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RACE AND HOME OWNERSHIP,  
1900 TO 1990

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### **ABSTRACT**

The historical evolution of racial differences in income in the 20<sup>th</sup> century United States has been examined intensively by economists, but the evolution of racial differences in wealth has been examined far less. This paper uses IPUMS data to study trends in racial differences in home ownership since 1900. At the turn of the century approximately 20 percent of black adult males (ages 20 to 64) owned their homes, compared with 46 percent of white men, a gap of 26 percentage points. By 1990, the black home ownership rate had increased to 52 percent and the racial gap had fallen to 19.5 percentage points. All of the long-term rise in the rate of black home ownership, and almost all of the corresponding long-term decline in the racial gap, occurred after 1940, with the majority of both changes concentrated in the 1960 to 1980 period. We also use the IPUMS to study trends in race differences in the incidence of mortgages, and in the value of owner-occupied housing.

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## 1. Introduction

The historical evolution of racial differences in labor incomes has received considerable attention from economists. The black-to-white earnings ratio has risen substantially since 1900, with virtually all of the increase occurring in two periods -- the 1940s and from 1963 to 1975 (Donohue and Heckman 1991). Although scholars dispute the relative importance of different factors affecting the racial earnings gap, most agree that a narrowing of racial differences in the quantity and quality of schooling, migration from the South, and increases in the relative demand for black labor associated with the world wars and with government anti-discrimination legislation were responsible for the century long improvement in relative black status (Smith and Welch 1989; Margo 1990; Donahue and Heckman 1991; Collins 1999).

In contrast to labor incomes, far less attention has been paid to the historical evolution of racial differences in wealth. This scholarly neglect is unfortunate because racial differences in wealth were – and still are – much larger than racial differences in labor incomes and also because wealth per se is an important determinant of living standards, independent of earnings.

This paper examines the historical evolution of racial differences in one aspect of wealth – home ownership – from 1900 to 1990. Although we are far from the first economists to examine racial differences in home ownership (see section 2), we are, as far as we are aware, the first to examine differences over such a long period of time. Using samples of male household heads drawn from the IPUMS (integrated public use micro-data series of the U.S. census), we present evidence on the racial gap in home ownership for census years, both overall and by cohort. We also use the IPUMS data to explore the correlates of home ownership at points in time, and to decompose the change in the racial gap over time. In addition, we also make use of census data on mortgage status and the value of owner-occupied housing that are available for certain census

years.

We focus on home ownership for three reasons. First, as far as we know, there are few other race-specific wealth data that span such a long period of time.<sup>1</sup> Second, owner-occupied housing was (and is) the single largest component of (non-pension) household wealth, especially for black households.<sup>2</sup> Third, the federal government's intervention in housing markets is alleged to have inhibited at some times, and to have encouraged at other times, the accumulation of housing wealth by black households relative to white households..

The paper is organized as follows. Section 2 presents an overview of the literature on racial differences in wealth, past and present. Section 3 presents our findings which, in section 4, are then interpreted in light of institutional developments in housing markets and housing finance in the twentieth century. Conclusions are presented in Section 5.

## **2. Racial Differences in Wealth: An Overview**

Economists have investigated the historical evolution of racial differences in labor incomes but, by and large, have neglected the evolution of racial differences in wealth. The primary reason for this neglect is the scarcity of relevant historical data.

Other than certain federal census data, the most extensive body of evidence on racial differences in wealth prior to World War II is contained in the official reports of state auditors for

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<sup>1</sup>Race-specific IPUMS data on self-employment status and on self-employment incomes (but not business equity) are available, respectively, beginning in 1910 and 1950. Racial differences in the employment of domestic servants could also be explored, particularly for the late nineteenth and early twentieth century when such employment was common.

<sup>2</sup>Based on the 1988 wave of the SIPP (Survey of Income and Program Participation) home equity accounted for approximately 43 percent of net worth of white households but 63 percent of net worth of black households; see Oliver and Shapiro (1995, p. 106).

various Southern states. Six states reported information on assessed wealth (that is, subject to a property tax) or on property tax payments by race – Arkansas, Georgia, Kentucky, Louisiana, North Carolina, and Virginia – over varying periods of time beginning just after the Civil War and extending just beyond World War I (Higgs 1982; Margo 1984).

The auditors' data reveal that black households in the late nineteenth and early twentieth centuries were very poor, both absolutely and relative to white households. Among these states, the black-to-white ratio of per capita assessed wealth ranged from a low of 0.034 (3.4 cents of black wealth per \$1.00 of white wealth) in Louisiana in 1910 to a high of 0.159 in Arkansas in 1910. The median ratio, among all states and years, was 0.058. These figures are likely to be upper bounds to the true ratios, as there is evidence that black-owned property was assessed closer to market value than white-owned property (Margo 1984).

Similar data are not available in published form for the other southern states, nor are we aware of contemporaneous data for northern states. However, it is highly likely that, in the aggregate, the black-to-white ratio of per capita wealth circa 1900 was below, say, 0.10, simply because the great majority of blacks at that time (over 90 percent) lived in the South, and it is unlikely that the wealth ratios for the other Southern states differ dramatically from the six for which race-specific data are available.<sup>3</sup>

The data also reveal that, with the exception of Louisiana, the black-to-white wealth ratio was increasing prior to 1910 (indeed, it had to have increased, because blacks emerged from slavery with essentially no tangible wealth; see Ransom and Sutch 1977). The fortunes of the cotton economy can explain the exception: time series regressions reveal that the pace of black

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<sup>3</sup>On the other hand, the ratio of black-to-white per capita wealth underestimates the black-to-white ratio of household wealth, because the average size of black households was larger than the average size of white households.

wealth accumulation was positively related to the level of income from cotton production. Louisiana's cotton fields were infested by the boll weevil in the early 1900s, and the brunt was evidently borne by black farmers (Margo 1984).

Modern studies of racial differences in wealth date from the late 1960s. Although differences across studies in the definition of wealth and sample composition make it difficult to measure change precisely over time, the black-to-white wealth ratio has clearly increased during the twentieth century. Using data for 1967, Terrell (1971) estimated a black-to-white wealth ratio of 0.16. Blau and Graham (1990) analyzed wealth data on households in which the primary adults were between the ages of 24 and 34, based on extracts from the 1976 and 1978 waves of the NLS-Y; among married couples in the sample, the black-to-white ratio of household wealth was 0.23. Based on data from 1988 wave of the SIPP, Oliver and Shapiro (1995) estimated that the black-to-white ratio of household net worth was 0.25. Modern studies also reveal that the composition of portfolios differs between blacks and whites (Blau and Graham 1990; Oliver and Shapiro 1995). In general, black households are less likely to invest in financial assets (particularly stocks, bonds and mutual funds) and hold business equity, keeping a larger fraction of wealth in housing equity and automobile ownership.<sup>4</sup>

Because of the quantitative importance of housing equity in household portfolios and abundant anecdotal and quantitative evidence of racial segregation and discrimination in urban housing markets, racial differences in home ownership and in the value of owner-occupied housing in recent decades have received considerable attention from social scientists.<sup>5</sup> An important recent study is by Long and Caudill (1992). Using census and CPS data, Long and

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<sup>4</sup>The racial difference in portfolio composition declines, but does not disappear, as household income rises; see Oliver and Shapiro (1995).

<sup>5</sup>The bibliography to Oliver and Shapiro (1995, pp. 225-236) lists the principal studies.

Caudill tracked racial differences in home ownership and housing values between 1970 and 1986. Focusing on married households, Long and Caudill estimated that the black home ownership rate increased from 0.475 in 1970 to 0.632 in 1986, a faster rate of growth than among white households in their sample. Controlling for a variety of factors (for example, income, family size, and location) the racial difference in home ownership was 6.3 percentage points in 1986, compared with 15.3 percentage points at the sample means. Racial differences in the rate of home ownership were smaller in percentage terms (in 1986) than racial differences in the value of owner-occupied housing – either at the sample means or controlling for other factors – suggesting (to Long and Caudill) that blacks faced various constraints in accumulating housing equity once becoming owners.<sup>6</sup>

### **3. Race and Home Ownership Since 1900: Results from IPUMS Data**

Information about home ownership is available in every micro sample of the census since 1900, with the exception of 1950.<sup>7</sup> Dwellings were classified as owner-occupied if the owner happened to live there, though the census did not identify whom within the household was the owner. Home ownership rates in published census tables typically report either the proportion of all homes that were owned, or the ratio of the number of owner-occupied dwellings over the total number of households (or families). We have taken a somewhat different approach to measuring home ownership rates by extracting from each census micro sample observations of male

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<sup>6</sup> There is some evidence that the racial difference in housing values is due to differences in housing characteristics, and in how the housing market prices (in an hedonic sense) such characteristics; see Long and Caudill (1992).

<sup>7</sup> There is no micro sample for the 1930 Census.

household heads between 20 and 64 years of age who were not in school. Implicitly, we assume that if the house is owner-occupied, then it is the household head who owns the house, though it is possible that someone else in the household (e.g., a grandparent) is the true owner. Our neglect, for the moment at least, of home ownership among women reflects the paper's original motivation which is to use the home ownership data as a window on wealth accumulation and to do so in a way that parallels the literature on racial wage and income differences. Later versions of the paper may include some consideration of home ownership by women and the implications of differences between races in the proportion of households headed by women. Here, we use the census data to identify broad trends in the home ownership rates of black and white men over the course of the twentieth century. Then, by exploiting the micro nature of the data, we attempt to account for these changes and to use home ownership to glean some insight into wealth accumulation, migration and urbanization, residential segregation, and the evolution of mortgage markets. In this section of the paper we present the data, and in section 4 we discuss the findings in their historical and institutional context.

Figure 1 graphs male home ownership rates by race from 1900 to 1990. The white rate is at all times considerably higher than the black rate, and for the most part, the black and white rates move in the same direction from decade to decade. Remarkably, not until 1970 does the black home ownership rate reach the level of the white rate at the turn of the century (46 percent). The slight declines in both the black and white rates between 1920 and 1940 were followed by sharp rises from 1940 to 1960 (24.2 points for whites and 18.6 for blacks) and continuing increases until 1980 when the rates leveled off.

Although the white level of ownership is always higher than the black level, the size of the gap has varied over time. Figure 2 shows a drop in the gap between 1900 and 1910 as the black

rate increased and the white rate stayed flat. The most notable changes in the gap came a bit later in the century, however, as the gap jumped by 5.5 points between 1940 and 1960 and then collapsed from 1960 to 1980, falling 7.8 points. Interestingly, the jump in the ownership gap between 1940 and 1960 ran counter to the decline of the racial income gap over the same period, but both ownership and income gaps declined after 1960.<sup>8</sup> Below, we will use a decomposition analysis of the census data to measure the extent to which the rapid urbanization of the black population from 1940 to 1960 accounts for the unusual rise in the white-black ownership gap. Similarly, we will use a decomposition analysis to explore the driving factors of the post-1960 decline in the ownership gap.

Table 1 reports the size of the racial ownership gap and therefore reveals much of the same information as Figures 1 and 2, but it also reports ownership gaps by birth cohort, and therefore it provides some insight into racial differences in property acquisition by age and some perspective on how particular (artificial) cohorts fared over their lifetimes. Some interesting differences in ownership patterns between the first and second halves of the century emerge from Table 1. First, comparing 60 to 64 year-olds (at the top of each column's entries) with 30 to 34 year-olds (third from the bottom of each column), the racial ownership gap was larger for the older cohorts than for the younger cohorts in each year up to 1940, though this pattern weakened over time. By 1960, this pattern had actually reversed itself, and the gap was larger for younger cohorts than for older ones. Furthermore, the overall increase in the ownership gap between 1940 and 1960 was clearly driven by what happened among the middle and younger cohorts. In fact, aside from the oldest cohorts in 1900, the largest recorded racial gaps in home ownership occurred in 1960 among 30 to 45 year olds.

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<sup>8</sup> The black/white weekly wage ratio increased from 0.433 to 0.575 between 1940 and 1960 and continued to rise to 0.726 by 1980 (Smith and Welch, 1989).

Second, following particular cohorts over time (reading along rows, across columns) reveals that up to 1960, as cohorts aged, the racial ownership gap almost always widened. In other words, blacks did not achieve home ownership as readily as whites did over the course of their lives. After 1960, blacks began to achieve homeowner status faster than whites. Except for the youngest cohort (20 to 24) in each decade, the racial ownership gap got smaller as the cohorts aged. For example, among those who were 30 to 34 years old in 1960, the white-black gap was 31.84 points in 1960, 26.11 points in 1970, 17.87 points in 1980, and 17.09 points in 1990. Thus, the downward swing in the ownership gap depicted in Figure 2 is not merely a function of younger, better-educated blacks taking the place of older, less-educated blacks in that year's sample, rather we see a distinct narrowing of the gap within cohorts over time after 1960.

### Linear Probability Regressions

The advantage of using micro data is that we can explore the correlates of home ownership and how they have changed over time. We use linear probability models to estimate the relationship between a number of household head characteristics and the probability of living in an owner-occupied home.<sup>9</sup> The list of characteristics includes: race, occupational status as measured by the median income of workers in that three-digit occupation in 1950, age, literacy (starting in 1940, we count everyone with more than a second grade education as literate), farm status, metropolitan status (a dummy for central city residents and a dummy for suburban residents), marital status, family size, whether more than one family resides in the dwelling, region of residence, and migrant status (a dummy for native-born inter-regional migrants and a dummy

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<sup>9</sup>Probit models give substantively identical results.

for the foreign born).

Table 2 reports regressions for each census year from 1900 to 1990, except 1930 and 1950 for which data are unavailable. It is evident that some interesting changes in the nature of home ownership have unfolded over the century's course. For example, the age profile steepened sharply between 1940 and 1960 as home ownership became the norm for white men in their 30s. Over the same period, the marriage indicator became strongly positive and significant. The coefficient for the farm status variable went from strongly positive at the turn of the century to essentially zero by 1960, including a big drop between 1920 and 1940, presumably as small, family-owned farms became increasingly rare. Interestingly, the foreign-born became increasingly less likely than natives to own a home in the post-war period. Finally, the substantial inter-regional differences which were apparent in 1910 had dissipated by 1990 as the high propensity for home-ownership in the West and Midwest converged on that of the Northeast (omitted category). Other coefficients were more stable over time. Inter-regional migrants (natives residing in a region different from their region of birth) were always less likely to own than non-migrants, and literate men and those in relatively higher paying occupations were always more likely to own their homes.

Consistent with the findings of Table 1, race exerted a negative effect on home ownership. However, the magnitude of the coefficient was uniformly smaller than the racial gaps shown in Figure 1, indicating that the racial differences in the variables included in the regression were responsible for some of the racial gap in home ownership. [The explanatory power of the model improved over the course of the century – on average, 30 percent of the racial gap is explained by the regression specification prior to 1940 compared with 46 percent after 1940.](#)<sup>10</sup> Importantly,

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<sup>10</sup>Percent explained is calculated as the difference between the actual and “adjusted” racial gaps (the adjusted gap is the absolute value of the race coefficient in the regressions) divided by

controlling for factors other than race eliminates nearly all of the increase in the gap between 1940 and 1960; that is, racial differences in variables included in the regression were responsible for the rise in the racial gap between 1940 and 1960. The pure effect of race (the coefficient of the race dummy) began to decline significantly after 1960. Controlling for other factors the racial gap was about 15.5 percentage points in 1900, compared with 14.9 points in 1960. By 1980, however, the pure effect of race had fallen to 9.0 percentage points.<sup>11</sup>

### Decomposition Analysis

A number of factors could influence the size of the racial gap in home ownership: the geographic, educational, and occupational distributions of blacks relative to whites; the extent of mortgage markets or the form of mortgage contracts themselves which might have differential racial impacts; tax laws or other government policies which might have differential racial impacts; and, of course, the prevalence of racial discrimination in housing markets. Although we cannot examine some of these factors directly, we can examine the extent to which information contained in the census might account for changes in the racial gap over time using a decomposition analysis (Juhn, Murphy, Pierce 1991; Maloney 1994; Margo 1995). The basic idea is to decompose the overall change in the ownership gap into three components: one associated with changes in the characteristics of blacks and whites; one associated with changes in how characteristics are correlated with home ownership; and another associated with changes in the distribution of

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the actual gap. For example, in 1910,  $29.7 = [(0.2141 - 0.1505)/0.2141]$  percent of the racial gap is explained by the regression specification.

<sup>11</sup>To be sure, the pure effect of race was slightly in 1990 than in 1980, suggesting that racial barriers to home ownership may have worsened somewhat in the 1980s. However, even the 1990 race coefficient is far below the coefficients in the early 20<sup>th</sup> century.

residuals.

More precisely, the gap (G) in home ownership rates at time t can be written as

$$(1) \quad G_t = H_{wt} - H_{bt} = (X_{wt} - X_{bt}) \hat{a}_t + e_{wt} - e_{bt} .$$

The X represents the characteristics of the men in the sample (age, age squared, education, education squared, occupational status as measured by median income of workers with that three-digit occupation in 1950, region of residence, metropolitan status, migrant status, farm status, marital status, family size, and whether more than one family lives in the residence). The  $\hat{a}$  represents a vector of regression coefficients relating the various characteristics to the likelihood of home ownership, and e represents the residual term from such a regression. After adding and subtracting  $\hat{a}_t(X_{wt+1} - X_{bt+1})$  and rearranging terms, the change in the gap from one census (t) to another (t+1) can be expressed as

$$(2) \quad G_{t+1} - G_t = [(X_{wt+1} - X_{bt+1}) - (X_{wt} - X_{bt})] \hat{a}_t + \\ (X_{wt+1} - X_{bt+1})(\hat{a}_{t+1} - \hat{a}_t) + \\ [(e_{wt+1} - e_{bt+1}) - (e_{wt} - e_{bt})].$$

Finally, the change in the gap can be rewritten as

$$(3) \quad G_{t+1} - G_t = [(X_{wt+1} - X_{bt+1}) - (X_{wt} - X_{bt})] \hat{a}_t + \\ (X_{wt+1} - X_{bt+1})(\hat{a}_{t+1} - \hat{a}_t) + \\ [(\ddot{a}_{wt+1} - \ddot{a}_{bt+1}) - (\ddot{a}_{wt} - \ddot{a}_{bt})] \acute{o}_{wt} + (\ddot{a}_{wt+1} - \ddot{a}_{bt+1})(\acute{o}_{wt+1} - \acute{o}_{wt})$$

where  $\hat{\sigma}_{wt}$  is the standard deviation of the white residuals in year  $t$  and  $\hat{a}_{it}$  is the “standardized” residual ( $e_{it}/\hat{\sigma}_{wt}$ ) with mean zero and variance one for whites. If there had been no change in the standard deviation of the white residuals between the censuses, then the fourth term would be zero and the third term would be identical to the last term of equation 2. This last step in the decomposition allows us to distinguish between changes in the residual gap driven by changes in the residuals’ variance (fourth term) and those driven by changes in the relative position of blacks in the residual distribution (third term).

Table 3 describes the decomposition for the 1940 to 1960 period using a linear probability model to estimate the  $\hat{a}$  coefficients for the white population.<sup>12</sup> Changes in the first two terms of equation 3 are able to account for nearly all of the increase in the racial home ownership gap.<sup>13</sup> The change in relative characteristics accounts for roughly 63 percent (0.032/0.050) of the overall change in the racial home ownership gap, and the movement of blacks out of the South and into the central cities were the largest contributors to the rise in the gap. In other words, the Great Migration had a large impact on whether or not blacks held wealth in the form of a house. According to the decomposition, had it not been for the relatively large increase in black

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<sup>12</sup> In principle, the decomposition can be done using the coefficients from either the white or black regressions. Here we follow Juhn, Murphy, and Pierce (1991) and Margo (1995) by using the coefficients from the white regression. Using the black coefficients in the 1940-60 decomposition, the change in coefficients from 1940 to 1960 played a more important role in accounting for the widening ownership gap than when white coefficients were used (59 percent rather than 31 percent). In particular, a substantial increase in the occupation coefficient tends to widen the gap, but the education coefficient does not increase much for blacks and so this does not contribute much to the widening. The coefficient on farm status is negative for blacks but positive for whites. Therefore, the movement of blacks off farms tends to widen the ownership gap when the white coefficients are used but narrow the gap when black coefficients are used.

<sup>13</sup> The total change (1940 to 1960) to be explained in Table 2 is only 5.01 points compared to 5.44 points from Table 1 because a number of observations are excluded from Table 2 that are included in Table 1 (in particular, those with no reported occupation are dropped from the regressions of Table 2).

education levels between 1940 and 1960, the ownership gap would have increased by substantially more than it did. Approximately 31 percent ( $0.016/0.050$ ) of the change in the gap can be accounted for by changes in the coefficients relating the various characteristics to the propensity for home ownership. Most importantly, the sizable increase in the coefficient on education tended to increase the size of the racial ownership gap because whites had significantly higher levels of education than blacks.

Table 4 reports the decomposition for the 1960 to 1980 period, and the results differ substantially from those for the previous twenty years. From 1960 to 1980, changes in characteristics and changes in coefficients account for only 39 percent of the overall decline in the home ownership gap, and the residual terms account for the rest. The relative increases in black educational attainment and occupational status are the most important changes in characteristics contributing to the gap's decline, but the relative increase in the black proportion of unmarried male household heads tended to widen the gap. The fall in the suburban residence coefficient also contributed substantially to the decline in the home ownership gap since whites were considerably more likely than blacks to reside in suburban areas. Most of the gap's decline, however, is accounted for by changes in the residuals, and in particular, by the improvement of the average black man's position within the residual distribution (as reflected in the third term of equation 3).<sup>14</sup>

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<sup>14</sup>Again, the results differ somewhat when the black coefficients are used in the decomposition. In that case, changes in the characteristics and coefficients account for 83 percent of the change in the gap. Declines in both the occupation coefficient and the occupational gap contributed significantly to the closing of the ownership gap, as did the closing of the education gap.

## Mortgages

The 1900, 1910, 1920, 1980, and 1990 census micro data samples report the mortgage status of owner-occupied homes. That is, given that a home is owned, we know whether it is owned “free and clear” or is mortgaged. The universe of homes covered by this variable changes substantially between 1920 and 1980. From 1900 to 1920, all owner-occupied “housing units” are included, but in 1980 only “single-unit houses” (not condominiums and not mobile homes) on less than ten acres with no business on the property are included whereas 1990's universe is similar to 1980's but also includes condominiums and mobile homes. Thus, some care must be taken when making comparisons over time, but the changes in coverage are unlikely to affect the broad trends we point out here.

Table 5 reports the proportion of all (male headed) households with a mortgage and the proportion of households with a mortgage *conditional* on ownership by race, region, and year. In 1920 approximately 45 percent of white home owners had an outstanding mortgage whereas only about 36 percent of black home owners did. It turns out, however, that this difference is entirely due to the black population's concentration in the South where relatively few home-owners of either race held mortgages. Within regions, including the South, black home owners were more likely than whites to hold a mortgage. However, the proportion of *all* blacks with a mortgage was rather small compared to whites because relatively few blacks owned their homes.

The importance of the mortgage in American home ownership grew enormously over the century for both blacks and whites and in all regions. In 1900, only 16 percent of all white male household heads held a mortgage and only 6 percent of blacks did, but by 1990, 57 percent of whites held a mortgage compared to 43 percent of blacks. Moreover, among home owners,

nearly 80 percent of blacks and whites held mortgages in 1990 compared to about one-third of home owners in 1900. A linear probability regression (not shown) of mortgage status in 1990 on the same set of characteristics used in the home ownership decompositions suggests that blacks were about 6.5 percentage points less likely than whites to hold a mortgage. An analogously specified regression for 1920 (using literacy rather than education level) returns similar results: a sample including all male household heads suggests that blacks were 5.1 percentage points less likely to hold mortgage.<sup>15</sup> Because the overall incidence of mortgages was much greater in 1990 than in 1920, it follows that race per se had a larger negative impact in proportionate terms on the probability of holding a mortgage in 1920 than in 1990.

### Property Values

Since 1940, the Census has reported a measure of house and property value of owner-occupied units, though again, inter-census comparisons must be qualified because of changes in the method of estimating value, the treatment of farm property, the intervals and top codes of the data, and the universe of homes included in the question's coverage. The most important change over time, for our purposes, is that in 1940 farms were included (though only the value of the farm house), but in 1960 rural farms were excluded and in 1980 all homes on more than ten acres were excluded. The figures in Table 6 take the census estimates at face value and make no effort to standardize the treatment of farms, but in the subsequent regression and decomposition analysis

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<sup>15</sup> In both 1920 and 1990, in similar regressions but with samples restricted to home owners, blacks were more likely than whites to have a mortgage. That is, conditional on ownership and observed characteristics, blacks were less likely to own their homes "free and clear."

(focusing on 1960 and 1980) all farms are excluded.<sup>16</sup>

Table 6 reports the average value of black-owned homes relative to white-owned homes for each region and also the implied black-to-white ratio of housing-owned-per household (by assigning renters a value of zero) in 1940, 1960, and 1980. Among home owners, the West has consistently had a high ratio of black-to-white home values relative to the rest of the country. The South, on the other hand, had by far the lowest value in 1940, though it caught up to the Midwest and Northeast by 1980. The nationwide ratio was very low in 1940 because blacks were relatively concentrated in the South where home values were quite low compared to the rest of the country. In the years between 1940 and 1980, however, the ratio of black-owned to white-owned home values increased substantially, from about 35 percent to 62 percent.

Assigning renters a value of zero provides a measure of housing owned per household which is reported in the last three columns of Table 6.<sup>17</sup> Unlike the “home owner only” ratio, this measure is sensitive to racial differences in the proportion of renters, and because a higher proportion of blacks are renters, these ratios are always lower than in the “home owner only” columns. Nevertheless, despite the rapid urbanization of blacks after 1940 (which tended to lower home ownership rates), there was a sizable increase in black/white value ratio over time both nationally and within regions, especially the South.

For 1960 and 1980 we can observe several dimensions of housing quality in the IPUMS: the number of rooms, the number of bathrooms, the type of heating system, and the age of the building. The log value of housing ( $V$ ) can be conceived as the product of a vector of house

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<sup>16</sup> Excluding the farms from 1940's sample has a small effect on the black/white value ratio, raising the US figure to about 0.20 for all household heads and 0.37 for home owners.

<sup>17</sup> If we knew each household's level of equity we could use this as a more effective proxy for wealth per household.

characteristics (Q) and the market prices of those characteristics (P) (Rosen 1974). That is,  $V = PQ$ , and differences in V across races and changes in the size of that racial gap can then be decomposed in the same manner as described in equations 1 to 3 after estimating hedonic regressions of V on Q for home owners. The regressions' explanatory variables (Q) include the house quality variables already mentioned, regional indicators, and center city and suburban indicators. The dependent variable is the log of house value, and the P coefficients are estimated by OLS on the 1960 and 1980 samples of home owners (not shown).

The relative improvement in black-owned house characteristics was the driving force behind the increase of black-owned house values relative to white values. In fact, the changes in the characteristics over-predict the magnitude of the change in relative values, implying that either changes in the "prices" or changes in the residual distribution offset, to some extent, the effect of changes in observed house characteristics. Using the "prices" estimated from the samples of white home owners, it appears that the widening of the residual distribution (the fourth term of equation 3) and a decline in blacks' average position in the standardized residual distribution (the third term) both tended to offset the convergence of housing values. Changes in the white coefficients (the second term) had a very small effect.

A somewhat different interpretation emerges from a decomposition based on the black coefficients, however. Again, the changes in housing characteristics predict a larger improvement in the black/white gap than actually occurred, but in this case the change in coefficients matters, too, and it tends to offset the convergence of housing values. In particular, an increase in the coefficient associated with suburban residence, a decline in the coefficient associated with central city residence, and an increase in the coefficient for western residence all tended to widen the black/white value gap because blacks were more concentrated in central cities, and less

concentrated in the suburbs and in the West.

#### **4. Discussion**

Our findings bear on several important aspects of the evolution of black-white differences in economic status in the twentieth century. First, it is clear that black households have shared in an important aspect of the “American Dream” – ownership of a home. The proportion of black male household heads who were homeowners rose by 34.4 percentage points between 1900 and 1990. The corresponding increase among white male household heads was smaller – 28.1 percentage points – and, thus, the racial gap in ownership fell over the course of the 20<sup>th</sup> century. The decline in the racial gap in ownership is consistent with a variety of other economic and social indicators showing declining racial gaps, such as income, mortality, and schooling.

The racial gap in ownership did not, however, decline consistently across census years. In particular, the gap widened between 1940 and 1960, when increasing numbers of blacks left the rural South in search of a better life in the urban North. Thus, a consequence of the Great Migration – one that is largely unrecognized in the literature – was a widening racial gap in home ownership. The gap widened because rates of ownership, for both races, were higher in the South than, in particular, in the Northeast, and because residents of central cities were far less likely to be home owners.

The timing of changes in the racial gap also suggest an important role for institutional factors that dramatically altered mortgage markets and led the government to intervene in housing markets to combat racial discrimination. Winnick (1958, pp. 68-69) reports that in 1911-1914, the average down payment for (new and existing) single-family houses in 22 cities was almost 68

percent of the purchase price, and that 46 percent of homes were acquired debt free. By 1925-29, the average down payment had fallen to 47 percent and 21 percent of homes were acquired debt free. On the basis of surveys of renters, Winnick argues that such high down payments were the primary barriers to home ownership in the early decades of the twentieth century. Mortgage contracts were typically of short duration (6 to 11 years) in the 1920s, and so those with mortgages had to refinance their debt with some frequency. Though there is evidence that the mortgage market was already moving in the direction of lower down payments and longer term contracts (Snowden 1996), the financial collapse in the 1930s led the government to redesign the mortgage lending industry in a way that made home ownership substantially more attractive and affordable than ever before.

The first (successful) intervention was the establishment of Home Owner's Loan Corporation (HOLC) in 1933. The chief mission of the HOLC was to reduce the rate of foreclosure which, in the early years of the Great Depression, had risen to astonishing levels (for example, to approximately 1,000 per day in early 1933). The agency did so first by refinancing existing mortgages into long-term, self-amortizing loans at lower interest rates; and, second, by granting loans so that prior owners could recover forced-sale properties lost to foreclosure. The scope of the HOLC was enormous; between July 1933 and June 1935, the agency had provided mortgage assistance encompassing fully 10 percent of all non-farm urban owner-occupied units in the U.S.

The HOLC also systematized the mortgage appraisal process, developing elaborate, uniform procedures to assess whether a particular loan should be granted. The rationalization began with the development of a series of so-called "Residential Security Maps", by which cities were divided up into neighborhoods to be rated according to their desirability. The best areas,

typically occupied by high-income professional whites, were rated “A” and shaded green on the maps. They were followed by somewhat less desirable “B” neighborhoods (shaded blue); “C” neighborhoods, deemed to be “declining” and shaded yellow; and, finally, the lowest rank – fourth grade – already well past the deteriorating condition of “C” neighborhoods, and shaded red. A central aspect of the rating system was that it was based not only on the quality of the housing stock but also explicitly on the socioeconomic, ethnic, and – especially – racial characteristics of the neighborhood residents.<sup>18</sup> Use of non-housing criteria in the appraisal process did not originate with the HOLC, but both in scope and in detail, the agency’s revisions were unprecedented.

Interestingly, despite the HOLC’s use of race in ranking neighborhoods, the agency was evidently relatively unbiased in issuing loans. For example, in Memphis, Tennessee in 1939, fully 68 percent of all HOLC loans went to households living in C and D rated neighborhoods (Jackson 1985, p. 202). However, private financial institutions incorporated the new rating system in their own appraisals, thereby beginning the widespread institutionalization of the practice known as “red-lining.”

Also established in the 1930s was the Federal Housing Administration (FHA). The FHA, along with a very similar program run by Veteran’s Administration (VA) after the passage of the GI Bill, did not issue mortgages, but rather insured them. FHA insurance reduced the risk to lenders, thereby enabling much lower down-payments (as little as 3 percent in the case of the FHA, and even zero in the case of the VA), interest rates, and closing costs. However, while there is no doubt that the FHA and VA greatly facilitated the extension of home ownership to millions of American families, the agencies have also been accused of racial bias. The reasons are

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<sup>18</sup>Religion was also a criterion; Jewish neighborhoods were routinely ranked B or below, regardless of the incomes of the residents or quality of housing.

both direct and indirect.

The direct reasons involved the inclusion of race as an explicit criterion in the FHA appraisal process, following HOLC guidelines. For example, the FHA's 1939 Underwriting Manual openly recommended the use of racial restrictive covenants – that is, clauses in housing deeds prohibiting the occupancy of the structure in question by a black family. Although the Supreme Court ruled that such covenants were unconstitutional in 1948 (Shelley v. Kraemer) the FHA did not implement the ruling until 1950, effectively allowing an additional window of opportunity for developers to include such covenants into deeds for new construction. The FHA and VA monitored and predicted the residential patterns of blacks, using the information to refuse insurance to neighborhoods on a wholesale basis – redlining. Not until 1966 did the agencies back off from their use of redlining by making funds increasingly available in low-rated neighborhoods, as well as lessening its credit-worthy requirements, thereby improving the odds that black applicants would obtain mortgages.

The indirect reasons are more subtle. Even though the majority of FHA-insured loans were made for existing structures, and the majority of existing homes at the time were located within city boundaries, the FHA nonetheless greatly favored new construction in the suburbs while simultaneously discouraging loans for repairing and upgrading existing units, prior to the 1960s. For example, between 1933 and 1960, the county of St. Louis (which includes the urban periphery) received five times as much mortgage insurance as did the City of St. Louis, far in excess of its per-capita (or any other reasonable) share (Jackson 1985, p. 210). As with the HOLC, FHA-VA policies were evidently adopted by banks and savings and loans.

With the advent of the Civil Rights Movement and widespread urban unrest in the mid-to-late-1960s, public awareness of the federal government's culpability in fostering urban decay and

racial segregation in housing was heightened. One important outcome was the eventual passage of the fair housing legislation in 1968 at the federal level, which outlawed racial discrimination in the purchase or rental of housing, and several related acts that were passed subsequently.<sup>19</sup> In the 1980s and early 1990s various studies, the results of several of which were widely-reported and commented on in the press, asserted that the likelihood that minority applicants would be denied a mortgage exceeded the likelihood among otherwise identical white applicants, and that prospective black home owners, even those with relatively high incomes, continued to encounter discriminatory treatment from real estate agents (Yinger 1986, 1995; Bradbury, Case, and Dunham, 1989; Munnell, Browne, McEneary, and Tootel 1996).<sup>20</sup> The Federal Reserve clamped down, in one case refusing to allow the merger of two banks because one of the banks (Shawmut, in Boston) had discriminated against black mortgage applicants (Oliver and Shapiro, 1995, p. 141).

Although racial discrimination in housing markets had long predated the establishment of the FHA, many scholars allege that FHA practices nevertheless significantly inhibited the ability of black households to accumulate housing equity. For example, Oliver and Shapiro (1995, p. 16) assert:

While these [i.e., FHA-VA] government policies collectively enabled over thirty-five million families between 1933 and 1978 to participate in homeowner equity

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<sup>19</sup>For example, the Home Mortgage Disclosure Act (1990) required lenders to disclose application and rejection rates by race, gender and income. Other examples include the Community Reinvestment Act, which obligated lenders to be sensitive to local credit demands; and the Equal Credit Opportunity Act, under which the Federal Reserve, for example, could deny bank mergers on grounds of violation of fair housing laws.

<sup>20</sup>Recall from Table 2 that the 1990 race coefficient was larger in absolute value than the 1990 coefficient. In other words, our results suggest that progress in closing the racial gap in home ownership (in percentage point terms) for otherwise identical black and white males was halted in the 1980s, approximately the same time that academic and legislative interest in the issue was brought to the fore by the FRB studies.

accumulation, they also had the adverse effect of constraining black American's residential opportunities to central city ghettos of major U.S. metropolitan communities and denying them access to one of the most successful generators of wealth in American history[.]

In addition to the direct impact of FHA-VA policies, Oliver and Shapiro (1995) point out certain indirect racial effects via the federal tax code. Low down payments allowed prospective home buyers to leverage to a far greater extent; by making it easier to assume risk, the FHA made it possible for home owners to experience (ex post) higher capital gains, which were generally taxed at a lower rate than other forms of income.<sup>21</sup> Second, mortgage interest payments could be deducted from taxable income if taxpayers itemized. Marginal tax rates increased substantially after World War II. Because blacks had lower taxable incomes than whites, were less likely to be home owners than whites, and because the value of black-owned housing was less than white-owned housing, whites benefitted disproportionately from these provisions of the tax code.<sup>22</sup>

Although the data we have examined cannot be used directly to assess the effects of FHA-VA policies on black accumulation of housing equity, several pieces of evidence suggest that the indictment of these policies may be somewhat overblown. The black home ownership rate did not begin to rise until after 1940 – that is, after the establishment of the FHA. Although the raw racial gap in home ownership rose between 1940 and 1960, Table 2's regressions demonstrate that the racial gap was stable once we controlled for factors affecting the probability of home ownership. Chief among these was the migration of blacks from the rural South, where home

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<sup>21</sup>Prior to very recent tax reform, capital gains could be “rolled-over” (deferred) upon sale if the home seller purchased a new home within a certain period of time but, however, subject to a lifetime exclusion cap.

<sup>22</sup>The economics of this argument is less than clear cut, for two reasons. First, there were (and are) provisions of the tax code favorable to landlords (compared with home owners); in a competitive rental market, some of these benefits may have accrued to black renters in the form of lower rents. Blacks were (and are) more likely to occupy public housing, the number of units of which increased substantially after 1960, and which were let at below market rents.

ownership rates were relatively high, to the inner cities of the urban South and urban Northeast, where home ownership rates were relatively low. But the negative impact of central city residence cannot be attributed to FHA-VA policies per se because a similar negative impact existed prior to 1940 – that is well before the federal government began to intervene in housing markets. Blacks did fall behind a bit in the distribution of standardized residuals, but the magnitude of this slip (1 percentage point) is rather small. Moreover, the “ghettoization” of blacks in the urban Midwest and Northeast tended to increase the aggregate black-to-white ratio of housing values, because this ratio was higher in the Midwest and Northeast to begin with than in the South. And, whatever the role of the HOLC and FHA in legitimizing the use of redlining, the census data on mortgages clearly demonstrate that the percentage of black homeowners who held mortgages was vastly higher after 1940 than before; that is, even if black households lacked access to FHA-insured loans, they must have had access to other types of mortgage finance.

One interpretation of our findings is that black households were not completely shut out of the market for FHA-VA insured mortgages, as the redlining hypothesis suggests.<sup>23</sup> An alternative, complementary explanation is that by accelerating the pace of suburbanization of white households, the FHA enabled larger numbers of black middle-class households than ever before to become home owners via a “filtering” process.<sup>24</sup> In this regard, the Supreme Court’s decision in

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<sup>23</sup>This must be true to some extent, because our mortgage regressions demonstrate that, among homeowners, black veterans were more likely to have mortgages than non-veterans.

<sup>24</sup>See Cutler, Glaeser, and Vigdor (1999) for evidence that racial segregation in urban housing increased between 1940 and 1960, which is consistent with the hypothesis that FHA-VA policies accelerated the pace of white suburbanization; and Margo (1991), who demonstrates that socioeconomic inequality, variously measured, between central cities and suburban rings between 1940 and 1950. See, however, Margo (1992) who demonstrates that approximately half of the suburbanization of population in the United States between 1950 and 1980 can be attributed solely to rising real per capita incomes (as opposed to other factors, such as government policy). Filtering refers to the process in which high-income households purchase new homes rather than renovate existing housing to meet their current demand for housing quality. The existing housing

Shelly v. Kraemer to outlaw racially restrictive covenants may have played a helpful role, by expanding the available supply of urban housing to prospective black home buyers.<sup>25</sup> In sum, while FHA-VA policies coupled with racial discrimination in access to suburban housing no doubt lowered the pace at which black households left the inner city, the policies did not per se prevent blacks from becoming home owners and accumulating some housing equity. However, the value decomposition based on the black coefficients suggests a less rosy view of “filtering” because the value of black-owned central city housing fell relative to the value of suburban housing between 1960 and 1980, a trend which tended to widen the gap between black and white house values.

Our evidence on the efficacy of fair housing laws is mixed. We demonstrated in Table 3's decomposition that the increase in black home ownership rates between 1960 and 1980 exceeded the pace that would have been predicted by the observed changes in household characteristics, or changes in the likelihood of ownership given a particular set of characteristics.<sup>26</sup> This result is consistent with the view that fair housing legislation has had a positive effect on the ability of black households to become home owners.<sup>27</sup> Effective fair housing laws should also have

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then becomes available to new owner-occupiers – typically racial or ethnic minorities. Filtering has a long history in the US; see Jackson (1985).

<sup>25</sup>However, if this effect had been large, we would have expected to find that blacks moved well up in the residual distribution according to the home ownership decomposition but, in fact, any such upgrading was slight.

<sup>26</sup>Although we lack IPUMS mortgage data for the years intervening between 1920 and 1980, our results also suggest that race was of declining significance over this period as well; as demonstrated in section 3, while race per se exerted a negative effect of nearly identical negative magnitude (in percentage point terms) on the probability of holding a mortgage in 1920 and 1990, the proportionate effect of race was smaller in 1990 because the overall incidence of mortgages had increased substantially. However, the fact that the race effect was negative in 1990 is consistent with the hypothesis that blacks still face some discrimination in the mortgage market.

<sup>27</sup>Cutler, Glaeser, and Vigdor (1999) find that levels of racial segregation were declining after 1970 and that, in 1970 higher levels of segregation were associated with higher housing costs overall, and a higher relative price of owner-occupied housing (“relative” means compared with the price of rental housing). By 1990, however, the relative price of owner-occupied housing faced by blacks was lower in highly segregated cities. Hence, declines in segregation

improved the position of black home owners in the value decomposition's standardized residual distribution by allowing movement to neighborhoods which were "better" along unobserved dimensions. However, we did not find evidence of such an improvement.<sup>28</sup>

## 5. Conclusion

This paper has reported on a preliminary analysis of a variety of census data bearing on long term trends in racial differences in home ownership. Over the course of the century, the rate of home ownership and the incidence of mortgages have increased to a greater extent among black than among white households. Data on housing values indicate that the average value of black-owned housing increased relative to white-owned housing, at least since 1940. When measured in percentage points, all of the century-long decline in the racial gap in home ownership rates occurred after 1960, and the rise in the gap between 1940 and 1960 is almost entirely accounted for by observable factors influencing the probability of home ownership. With regard to government intervention, good or bad, the evidence is mixed. Our results do not suggest that FHA-VA policies inhibited the growth of black home ownership between 1940 and 1960, as some scholars have alleged. On the other hand, although fair housing legislation might have enhanced the ability of blacks to become home owners, we find no evidence that the legislation was effective in narrowing the racial gap in housing values among home owners.

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after 1970 should have induced more blacks to become home owners. Since we do not control for levels of segregation in our regressions, these effects would show up as upward movement by blacks in the distribution of residuals (that is, unexplained increases in home ownership).

<sup>28</sup> The decomposition based on the white coefficients implied a substantial worsening of the black position in the residual distribution whereas the calculations with the black coefficients implied a very slight improvement.

The analysis in this paper could be extended in two directions. First, we have ignored local housing market characteristics in our analysis (such as the relative price of rental and owner-occupied housing, and levels of segregation), yet there is evidence, at least for the post-1970 period, that such characteristics may have influenced the likelihood of home ownership for blacks (see Cutler, Glaeser, and Vigdor, 1999).<sup>29</sup> Second, previous studies (for example, Blau and Graham 1990) have noted that family structure per se has a significant impact on home ownership; in particular, female-headed households have much lower rates of home ownership than other types of families. Because racial differences in the incidence of female headship are both large and growing, including such households in the analysis may significantly affect both the level and trend in the racial gap in home ownership and housing values.

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<sup>29</sup>A related observation, and topic for future research, is that our analysis of racial differences in housing values ignores “selectivity bias” – that is, the fact that home owners are not a random sample of the population. It is possible that unobserved characteristics of individuals influence the likelihood of home ownership and are also correlated with measured and unmeasured housing characteristics that determine housing values. This issue can be addressed by using standard econometric techniques for the treatment of selectivity bias.

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Table 1: White - Black Gap in Male Home Ownership Rates 1900-90

Birth Cohort	1900	1910	1920	1930	1940	1950	1960	1970	1980	1990
1836-40	37.25									
1841-45	29.85									
1846-50	29.78	26.40								
1851-55	26.42	24.19								
1856-60	23.30	28.31	27.65							
1861-65	20.04	25.97	26.99							
1866-70	20.75	23.24	29.58	----						
1871-75	11.82	18.02	27.05	----						
1876-80	7.89	15.70	22.99	----	23.63					
1881-85		9.29	19.92	----	25.41					
1886-90		6.39	17.40	----	24.47	----				
1891-95			11.46	----	22.27	----				
1896-1900			7.80	----	23.08	----	18.13			
1901-05				----	20.11	----	22.48			
1906-10				----	17.14	----	24.50	19.68		
1911-15					11.12	----	28.36	20.33		
1916-20					7.63	----	30.71	23.90	18.16	
1921-25						----	32.26	24.19	17.81	
1926-30						----	31.84	26.11	17.87	17.09
1931-35							26.09	25.99	17.17	15.70
1936-40							15.54	27.53	19.91	18.84
1941-45								21.18	22.64	18.57
1946-50								10.42	21.12	18.68
1951-55									20.86	21.95
1956-60									15.51	24.39
1961-65										21.36
1966-70										13.03
Average Gap	24.33	21.41	22.86	----	21.90	----	27.34	23.44	19.56	19.51
White Average	46.16	47.11	47.50	----	42.19	----	66.39	69.66	73.44	71.52
Black Average	21.84	25.70	24.64	----	20.29	----	39.05	46.22	53.88	52.01

Note: Samples include men aged 20-64 who were household heads and were not in school. The individual is counted as an "owner" if he lives in owner-occupied housing.

Source: IPUMS (Ruggles and Sobek 1997). For 1990, the 1% unweighted sample is used.

Table 2: Correlates of Home Ownership

	1900	1910	1920	1940	1960	1970	1980	1990
Black	-0.1551 (0.0135)	-0.1505 (0.0069)	-0.1711 (0.0057)	-0.1418 (0.0037)	-0.1492 (0.0032)	-0.1270 (0.0028)	-0.0912 (0.0024)	-0.0973 (0.0027)
Age	0.0255 (0.0024)	0.0264 (0.0013)	0.0238 (0.0011)	0.0249 (0.0007)	0.0479 (0.0006)	0.0500 (0.0005)	0.0432 (0.0004)	0.0437 (0.0005)
Age <sup>2</sup>	-0.0002 (0.0000)	-0.0002 (0.0000)	-0.0001 (0.0000)	-0.0001 (0.0000)	-0.0004 (0.0000)	-0.0005 (0.0000)	-0.0004 (0.0000)	-0.0004 (0.0000)
Literacy	0.1258 (0.0123)	0.1150 (0.0069)	0.1282 (0.0062)	0.0969 (0.0044)	0.1150 (0.0058)	0.1313 (0.0064)	0.1470 (0.0074)	0.1201 (0.0060)
Occupation	0.0037 (0.0004)	0.0035 (0.0002)	0.0044 (0.0002)	0.0051 (0.0001)	0.0062 (0.0001)	0.0054 (0.0001)	0.0050 (0.0001)	0.0050 (0.0001)
Farm	0.2567 (0.0092)	0.1979 (0.0050)	0.1806 (0.0044)	0.0831 (0.0028)	-0.0028 (0.0036)	0.0416 (0.0043)	-0.0074 (0.0039)	0.0192 (0.0049)
Family Size	0.0067 (0.0017)	0.0018 (0.0009)	0.0076 (0.0008)	0.0044 (0.0005)	0.0177 (0.0005)	0.0222 (0.0005)	0.0197 (0.0005)	0.0145 (0.0006)
Multifamily	0.0762 (0.0131)	-0.0151 (0.0051)	0.0046 (0.0049)	0.0284 (0.0035)	0.0289 (0.0053)	0.0204 (0.0049)	-0.0149 (0.0032)	-0.0068 (0.0029)
Married	0.0006 (0.0128)	-0.0206 (0.0070)	-0.0094 (0.0061)	0.0267 (0.0040)	0.2251 (0.0036)	0.2524 (0.0029)	0.2657 (0.0022)	0.2296 (0.0023)
Central City	-0.2072 (0.0101)	-0.1646 (0.0050)	-0.1076 (0.0039)	-0.1366 (0.0025)	-0.1321 (0.0022)	-0.1156 (0.0020)	-0.1243 (0.0019)	-0.1455 (0.0021)
Suburban	-0.0852 (0.0137)	-0.0199 (0.0066)	0.0096 (0.0062)	0.0394 (0.0028)	0.0783 (0.0021)	0.0276 (0.0019)	-0.0052 (0.0016)	-0.0056 (0.0017)
Midwest	0.0697 (0.0094)	0.1021 (0.0050)	0.1027 (0.0041)	0.0925 (0.0026)	0.1050 (0.0022)	0.0833 (0.0020)	0.0754 (0.0019)	0.0380 (0.0022)
South	-0.0097 (0.0110)	0.0277 (0.0058)	0.0343 (0.0048)	0.0663 (0.0029)	0.0711 (0.0023)	0.0591 (0.0020)	0.0515 (0.0018)	0.0188 (0.0020)
West	0.1012 (0.0171)	0.1906 (0.0081)	0.1334 (0.0064)	0.1505 (0.0036)	0.0876 (0.0028)	0.0366 (0.0024)	0.0348 (0.0021)	-0.0292 (0.0022)
Inter-Reg. Mig.	-0.0391 (0.0124)	-0.0487 (0.0065)	-0.0554 (0.0053)	-0.0607 (0.0031)	-0.0631 (0.0023)	-0.0552 (0.0020)	-0.0498 (0.0017)	-0.0566 (0.0027)
Foreign Born	0.0258 (0.0091)	-0.0115 (0.0049)	-0.0109 (0.0041)	-0.0009 (0.0030)	-0.0876 (0.0032)	-0.1357 (0.0030)	-0.1579 (0.0026)	-0.1646 (0.0027)
Constant	-0.5781 (0.0507)	-0.5327 (0.0266)	-0.5670 (0.0227)	-0.6721 (0.0145)	-1.1146 (0.0130)	-1.1425 (0.0116)	-0.8870 (0.0113)	-0.8486 (0.0118)
N	16569	62800	93281	233439	285725	326740	375684	318799
R <sup>2</sup>	0.22	0.18	0.15	0.15	0.18	0.22	0.25	0.25

Note: The dependent variable is home ownership (equals 1 if residing in owner occupied dwelling). Estimates are of a linear probability model. Standard errors are in parentheses.

Source: IPUMS (Ruggles and Sobek 1997). For 1990, the 1 % metro sample is used with household weights. The unweighted 1% sample does not report values for the metro variable.

Table 3: Decomposition of 1940 - 1960 Change in White - Black Ownership Gap

	$\hat{a}_t$	$(\hat{a}_{t+1} - \hat{a}_t)$	$(X_{wt} - X_{bt})$	$(X_{wt+1} - X_{bt+1})$	First Term	Second Term	Third Term	Fourth Term	Sum
Age	0.0269	0.0211	1.9260	0.6760	-0.0337	0.0142			
Age <sup>2</sup>	-0.0002	-0.0003	155.7210	59.7270	0.0152	-0.0167			
Education	0.0241	0.0137	3.5978	2.8195	-0.0187	0.0385			
Education <sup>2</sup>	-0.0010	-0.0005	51.4472	48.8813	0.0027	-0.0228			
Occupation	0.0052	0.0007	7.9621	7.3047	-0.0034	0.0048			
Farm	0.1071	-0.0949	-0.1492	-0.0006	0.0159	0.0001			
Family Size	0.0059	0.0171	-0.1959	-0.5203	-0.0019	-0.0089			
Multifam	0.0298	-0.0091	-0.0413	-0.0388	0.0001	0.0004			
Married	0.0254	0.1971	0.0261	0.0503	0.0006	0.0099			
Central City	-0.1374	-0.0015	0.0263	-0.2683	0.0405	0.0004			
Suburban	0.0402	0.0353	0.1159	0.2325	0.0047	0.0082			
Midwest	0.0888	0.0151	0.2198	0.0825	-0.0122	0.0012			
South	0.0706	0.0142	-0.5109	-0.2667	0.0172	-0.0038			
West	0.1491	-0.0639	0.1087	0.0854	-0.0035	-0.0055			
Inter-Reg. Mig.	-0.0647	-0.0030	-0.0449	-0.1810	0.0088	0.0005			
Foreign Born	0.0073	-0.0776	0.1443	0.0654	-0.0006	-0.0051			
Contribution of Each Term					0.0318	0.0157	0.0111	-0.0085	0.0501

Note: The decomposition is performed at the means of the distributions using the parameters from the white home ownership regression. The “first term” of equation 3 is  $[(X_{wt+1} - X_{bt+1}) - (X_{wt} - X_{bt})]\hat{a}_t$ . The “second term” is  $(X_{wt+1} - X_{bt+1})(\hat{a}_{t+1} - \hat{a}_t)$ . The “third term” is  $[(\hat{a}_{wt+1} - \hat{a}_{bt+1}) - (\hat{a}_{wt} - \hat{a}_{bt})]\hat{o}_{wt}$ . The “fourth term” is  $(\hat{a}_{wt+1} - \hat{a}_{bt+1})(\hat{o}_{wt+1} - \hat{o}_{wt})$ . See text for a discussion of each term’s interpretation. Regressions coefficients are from linear probability models estimated for white men.

Source: IPUMS (Ruggles and Sobek 1997).

Table 4: Decomposition of 1960 - 1980 Change in White - Black Ownership Gap

	$\hat{a}_t$	$(\hat{a}_{t+1} - \hat{a}_t)$	$(X_{wt} - X_{bt})$	$(X_{wt+1} - X_{bt+1})$	First Term	Second Term	Third Term	Fourth Term	Sum
Age	0.0480	-0.0054	0.6760	0.7580	0.0039	-0.0041			
Age <sup>2</sup>	-0.0004	0.0001	59.7270	70.3440	-0.0046	0.0037			
Education	0.0377	-0.0032	2.8195	1.4163	-0.0529	-0.0045			
Education <sup>2</sup>	-0.0015	0.0005	48.8813	32.6851	0.0244	0.0148			
Occupation	0.0058	-0.0017	7.3047	4.2649	-0.0177	-0.0071			
Farm	0.0122	-0.0229	-0.0006	0.0278	0.0003	-0.0006			
Family Size	0.0229	-0.0014	-0.5203	-0.2020	0.0073	0.0003			
Multifam	0.0207	-0.0365	-0.0388	-0.0248	0.0003	0.0009			
Married	0.2225	0.0430	0.0503	0.1095	0.0132	0.0047			
Central City	-0.1389	0.0072	-0.2683	-0.3394	0.0099	-0.0024			
Suburban	0.0755	-0.0869	0.2325	0.2260	-0.0005	-0.0196			
Midwest	0.1039	-0.0323	0.0825	0.0690	-0.0014	-0.0022			
South	0.0848	-0.0283	-0.2667	-0.1996	0.0057	0.0056			
West	0.0853	-0.0522	0.0854	0.1011	0.0013	-0.0053			
Inter-Reg. Mig.	-0.0677	0.0109	-0.1810	-0.1043	-0.0052	-0.0011			
Foreign Born	-0.0702	-0.0667	0.0654	0.0200	0.0032	-0.0013			
Contribution of Each Term					-0.0128	-0.0185	-0.0405	-0.0095	-0.0813

Note: The decomposition is performed at the means of the distributions using the parameters from the white home ownership regression. The “first term” of equation 3 is  $[(X_{wt+1} - X_{bt+1}) - (X_{wt} - X_{bt})]\hat{a}_t$ . The “second term” is  $(X_{wt+1} - X_{bt+1})(\hat{a}_{t+1} - \hat{a}_t)$ . The “third term” is  $[(\hat{a}_{wt+1} - \hat{a}_{bt+1}) - (\hat{a}_{wt} - \hat{a}_{bt})]\hat{o}_{wt}$ . The “fourth term” is  $(\hat{a}_{wt+1} - \hat{a}_{bt+1})(\hat{o}_{wt+1} - \hat{o}_{wt})$ . See text for a discussion of each term’s interpretation. Regressions coefficients are from linear probability models estimated for white men.

Source: IPUMS (Ruggles and Sobek 1997).

Table 5: Proportion of Household Heads and Home Owners with Mortgages

		Proportion of All Households with Mortgage					Proportion of Home Owners with Mortgage				
		1900	1910	1920	1980	1990	1900	1910	1920	1980	1990
Northeast	Black	0.04	0.07	0.10	0.28	0.31	0.50	0.51	0.66	0.84	0.84
	White	0.15	0.16	0.21	0.50	0.55	0.45	0.48	0.56	0.76	0.78
Midwest	Black	0.14	0.15	0.12	0.43	0.42	0.38	0.50	0.48	0.86	0.82
	White	0.22	0.22	0.26	0.56	0.58	0.41	0.42	0.48	0.77	0.77
South	Black	0.05	0.06	0.08	0.38	0.42	0.25	0.28	0.33	0.74	0.76
	White	0.08	0.11	0.15	0.53	0.54	0.16	0.23	0.30	0.77	0.75
West	Black	0.14	0.09	0.18	0.39	0.38	0.25	0.30	0.54	0.87	0.91
	White	0.12	0.16	0.24	0.53	0.54	0.23	0.29	0.45	0.85	0.85
U.S.	Black	0.06	0.07	0.09	0.37	0.40	0.27	0.31	0.36	0.79	0.79
	White	0.16	0.17	0.21	0.53	0.55	0.34	0.37	0.45	0.78	0.78

Note: Columns 3-7 report the fraction of all male household heads with a mortgage. Household heads without mortgages are either renters or own “free and clear.” Columns 8-12 report the fraction of home owners who have a mortgage as opposed to owning “free and clear.” Samples include men aged 20-64 who were household heads and were not in school. The Northeast in 1900 and the West in 1900 and 1910 have very few observations for black home owners.

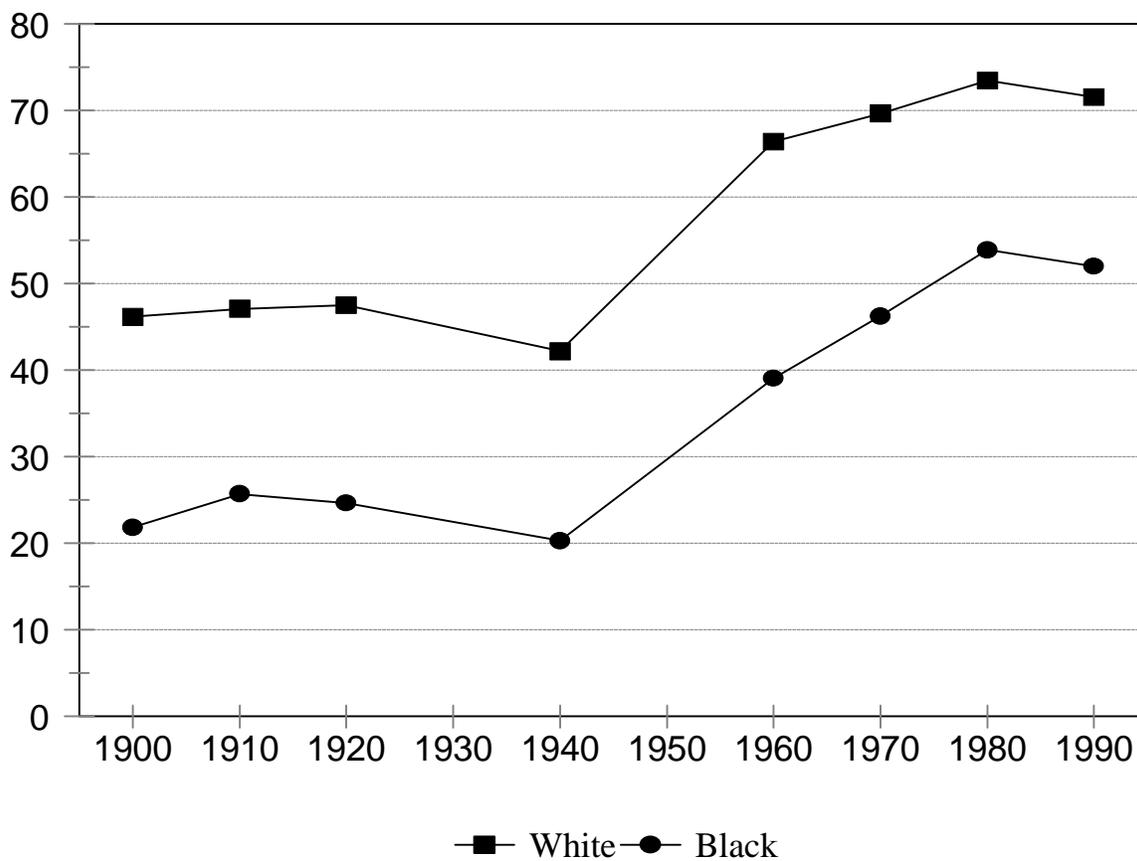
Source: IPUMS (Ruggles and Sobek 1997). For 1990, we use the 1% unweighted sample.

Table 6: Black/White Average Property Values

	Home Owners			Home Owners and Renters		
	1940	1960	1980	1940	1960	1980
Northeast	0.6678	0.6465	0.6461	0.1965	0.2940	0.3359
Midwest	0.6183	0.7119	0.6255	0.2853	0.3709	0.4325
South	0.3693	0.5196	0.6320	0.1855	0.3126	0.4726
West	0.6397	0.7446	0.7766	0.4195	0.5023	0.5477
US	0.3546	0.5589	0.6172	0.1705	0.3168	0.4305

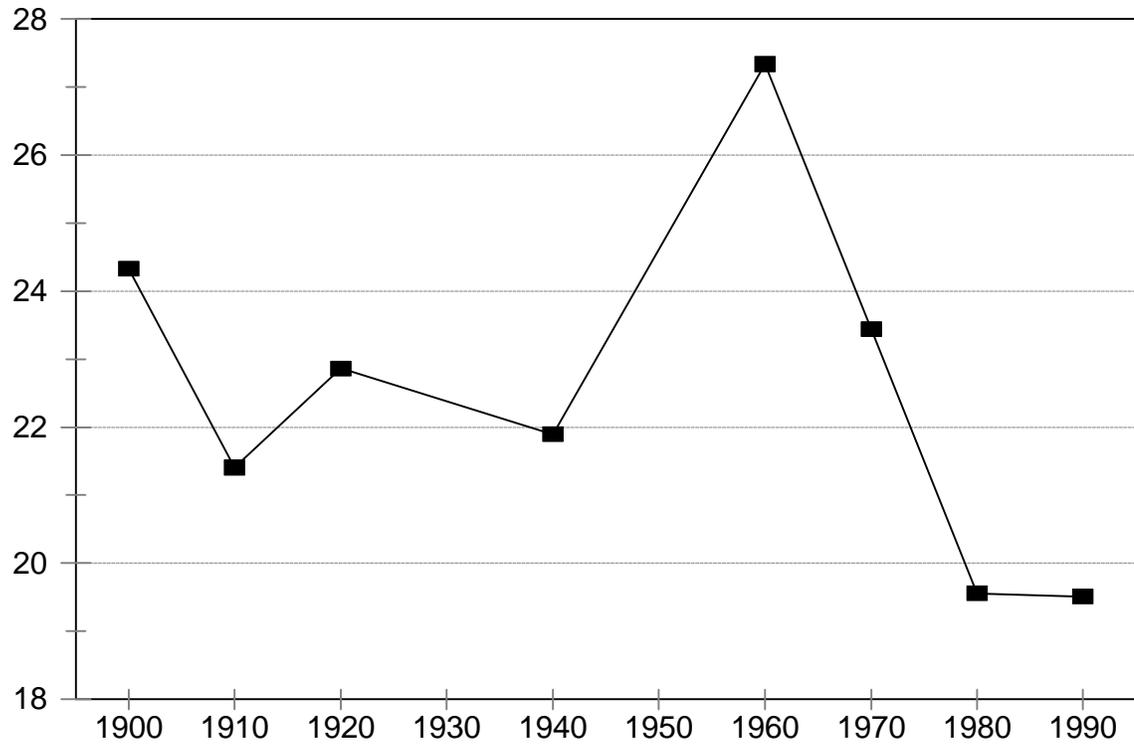
Note: Renters are assigned a property value of zero. The top three percent of households in 1960 and top one percent in 1980 are top-coded, but 1940 is not top-coded. The average value of the top coded category in 1960 is estimated by multiplying the top-code by the ratio of the average value of homes in the top three percent in 1940 to the value of homes at the 97<sup>th</sup> percentile. A similar multiple is formed for 1980 on the basis 1940s data.  
Source: IPUMS.

Figure 1:  
Home Ownership Rates, 1900 - 1990



Note: The figure graphs home ownership rates for black and white male household heads, ages 20 to 64, who were not in school.  
Source: IPUMS (Ruggles and Sobek 1997).

Figure 2:  
White-Black Home Ownership Gap



Note: The figure graphs the absolute difference in the white and black home ownership rates for white and black male household heads, ages 20 to 64, who were not in school.

Source: IPUMS (Ruggles and Sobek 1997).