, anecdotal evidence suggests that some households have limited knowledge about financial and real estate markets. If such evidence is true, this lack of information may affect the tenure choice decisions of these households. Further, black and non-Hispanic white households may have differing amounts of real estate market information. If both of these conjectures are true, then racial differences in real estate knowledge should contribute to explaining the racial gap in homeownership rates. The primary goals of this article are to measure the amount of real estate market information households

have, determine whether there are racial differences in this knowledge, and see whether this knowledge affects tenure choice decisions.

The study is based on a new (2005) survey of over 1,000 household heads in the Columbus, OH, metropolitan statistical area (MSA). This survey is composed of equal-sized samples of white and black renters and owners. The questionnaire focused on measuring households' knowledge of the real estate, financial, and mortgage markets. It also collected information about tenure status and sociodemographic and economic characteristics. The respondents were assigned weights that yield results representative of the MSA.

One motivation for this study is to better understand the factors that explain which households become homeowners and which rent. Existing studies yield multiple insights into the influence of factors such as income, wealth, and the relative price of owning. However, these studies fall short of completely explaining the racial gap in homeownership rates between blacks and whites. The factors creating this gap, which has been around 25 percentage points for over 60 years, have been only partially identified. For example, in the 1980s, it was argued that racial differences in wealth, combined with down payment requirements by mortgage lenders, were important in explaining the racial gap in ownership rates. Extensive policy interventions by the U.S. Department of Housing and Urban Development (HUD) and innovations by Fannie Mae, Freddie Mac, and the wider market of mortgage lenders have substantially reduced the size of the down payment hurdle, but the racial gap in homeownership rates has changed very little over the past 20 years.¹ Thus, while some factors that contribute to the gap are well known, others have not been identified.

Our results confirm the hypothesis that the amount of real estate market information affects the probability of homeownership. This result is true whether we treat the measure of information as exogenous or endogenous. We also find that racial differences in real estate knowledge do exist. This result is consistent with the strong perception held by black renters that their lack of real estate and mortgage market information is a barrier to homeownership. Combined, these two results indicate that part of the gap occurs because of differences in real estate market knowledge; this is one of the first times such a conjecture has been supported by data.

Racial differences in real estate and mortgage market information can be corrected. There is substantial public and private sector investment in pre-purchase homeownership counseling programs whose purpose is to help house-

¹ According to HUD, the black-white gap in homeownership increased from 26.2 percentage points to 27.5 percentage points from 2000 to the first quarter of 2006 (HUD 2006).

holds learn about the home-buying process, the residential real estate market, and the mortgage market. Our results suggest that given the public sector goal of increasing the homeownership rate, investing in programs that increase real estate and mortgage market information should be effective.

The article is organized as follows. We first review the literature on racial gaps in homeownership, factors that affect tenure choice, and households' levels of financial and real estate information (the data on the last item are relatively sparse). Next, we describe the survey and our sample and present descriptive results. We then discuss a key modeling problem, the simultaneity of gaining real estate market information, and the process of becoming a homeowner. Our primary hypothesis is that households with higher levels of real estate market knowledge are more likely to be homeowners. However, it is also likely that a homeowning household gained financial knowledge during its purchase experience. Thus, homeowners should have more financial knowledge than renters. We estimate both a standard tenure choice model and one where real estate knowledge is treated as jointly determined with homeownership. In both cases, we find evidence that additional real estate knowledge increases the probability that a household will buy a home. Finally, we summarize and offer conclusions.

Literature review

Information and homeownership

Dietz and Haurin (2003), in a review article about the consequences of homeownership, argue that intergenerational homeownership effects arise from the transmission of information from parent to child. A series of studies supports this argument. Henretta (1984) found that even after he controlled for parental income and characteristics, children's tenure status was related to that of parents. Boehm and Schlottman (1999) also controlled for many household characteristics and found that the children of homeowners were more likely to become homeowners themselves. Mulder and Smits (1999) used data from the Netherlands to argue that the socialization of parents toward homeownership plays a role in the tenure choice of their children. While the information transmission mechanisms are cloudy in these studies, the findings are consistent with homeowning parents helping their children overcome the information and knowledge hurdles that act as a barrier to homeownership. To test this hypothesis, we include in our econometric study a set of three variables that measure whether the respondent's parent ever owned a home, whether parents coached the respondent on how to buy a home, and whether parents encouraged the respondent to buy a home.

Farley (1996) used survey data to document the fact that white and minority households searching for a home in Detroit drew on different sources when seeking information about housing opportunities. Farley found that black home seekers were relatively more likely to use word of mouth and newspaper ads in searching for housing, while white home seekers were relatively more likely to use real estate brokers and other institutional sources of information. Different sources could mean that the quality of the information differs.

Another line of research is provided by ethnographic studies of the tenure choices of black and low-income households. A series of articles published in *Cityscape* used techniques from ethnographic anthropology, primarily in-depth interviews, to describe the processes by which blacks become homeowners. In their study of homeownership attainment by blacks and Hispanics in Syracuse (NY), Hamilton and Cogswell (1997) observed that blacks do not use standard broker processes to locate and make an offer on a house. They also found that minorities did not understand the importance of credit history in purchasing a home. Young (1997) studied the rural South and observed that blacks often live in extended family units on tracts of land that are owned in common and frequently have clouded titles. Because many of these households built their own housing, they needed construction loans, not typical mortgages. Young (1997) notes that parents had little knowledge about the mortgage market and thus could not pass along information on how to attain homeownership to their children. Both studies found that attaining homeownership was facilitated by the presence of a cultural broker who acts as an intermediary between the formal market (banks, lenders, and real estate agents) and minority households. Effective cultural brokers acted as coaches, translators, and facilitators for minority borrowers.

A fourth perspective evaluates the impact of counseling programs on renters who are about to become homeowners (Hirad and Zorn 2002). Rather than investigating the impact on the likelihood of ownership, the authors measured the effect of counseling on the likelihood of subsequent rates of mortgage payment delinquency. They found that individual prepurchase counseling was the most effective way to reduce delinquency rates. Somewhat less effective was home or classroom counseling, and telephone counseling was not effective at all. Overall, this study supports the view that having financial information is important in helping a new homeowner remain a homeowner. One inference that could be drawn is that less personal forms of counseling resulted in less transmission and retention of financial and real estate market knowledge.

Recently, Lee, Tornatzky, and Torres (2004) produced a descriptive study for the Tomás Rivera Policy Institute on the amount of information U.S. Hispanics have about the real estate and financial markets. The study is based

on a survey of 1,400 families of Mexican origin in Los Angeles, Houston, and Atlanta and found that the lack of participation in the financial sector and lack of information about the home-buying process are significant barriers to homeownership by Hispanics.

Courchane, Surette, and Zorn (2004) studied homeowners' choice of a subprime or prime loan. Their survey reveals that 26 percent of subprime borrowers are "very familiar" with mortgage types, while 43 percent of prime borrowers report the same level of familiarity. Similarly, they report that only 35 percent of subprime borrowers are "very familiar" with mortgage interest rates and costs, while 57 percent of prime borrowers are. Finally, 39 percent of subprime borrowers are "very familiar" with mortgage qualification requirements, while 57 percent of prime borrowers are. These results suggest that borrowers in the subprime market are less knowledgeable about mortgages than those in the prime market. One implication may be that information and knowledge affect households' behavior and choices in the real estate market.

Tenure choice and racial gaps in homeownership rates

The literature on tenure decisions suggests that a number of demographic and economic variables should be included in our analysis. Income, wealth, age, household marital status (married, divorced/widowed/separated [DWS], partnered), the relative price of owned versus rented housing, and whether the household immigrated to the United States have been found to be important (Herbert et al. 2005). Education is important, but prior studies have been unclear about whether education is serving as a measure of permanent income or as a rough proxy for financial knowledge. Geographic location matters, often proxying for a measure of spatial differences in the relative price of owner-occupancy compared with renting.

The literature on what causes the large difference in homeownership rates between whites and blacks is extensive. Herbert et al. (2005) note that in 2000, the U.S. white-black homeownership gap was 26.1 percentage points; this was very nearly the highest level in the past 60 years, as measured by decennial census data. The census also reports that the gap rose from 1980 to 2000. More recent Current Population Survey/Housing Vacancy Survey data indicate that the gap rose from 26.2 percent in 2000 to 27.5 percent in the first quarter of 2006.² Thus, the many government programs aimed at helping low-income and minority households attain homeownership have not been effective

² The census and Current Population Survey use different methodologies to measure homeownership rates, and the former is much larger, explaining the slight difference in measures of the gap in 2000 (U.S. Bureau of the Census 2005, 2006).

in closing the gap. In particular, programs aimed at reducing the burden of down payments or increasing legal protection from discrimination in the housing market have had little effect on the overall size of the gap.³

Many studies have attempted to identify the causes of the black-white gap in homeownership rates. Contributing factors must have two characteristics. First the factor must influence the likelihood of becoming a homeowner, and second, there must be a racial difference in the level of the factor.⁴ Factors contributing to the gap include both demographic and economic attributes. Herbert et al. (2005) review the extensive literature on the causes of racial gaps in homeownership rates. One of the key articles is the 1972 study of St. Louis by Kain and Quigley. Using a generalized least squares regression model and controlling for a variety of demographic factors, they found that the likelihood of homeownership among black households was 8.8 percentage points lower than it was for comparable white households. That is, the unexplained component of the racial gap in ownership rates was 8.8 percentage points; the rest of the gap was explained by racial differences in observable demographic and economic variables.

Long and Caudill (1992) used the 1986 Current Population Survey to analyze white-black differences in homeownership. Their explanatory variables included income, a measure of wealth derived by capitalizing income from investments, the fraction of income received from welfare, and dummy variables for age, employment status, veteran status, household size, the South region, central city location, and race. After controlling for racial differences in these other factors, they found that the probability of homeownership was 6.3 percentage points lower for blacks.

Wachter and Megbolugbe (1992) used the 1989 American Housing Survey to study the causes of the racial gap in homeownership rates, including as explanatory variables the relative cost of owning, the expected appreciation in the value of housing, permanent and transitory income, race, age, marital status, and gender of the household head. After controlling for household endowments and related socioeconomic characteristics, they found that the rate of ownership for blacks was 6 percentage points lower.

Multiple studies have concluded that the gap is also due, in part, to discrimination against blacks. However, this inference is indirect and its effect is difficult to determine. Herbert et al. (2005) conclude that between 16 and 21 percentage points of the 26 percentage point gap are due to racial differences

³ Of course, the programs may be effective in that they prevented the gap from getting even larger.

⁴ It is also possible that the amount of the factor is the same for blacks and whites, but there are behavioral differences that cause the gap in ownership rates.

in demographic and economic attributes of households, and between 5 and 10 percentage points are due to unmeasured factors. While the literature generally attributes the latter difference to unobserved discrimination in housing and financial markets, it could be any unmeasured factor. One such unobserved factor is a racial difference in financial and real estate market knowledge, a possibility that occurs because this type of knowledge has not been measured and thus has not been used as an explanatory variable in models of tenure choice or the racial gap in ownership rates.

As Herbert et al. (2005) note, the list of unobserved factors that influence homeownership is not small since it includes household attributes such as credit history, income variability, and real estate market knowledge. Other factors affecting tenure choice and possibly explaining the racial gap include expected changes in marital status (Haurin and Kamara 1992), expected geographic mobility (Haurin and Gill 2002), house price risk (Sinai and Souleles 2005), income variability/job stability (Haurin 1991), the cost of home maintenance (Herbert et al. 2005), and discrimination in the real estate or mortgage market (Yinger 1986, 1995). Many of these factors are difficult to measure with currently available data, and thus their effects are captured either by other factors included in the tenure choice estimation or by a dummy variable for race. Our survey questions included not only the standard set of variables that are used to explain tenure choice, but also some that are less frequently observed.

Survey design and execution

Our telephone survey comprised 1,002 households, split equally between current homeowners and renters. The sample of homeowners was restricted to those who had purchased their home within the past five years. Each group had equal representations of black and white households (Hispanics and Asian households were not included).⁵ The survey was administered by the Strategic Resource Group (SRG) of Columbus, OH, and covered households in the Columbus MSA.

This MSA is reasonably representative of metropolitan areas in the United States. Although located in the Midwest, it exhibits the positive growth pattern of metropolitan areas elsewhere in the country. The median income and the median house value in Franklin County (the primary county of the Columbus MSA) are very similar to those found in the nation as a whole. The percentage

⁵ Hispanic and Asian households were eliminated from the sample by using a short screener questionnaire. Households that purchased their home more than five years ago were dropped as well.

of the population consisting of non-Hispanic whites is also nearly identical, while the percentage of blacks is somewhat higher.⁶

The design phase of the survey included review by various local community and university organizations.⁷ The survey was first administered to focus group participants who responded to the questions and provided comments. Following revision, the telephone survey was pretested by SRG. Potential respondents were drawn from a compilation of households with listed telephone numbers supplied to SRG by Genesys Corporation.⁸

The survey was administered in two parts: a random sample of the population and an additional oversample of black households. The random sample interviewed black and white owners and renters from throughout the MSA. Following its administration, black owners and renters were oversampled until the targeted number of respondents was achieved.⁹ Comparing the responses

⁶ Of course, the Columbus sample is not equivalent to a national sample, and the appropriate caveats should apply to generalizations.

⁷ Consultations included meetings with the Director and staff of the Kirwan Institute for the Study of Race and Ethnicity at Ohio State University and with the Director of the Columbus Urban League.

⁸ It has long been recognized that telephone surveys are not random samples of the population. Some households cannot afford a telephone and thus would not be on the list. Others have elected to keep their telephone number unlisted to protect their privacy. Studies examining possible biases of telephone surveys include Leuthold and Scheele (1971) who found that households with unlisted versus listed numbers had similar income and education. By contrast, Moberg (1982) found that households with unlisted numbers tended to be younger, more urbanized, minorities, and working. While some argue against using listed phone numbers, Leuthold and Scheele (1971), Rich (1977), and Sudman (1973) countered by noting that telephone surveys have small or nonexistent bias and are cheaper to administer than random-digit dialing or door-to-door surveys. A more recent New Zealand study (Esslemont, Peterson, and Selvakumar 1992) found that unlisted households were more likely to be young and unmarried. There were no significant differences between listed and unlisted groups with regard to gender; the size of the urban area; or the household's socioeconomic status, education, employment status, income, or occupation. This general agreement among nearly all household characteristics suggests that a survey of listed households is an acceptable sampling frame. Krosnick's 2003 study found that telephone surveys tend to underrepresent minority households and those with low income and little education either because of the lack of phone ownership or because of a higher rate of refusal to participate. He proposes that the solution to this problem is to oversample these groups. Our sample contains equal numbers of blacks and whites, solving the issue of lower participation by minorities. Because we also include equal numbers of renters and owners, and given the typical characteristics of renters (lower income and less education than owners), we are oversampling low-income households. Thus, our sample design addresses the concerns raised by Krosnick's (2003) study.

⁹ The oversample focused on areas with at least 20 percent black households, a method that substantially reduced the cost of the survey. To correct for the spatial clustering of the black sample, a weight based on the spatial area the respondent is located in is attached to each black respondent in the survey (both the random sample that includes all spatial areas and the oversample). The 2000 census (U.S. Bureau of the Census 2005) reports the spatial distribution of the black population, and this set of spatial weights yields a weighted black sample that is representative of the spatial distribution of the black population.

between black and white households requires using a set of weights that allow each of the four groups (black owners, black renters, white owners, and white renters) to be representative of the total number of similar households in the metropolitan area. All of the results in this article are weighted.¹⁰

The response rates were judged to be good for a telephone survey. Overall, if a household was deemed eligible to participate, 49.3 percent of those receiving a call responded to the questions.¹¹ Response rates to individual questions were also quite good.¹²

The survey consisted of demographic, economic, and financial and real estate market knowledge questions that were asked of all respondents. A smaller set of questions was asked only of renters, with a different supplemental set asked only of owners. (The survey is available from the authors.)

Descriptive results: Renter characteristics, information, and knowledge

In this section, we describe the results, focusing on racial differences in real estate market information, the sources of this information, and the level of accuracy in the responses.¹³

Household economic characteristics

The average 2004 income of white renter households was \$31,627, significantly more than the \$21,341 for blacks.¹⁴ The current level of financial assets (gross) was also higher for whites: \$17,292 versus \$4,736. However, whites

¹⁰ The final set of weights includes both the spatial weights for the black sample and the weights that make the samples of white owners, white renters, black owners, and black renters representative of the respective populations in the Columbus MSA.

¹¹ This rate was calculated by SRG using American Association for Public Opinion Research (2000) methodology. The response rates on the four components of the complete survey were 60 percent for black renters, 55 percent for black owners, 54 percent for random sample renters, and 39 percent for random sample owners. This relatively high participation rate is likely due to three factors: (1) an incentive offered to those who participated in the survey and an additional incentive for those who answered all the questions, (2) identification of the researchers as faculty members from Ohio State University and the community's high level of awareness of the university, and (3) identification of the sponsor of the survey as the Fannie Mae Foundation, with its high credibility and its association with efforts to promote homeownership.

¹² For the vast majority of questions, the response rate was well over 90 percent. As expected, the lowest rates were in response to questions about household income, assets, and debts. For these three questions, the response rates were 85 percent, 75 percent, and 87 percent, respectively.

¹³ Additional descriptive results are reported in Haurin and Morrow-Jones (2006).

¹⁴ Respondents were asked to identify the category (expressed in dollar ranges) that indicated their household income, asset, and debt amounts. In the analysis, we have used the mean value of a category to measure amounts.

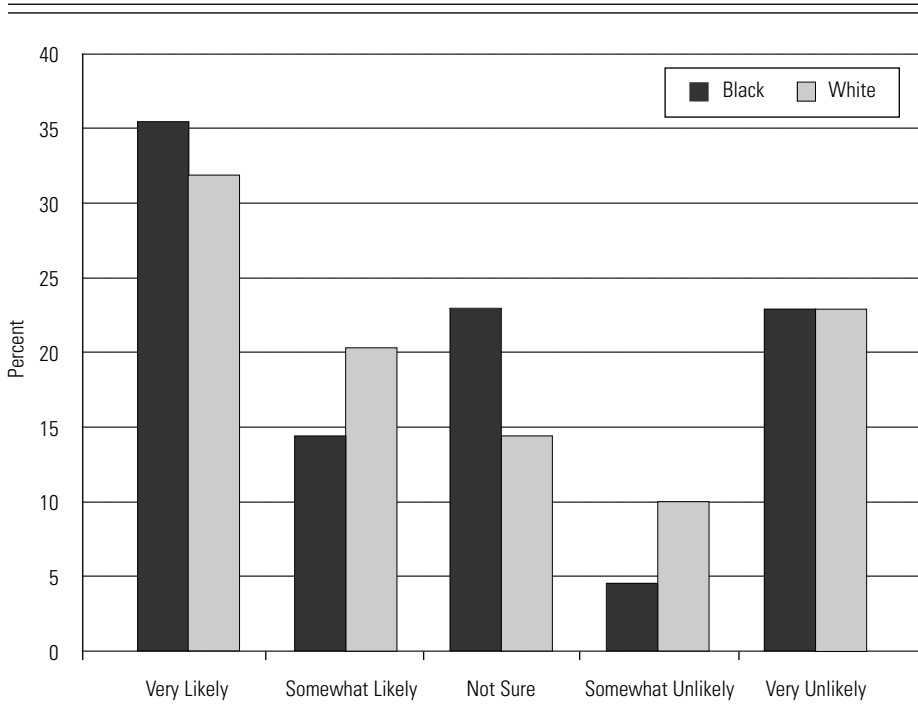
had more current debts than blacks: \$10,642 versus \$8,980. That is, blacks have about 25 percent of the assets of whites but 80 percent of the debt. The result is that, on average, white renters have a net wealth of \$6,649, versus a negative net wealth (\$-4,244) for black renters.

Expectations about and aspirations toward homeownership

Expectations were measured by asking about the probability that renters would own a home in the next five years. The distribution of responses by race, shown in figure 1, are no different at the 5 percent significance level, and black and white renters therefore have generally similar expectations about the likelihood of future homeownership. Overall, about 50 percent say that they are very likely or somewhat likely to own within five years.

Renters' aspirations were measured by asking whether they would like to own a home in five years. Again, differences between races were not statistically significant. Among black renters, 85 percent indicated that they would like to own within five years, while 90 percent of whites wanted to become owners.

Figure 1. Expect to Own a Home in the Next Five Years



For those who would like to own, the distribution of their primary reason for wanting to own is similar between races (the differences are not statistically significant). The dominant reason is that “owning a home is a good investment” (44 percent of black and 58 percent of white households). Next highest is that “it would be a better place to raise children” (15 percent of black and 8 percent of white households).

Family encouragement of homeownership

As noted in the literature review, there is some evidence that the children of homeowners are more likely to be owners, *ceteris paribus*. A conjecture as to why this occurs is that these individuals receive more information about real estate and mortgage markets and perhaps more encouragement to become homeowners from their parents. We therefore asked survey respondents about parental homeownership and the levels of parental encouragement and coaching.

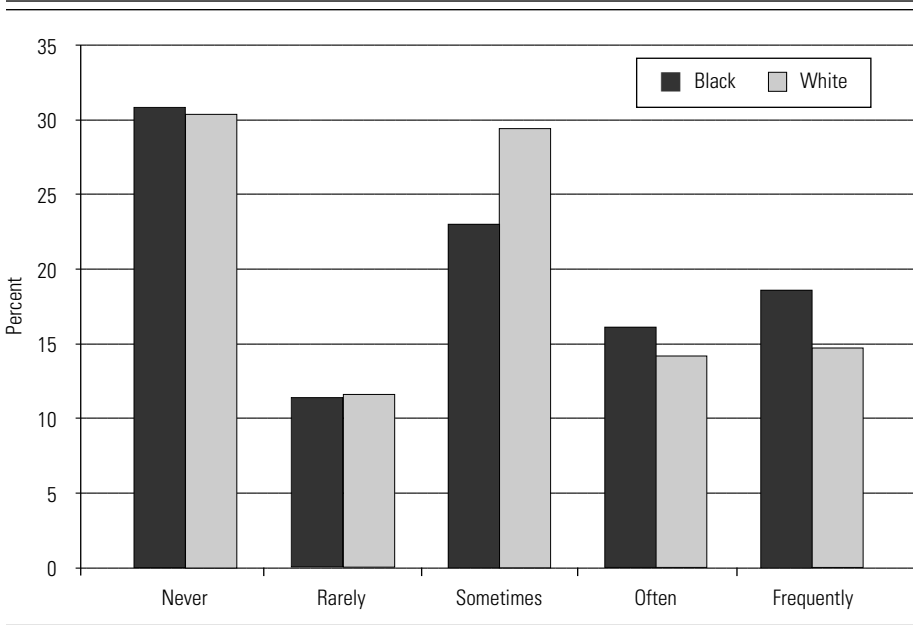
In the renters sample, the parents of 89 percent of the whites and 61 percent of the blacks were homeowners at some point. Among those parents who owned, 80 percent of blacks and 93 percent of whites have had a mortgage. Both differences are statistically significant, and thus black renters have less parental experience as homeowners to tap. Ownership rates, by race, for the respondents' close relatives are more similar; 89 percent of black relatives and 94 percent of white relatives owned a home at some time.

Respondents were asked whether they had received encouragement to buy a home from either their parents or their close relatives. Figure 2 shows that blacks received somewhat more encouragement to become owners from their parents than whites, but the differences are not large or statistically significant. Thus, the amount of parental encouragement is similar even though the parents of fewer black respondents own their homes.

Respondents were also asked whether their parents or close relatives had coached them on how to become homeowners. We found no difference in the amount of coaching by parents, but blacks received somewhat more coaching from close relatives.

Barriers to homeownership

Renters were asked what barriers have prevented them from becoming homeowners. They were allowed to select multiple items from a list of responses. The results are shown in table 1, where blacks and whites are classified by their level of education (either up to 12 years of schooling or more than 12).

Figure 2. Received Parental Encouragement to Become a Homeowner

Among black renters interested in becoming homeowners in the next five years, the most frequently mentioned barriers were lack of income, no down payment, and bad credit. The three measures of lack of information (how to buy a home, how to get a real estate agent, and how to get a mortgage) were also important barriers for many black households. A slightly higher percentage of black respondents with 12 or fewer years of education mentioned this lack of information. Racial discrimination was mentioned by relatively few black respondents. Among white respondents, the answers were somewhat different. The most frequently mentioned barriers were lack of income, lack of a down payment, and likelihood of moving soon. The information barriers were mentioned less frequently by all white respondents than by similarly educated black respondents. Among whites, more of those with no college education reported that the lack of information was a barrier to homeownership.

Renters who indicated that they were not interested in becoming homeowners in the next five years were asked about their reasons. The dominant reason for both black and white respondents was that the responsibilities of maintaining a home are too great (29 percent and 33 percent, respectively). Also, 23 percent of black respondents and 22 percent of white respondents indicated a lack of income as the cause. Other responses were spread among many answers.

Table 1. Renters' Barriers to Homeownership—Variable Means

	12 or Fewer Years of Education		More Than 12 Years of Education	
	Black	White	Black	White
Poor credit quality	0.36	0.30	0.47***	0.13
Lack of income	0.54**	0.35	0.54	0.45
No down payment	0.57	0.46	0.49	0.58
House not affordable	0.38	0.30	0.24	0.29
Racial discrimination	0.07	0.04	0.15***	0.00
Likely to move soon	0.34	0.26	0.32	0.42
Lack of information about how to buy a home	0.39	0.37	0.40**	0.26
Lack of information about how to get an agent	0.38	0.24	0.24***	0.09
Lack of information about how to get a mortgage	0.39	0.30	0.33**	0.19

* $p = 0.1$. ** $p = 0.05$. *** $p = 0.01$.

The answers to the questions about barriers to homeownership provide guidance on which variables should be included in the tenure choice estimation. These results suggest that the levels of income and wealth, a measure of knowledge of the real estate and mortgage markets, the quality of the credit rating, and the expected residential stability should be included.

Information and knowledge about real estate and mortgage markets

Both owners and renters were asked a series of questions testing their knowledge of the real estate market. The six we focus on asked whether the respondent knew the lowest mortgage interest rate available at the time, the lowest down payment available at the time, whether there are government programs that help people buy a home, what price home the respondent could afford, whether the respondent knew his or her credit score, and whether it is possible to learn one's credit score.¹⁵ For all questions, one possible answer is "don't know." We use a single measure of real estate knowledge in the tenure choice estimation: the sum of the six questions.

¹⁵ The six questions are as follows:

1. If you were buying a home today (2005), what is the lowest interest rate you could get from a mortgage lender? A value of 0 was assigned if the response was greater than 8 percent or "don't know." Otherwise, the value was 1.
2. If you were buying a home today, what is the lowest down payment you could get from a mortgage lender? A value of 0 was assigned if the response was greater than 11 percent or "don't know." Otherwise, the value was 1.

The means of the responses to these six questions are reported in table 2. The sample is separated into eight groups: white owners and renters and black owners and renters stratified by two education levels. The knowledge measures are coded such that if the respondent knows the information, the variable equals 1. Otherwise, it equals 0.

Table 2. Real Estate Information Levels by Race, Education, and Ownership Status: Sample Means

	12 or Fewer Years of Education		More Than 12 Years of Education	
	Black Owner	White Owner	Black Owner	White Owner
Know interest rate	0.81	0.81	0.91	0.85
Know down payment	0.70	0.65	0.70	0.69
Know house price	0.88	0.96	0.88	0.93
Know government program	0.62	0.54	0.80	0.79
Know credit score	0.31	0.46	0.30	0.33
Can get credit score	0.96	0.96	0.97**	0.92
Sum of real estate knowledge	4.29	4.38	4.55	4.50

	12 or Fewer Years of Education		More Than 12 Years of Education	
	Black Renter	White Renter	Black Renter	White Renter
Know interest rate	0.15***	0.54	0.46	0.54
Know down payment	0.66	0.67	0.54	0.59
Know house price	0.77	0.83	0.74	0.75
Know government program	0.37	0.41	0.49	0.55
Know credit score	0.05*	0.15	0.19	0.15
Can get credit score	0.59*	0.76	0.84	0.87
Sum of real estate knowledge	2.59***	3.37	3.25	3.46

* $p = 0.1$. ** $p = 0.05$. *** $p = 0.01$.

3. Do you know of any government programs that help people buy a home? A value of 0 was assigned if the response was “no” or “don’t know.” Otherwise, the value was 1.
4. If you were buying a home today, approximately what price could you afford? A value of 0 was assigned if the response was “don’t know.” Otherwise, the value was 1.
5. Do you know your credit rating or credit score—also known as a FICO (Fair, Isaac & Company) or Beacon score? A value of 0 was assigned if the response was “no” or “don’t know” or the reported value was less than 100. Otherwise, the value was 1.
6. Is it possible to find out your credit score? A value of 0 was assigned if the response was “no” or “don’t know.” Otherwise, the value was 1.

A number of interesting observations can be drawn from the variable means reported in table 2. In general, current owners have greater knowledge about the real estate market than renters. Black and white owners have about the same amount of knowledge, but it is interesting to note that black renters have less information than white renters. This holds for all of the measures, although the black-white differences are largest for knowledge about interest rates. Among whites, the owner-renter differences are largest for interest rates and knowledge about government programs. This result holds for blacks as well, but the differences are larger. Relatively few households know their credit scores, but more owners than renters and somewhat more whites than blacks know them. A much greater percentage of households—nearly all owners—know that resources that allow them to find their credit score are available. Fewer renters, especially black renters with 12 years of education or less, have this information.

There are competing explanations of why these observations could occur. One is based on the hypothesis that there is a threshold level of knowledge that must be achieved before a household can make the transition to homeownership. Groups that begin with relatively little real estate market knowledge, perhaps due to a lower parental homeownership rate, would thus achieve homeownership at lower rates. But because of the threshold, all households that achieve ownership would have relatively high levels of such knowledge. This model's predictions are consistent with similar and high levels of knowledge for black and white owners, while black renters would have a lower level of knowledge than white renters. An alternative explanation is that a knowledge threshold is not important in becoming a homeowner; instead, tenure choice is determined by other variables such as wealth, marital status, and relative prices. However, the process of becoming a homeowner results in greater exposure to the real estate market, and thus knowledge is greater for owners than renters. All owners would therefore have more knowledge than renters. However, this model does not hypothesize that additional real estate knowledge will increase the probability of homeownership.

These two explanations are quite different. In the first, the level of real estate knowledge affects the probability of becoming a homeowner, and differences in real estate market knowledge would lead to racial differences in homeownership rates. In the second, homeownership causes real estate knowledge to increase (reverse causality), and racial differences in rates would be caused by other economic and demographic differences. The econometric model presented later in the article addresses this issue.

Definition of other variables

The names of most variables are self-explanatory, with the following exceptions. “Likely to marry” is a dummy variable indicating that the respondent is very or somewhat likely to marry within the next two years.¹⁶ “Partnered” is a dummy variable indicating that the respondent lives with an adult partner in a spouse-like relationship. “DWS” is a dummy variable indicating that the respondent is divorced, widowed, or separated. “Education” is the highest grade the respondent completed. “Likely to move” is a variable indicating the respondent’s likelihood of moving in the next two years, with a value of 5 assigned to very likely.

“Parent coach” and “Parent encourage” range from 1 to 5, with higher values indicating that the coaching and encouragement occurred more frequently. They are included to test one of the transmission mechanisms that could explain why, after other child and parent socioeconomic characteristics are controlled for, the children of homeowners are more likely to be homeowners. The means of the parental measures are reported in table 3, by race, ownership status, and education level. Parental homeownership is greater for

Table 3. Credit Quality and Parental Encouragement, Ownership, and Coaching by Race, Education, and Ownership Status: Sample Means

	12 or Fewer Years of Education		More Than 12 Years of Education	
	Black Owner	White Owner	Black Owner	White Owner
Parent own	0.79	0.88	0.93	0.96
Parent encourage (highest = 5)	3.01	3.04	3.57	3.51
Parent coach (highest = 5)	1.94	1.62	2.44	2.11
Poor credit quality (highest = 1)	2.80***	1.88	2.47***	1.50
	12 or Fewer Years of Education		More Than 12 Years of Education	
	Black Renter	White Renter	Black Renter	White Renter
Parent own	0.58**	0.78	0.69***	0.97
Parent encourage (highest = 5)	3.02	2.59	2.89	2.89
Parent coach (highest = 5)	1.78	1.91	1.86	1.71
Poor credit quality (highest = 1)	3.09	3.04	3.09***	2.31

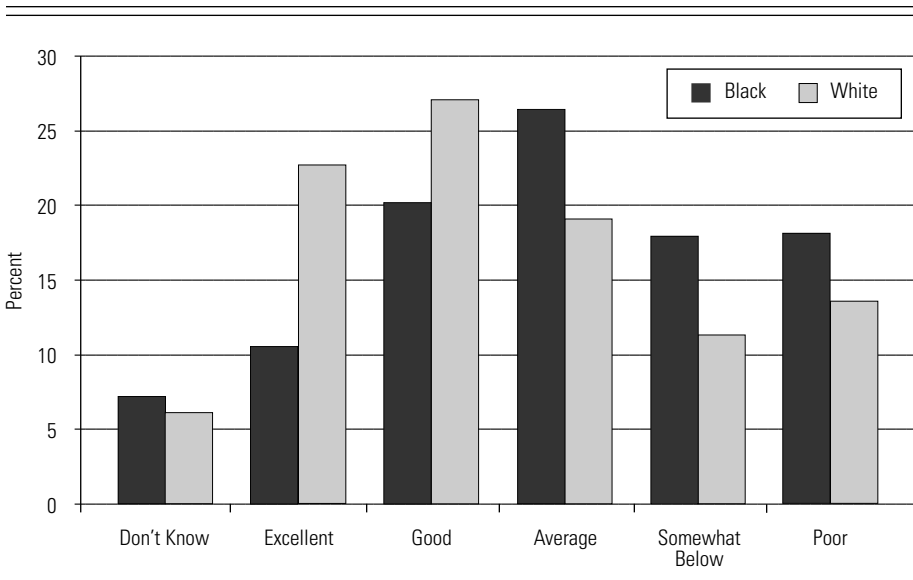
* $p = 0.1$. ** $p = 0.05$. *** $p = 0.01$.

¹⁶ Marriage very often results in changing dwellings, and this variable is thus a proxy for residential stability.

whites than for blacks and greater for owners than for renters, except for highly educated whites, where it is above 95 percent for both groups. The amount of encouragement to become a homeowner that parents offered to survey respondents is substantially greater for owners than for renters, except for blacks with a high school education or less. Similarly, parental coaching of the respondents on how to become a homeowner is greater for owners than for renters, except for whites with a high school education or less. These observations are consistent with “encouragement” and “coaching” being the mechanisms of intergenerational transmission of homeownership. However, they must be tested against alternative explanatory factors in a tenure choice estimation.

Respondents were asked how they would self-evaluate their credit rating. The distribution is displayed in figure 3. The very small percentages of black and white respondents answering “don’t know” are similar, but significantly more blacks judge their credit rating as average or below average. “Credit quality” is a respondent’s self-reported evaluation, ranging from 1 to 5 with *higher* values representing a *lower* rating. Means shown in table 3 indicate that all owner types have higher credit ratings than renters. In three of the four comparisons (black versus white, some college versus none), the credit rating for whites is greater than it is for blacks. Given that credit ratings are an important explanation of tenure decisions, the black-white differences in credit

Figure 3. Self-Evaluation of Credit Rating



ratings must be controlled in the estimation of the tenure choice equation when testing for the impact of real estate information.¹⁷

“Income” is measured in thousands of dollars. “House price” is an index of prices in the Columbus MSA based on the results of a hedonic house price estimation. The sample size was 36,332 transactions, and 30 house characteristics were included. The price index was developed at the ZIP code level, and the values of the house price indexes were then matched with the ZIP codes of our survey respondents.¹⁸ “Negative wealth” is a dummy variable indicating that the respondent reports zero or negative net assets. This definition was adopted because the down payment constraint has been greatly relaxed in recent years; however, closing and move-in costs still constitute a substantial hurdle for a household with no wealth.

The variables’ weighted means and standard deviations for the final sample of 753 observations are presented in table 4, where we also list the means for black and white respondents by ownership status.¹⁹ The expected differences between black and white characteristics are evident. Whites have substantially higher income, and fewer of them have negative wealth. Many more white respondents are married, and their education levels are higher. As noted earlier, there is a substantial difference in the amount of real estate knowledge for owners versus renters, and white renters have more real estate knowledge than black renters. Whites live in areas with higher constant-quality house prices, and their self-reported credit quality is much higher (i.e., a lower score). Future events may influence current tenure choice decisions. The table reveals that the likelihood of marriage and geographic relocation is substantially greater for renters than for homeowners. A relatively large number of renters are immigrants, and many are divorced or live with a partner.

¹⁷ The study by Courchane and Zorn (2006) reports that homeowners’ self-assessed credit rating is, on average, an accurate predictor of their credit score. However, blacks and Hispanics are somewhat more likely to overestimate their credit quality, and non-Hispanic whites are somewhat more likely to underestimate their credit quality.

¹⁸ The results of the hedonic house price estimation are available from the authors. Formally, the explanatory variable in the tenure choice equation should be the price of owner-occupancy relative to the cost of renting (constant-quality owner and rental units). However, it is not possible to construct a geographically detailed index of rental prices in the Columbus MSA. We rely on the assumption that spatial variations in relative price are primarily driven by variations in the price of owner-occupancy. This assumption is supported by the argument that capitalization of local amenities into rental prices is small compared with the degree of capitalization into house prices.

¹⁹ The sample size is less than 1,002 primarily because of missing income and wealth values. Also, the house price index did not cover all the ZIP codes in the survey data set.

Table 4. Variable Means and Standard Deviations

	Full Sample		Black Owners		White Owners		Black Renters		White Renters	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
Real estate knowledge	4.12	1.36	4.49	1.03	4.49	1.16	3.00	1.47	3.44	1.41
Homeowner	0.69	0.46	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Black	0.15	0.36	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Male	0.44	0.50	0.35	0.48	0.48	0.50	0.34	0.47	0.38	0.49
Age	41.48	13.87	42.21	12.09	41.31	12.51	42.57	14.54	40.49	17.19
Married	0.46	0.50	0.40	0.49	0.62	0.49	0.12	0.33	0.17	0.38
Likely to marry	0.08	0.27	0.10	0.30	0.04	0.21	0.20	0.40	0.11	0.32
Partnered	0.10	0.30	0.07	0.26	0.08	0.27	0.14	0.34	0.16	0.37
DWS	0.15	0.36	0.19	0.39	0.12	0.33	0.23	0.42	0.21	0.41
Education	15.06	2.32	13.90	2.23	15.64	2.15	13.55	1.89	14.35	2.38
Income	62.35	47.04	51.74	34.62	79.37	47.56	21.49	13.96	33.54	29.30
Negative wealth	0.46	0.50	0.58	0.49	0.42	0.69	0.60	0.49	0.51	0.50
House price	107.91	25.63	78.67	20.42	112.28	22.40	86.20	27.35	112.25	25.28
Parent own	0.91	0.28	0.88	0.32	0.95	0.22	0.65	0.48	0.92	0.28
Parent coach	1.98	1.32	2.26	1.60	2.04	1.31	1.83	1.19	1.77	1.25
Parent encourage	3.26	1.52	3.37	1.69	3.45	1.49	2.94	1.53	2.80	1.49
Poor credit quality	1.97	1.13	2.59	1.13	1.55	0.75	3.09	1.29	2.52	1.32
Immigrant	0.06	0.23	0.05	0.21	0.05	0.22	0.18	0.38	0.04	0.19
Likely to move	2.55	1.66	2.03	1.44	2.04	1.40	3.68	1.60	3.68	1.63
Sample size	753		206		203		186		158	
Aggregate weight	457,285		29,365		285,894		38,634		103,392	

Note: The values are weighted. Income is in thousands of dollars. The aggregate weight represents the number of households in the metropolitan area.
S.D. = standard deviation.

Willingness to invest in additional knowledge

The final set of descriptive variables focuses on renters' willingness to invest in knowledge about the real estate and mortgage markets and home buying. One question asked about their willingness to attend a home-buying seminar, and another asked about the optimal location for such a seminar. Of renters, 77 percent of black and 59 percent of white respondents indicated their willingness to attend. A number of options were offered as possible locations. Blacks were significantly more likely than whites to attend a seminar offered in a church, by a community housing assistance organization, or in a financial institution. Neither group preferred their place of employment. The highest

acceptance level would occur if the seminar was offered by Fannie Mae (92 percent of blacks and 84 percent of whites). Other locations with high rates of acceptance by blacks included financial institutions, community housing assistance organizations, real estate agencies, and local schools. The locations with high acceptance for whites included real estate agencies and housing assistance agencies.

Another question asked whether the respondent was willing to attend a credit counseling class and a homeownership class if attendance was required to purchase a home sometime in the next three years. Acceptance of this requirement would be relatively high, but significantly greater among blacks than among whites. Overall, 88 percent of black respondents indicated that they would be very or somewhat likely to attend, while 71 percent of white respondents would agree.

Estimation model

The ideal data set would be a longitudinal survey that would last perhaps 25 years and would gather information about individuals, their sociodemographic and economic characteristics, their financial and real estate market knowledge, and their tenure status. The survey would follow these individuals over the years from age 18, allowing researchers to study the effect of knowledge on rates of movement to homeownership. Unfortunately, no such data set exists and the cost of gathering one is prohibitive. Instead, we must use cross-sectional data to make inferences about the role of information and knowledge in the home-buying process.

To determine the independent effect of real estate market information on the decision to own or to rent, we estimate a tenure choice equation using a probit model.

$$T = f(\mathbf{X}, K, R) \quad (1)$$

where T = tenure choice (1 = own, 0 = rent), K = a continuous measure of the level of real estate knowledge, R = an indicator variable for race (1 = black, 0 = white), and \mathbf{X} = a vector of sociodemographic and economic household characteristics that affect a household's tenure choice.

We present four forms of the estimation. To allow comparison to results in the literature on tenure choice, we first estimate a standard tenure choice equation where the knowledge and other difficult-to-measure variables are omitted. Next, we include the additional variables available in our sample, but continue to omit the real estate knowledge variable. The third estimation adds the real

estate knowledge measure, treated as an exogenous variable. Fourth, we present the results of an estimation that uses an instrumental variables approach because of the possible endogeneity of K . All equations are estimated using sample weights, which are required because of the oversampling of renters.²⁰

Results

The results from the estimation of equation (1) are reported in table 5. We first report the results of a basic tenure choice equation that excludes any measure of real estate knowledge. We also exclude other variables that are infrequently included in tenure choice estimations: poor credit quality, likely to marry, likely to move, and parental characteristics. The significant variables in this estimation that explain tenure choice are as follows: being black, married, and older; having more education; having a higher income; living in an area with lower house prices; and not being an immigrant. Each of these results is plausible and consistent with both theory and previous empirical findings in the literature. The coefficient of the dummy variable “Black” is statistically significant and negative, and the coefficient indicates that the ownership rate for blacks is 14.7 percentage points lower than it is for whites if the standard socioeconomic variables are held constant. This result is consistent with the literature on racial differences in homeownership rates, but it is at the high end of the estimates for the effect of race.

Next, we include the variables that are not often available in data sets: poor credit quality, likely to marry, likely to move, and parental characteristics. We find that poor credit quality and likely to move are statistically significant and have the expected signs. The coefficient of the dummy variable “Black” is not statistically significant. The reason is that we include variables not typically found in tenure choice studies.²¹ Also, both the Age and Immigrant variables lose significance once the additional variables are included in the estimation.

A number of other variables in this estimation are not statistically significant, and these findings are also of interest. For example, none of the three vari-

²⁰ If the estimation used the unweighted sample, the coefficient of the Black dummy variable in the tenure choice equation would clearly be incorrect since the unweighted sample contained 25 percent black owners and 25 percent white owners.

²¹ As noted in footnote 17, the credit quality variable may be measured with some error and the error may be related to race. If some blacks overestimate their credit quality, but they cannot become homeowners because their actual credit quality is lower, then the dummy variable Black would tend to pick up this negative effect. Thus, it would be more likely to have a negative and significant coefficient. The finding that the coefficient is not significant thus more strongly indicates that black-white differences in the tendency to be a homeowner are fully explained by the model.

Table 5. Tenure Choice Equation Results

	Basic Estimation		Augmented Estimation		Probit		Endogenous Real Estate Knowledge	
	Marginal Effect	z-Statistic	Marginal Effect	z-Statistic	Marginal Effect	z-Statistic	Marginal Effect	z-Statistic
Homeowner = 1								
Real estate knowledge	—	—	—	—	0.080***	4.44	0.149**	2.22
Black	-0.147***	3.26	-0.057	1.26	-0.056	1.16	-0.035	0.65
Male	0.026	0.71	0.025	0.69	0.018	0.47	-0.016	0.32
Age	0.003**	2.02	-0.001	0.74	-0.002	1.29	-0.003*	1.73
Married	0.201***	3.91	0.187***	3.67	0.215***	4.14	0.203***	3.21
Likely to marry	—	—	-0.040	0.57	-0.038	0.55	-0.042	0.67
Partnered	-0.028	0.43	-0.023	0.36	-0.018	0.28	-0.018	0.31
DWS	-0.009	0.16	0.014	0.25	0.013	0.22	0.029	0.44
Education	0.030***	3.24	0.025***	2.58	0.025***	2.56	0.028***	2.88
Income	0.006***	4.23	0.004***	3.21	0.003***	2.63	0.003**	1.94
Negative wealth	-0.013	0.37	0.044	1.25	0.025	0.65	-0.031	0.58
House price	-0.004***	4.41	-0.003***	4.09	-0.003***	4.03	-0.003***	3.46
Immigrant	-0.201**	2.24	-0.136	1.45	-0.129	1.31	-0.115	1.21
Parent own	—	—	0.011	0.19	0.009	0.14	-0.028	0.43
Parent coach	—	—	0.009	0.54	0.003	0.16	-0.001	0.12
Parent encourage	—	—	0.006	0.44	0.002	0.17	-0.001	0.04
Poor credit quality	—	—	-0.101***	5.88	-0.097***	5.42	-0.074**	2.24
Likely to move	—	—	-0.088***	7.16	-0.093***	7.40	-0.093***	4.97
Wald chi-square/F-statistic	158.95		205.83		265.08		304.96	
R ² (pseudo)	0.34		0.47		0.50			
Sample size								753

Note: A constant is included in the estimation, but no marginal effect is reported. The estimation reports robust standard errors. The dashes indicate that the variable was not included in the regression.

* $p = 0.1$. ** $p = 0.05$. *** $p = 0.01$.

ables measuring parental characteristics is significant. The lack of significance of the parental ownership variables contrasts with the studies cited in the literature review, suggesting that it may have picked up omitted variables. The lack of significance of parental coaching and encouragement suggests that these may not be transmission mechanisms for information about the real estate market. The wealth variable is not significant in this estimation, perhaps indicating that down payment requirements are no longer an important constraint.

Overall, these econometric results agree very well with renters' self-reported barriers to homeownership. Previously, we noted that the top barriers were seen as the lack of income, bad credit, the lack of funds for a down payment, the likelihood of moving, job instability, and unaffordable housing. Variables corresponding to these measures are significant in the regression except for the variable indicating that a household had negative net wealth, and we have no measure of job instability.

The third estimation shown in table 5 reports the results of adding the real estate knowledge variable, treated as an exogenous explanatory variable, to the estimation. Including this variable is suggested by the earlier self-assessment of renters that one of the most significant barriers to becoming an owner is the lack of information about the real estate and mortgage markets. We find that, as expected, the knowledge variable is highly significant and has a positive coefficient. The other results are relatively robust to the inclusion of this variable. As noted in the table, marginal effects, not probit coefficients, are reported. The marginal effect reports the impact on the probability of being a homeowner from a one-unit change in an explanatory variable. A one-unit change in real estate knowledge (a one-unit change is about three-fourths of a standard deviation) results in an 8 percent change in the probability of owning—a substantial effect. The elasticity is 0.48, where the elasticity is defined as the percentage change in the probability of owning for a particular percentage change in the amount of real estate knowledge. For example, the elasticity of 0.48 implies that if real estate knowledge increases by 10 percent, then the probability of homeownership will increase by 4.8 percent. The concern with this estimation is that real estate knowledge is jointly determined with tenure choice and thus should not be treated as an exogenous variable.

The next column reports the results when an instrument is used for the real estate knowledge variable.²² For this particular case, the instrument is based on all variables included in the ownership equation, together with several additional ones: has an official information source, knows the credit card limit,

²² We used Stata9's *ivprobit* routine for the estimation, which performs weighted instrumental variable estimation.

compared credit card interest rates, knows the credit card interest rate, balances the checkbook monthly, and has seen a credit counselor.²³ The official information source variable measures whether households get their financial information from financial advisors or from friends and relatives. The argument for using this series of financial variables as instruments is that they are correlated with a household's level of real estate and mortgage market knowledge but do not affect the probability that a household will buy a home. Further, we do not expect the home purchase experience to affect household behaviors such as comparing credit card interest rates or knowing credit card limits.

Overall, the tenure choice estimation that treats real estate knowledge as endogenous produces results that are quite similar to the other estimates. Statistically significant variables in the tenure choice equation include the married state, the level of education, income, the house price index, the likelihood of moving, and the self-evaluation of credit rating. The real estate knowledge variable is significant at the 5 percent level; however, its estimated marginal effect is much larger than the effect when it is treated as exogenous.

The marginal effects derived from the tenure choice estimation are as follows. Increasing real estate knowledge by one unit raises the probability of owning by 14.9 percentage points. Being married rather than single increases the probability of ownership by 20.3 percentage points. An additional year of education raises the likelihood of owning by 2.8 percentage points. Increasing the propensity to move by one unit (on a 5-point scale) reduces the probability of owning by 9.3 percentage points. Improving credit quality by one unit (on a 5-point scale) raises the probability of owning by 7.4 percentage points. Increasing family income raises the probability of owning by 0.3 percentage points per \$1,000. Thus, an increase of one standard deviation in income (about \$47,000) raises the likelihood of owning by about 14 percentage points. Finally, an increase of one standard deviation in house prices would lower the probability of owning by about 7.7 percentage points.

We tried a number of variations in the construction of the set of instruments for real estate knowledge to test the sensitivity of our results. If we

²³ The financial questions are as follows:

1. Did you compare interest rates on credit cards before applying for a card? A value of 1 was assigned if the response was "no" or "don't know."
2. What is the highest credit limit on any of your credit cards? A value of 1 was assigned if the response was "don't know."
3. What is the interest rate on your most frequently used card? A value of 1 was assigned if the response was "don't know."
4. Do you balance your checkbook every month? A value of 1 was assigned if the response was "no" or "don't know."

include the squares of age, education, and income as instruments, the coefficient of the real estate knowledge variable increases by 60 percent, and it becomes highly significant. Excluding either the house price measure or the credit quality variable from the list of instruments has very little effect on the estimation.²⁴ Another alternative is to redefine the knowledge variable. We narrowed it to a four-item measure, omitting the two credit score-related questions. Using this measure and treating it as exogenous yields a marginal effect slightly larger than is reported in table 5. Treating it as endogenous yields a much larger effect than the six-item measure, with a marginal effect nearly twice as large and a z-statistic over 20. These variations suggest that the results in table 5 are conservative, and thus we have substantial confidence that real estate knowledge affects the likelihood that a household will buy a home.

What explains the racial gap of 30.5 percentage points in homeownership rates in our sample?²⁵ Each significant variable contributes. To compute the contributions, we multiply each estimated marginal effect by the racial difference in the means of the variable. The racial difference in average income explains 11.9 percentage points of the gap, the difference in credit quality explains 8.3 percentage points, the difference in years of education explains 4.3 percentage points, the difference in the rate of marriage explains 5.2 percentage points, the difference in house prices explains -10.8 percentage points, and the difference in the propensity to move explains 4.6 percentage points. Finally, the racial difference in the amount of real estate knowledge explains 8.5 percentage points of the gap. The small difference between the total of the variables and the 31 percentage point gap in the sample is explained by the other variables in the regression.

Summary and conclusions

Homeownership is an important social and financial achievement for most U.S. households. Despite efforts by government, real estate professionals, and financial institutions, it has not been achieved equally by all members of society. In particular, the gap between the homeownership rates of black and white Americans has been a cause for concern. Various explanations for this gap have been put forward, but one of the most understudied is the idea that black

²⁴ Clearly, the spatial distribution of house prices is exogenous from the perspective of a household. The argument for including house price in the tenure choice estimation is that it is a proxy for the relative cost of ownership. However, a reviewer noted that the house price in a particular location is selected simultaneously with the choice of neighborhood and suggested omitting the price index from the tenure choice estimation. In this case, the results, including the coefficient of real estate knowledge, change very little.

²⁵ This gap is typical for households in the age range included in our sample.

householders have significantly less knowledge about the real estate market. Our study is among the first to test the idea that an important cause of the homeownership gap between blacks and whites in the United States is a racial gap in real estate market knowledge.

Aspirations toward and expectations of homeownership are generally similar for black and white renters. However, their financial situations in terms of income and net assets are quite different, with white households having greater income and a higher net worth. The parents and relatives of white renters in our sample are more likely to have been homeowners and to have held mortgages, but the amount of parental encouragement and coaching on how to become a homeowner is generally similar among blacks and whites. However, in the estimation of tenure choice, we find that parental ownership or parental encouragement or coaching to become a homeowner had no effect on our respondents' likelihood of being a homeowner.

Self-reported barriers to homeownership among renters interested in buying a home include the expected ones: lack of money for a down payment, lack of income, job instability, a high likelihood of moving, and unaffordable housing. An important observation is that significantly more black renters report their lack of information on how to buy a home, how to get a real estate agent, and how to get a mortgage as barriers. We created a measure of real estate knowledge based on six survey questions and find that, as expected, knowledge is greater among owners than renters. Also, knowledge is about equal for black and white owners, but it is lower among black renters than among white renters.

Our results on tenure choice estimation find that the following variables are statistically significant and have the expected signs: credit quality, income, the married state, greater likelihood of moving within two years, highest grade completed, and house prices. The dummy variable indicating that a respondent is black is not significant, suggesting that the racial gap in ownership rates is fully explained by the set of variables in the estimation.

The new finding is that lack of real estate knowledge is a barrier to becoming a homeowner. This result is found when real estate knowledge is treated as either exogenous or endogenous. Racial differences in the amount of real estate knowledge explain 8.5 percentage points of the racial gap in homeownership rates.

If reducing this racial gap is a goal, what policies do our results suggest? The finding that having better real estate information is important in increasing the probability of homeownership indicates that establishing programs that convey more information to minorities will help close the gap. In support of this conclusion are the survey responses in which many renters report that they

are willing to attend home-buying seminars or get credit counseling if it increases the probability of becoming a homeowner. Obviously, counseling programs must convey useful and correct information relevant for home buying. Also, participants must retain this information for it to be effective in increasing the probability of homeownership. Thus, we conclude that since having correct information is important in facilitating homeownership, there is not only a need for counseling, but also a need for evaluating the effectiveness of counseling programs.

Authors

Donald R. Haurin is a Professor of Economics, Finance, and Public Policy and Management in the College of Social and Behavioral Sciences at Ohio State University. Hazel A. Morrow-Jones is an Associate Professor in the Department of City and Regional Planning and Geography at Ohio State University.

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