HOUSING AND WEALTH INEQUALITY: RACIAL-ETHNIC DIFFERENCES IN HOME EQUITY IN THE UNITED STATES*

LAUREN J. KRIVO AND ROBERT L. KAUFMAN

In our study, we took a first step toward broadening our understanding of the sources of both housing and wealth inequality by studying differences in housing equity among blacks, Hispanics, Asians, and non-Hispanic whites in the United States. Using data from the American Housing Survey, we found substantial and significant gaps in housing equity for blacks and Hispanics (but not for Asians) compared with whites, even after we controlled for a wide range of locational, life-cycle, socioeconomic, family, immigrant, and mortgage characteristics. Furthermore, the payoffs to many factors are notably weaker for minority than for white households. This finding is especially consistent across groups for the effects of age, socioeconomic status, and housing-market value. Blacks and Hispanics also uniformly receive less benefit from mortgage and housing characteristics than do whites. These findings lend credence to the burgeoning stratification perspective on wealth and housing inequality that acknowledges the importance of broader social and institutional processes of racial-ethnic stratification that advantage some groups, whites in this case, over others.

Recent research has emphasized that large racial differences in wealth in the United States stem from both household flows of income and racially inequitable institutional practices (Oliver and Shapiro 1995; Shapiro 2004). This is particularly clear for the largest share of wealth held by a large portion of households: housing equity (U.S. Census Bureau 2001). Microeconomic factors are central determinants of the acquisition and value of housing (Alba and Logan 1992; Coulson 1999; Krivo 1995; Lewin-Epstein, Elmelech, and Semyonov 1997), and hence racial socioeconomic inequality reproduces stratification in housing wealth across racial groups. However, many studies have also shown that black and Hispanic households are dealt with less favorably than majority whites at each stage of the process, from locating to acquiring to financing housing (Farley 1996; Massey and Denton 1993; Ross and Yinger 2002; Turner 1992; Yinger 1995, 1997). Such differential treatment should reduce minorities' accumulation of home equity compared with whites' in that blacks and Hispanics find it more difficult to purchase homes and to do so with favorable mortgage terms in areas with high values and levels of appreciation (Bradford 2002; Flippen 2001a, 2001b; Krivo 1995; Long and Caudill 1992; Munnell et al. 1996; Ross and Yinger 2002; Turner 1992; Yinger 1995).

Yet, knowledge of how household and market factors contribute to racial and ethnic differences in levels of housing wealth is limited in several ways. First, analyses of wealth inequality among racial-ethnic groups have generally explored the sources of overall wealth (Campbell and Henretta 1980; Conley 1999, 2001; Menchik and Jianakoplos 1997; Oliver and Shapiro 1995; Wolff 2001). Few have examined specific components of wealth,

^{*}Lauren J. Krivo and Robert L. Kaufman, Department of Sociology, Ohio State University. Direct correspondence to Lauren J. Krivo, Department of Sociology, Ohio State University, Columbus, OH 43210; E-mail: krivo.1@sociology.osu.edu. We thank Lisa Keister for her comments on this article. Earlier versions of this article were presented at the International Workshop on Social Inequality and Housing, Tel Aviv University, Tel Aviv, Israel, June 2001, and at the 2003 annual meeting of the Population Association of America.

such as home equity, separately for groups, except in a descriptive manner (Keister 2000a; Kennickell, Starr-McCluer, and Suden 1997; Oliver and Shapiro 1995; see Blau and Graham 1990 for an analytic exception). Studying inequality in total wealth ignores any unique processes that generate racial-ethnic differences in particular types of wealth. We overcame this problem by conducting an in-depth examination of the largest source of wealth for most households with any wealth: housing equity (U.S. Census Bureau 2001; Wolff 1998). Only Parcel (1982), Blau and Graham (1990), and Flippen (2001a) have conducted analyses of racial inequality in the value of home equity in national samples. However, the studies by Parcel and by Blau and Graham are both dated and ignored critical housing and market factors. Although Flippen's research used more recent data, it examined only preretirement households aged 51–61 and excluded housing and market conditions.

Another shortcoming of prior research on both wealth and housing inequality has been a near-exclusive focus on black and white households (Blau and Graham 1990; Campbell and Henretta 1980; Conley 1999, 2001; Horton and Thomas 1998; Keister 2000a; Oliver and Shapiro 1995; Parcel 1982). Research on wealth inequality beyond the black-white divide is in its infancy (Campbell and Kaufman 2000; Flippen 2001a; Hao forthcoming). A larger literature has examined residential segregation and inequality in housing conditions for whites and Hispanics or Asians, but this research has not connected housing conditions to home equity or wealth (Alba and Logan 1992; Alba, Logan, and Stults 2000b; Fischer 2003; Flippen 2001b; Frey and Farley 1996; Krivo 1995; Massey and Denton 1993; Myers and Lee 1998; Rosenbaum and Friedman 2001). We addressed this gap by examining the determinants of inequality in housing equity among whites, blacks, Asians, and Hispanics in the United States. Examining Asians and Hispanics who have different social positions from blacks, including a younger average age and a greater prevalence of immigrants, should provide a more nuanced understanding of the role of race-ethnicity in the accumulation of housing equity.

Finally, aspects of the institutional and social context of housing have not been examined in previous analyses of racial-ethnic differences in home equity. Social, locational, and financial characteristics of mortgage and housing markets systematically disadvantage minority (particularly black) households compared with white households (Bradford 2002; Holloway and Wyly 2001; Oliver and Shapiro 1995; Ross and Yinger 2002; Turner 1992; Yinger 1995). These housing-market disadvantages could reduce the accumulation of housing equity among racial and ethnic minorities by constraining them, for example, to buy houses of lower value with smaller down payments or to pay more interest for homes that appreciate more slowly. However, lower levels of segregation and other market constraints experienced by Hispanics and Asians suggest that institutional and housing-market factors may not affect the home equity of these racial-ethnic groups as strongly as they do the home equity of blacks. We explored whether institutional and housing-market characteristics have ramifications for inequality in home equity by incorporating the characteristics of mortgages and aspects of the metropolitan housing and racial-ethnic context.

PRIOR RESEARCH

Research on the determinants of the accumulation of household wealth has been dominated by microeconomic explanations, in particular Modigliani's life-cycle thesis that wealth accumulates across the life course until retirement, at which point spending reduces wealth (Keister and Moller 2000). Some studies have also used a status-attainment framework either implicitly (Oliver and Shapiro 1995) or explicitly (Campbell and Henretta 1980; Land and Russell 1996). According to this view, wealth accrues from both current and earlier household economic resources and social statuses. Only a small portion of the literature on wealth has focused on the role of race or ethnicity in the accumulation of wealth. These studies have documented a large and persistent black-white disparity in net

worth, which is considerably greater than racial income inequality (Blau and Graham 1990; Campbell and Henretta 1980; Conley 1999, 2001; Hao 1996; Oliver and Shapiro 1995; Shapiro 2004; Wolff 1998, 2001). For example, the median net worth of whites in 1995 was 8 times that of blacks, and the income ratio was 4 to 1 (Wolff 1998).

Even less is known about other racial-ethnic groups' accumulation of wealth. A few studies have compared the representation of blacks, Hispanics, Asians, and whites among top wealth holders (Keister 2000b; Wolff 1998). Kennickell and his colleagues found that Hispanic and nonwhite households together hold just a quarter of the wealth of non-Hispanic white households (Kennickell and Shack-Marquez 1992; Kennickell and Starr-McCluer 1994; Kennickell et al. 1997). Much smaller differences in wealth exist between Asians and whites (Campbell and Kaufman 2000; Hao forthcoming).

Despite the dominance of microeconomic explanations, it is clear that the wealth gap between blacks and whites is due to more than just intergroup differences in prior statuses or life-cycle characteristics (e.g., Conley 2001; Oliver and Shapiro 1995). Oliver and Shapiro argued that the remaining racial difference is rooted in historic and contemporary processes of discrimination. Residential segregation and other forms of discrimination in housing and mortgage markets are particularly important because home equity is the largest component of wealth for most households.

Although Oliver and Shapiro (1995) documented the persistence of discriminatory housing processes, they did not directly analyze how these processes affect the accumulation of wealth. We suggest that the best way to study the effects of such conditions is to analyze components of wealth separately to model influences that may be unique to any component. For example, racial-ethnic inequality in mortgage lending should influence the accumulation of home equity but not necessarily the accumulation of net worth from financial investments. Analyzing total net worth likely masks the effects of determinants that are unique to single aspects of wealth. Thus, we analyzed home equity to elucidate the role of housing-market and social-context factors in generating racial-ethnic disparities in the largest component of wealth.

Similar to studies of total wealth, the vast majority of research on housing has applied microeconomic and life-cycle approaches. Accordingly, the purchase of a home and the growth of housing equity is considered to result from the greater incomes and needs for space that accrue as individuals get older, marry, and have children. Many studies have found that age, education, income, and marriage are strongly associated with homeownership and the value of owned housing (e.g., Alba and Logan 1992; Coulson 1999; Krivo 1995; Lewin-Epstein et al. 1997; Lewin-Epstein and Semyonov 2000; Rosenbaum 1996). Yet, they have also shown that the economic/life-cycle approach provides an incomplete explanation of racial and ethnic differences in rates of homeownership and net housing worth in the United States. Rather, the accumulation of housing and wealth reflect broader processes of social stratification (e.g., Horton and Thomas 1998; Lewin-Epstein et al. 1997; Lewin-Epstein and Semyonov 2000; Spilerman 2002). The ability to obtain more financially and socially advantageous housing is strongly influenced by the social and historical situations of racial and ethnic groups. In particular, patterns of segregation and discrimination in housing and mortgage-lending markets are prime sources of the considerably poorer housing conditions of blacks and some other minority groups.

Discrimination by brokers, racial-ethnic steering, redlining, and other forms of mortgage-lending discrimination make it more difficult for black and Hispanic households to obtain high-quality housing (Holloway and Wyly 2001; Massey and Denton 1993; Oliver and Shapiro 1995; Turner 1992; Yinger 1995). These practices also limit access to communities with greater status and amenities, such as good-quality schools, parks, and shopping (e.g., Alba, Logan, and Stults 2000a; Flippen 2001b; Rosenbaum and Friedman 2001). Whites' prejudice against living in areas with numerous minorities (especially blacks) also weakens the demand for housing in nonwhite neighborhoods (Bobo and

Zubrinsky 1996; Charles 2000; Farley et al. 1994; Krysan 2002). The result is diminished value and lower appreciation of owned housing and greater difficulty in finding better-quality dwellings. These problems are the most severe for blacks but have also been documented for Hispanics (e.g., Yinger 1995).

Considerable research has used a stratification approach to explore the role of race and ethnicity in the housing market. However, this research has focused primarily on analyses of either residential segregation or inequality in homeownership, not on the sources of differences in the accumulation of equity across groups (Alba and Logan 1992; Alba et al. 2000b; Krivo 1995; Krivo and Kaufman 1999; Massey and Denton 1993; Rosenbaum 1996). This work is informative regarding the sources of inequality in equity because the transition to homeownership is a prerequisite to holding any wealth in a home. Yet, for those who are interested in the wealth-generating potential of homeownership, studies of this dichotomous transition fall short; houses vary considerably in their overall value, and households differ in the likelihood of realizing equity from their homes. A number of studies have partially addressed this limitation by exploring the predictors of the value of owned homes (Horton and Thomas 1998; Krivo 1995; Lewin-Epstein et al. 1997; Long and Caudill 1992). These studies have generally found that blacks and Hispanics own homes of lesser value than do similar whites even when the researchers controlled for the characteristics of dwellings. Such analyses get us closer to understanding the wealth implications of homeownership. However, they provide only a crude indication of the sources of inequalities in actual home equity. These inequalities are dependent not only on housing values but also on other financial and mortgage characteristics, including the amount of the down payment and mortgage, the type and terms of the mortgage, and the level of secondary-mortgage debt.

In the analyses presented here, we sought to rectify these limitations of prior research on race-ethnicity, wealth, and the housing market. In particular, we explored the sources of racial and ethnic inequality in home equity itself (not estimated housing value) for four large groups in the United States: non-Hispanic whites, non-Hispanic blacks, Asians, and Hispanics. The models incorporate locational, life-cycle, socioeconomic, and immigrant characteristics, along with critical factors that represent aspects of mortgages, housing markets, and the racial-ethnic context of metropolitan areas. Using this approach, we assessed the sources of racial-ethnic inequality in one specific component of wealth within its own unique household and institutional context. Our study also updates and broadens the understanding of housing wealth inequality to a recent time across a more diverse set of groups than simply blacks and whites. The inclusion of a variety of racial-ethnic groups is particularly important in light of the ever-growing diversity of U.S. society.

DATA AND METHODS

Data

We used data from the national sample of the 2001 American Housing Survey (AHS) to analyze racial-ethnic gaps in household home equity. The AHS is a longitudinal survey of housing units that has been conducted every two years since 1985, with newly built units added at each enumeration. Occupants provide information on the characteristics and costs (including the value and financing) of their dwellings, along with basic demographic data. The 2001 AHS sample included 42,487 occupied housing units (i.e., households). The unit of analysis is households because home equity is a household-level concept. We excluded residents of mobile homes and those with missing data for equity, and we further

^{1.} A small number of additional units in the AHS sample were occupied in 2001 by individuals whose usual place of residence was elsewhere (n = 708).

Table 1. Operationalizations of Household and Metropolitan Characteristics

| Variable | Operationalization | | | | |
|------------------------|--|--|--|--|--|
| Home Equity | | | | | |
| Equity in \$10,000s | Estimated value of the primary owned household residence minus the total value of principal owed on all mortgages on this property | | | | |
| Race-Ethnicity | | | | | |
| Black | Dummy variable coded 1 if the householder or spouse is non-Hispanic black | | | | |
| Asian | Dummy variable coded 1 if the householder or spouse is non-Hispanic Asian | | | | |
| Hispanic | Dummy variable coded 1 if the householder or spouse is Hispanic | | | | |
| Residential Location | | | | | |
| Midwest | Dummy variable coded 1 if resides in the Midwest | | | | |
| South | Dummy variable coded 1 if resides in the South | | | | |
| West | Dummy variable coded 1 if resides in the West | | | | |
| Central city | Dummy variable coded 1 if resides in a central city | | | | |
| Suburb | Dummy variable coded 1 if resides outside a central city in a metropolitan area | | | | |
| Age | | | | | |
| Age ^a | Age in years | | | | |
| Age squared | Square of age | | | | |
| Household Statuses | | | | | |
| Household income | Total household annual income in \$1,000s (for members aged 14 and older) | | | | |
| Working | Dummy variable coded 1 if the householder or spouse is currently working | | | | |
| Education ^a | Years of education completed | | | | |
| Widowed | Dummy variable coded 1 if currently widowed | | | | |
| Other not married | Dummy variable coded 1 if never married or currently divorced or separated | | | | |
| Intermarried | Dummy variable coded 1 for a marriage between a non-Hispanic white individual and a person of any other race-ethnicity | | | | |
| Children | Number of children under age 18 in the householder's family | | | | |
| Length of residence | Number of years the householder has lived in the current dwelling | | | | |

(continued)

limited our sample to non-Hispanic whites (28,455), non-Hispanic blacks (4,505), Asians (1,390), and Hispanics (4,208).²

Variables

Dependent variable. Table 1 presents the operationalizations of the variables. *Home equity* was measured as the total estimated value of an owned home minus the total amount of principal owed on all mortgages on this property (in \$10,000s).

Independent variables. Race-ethnicity was measured with a set of dummy variables comparing non-Hispanic whites, non-Hispanic blacks, non-Hispanic Asians, and Hispanics using the respondents' self-identification. Married-couple households were considered non-Hispanic white if both the householder and spouse identified themselves as such.

^{2.} We also excluded a few households in which individuals from different minority groups were intermarried (e.g., a black householder with a Hispanic spouse). Asian and Hispanic subpopulations (e.g., Mexican, Chinese, or Filipino) are not identified in the AHS.

| (| Tal | ble | 1. | continued) | |
|----|-----|------|----|------------|--|
| ١. | Inc | , uc | 1, | convinuent | |

| Variable | Operationalization | | | |
|-------------------------------------|---|--|--|--|
| Immigrant Characteristics | | | | |
| Native born ^b | Dummy variable coded 1 if native born | | | |
| Naturalized citizen ^b | Dummy variable coded 1 if a naturalized citizen | | | |
| Years in United States ^a | Years resided in the United States if not native born ^c | | | |
| Mortgage/Housing Characteristic | CS CS | | | |
| Prior owner | Dummy variable coded 1 if previously owned another home | | | |
| Condominium owner | Dummy variable coded 1 if own a condominium | | | |
| Interest rate | Mortgage interest rate (percentage) ^c | | | |
| Variable term mortgage | Dummy variable coded 1 if the mortgage terms are variable ^c | | | |
| FHA/VA/FHAM mortgage | Dummy variable coded 1 if the mortgage is FHA, VA, or FHAM financing ^c | | | |
| Large down payment | Dummy variable coded 1 if the down payment was more than 30% of the purchase price ^c | | | |
| Inherited down payment | Dummy variable coded 1 if the main source of the down payment was an inheritance $^{\!\scriptscriptstyle \text{C}}$ | | | |
| Metropolitan Housing Context | | | | |
| Percentage of new housing | Percentage of housing units in 2000 that were built between 1991 and 2000 | | | |
| Median housing value | Median value of owner-occupied housing units in 2000 | | | |
| Metropolitan Racial-Ethnic Cont | rext | | | |
| Percentage black | Percentage of the 2000 population who were non-Hispanic black | | | |
| Percentage Asian | Percentage of the 2000 population who were non-Hispanic Asian | | | |
| Percentage Hispanic | Percentage of the 2000 population who were Hispanic | | | |
| Black-white segregation | Index of dissimilarity for black and white residents in 2000 | | | |

Note: Reference categories for multicategory nominal variables are (1) non-Hispanic white for race-ethnicity, (2) Northeast for region, (3) nonmetropolitan residence for metropolitan location, (4) currently married for marital status, and (5) not a citizen for nativity/citizenship.

^aFor married couples, age, education, and years in the United States (for nonnative households) were measured as the maximum of the householder's and spouse's values.

^bFor married couples, native born was coded 1 if either the householder or the spouse was native born. Similarly, among nonnative married couples, naturalized citizen was coded 1 if either the householder or the spouse was a naturalized citizen.

^cDummy variables for missing data on years in the United States, mortgage characteristics, and down payment are included in all the models.

When a non-Hispanic white was married to a minority person, the household's raceethnicity was coded as the minority person's group identification. Households with a minority person may be more likely to experience discrimination in the housing market. Intermarriages with whites are more prevalent for Asians and Hispanics than for blacks.³

We included two indicators of residential location as general controls for geographic variation in housing prices: three dummy variables for *region* and two dummy variables for *metropolitan location*. Age and age squared represent the nonlinear relationship between stage in the life course and wealth. Socioeconomic status was measured with *household income*, a dummy indicator of the householder's/spouse's *working status* and *education*. For married couples, age and education were the maximum of the householder's and

^{3.} Note that 14.2% and 16.9% of Asian and Hispanic households in this sample were intermarried. Only 2.5% of black households were intermarried.

spouse's values. Several measures describe the family composition of the householder: *marital status*, *racial-ethnic intermarriage*, and number of *children*. The number of years the householder had lived in the current housing unit controlled for the strong effect of *length of residence* on equity.

Several variables measured the characteristics of immigrants. Two dummy variables distinguished those who were *native born* and those who were foreign-born *naturalized citizens* from noncitizens. Households were defined as native born if either the householder or the spouse (when present) was born in the United States. (The presence of one native-born adult should overcome any language and information barriers that constrain immigrants' attainment of housing.) Naturalized citizens included non-native-born households in which either the householder or the spouse became a citizen through naturalization. For foreign-born married couples, years in the United States was the maximum of the householder's and spouse's length of U.S. residence.

We included two housing characteristics that are associated with the greater accumulation of equity: *prior ownership* and *owning a condominium*. Mortgage characteristics were measured by the *interest rate*, a *variable-terms* dummy variable, and a dummy indicator for *FHA*, *VA*, or *FHAM financing*, all of which should reduce levels of equity. *Large or inherited down payments* assist households to accumulate equity and were incorporated as dummy variables.⁴

For a subset of metropolitan households, the AHS data identified their specific metropolitan areas of residence (136 Metropolitan Statistical Areas or Primary Metropolitan Statistical Areas were identified). These places included 61% of the metropolitan households in our sample (and 71% of those in the nonrural portion of metropolitan areas). For these households, we explored the contextual effects of the characteristics of metropolitan housing markets. Percentage of new housing and median housing value measured housing growth and prices. Residential segregation of blacks from whites and the sizes of the Asian and Hispanic populations represent the broader context of housing-market stratification. Segregation indices are from the Racial Residential Segregation Measurement Project (2004); the other metropolitan-context data came from the 2000 Census Summary File 3.

Model and Estimation Issues

Prior analyses of home equity or housing value have usually analyzed samples of homeowners, excluding nonhomeowners because the outcome is censored and cannot be observed for nonowners (e.g., Horton and Thomas 1998; Keil and Zabel 1996; Krivo 1995; Myers and Chung 1996; Parcel 1982). Parcel (1982) included nonhomeowners by assigning them a value of zero for home equity. Applying such methods of analysis results in biased and inconsistent parameter estimates (Long 1997:201–203). In particular, coefficients tend to be underestimated. We used tobit models, which provide consistent estimates of the coefficients by including nonhomeowners and treating their equity as censored (Long 1997:189; see Lewin-Epstein et al. 1997 for an analysis of housing values using tobit techniques).

Tobit analysis is closely akin to techniques for correcting sample-selection bias and is equivalent to combining a probit analysis predicting censoring with a regression analysis predicting the noncensored values of the outcome (Long 1997:204). Tobit regression predicts a latent outcome, which, in our case, is the observed home equity for

^{4.} Conventional mortgages generally require a 20% down payment. In our sample, 29.1% of the homeowning households made a down payment of at least 30%.

^{5.} For some households, we know only that they lived within the New York-northern New Jersey-Long Island Consolidated Metropolitan Statistical Area (CMSA). In these cases, we used contextual characteristics for the CMSA.

^{6.} Our models excluded several nonsignificant measures: percentage black, Asian-white segregation, Hispanic-white segregation, and the Hispanic and Asian immigrant contexts.

.095

.162

.199

1,400

.132

.327

.163

4,078

| | Wh | ites | Blac | ks | Asia | ans | Hispa | nics |
|---------------------------------|--------------|---------|--------|--------|---------|---------|--------|--------|
| Variable | Median | Mean | Median | Mean | Median | Mean | Median | Mean |
| Full Sample | | | | | | | | |
| Homeowner | _ | .733 | | .455 | | .545 | | .492 |
| Home equity | 51,144 | 92,963 | 0 | 37,135 | 18,971 | 100,996 | 0 | 48,636 |
| Owners | | | | | | | | |
| Home equity | 80,000 | 126,773 | 52,882 | 81,533 | 111,100 | 185,368 | 60,000 | 98,770 |
| Length of residence | 10.000 | 14.630 | 10.000 | 14.435 | 6.000 | 8.436 | 6.000 | 10.239 |
| Have a mortgage | _ | .612 | _ | .634 | _ | .783 | _ | .703 |
| Prior owner | _ | .591 | _ | .315 | _ | .467 | _ | .403 |
| Inherited down payment | - | .025 | | .021 | | .024 | | .020 |
| Large down payment ^a | _ | .299 | _ | .249 | _ | .361 | _ | .235 |
| Owners With a Mortgage | | | | | | | | |
| Interest rate | 7.250 | 7.495 | 7.500 | 7.880 | 7.250 | 7.317 | 7.375 | 7.669 |
| High interest (≥ 9%) | _ | .043 | _ | .108 | | .015 | _ | .068 |

.154

.360

.150

4,949

Table 2. Descriptive Statistics for Home Equity, Homeownership, and Mortgage Characteristics

.145

.178

.244

28,131

Variable terms of mortgage

FHA/VA/FHAM mortgage

Second mortgage

Full Sample Weighted N

homeowners, and has a censored value for nonowners. The coefficients can be interpreted as effects on this latent outcome. For comparability with descriptive statistics, we rescaled the parameters as effects on the censored outcome (Long 1997:210). Using tobit techniques, we first estimated a baseline model that included only race-ethnicity. We then performed progressive adjustments, adding sets of variables to explore how various predictors mediate the relationship between race-ethnicity and home equity. For the metropolitan subsample, we estimated group-specific tobit models to examine similarities and differences in effects across racial-ethnic groups and to assess the influence of contextual aspects of housing-market stratification.⁷

RESULTS

Table 2 presents descriptive statistics for homeownership, home equity, and mortgage characteristics separately for the racial-ethnic groups. Having any home equity is, by definition, affected by the purchase of a home. It is well known that racial and ethnic differences in levels of homeownership are an important source of wealth inequality, and our data are consistent with this view. Over 70% of white households own their homes, compared with 46% of black households and 49% of Hispanic households. Asians fall between

^aAmong those with nonmissing information on down payment.

^{7.} The contextual analyses are multilevel, with metropolitan areas as higher-level and households as lower-level units. Thus, we estimated random effects (RE) tobit models with correlated errors within metropolitan areas. For whites, the RE error component is significant, and we present the results from the RE models. The RE error component is not significant for the other groups, and their results are from tobit models without random effects.

these extremes, with a homeownership rate of 55%. The basic relationship between homeowning and equity is clear from the means and medians of housing equity. Blacks and Hispanics have notably lower values of mean home equity than do whites, and all three minorities have low median housing equity because homeownership is so much less common. The differences are particularly stark when one compares whites with blacks and Hispanics because less than half these minority households own homes.

Looking only at homeowners shows a similar pattern for whites, blacks, and Hispanics and indicates that Asians hold considerably more net wealth in their houses than do whites. The low levels of home equity for blacks and Hispanics are striking. Even when they purchase homes, over half the black and Hispanic households have less than \$52,882 and \$60,000 in equity, respectively. In contrast, the white median is at least \$20,000 higher. These patterns do not appear to result from group differences in length of residence in their homes. Asians have, by far, the most equity and have lived in their houses for the shortest periods; blacks and whites have spent similar amounts of time in their current homes but evidence a large gap in housing equity.

For the mortgage characteristics, a few interesting patterns stand out. The groups with a large number of immigrants (Asians and Hispanics) have the highest percentages of mortgage holders, which should be associated with less accumulated equity. However, for Asians, this association is offset by other advantages in the mortgage market; many in this group made large down payments, and few have high-interest, variable-term, or FHA/VA/FHAM mortgages. In contrast, black and Hispanic mortgage holders are notably more disadvantaged than white mortgage holders. Both have home loans with higher interest rates than do whites, and they are 1.5 to 2.5 times as likely to pay interest of 9% or more. While the black-white gap in interest rates may seem small (0.39%), it translates into \$5,149 more paid by a black mortgage holder than a white mortgage holder over the 30-year course of a median-valued black home loan of \$53,882. If this excess were invested, it would yield \$11,903 in additional net worth at a 5% rate of return. Similarly, the modest Hispanic-white gap in mean interest (0.17%) means that a Hispanic mortgage holder pays \$3,441 more than does a white mortgage holder for a 30-year mortgage on a median-valued Hispanic home loan of \$80,000.

Finally, FHA, VA, or FHAM mortgages make up a third or more of all primary home loans for blacks and Hispanics; only 18% of whites and 16% of Asians hold such mortgages. The sizable presence of FHA, VA, or FMHA loans among black and Hispanic homeowners is striking because such loans require lower down payments and cost more than conventional mortgages. Small down-payment requirements encourage lower-income households to purchase homes, which should be financially beneficial, but the higher costs also place these households at risk, since they may not be able to afford the house payments over the long run. Furthermore, and most pertinent to the current research, the low down payments and high interest rates of FHA, VA, and FMHA mortgages contribute to the slower accumulation of equity. This may have important implications for racial-ethnic inequality in wealth, particularly since past research has demonstrated that the greater reliance of minority households on FHA, VA, and FMHA loans is only partly due to these households' lower incomes and wealth (Yinger 1995).

How does racial-ethnic variation in such mortgage characteristics, as well as in household locational, social, economic, and immigrant statuses, contribute to disparities in equity? We explore this issue in the next section. We then consider how the effects on housing wealth of these factors and of metropolitan context vary across whites, blacks, Hispanics, and Asians.

Sources of Racial and Ethnic Gaps in Equity

Figure 1 presents the results from tobit models that addressed the first issue we just posed. For each group, the left-most dotted bar represents the estimated difference in home equity

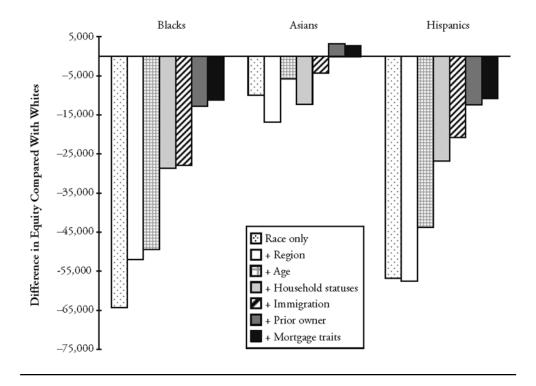


Figure 1. Racial-Ethnic Differences in Housing Equity: Progressive Adjustments

from non-Hispanic whites. Each successive bar shows the white-minority difference in equity after a set of predictors is added to the model. The baseline gaps in equity on the left show a pattern that is consistent with the descriptive statistics presented in Table 2. Black households have the lowest equity of the racial-ethnic groups (about \$64,000 less than that of white households). Hispanic home equity is also very low relative to that of whites (about \$57,000 lower). The Asian-white gap in equity is much less, at only \$9,929.

Regional and metropolitan location are added next. Comparing the first two bars for each group shows that location has the largest effect on the home equity of blacks, who are heavily concentrated in central cities and the South, where housing values are relatively low. Asian households are highly concentrated in metropolitan areas in the West (especially California) and parts of the Northeast, where housing prices are very high. Note that the Asian-white gap in equity would be even larger than it is if Asian households were more likely to reside in the lower-priced areas inhabited by whites. To a modest degree, this pattern is also found for Hispanics because of their concentration in the West.

The addition of age to the model shows that Asians and Hispanics have lower net equity than do whites partly because they are younger. When age is controlled, the Asian-white home-equity gap drops by approximately \$11,000, and the Hispanic-white gap decreases by nearly \$14,000. Age has only a small effect on the black-white gap in equity.

A major source of inequality in the accumulation of housing derives from group variation in household characteristics (socioeconomic status, family composition, and length of residence). Looking at the additional changes in differences in equity when these factors are added to the model provides support for this view. Blacks' and Hispanics' levels of equity would be much more similar to whites' levels if there were less racial-ethnic inequality in family and socioeconomic status. Indeed, the largest single drop in the black-white gap in equity occurs when these household statuses are added to the model.⁸ In interpreting this finding, it is important to recognize that some share (often sizable) of the socioeconomic differences among groups results from historic processes of intergenerational reproduction of inequality, as well as from contemporary processes of discrimination in schools, labor markets, and other social institutions. Although clearly central, microeconomic and life-cycle approaches do not fully account for the lower home equity held by black and Hispanic households, both of whom still have significantly less net equity than white households (\$28,656 and \$25,713, respectively). After location, age, and household statuses are controlled, over 40% of the baseline gaps in equity of blacks and Hispanics from whites remain. The pattern for Asians is somewhat different. Taking household statuses into account *increases* the net gap in equity, which remains significant.⁹

The next three sets of factors have been examined less frequently—immigrants' characteristics, prior homeownership, and mortgage traits. As would be expected, immigrant statuses have no effect on the black-white gap in equity because the flow of immigration has been small among blacks. In contrast, immigrants constitute a large share of the Asian and Hispanic populations. Indeed, only 30% of the Asian households in our sample were born in the United States. Foreign birth and shorter lengths of U.S. residence mean that these groups have less knowledge and time to accumulate equity than do whites. As such, the difference in home equity decreases substantially for both when these characteristics are controlled.

Results from the next model demonstrate that the accumulation of equity is heavily contingent on earlier access to homeownership; all three white-minority gaps in equity are notably reduced when prior ownership is controlled. Those who have previously owned a house can use the money earned from its sale to invest in and increase the equity of subsequent housing. Because minority households, particularly black households, confront substantial obstacles in buying homes, they have less access to a major means of further accumulating equity across the life course. Indeed, only about 30% of current black homeowners in our sample had previously owned a house, while almost 60% of white homeowners had done so.

The last model shows that mortgage characteristics play a small net role in explaining the remaining differences in equity across groups, contrary to discussions in the housing-stratification literature. This finding is surprising, especially for blacks, for whom there is considerable evidence of mortgage-lending discrimination (Holloway and Wyly 2001; Munnell et al. 1996; Ross and Yinger 2002). However, if mortgage variables were added before the other predictors, they would explain a substantial portion of the black-white disparity (15%).

To provide a picture of how the predictors affect home equity, Table 3 presents the full set of coefficients from the final pooled tobit model (i.e., including all the coefficients from the final progressive-adjustment model presented in Figure 1). First, as displayed in Figure 1, black and Hispanic households have significantly lower levels of home equity than do white households, even after a wide range of household characteristics are controlled. This is not the case for Asians, whose net housing equity is comparable to that

^{8.} Supplementary analyses indicate that groups' differences in socioeconomic status are the predominant force in these changes. In fact, the Hispanic-white disparity *increases* when only family statuses are controlled, while the black-white gap narrows somewhat.

^{9.} Supplementary analyses identified family statuses and length of residence in the dwelling as the prime contributors to this change.

Table 3. Tobit Model of Home Equity, Pooled Analysis

| lable 3. lobit Model of Home | Equity, Pooled Analysis | |
|------------------------------|-------------------------|-------|
| Variable | b | SE |
| Race-Ethnicity | | |
| Black | -1.1163** | .1819 |
| Asian | .2695 | .3353 |
| Hispanic | -1.0764** | .2295 |
| Residential Location | | |
| Midwest | -1.2068++ | .1553 |
| South | 6625++ | .1465 |
| West | 2.0019++ | .1631 |
| Central city | 5094** | .1535 |
| Suburb | 1.0268** | .1339 |
| Age | | |
| Age | .2933** | .0193 |
| Age squared | 0023** | .0002 |
| Household Statuses | | |
| Household income | .0242** | .0006 |
| Working | -1.2037** | .1418 |
| Education | .4087** | .0195 |
| Widowed | -1.3765** | .1868 |
| Other not married | -2.6178** | .1316 |
| Intermarried | 2391 | .3539 |
| Children | .2717** | .0583 |
| Length of residence | .2559** | .0050 |
| Immigrant Characteristics | | |
| Native born | 2.8576** | .3710 |
| Naturalized citizen | 2.3601** | .3491 |
| Years in the United States | .0786** | .0115 |
| | | |

(continued)

for whites.¹⁰ Most of the other predictor variables have significant effects. Households in the South and Midwest have less home equity than do those in the Northeast, while households in the West have significantly more housing wealth. Those who live in a central city, work, and are not married have significantly less equity, while those who live in

^{10.} One reviewer questioned the degree to which the reduction in group disparities in equity reflects group differences at the point of purchasing a home versus disparities that develop over time, since these may have different implications for social policy. Although a full analysis is beyond the scope of our data, we have several indicators of temporal dynamics (age, length of residence in the dwelling, years in the United States, and prior ownership) that we can use to partially address this issue. Supplementary analyses indicate that the reduction in black-white and Hispanic-white disparities between Models 1 and 7 is predominantly due to group differences that roughly correspond to the point of purchase (77% and 64% of the change, respectively). For the Hispanic-white gap, the cumulating effects of all four temporal factors are important, but for the black-white gap, only prior ownership has a major influence. For the Asian-white gap, group differences at the point of purchase are still important, but in a different way. The disparity in equity *increases* (it nearly doubles) when only these factors are controlled, and it is the playing out of temporal dynamics that reduces the gap to nonsignificance.

| Variable | Ь | SE |
|------------------------------------|----------|-------|
| Mortgage/Housing Characteristics | | |
| Prior owner | 6.1700** | .1186 |
| Condominium owner | 4.0253** | .2503 |
| Interest rate | 2268** | .0537 |
| Variable-term mortgage | .0448 | .2032 |
| FHA/VA/FHAM mortgage | 4406** | .1810 |
| Large down payment | 3.6266** | .1954 |
| Inherited down payment | 2.6055** | .3689 |
| Constant | -16.4044 | |
| Standard Error of Estimate | 13.8131 | |
| Standard Deviation for Latent Y | 18.7859 | |
| Implied R^2 for Latent Y | .4593 | |
| Scaling Factor | .6464 | |
| McDonald and Moffitt Decomposition | | |
| Percentage of effect on equity | 45.3 | |
| Percentage of effect via ownership | 54.7 | |

Note: Results for missing data dummy variables for years in the United States, down payment, and mortgage characteristics not shown.

suburban areas, are older, have higher incomes, are more educated, have more children, and have lived longer in their current house have more home equity. Both native-born citizens and foreign-born naturalized citizens have much higher levels of home equity than noncitizens (\$28,576 and \$23,601, respectively); immigrants who have resided in the United States for longer periods also have more equity. Finally, a number of housing and mortgage characteristics significantly influence levels of equity. Previous ownership and owning a condominium increase equity substantially, by \$61,700 and \$40,253, respectively. Financial access to large or inherited down payments has obvious benefits, as is seen in the large positive coefficients for both types of down payments. The importance of obtaining favorable terms on a home loan is clear: higher interest rates and holding an FHA, VA, or FMHA mortgage both reduce equity. As the descriptive statistics showed, black and Hispanic households are more likely to hold FHA, VA, or FMHA mortgages and loans with higher interest rates, and these mortgage disadvantages are particularly great for black households.

Racial-Ethnic-Specific Models of Home Equity

To explore further the sources of inequality in housing equity across the white, black, Hispanic, and Asian populations, we estimated group-specific models of equity. We limited the sample to households in the metropolitan areas identified in the AHS to explore the influence of the contextual aspects of the housing market. The results of these models are presented in Table 4.

^{**}p < .01 (one-tailed test); **p < .01 (two-tailed test)

^{11.} To determine if bias is introduced by this sample restriction, we estimated the pooled model for the metropolitan sample. This estimation yielded parallel results to those in Table 3, except that FHA, VA, or FHAM mortgage is marginally not significant in the restricted sample.

Table 4. Group-Specific Tobit Models of Home Equity

| Variable | Whites | Blacks | Asians | Hispanics |
|----------------------------------|-----------|-----------|-----------|-----------|
| Residential Location | | | | |
| Midwest | .4878 | .0010 | .3285 | 2.0145++ |
| South | 1.7877** | 2.0577** | .4133 | 2.4225++ |
| West | 1.0641 | 2.5518++ | .1033 | 1.4023++ |
| Central city | 5592* | 1183 | -1.7572* | 4904* |
| Age | | | | |
| Age | .3168** | .1614** | .0874 | .0026 |
| Age squared | 0027** | 0012** | 0006 | .0003 |
| Household Statuses | | | | |
| Household income | .0177** | .0159** | .0095** | .0151** |
| Working | -2.2738++ | 3212 | .3681 | 4630 |
| Education | .4921** | .1713** | .3154** | .0641* |
| Widowed | -1.4544** | 9806** | .2243 | 1012 |
| Other not married | -3.5703** | -1.3547** | -3.0975** | -1.3036** |
| Intermarried | | 2032 | -1.6364 | .1283 |
| Children | .3607* | .2340* | .8729* | .1512 |
| Length of residence | .3157** | .1583** | .4892** | .1894** |
| Immigrant Characteristics | | | | |
| Native born | 2.6536* | 1.9354* | 2.6012* | 1.3152** |
| Naturalized citizen | 3.0819** | .2601 | .3122 | .9064** |
| Years in the United States | .0441 | .0835** | .0906* | .0180 |
| Mortgage/Housing Characteristics | | | | |
| Prior owner | 8.4391** | 2.2944** | 7.8952** | 3.3408** |
| Condominium owner | 2.9278** | 2.7212** | 4.1090** | 1.9108** |
| Interest rate | 5317** | 1545* | 2917 | 1911* |
| Variable-term mortgage | 1.0208+ | .0398 | 5038 | .3596 |
| FHA/VA/FHAM mortgage | 3458 | 5426 | 2573 | 2739 |
| Large down payment | 3.4320** | 1.3100** | 3.7159** | 1.4185** |
| Inherited down payment | 3.3368** | 1.4958* | 2.1897 | 2.4398** |

(continued)

Comparing the coefficients across the four racial-ethnic groups shows that some of the important predictors of home equity affect all these populations. Those with higher incomes and education, those with more years of residence in their houses, married persons, and native-born persons have significantly more housing equity, irrespective of race and ethnicity. Similarly, whites, blacks, Asians, and Hispanics who have previously owned a house, are condominium owners, or made large down payments all reap the benefits of increased equity. And living in areas with higher housing values leads to greater housing wealth within each of the four populations.

However, differences in the patterns of effects across groups far outweigh these broad similarities. Virtually all the indicators of age, socioeconomic status, and family composition have weaker effects on home equity for the three minority groups than for

(Table 4, continued)

| Variable | Whites | Blacks | Asians | Hispanics |
|------------------------------------|----------|----------|----------|-----------|
| Metropolitan Housing Context | | | | |
| Percentage of new housing | 0307 | 0240 | .0648 | .0454+ |
| Median housing value (\$1,000s) | .0526** | .0111** | .0377** | .0178** |
| Metropolitan Racial-Ethnic Context | | | | |
| Percentage Asian | | | 1609++ | |
| Percentage Hispanic | | 0316++ | | |
| Black-white segregation | | .0694++ | | |
| Constant | -21.5192 | -14.5560 | -16.0157 | -6.6323 |
| Standard Error of Estimate | 13.9165 | 11.9221 | 20.5412 | 13.5661 |
| Standard Deviation for Latent Y | 20.2870 | 16.7370 | 30.5446 | 19.8408 |
| Implied R^2 for Latent Y | .5294 | .4926 | .5477 | .5325 |
| Scaling Factor | .7072 | .3725 | .4715 | .3447 |
| McDonald and Moffitt Decompositio | n | | | |
| Percentage of effect on equity | 50 | 30 | 35 | 29 |
| Percentage of effect via ownership | 50 | 70 | 65 | 71 |
| N | 11,725 | 2,945 | 1,043 | 2,863 |

Note: Results for missing data dummy variables for years in the United States, down payment, and mortgage characteristics not shown.

whites. Indeed, age, working, widowhood, and intermarriage are not significant for Asians or Hispanics, while working and intermarriage are not significant for blacks. Even more striking are some of the differences in the size of the effects of the significant variables. Black, Asian, and Hispanic households gain substantially lower equity returns to income and education than do white households. Each \$10,000 of income increases housing equity for whites by \$17,770, but only by \$15,900, \$9,500, and \$15,150 for blacks, Asians, and Hispanics, respectively. A four-year difference in education (e.g., a college versus a high school degree) leads to an increase of almost \$20,000 in whites' home equity, but increases of only \$12,616 in Asians', \$6,852 in blacks', and a mere \$2,564 in Hispanics' home equity. Clearly, minority households must have notably higher incomes and levels of education than otherwise similar white households to accumulate as much wealth in their homes.

The influence of length of residence shows a different pattern. Blacks and Hispanics gain considerably less equity than do whites for each additional year of ownership, but Asians accrue equity more rapidly than any other group. Ten years of residence results in an average gain of \$31,570 for whites, but only half that much for blacks (\$15,830) and 60% of that for Hispanics (\$18,940). Asian housing equity would have increased by \$48,920 over the same 10-year period, 55% more than for whites. This finding suggests that Asians may operate in a unique housing market, in which the demand for and hence appreciation of homes are great, thereby allowing many such households to accumulate housing wealth rapidly. The effects of prior ownership, condominium ownership, and a

^{*}p < .05 (one-tailed test); **p < .01 (one-tailed test); p < .05 (two-tailed test); p < .05 (two-tailed test); *p <

^{12.} We considered the possibility that Asians may accumulate equity more rapidly because they acquire shorter mortgages. However, descriptive statistics showed that all four racial-ethnic groups initiated mortgages of nearly identical average length.

large down payment among Asian households are also similar to or exceed those for white households, providing some additional evidence for this interpretation.

The results suggest that the opposite is true for black and Hispanic households, who likely face a weak housing market in which prices and appreciation are low and, hence, the accumulation of equity is slower than in the majority market. Prior ownership, interest rates, and large or inherited down payments all have smaller effects on home equity for blacks and Hispanics than for whites. Along with continued residence in a home as it appreciates, the most direct ways to increase housing equity would be to pay less interest, use the equity from a prior home, and/or otherwise be able to make more substantial down payments. However, these strategies have modest payoffs for blacks and Hispanics compared with whites. For example, the payoff to prior ownership is about \$23,000 for blacks, over \$33,000 for Hispanics, but close to \$85,000 for whites.

Metropolitan characteristics have rarely been included in models of housing value or equity. Examining them separately for the four racial-ethnic groups provides a more nuanced interpretation of housing-market processes, but also reveals some puzzling findings. Consistent with the pattern of effects for the household variables, median housing values have particularly weak influences on the equity accumulated by blacks and Hispanics. Living in an area with a \$1,000 higher median housing value is associated with about \$500 more equity for whites, but only one fifth as much for blacks (about \$100) and one third as much for Hispanics (about \$175).

The weak housing-market conditions that blacks face may lead to the expectation of a negative effect of black-white segregation on home equity among blacks. Yet, we found the opposite, in that blacks' home equity is greater when blacks are *more* segregated. Thus, it appears that blacks operate within a segregated and racially stratified context in which it is difficult for them to accumulate high levels of home equity in the open market. Rather, one of the only ways in which blacks can attain greater home equity is if there is a well-defined separate market for blacks in which demand is high. Another surprising finding is the significant negative effect of percentage Hispanic on blacks' home equity. One possible explanation is that large Hispanic populations create competition with blacks for better housing and that blacks get squeezed out of the portions of the market with the greatest potential for the accumulation of equity.

Although the effects of household characteristics for Asians are mixed, the two significant context effects both indicate a weak housing market among Asians. Higher median housing values are associated with smaller increases in home equity for Asian than for white households, even though the difference is not as great as for the other groups. Furthermore, Asian households have lower home equity when they are a larger share of the population. Thus, Asian households benefit greatly from some personal and housing factors, but contextual forces constrain their accumulation of the same housing wealth as whites.

Finally, one truly puzzling result is that new housing has a positive effect on the home equity of Hispanics, although it is not significant for the other groups (net of household length of residence). This finding may reflect low levels of home equity in older barrios than in newer communities to which Hispanics have gained access.

DISCUSSION AND CONCLUSIONS

What are the sources of the extraordinary disparities among racial-ethnic groups in their accumulation of wealth? We explored this question by modeling the predictors of the largest share of wealth held by most households: home equity. Two types of models were examined to address our broad question: (1) analyses that combined whites, blacks, Hispanics, and Asians to evaluate the relative contribution of types of factors to group differences in net average equity and (2) racial-ethnic-specific models that explored differences in the processes that generate equity. Both analyses point to the centrality of racial-ethnic stratification and discrimination for understanding disparities in home equity.

A key finding from the pooled analyses is that for blacks and Hispanics, the largest drops in differences in equity occur when household statuses (including income and education) are controlled. Considerable past research has demonstrated that racial-ethnic differences in socioeconomic status result from both achievement and discrimination in multiple realms (e.g., schools, labor markets, and families) within and across generations. Thus, the gap in home equity that is due to differences in household statuses represents, in large part, the outcome of processes that take place outside of and prior to entry into the housing market. Thus, processes that create *prior* social and economic inequality are reproduced as group disparities in the accumulation of housing wealth.

But differential treatment of blacks and Hispanics compared with whites within the housing market, as shown by audit (and other) housing-market studies, is also consequential for the growth of disparities in equity over time. Indeed, after we controlled for household age, we found that past exclusion from the housing market (as evidenced in lower rates of previous homeownership, particularly among blacks) is an important source of the lower home equity that is subsequently attained. This finding is consistent with the sedimentation argument set forth by Oliver and Shapiro (1995), in which they noted that consistent barriers to homeownership for blacks over the course of history continue to impede their potential to generate wealth.

The group-specific analyses further bolster the stratification perspective in that the payoffs to many factors are notably weaker for minority households than for white households. This lesser payoff is particularly uniform across the minority groups for age, socioeconomic status, and housing-market value. The same is true for mortgage and housing characteristics for blacks and Hispanics. These findings are consistent with Flippen's (2001a) study of home equity among preretirement-age whites, blacks, and Hispanics, as well as with considerable evidence that nonwhites are widely discriminated against in the housing market in ways that limit their access to the most-favorable neighborhoods and housing (Alba and Logan 1992; Alba et al. 2000a; Flippen 2001b; Logan and Alba 1993; Massey and Denton 1993; Rosenbaum and Friedman 2001; Ross and Yinger 2002; Yinger 1995). Such discrimination (e.g., providing less information, steering to more heavily minority areas, showing smaller, lower-quality, or lower-value homes) should mute the influence of family and market factors on housing equity, as we found here. Whites' prejudice against living near minorities similarly constrains market processes by reducing the demand for and hence the value and appreciation of homes owned by nonwhites.

The role of market constraints on minorities' accumulation of equity is further evidenced by the way in which the predictors affect entry into the ownership market versus increasing equity once a home is owned. Because a tobit model simultaneously estimates influences on the probability of homeownership and on variation in equity, the effect of each variable can be decomposed into its "direct" influence on equity and its "indirect" effect on equity through the likelihood of homeownership (McDonald and Moffitt 1980). The decomposition results at the bottom of Table 4 show a striking pattern. For whites, all factors affect home equity equally through their influence on the chances of owning a home and on the amount of equity attained after a house is purchased. For blacks, Hispanics, and Asians, the effects are channeled predominantly through homeownership. Thus, if we considered only those who own homes, the differences in effects between whites and minorities would be even larger than those we described. This pattern implies that the role of prejudice and discrimination in diminishing the accumulation of wealth through housing is likely greater than has already been noted, especially for blacks and Hispanics.

Our findings also highlight what is learned by moving beyond the nearly exclusive focus on black-white inequality in past research on wealth and housing. Blacks, Hispanics, and Asians are distinctly situated with respect to economic and social positions. When we extend the groups that are examined, it becomes clear that an expanded theoretical and

empirical repertoire is needed to encompass the diversity of social statuses and processes. For example, Asians and Hispanics are strongly affected by their recent histories of immigration but have dissimilar socioeconomic statuses. Such differences from each other and from blacks are reflected in varying sources of gaps in equity across groups. Thus, the immigrant character and young age of the largely foreign-born Asian population are especially important for understanding Asians' initial disadvantage in home equity compared with whites. This is also the case for the Hispanic-white disparity. But, just as for blacks, the influence of immigration is dwarfed by the role of household and economic forces in lowering levels of housing equity of Hispanics relative to whites.

Separate analyses of blacks, whites, Hispanics, and Asians further revealed the diversity of processes across groups. Hispanics are much like blacks in the way that discrimination in the housing market appears to suppress the accumulation of home equity, but this is not systematically the case for Asians. In particular, the payoffs to a variety of housing indicators (length of residence, prior ownership, interest rates, large and inherited down payments, and metropolitan housing values) are all dramatically smaller for both Hispanics and blacks than for whites. The consistency of this pattern strongly suggests that these two minority populations cannot hope to attain the housing wealth of majority households because of the ways in which prejudice and discrimination weaken the demand for living with and buying homes from Hispanics and blacks. In contrast, most housing characteristics have payoffs for Asians that are equal to or greater than those for whites, with the notable exception of metropolitan housing values.

Finally, our analyses demonstrate the value of analyzing components of wealth separately to study unique predictors. At the household level, mortgage and housing characteristics are unlikely to affect the accumulation of financial assets (such as stocks or bonds), but are obviously central to understanding both the accumulation of equity, in general, and group disparities in equity. Similarly, there is little reason to believe that metropolitan-level housing contexts would influence trusts and inheritances, but they are important determinants of the accumulation of and inequality in housing wealth. Applying an analogous strategy to the full range of specific types of assets would elucidate the unique forces that affect each and identify the role they play in producing and reproducing overall inequality in wealth.

Our research suggests several avenues for future work on inequality in housing and wealth. First, because of the lack of data, we were unable to consider some mechanisms that may contribute to racial and ethnic inequality in home equity. These mechanisms include differences in market appreciation, inheritance levels (not just receipt), and the social class origins of minority versus majority white households. Second, the AHS data we used do not distinguish Asian or Hispanics subgroups, so we were unable to explore important variation within these panethnic groups. Third, our analyses were cross sectional, with only a few indicators of household history. Because households accumulate wealth over time, research on the accumulation of assets would benefit from longitudinal data and analyses. Unfortunately, no nationally representative surveys have followed the same households over time, collected information on inheritances and families' social origins, and have samples that are large enough for analyzing the populations examined here, let alone a wider and more-detailed array of racial-ethnic groups. Collecting such data in the future would be a boon to research in this area.

In sum, our research on home equity has linked the nascent literature on racial-ethnic wealth inequality to research that has documented large racial-ethnic differences in housing and the quality of neighborhoods. Such inequality in housing has important ramifications for household members' well-being. Housing wealth provides households with economic resources, such as protection against inflation, a hedge against catastrophic events, and access to low-cost home equity loans. In turn, these resources can be used to enhance noneconomic well-being by increasing educational opportunities for

children, leisure activities and health care during retirement, and the like. By directly examining home equity as a component of household assets, we demonstrated that minority groups differ dramatically in their ability to accumulate the same long-term economic resources as do whites. If such inequality could be reduced, blacks and Hispanics would improve their current and future economic and noneconomic well-being.

REFERENCES

- Alba, R.D. and J.R. Logan. 1992. "Assimilation and Stratification in the Homeownership Patterns of Racial and Ethnic Groups." *International Migration Review* 26:1314–41.
- Alba, R.D., J.R. Logan, and B.J. Stults. 2000a. "The Changing Neighborhood Contexts of the Immigrant Metropolis." *Social Forces* 79:587–621.
- ——. 2000b. "How Segregated Are Middle-Class African Americans?" *Social Problems* 47: 543–58.
- Blau, F.D. and J.W. Graham. 1990. "Black-White Differences in Wealth and Asset Composition." *The Quarterly Journal of Economics* 105:321–39.
- Bobo, L. and C.L. Zubrinsky. 1996. "Attitudes on Residential Integration: Perceived Status Differences, Mere In-Group Preference, or Racial Prejudice?" *Social Forces* 74:883–909.
- Bradford, C. 2002. Risk or Race? Racial Disparities and the Subprime Refinance Market. Washington, DC: Center for Community Change.
- Campbell, L.A. and R.L. Kaufman. 2000. "Racial Differences in Household Wealth: Beyond Black and White." Paper presented at the annual meeting of the American Sociological Association, August 12–16, Washington, DC.
- Campbell, R.T. and J.C. Henretta. 1980. "Status Claims and Status Attainment: The Determinants of Financial Well-being." *American Journal of Sociology* 86:618–29.
- Charles, C. Zubrinsky. 2000. "Neighborhood Racial-Composition Preferences: Evidence From a Multiethnic Metropolis." Social Problems 47:379–407.
- Conley, D. 1999. Being Black, Living in the Red: Race, Wealth, and Social Policy in America. Berkeley: University of California Press.
- ——. 2001. "Decomposing the Black-White Wealth Gap: The Role of Parental Resources, Inheritance, and Investment Dynamics." *Sociological Inquiry* 71:39–66.
- Coulson, N.E. 1999. "Why Are Hispanic- and Asian-American Homeownership Rates So Low? Immigration and Other Factors." *Journal of Urban Economics* 45:209–27.
- Farley, R. 1996. "Racial Differences in the Search for Housing: Do Whites and Blacks Use the Same Techniques to Find Housing?" *Housing Policy Debate* 7:367–85.
- Farley, R., C. Steeh, M. Krysan, T. Jackson, and K. Reeves. 1994. "Stereotypes and Segregation: Neighborhoods in the Detroit Area." *American Journal of Sociology* 100:750–80.
- Fischer, M. 2003. "The Relative Importance of Income and Race in Determining Residential Outcomes in U.S. Urban Areas, 1970–2000." *Urban Affairs Review* 38:669–96.
- Flippen, C. 2001a. "Racial and Ethnic Inequality in Homeownership and Housing Equity." *The Sociological Quarterly* 42:121–49.
- 2001b. "Residential Segregation and Minority Homeownership." *Social Science Research* 30:337–62.
- Frey, W.H. and R. Farley. 1996. "Latino, Asian, and Black Segregation in U.S. Metropolitan Areas: Are Multiethnic Metros Different?" *Demography* 33:35–50.
- Hao, L. 1996. "Family Structure, Private Transfers, and the Economic Well-being of Families With Children." *Social Forces* 75:269–92.
- ——. Forthcoming. "Wealth of Immigrant and Native-Born Americans." *International Migration Review* 38(1).
- Holloway, S.R. and E.K. Wyly. 2001. "The Color of Money' Expanded: Geographically Contingent Mortgage Lending in Atlanta." *Journal of Housing Research* 12:55–90.
- Horton, H.D. and M.E. Thomas. 1998. "Race, Class, and Family Structure: Differences in Housing Values for Black and White Homeowners." *Sociological Inquiry* 68:114–36.

- Keil, K.A. and J.E. Zabel. 1996. "House Price Differentials in U.S. Cities: Household and Neighborhood Racial Effects." *Journal of Housing Economics* 5:143–65.
- Keister, L.A. 2000a. "Race and Wealth Inequality: The Impact of Racial Differences in Asset Ownership on the Distribution of Household Wealth." *Social Science Research* 29:477–502.
- Keister, L.A. and S. Moller. 2000. "Wealth Inequality in the United States." *Annual Review of Sociology* 26:63–81.
- Kennickell, A. and J. Shack-Marquez. 1992. "Changes in Family Finances From 1983–1989: Evidence From the Survey of Consumer Finances." *Federal Reserve Bulletin* 78:1–18.
- Kennickell, A. and M. Starr-McCluer. 1994. "Changes in Family Finances From 1989 to 1992: Evidence From the Survey of Consumer Finances." *Federal Reserve Bulletin* 80:861–82.
- Kennickell, A., M. Starr-McCluer, and A. Suden. 1997. "Family Finances in the U.S.: Recent Evidence From the Survey of Consumer Finances." *Federal Reserve Bulletin* 83:1–24.
- Krivo, L.J. 1995. "Immigrant Characteristics and Hispanic-Anglo Housing Inequality." Demography 32:599–615.
- Krivo, L.J. and R.L. Kaufman. 1999. "How Low Can It Go? Declining Black-White Segregation in a Multiethnic Context." *Demography* 36:93–109.
- Krysan, M. 2002. "Whites Who Say They'd Flee: Who Are They, and Why Would They Leave?" Demography 39:675–96.
- Land, K. and S. Russell. 1996. "Wealth Accumulation Across the Adult Life Course: Stability and Change in Sociodemographic Covariate Structures of Net Worth Data in the Survey of Income and Program Participation 1984–1991." Social Science Research 25:423–62.
- Lewin-Epstein, N., Y. Elmelech, and M. Semyonov. 1997. "Ethnic Inequality in Home Ownership and the Value of Housing: The Case of Immigrants in Israel." *Social Forces* 75:1439–62.
- Lewin-Epstein, N. and M. Semyonov. 2000. "Migration, Ethnicity, and Inequality: Homeowner-ship in Israel." Social Problems 47:425–44.
- Logan, J.R. and R.D. Alba. 1993. "Locational Returns to Human Capital: Minority Access to Suburban Community Resources." *Demography* 30:243–68.
- Long, J.E. and S.B. Caudill. 1992. "Racial Differences In Homeownership and Housing Wealth, 1970–1986." *Economic Inquiry* 30:83–100.
- Long, J.S. 1997. Regression Models for Categorical and Limited Dependent Variables. Thousand Oaks, CA: Sage.
- Massey, D.S. and N.A. Denton. 1993. American Apartheid: Segregation and the Making of the Underclass. Cambridge, MA: Harvard University Press.
- McDonald, J.F. and R.A. Moffitt. 1980. "The Uses of Tobit Analysis." *Review of Economics and Statistics* 62:318–21.
- Menchik, P. and N.A. Jianakoplos. 1997. "Black-White Wealth Inequality: Is Inheritance the Reason?" *Economic Inquiry* 35:428–42.
- Munnell, A.H., G.M.B. Tootell, L.E. Browne, and J. McEneaney. 1996. "Mortgage Lending in Boston: Interpreting HMDA Data." *American Economic Review* 86:25–53.
- Myers, D. and S.W. Lee. 1998. "Immigrant Trajectories Into Homeownership: A Temporal Analysis of Residential Assimilation." *International Migration Review* 32:593–625.
- Myers, S.L. and C. Chung. 1996. "Racial Differences in Home Ownership and Home Equity Among Preretirement-Aged Households." *The Gerontologist* 36:350–60.
- Oliver, M.L. and T. Shapiro. 1995. *Black Wealth/White Wealth: A New Perspective on Racial Inequality*. New York: Routledge.
- Parcel, T. 1982. "Wealth Accumulation of Black and White Men: The Case of Housing Equity." Social Problems 30:199–211.
- Racial Residential Segregation Measurement Project. 2004. Segregation Indexes. Ann Arbor: Population Studies Center, University of Michigan. Available on-line at http://enceladus.isr.umich.edu/race/racestart.asp

- Rosenbaum, E. 1996. "Racial/Ethnic Differences in Home Ownership and Housing Quality, 1991." *Social Problems* 43:201–24.
- Rosenbaum, E. and S. Friedman. 2001. "Differences in the Locational Attainment of Immigrant and Native-Born Households With Children in New York City." *Demography* 38:337–48.
- Ross, S. and J. Yinger. 2002. The Color of Credit: Mortgage Discrimination, Research Methodology, and Fair-Lending Enforcement. Cambridge, MA: MIT Press.
- Shapiro, T.M. 2004. The Hidden Cost of Being African American: How Wealth Perpetuates Inequality. New York: Oxford University Press.
- Spilerman, S. 2002. "Wealth and Stratification Processes." Annual Review of Sociology 26:497–524.
 Turner, M.A. 1992. "Discrimination in Urban Housing Markets: Lessons From Fair Housing Audits." Housing Policy Debate 3:185–215.
- U.S. Census Bureau. 2001. *Did you Know? Homes Account for 44 Percent of All Wealth: Findings From the SIPP*. Current Population Reports, Series P70, No. 75, Household Economic Studies. Washington, DC: U.S. Department of Commerce.
- Wolff, E.N. 1998. "Recent Trends in the Size Distribution of Wealth." *Journal of Economic Perspectives* 12:131–50.
- ———. 2001. "Racial Wealth Disparities: Is the Gap Closing?" Public Policy Brief 66. Annandale-on-Hudson, NY: Levy Economics Institute.
- Yinger, J. 1995. Closed Doors, Opportunities Lost: The Continuing Costs of Housing Discrimination. New York: Russell Sage Foundation.