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**Exploring the Racial Wealth Gap Using the Survey of Consumer  
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# Exploring the Racial Wealth Gap Using the Survey of Consumer Finances

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**Abstract:** This paper studies the racial wealth gap using data from the Federal Reserve’s Survey of Consumer Finances from 1989 to 2013. We document that the mean and median wealth (net worth) of white families has consistently been much greater than that of black and Hispanic families, and the gap between them has increased in recent years. We use reduced-form OLS regressions and non-parametric decomposition techniques to assess the contribution to the racial wealth gap of life-cycle patterns, educational attainment, inheritance, attitudes toward saving and investing, and a number of additional factors. Our analysis indicates that the wealth gap between white and Hispanic families can be almost entirely attributed to differences in observable variables. Observable factors account for most of the gap between white and black families, but a substantial unexplained portion remains. Wealth differences between black and white families are completely due to different asset holdings, while wealth differences between black and Hispanic families are mostly a result of different debt holdings. The unexplained portion of the wealth gap, for white families relative to black and Hispanic families, is greater at the top of the wealth distribution.

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## Exploring the Racial Wealth Gap

Income is the most frequently used measure for evaluating household well-being and progress toward achieving economic equality. Income is commonly used to calculate poverty indicators, is the foundation of most household consumption, and is the primary basis for eligibility for social programs. However, wealth (net worth) is also an important measure of household well-being, representing resources that can be used, for example, to start a business, provide income during retirement, or serve as a bequest for offspring, all of which are highly related with opportunities for economic advancement. Researchers are increasingly looking to net worth as a measure of the economic progress made by minority groups (Pew, 2011; Shapiro, Meschede, and Osoro, 2013; and Masterson, Zacharias, and Wolff, 2009).

The net worth of white families is considerably greater than that of black or Hispanic families, and the gulf that separates them has changed little over the last 25 years. The racial differences in net worth actually increased following the Great Recession, as non-white families experienced proportionally larger losses in net worth. This paper uses data from the Federal Reserve Board's Survey of Consumer Finances (SCF) to explore some key factors contributing to the wealth gap between white, black, and Hispanic families. Life-cycle dynamics, educational attainment, inheritances, and portfolio composition – particularly residential real estate – all play an important part role in understanding asset accumulation, and the contributions of these different factors to racial wealth differences are considered in this paper.

The data confirm basic known patterns, showing that wealth rises as families age – up to the point of retirement – and that net worth is greater among families with higher levels of education, income, and inherited wealth.<sup>1</sup> Wealth is also greater for families whose heads are

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<sup>1</sup> Among other sources for basic facts and theories about household savings and wealth see Diamond and Hausman (1984) and Browning and Lusardi (1996).

## Exploring the Racial Wealth Gap

more tolerant of financial risks and have longer-term saving and investing horizons. Survey results also show that white families, relative to their black and Hispanic counterparts, are older and more highly educated, have higher incomes, receive considerably larger inheritances, and tend to report more tolerance of financial risks and plan over relatively longer horizons.

Using simple reduced-form regressions and decomposition techniques, we control for each of these factors, other demographic and labor force variables, self-reported health, regional home price levels and trends, measures of earnings, and of “usual income” (a proxy for lifetime income). We find that these factors account for nearly all of the wealth difference between white and Hispanic families at the mean of the distribution. These same factors also account for most (67 percent) of the mean difference between white and black families, but a substantial unexplained portion remains. Including an indicator for homeownership substantially improves our ability to account for the wealth gap at the middle of the distribution; at the median of the wealth distribution the explained portion of the white-Hispanic wealth gap rises from 76 to 96 percent once homeownership is included, and for the white-black wealth gap it rises from 63 to 81 percent. After controlling for all of these factors, the average white family has net worth nearly twice as large as the average black family.

The unexplained portion of the wealth gap is significantly higher at the top of the wealth distribution. Among the wealthiest ten percent of families, for example, observable factors can only account for 70 percent or less of the gap between white and black families and 80 percent or less of the gap between white and Hispanic families. At the bottom of the wealth distribution, differences in observable factors can completely account for the observed white/Hispanic and white/black wealth gaps, in the sense that we can roughly predict the wealth of one group using its observable characteristics but applying the returns on those observable characteristics

estimated for the other group. We also show that all of the mean wealth difference between white and black families is due to assets, as the differences in debt shrink to zero once the full range of observables are controlled for in the regressions. Hispanic families, on the other hand, hold considerably less debt and only modestly greater assets compared to black families.<sup>2</sup>

It is important to note that we do not interpret the race coefficients in our OLS regressions as causal. In addition, we do not consider the unexplained portion of the racial wage gap identified in the decomposition analysis as a proxy for current or past racial discrimination. More generally, the unexplained portion of the wealth gap from our regressions is an estimate of the combined effect of all factors not accounted for in the regression model of wealth differences between races. In other words, the unexplained portion of the wealth gap in our regressions potentially includes some effects that could be related to current and past racial discrimination as well as all other unobserved factors. Disentangling these effects on the unexplained portion of the gap is beyond the analysis of this paper. Further, the influence of racial bias on wealth differences is not limited to the unexplained component in the wealth regressions. Some of the key factors that account for the wealth gap in our regression analysis, including income and homeownership, could reflect themselves the effects of racial biases as well.

By itself our framework is not necessarily well suited to quantify the direct contribution of discrimination per se on wealth differences across races. What the results do provide is a decomposition of the contribution to the wealth gap of a variety of observable factors and an estimate of the total unexplained portion of the gap using high-quality data and a several different estimating strategies. Our analysis is able to account for a greater share of the observed

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<sup>2</sup> In the initial OLS regressions, black is the excluded group for ease of interpretation. None of the results from the OLS regressions change if white is the excluded group.

black-white wealth gap than most previous research (Scholz and Levine, 2003).<sup>3</sup> The paper also provides evidence on the much-less-explored wealth differences between white and Hispanic families, as well as estimates of the unexplained portion across the wealth distribution.

The remainder of the paper is organized as follows. Section 1 introduces the SCF data used in the analysis, and section 2 and describes the differences in family net worth of white, black, and Hispanic families in our data (the “naïve” wealth gap) and documents how those differences have evolved over the last 25 years. Section 3 explores several factors that shape the wealth-accumulation process and how those factors differ across racial groups. In sections 4 and 5, we use reduced-form regressions, Oaxaca-Blinder decompositions, and non-parametric decompositions, following the approaches used in Barsky et al. (2002) and DiNardo, Fortin, and Lemieux (1996), to assess how much of the naïve racial wealth gap can be accounted for by these observable characteristics. The final section concludes and discusses future work in this ongoing research area.

## **1. The Survey of Consumer Finances**

We use data from the nine waves of the Federal Reserve Board’s triennial Survey of Consumer Finances (SCF) conducted between 1989 and 2013. Several features of the SCF make it appropriate for informing the question of racial wealth gaps. The survey collects detailed information about households’ financial assets and liabilities, and has employed a consistent design and sample frame since 1989. As a survey of household finances and wealth, the SCF includes some assets that are broadly shared across the population (bank savings accounts) as

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<sup>3</sup> Scholz and Levine (2003, 10) find “when coefficients estimated from a sample of blacks are used to predict white wealth, estimates [of the explained portion of the racial wealth gap] range between 12 and 84 percent, with most falling between 20 and 35 percent.”

well some that are held more narrowly and that are concentrated in the tails of the distribution (direct ownership of bonds).

To support estimates of a variety of financial characteristics as well as the overall distribution of wealth, the survey employs a dual-frame sample design. A national area-probability (AP) sample provides good coverage of widely spread characteristics. The AP sample selects household units with equal probability from primary sampling units that are selected through a multistage selection procedure, which includes stratification by a variety of characteristics, and selection proportional to their population. Because of the concentration of assets and non-random survey response by wealth, the SCF also employs a list sample which is developed from statistical records derived from tax returns under an agreement with IRS's Statistics of Income (SOI).<sup>4</sup> This list sample consists of households with a high probability of having high net worth.<sup>5</sup> The SCF joins the observations from the AP and list sample through weighting. The weighting design adjusts each sample separately using all the useful information that can be brought to bear in creating post-strata. The final weights are adjusted so that the combined sample is nationally representative of the population and assets.<sup>6</sup> These weights are used in all regressions.

The key outcome variables explored in this paper are net worth, total assets, and total debt. Total assets include the value of all financial and nonfinancial assets, including residential and non-residential real estate and owned businesses, reported by the respondent at the time of the

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<sup>4</sup> See Bricker et al (2014) and Bricker et al (2015) for recent discussions of the sampling strategy, the list sample, and the weights used in the SCF. See Wilson and William J. Smith (1983) and Internal Revenue Service (1992) for a description of the SOI file. The file used for each survey largely contains data from tax returns filed for the tax year two years before the year the survey takes place.

<sup>5</sup> For reasons related to cost control on the survey, the geographic distribution of the list sample is constrained to that of the area-probability sample.

<sup>6</sup> The SCF weights were revised in 1998 to incorporate home ownership rates by race (Kennickel, 1999). Weights for earlier years were updated to reflect the revised methodology.

interview.<sup>7</sup> Total debt reflects all types of debt, including credit cards, mortgage debt, student loans, business debts, and other miscellaneous forms of debt.

Respondents are also asked about their income, including income from wages as well as the family's "usual" income in a "normal" year. The "usual income" classifier is designed to capture a version of household income with transitory fluctuations smoothed away in order to approximate the economic concept of "permanent" income (Bricker et al., 2014). Usual income differs from actual income when the respondent reports that the family experienced a negative or positive income "shock" that is transitory in nature, say from a temporary unemployment spell or an unexpected salary bonus.

In addition to household finances, the SCF also collects some basic demographic information, primarily for the household head. The survey collects the self-identified race of the household head and allows respondents to choose from seven options. The exact wording of the telephone version of the survey is as follows: "Which of these categories do you feel best describe you: white, black or African-American, Hispanic or Latino, Asian, American Indian or Alaska Native, Hawaiian Native or other Pacific Islander, or another race?"

Prior to 1998, respondents were only allowed to choose a single category. Starting in 1998 respondents were allowed to give multiple responses, but they were asked to give first the category they identified with most strongly. The variable in the public version of the SCF is based on the first answer provided. Few people give more than one response. Beginning in 2004 respondents were also asked a question to determine whether they were of Hispanic/Latino culture or origin, regardless of race.

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<sup>7</sup> Assets do not include – and the SCF does not collect information on the value of defined benefit pensions or the implied annuity value behind future or current Social Security benefits of respondents.

For most of the following analysis, we use the race variable as presented in the data (reflecting the first option chosen in 1998 and after), ignoring any complications potentially related to the race variable changes in 1998 (allowing selection of multiple races) and 2004 (separate identification of Hispanic ethnicity). Over the entire 1989-2013 period, 74 percent of households were white (i.e., had a white household head), 13 percent were black, and 9 percent were Hispanic (**Appendix Table 1**). Of the remaining four percent of households, the single largest group was Asian. In part of the regression analysis included later in the paper we conduct some sensitivity analysis and explore whether the observed correlations between race and wealth change when we modify the race categories using the addition of the Hispanic ethnicity variable in 2004.

The unit of analysis in the SCF is the “primary economic unit” (PEU) which refers to a financially-dependent related (by blood, marriage, or unmarried partners) group living together. This concept is distinct from either the household or family units employed by the Census Bureau, but is conceptually closer to the latter, and throughout this paper PEUs are referred to as “families.”<sup>8</sup> Single individuals living alone are included and simply considered a “family” of one.

## **2. Wealth by Race in the SCF**

The responses to the SCF indicate that the differences in net worth between white, black, and Hispanic families are substantial and long-standing. For most of the period between 1989 and 2013, the average net worth of white families was between five and six times as great as that of black families, and it was between four and five times as large as that of Hispanic families

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<sup>8</sup> A typical question in the SCF asks the respondent to consider “you and your family living here” in providing answers.

**(Figure 1).** Between 2007 and 2013 the wealth gap rose sharply; by 2013 the average wealth of white families was seven times greater than that of black families and six times greater than that of Hispanic families.

In absolute terms the wealth differences between race groups are large, and the relative gaps are even larger if we look at median instead of mean net worth. Mean net worth in 2013 was \$688,000 for white families, \$95,000 for black families, and \$112,000 for Hispanic families **(Table 1, Panel A1).**

Median net worth levels were substantially lower than mean levels for all race groups, which is unsurprising, as wealth is known to be highly concentrated at the top of the distribution (Bricker, et al., 2014). Median net worth in 2013 was \$134,000 for white families, \$11,000 for black families, and \$14,000 for Hispanic families **(Table 1, Panel A2).** Wealth is lower at the median of the distribution than at the mean, but the relative differences between races are actually larger at the median; the relative wealth of white families is higher when using median net worth than when using mean net worth for every survey year and using either black or Hispanic families as the reference group.<sup>9</sup>

Following the 2008-09 recession, mean and median wealth declined for families of all races. Between 2007 and 2010, mean net worth of white families fell from \$759,600 to \$680,400, and their median net worth fell from \$183,500 to \$132,400. Mean and median net worth also declined for non-white families between 2007 and 2010, but it continued to fall between 2010

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<sup>9</sup> Relative wealth of white families using median net worth is particularly high in 1989 largely due to the especially low measured wealth levels of the typical black and Hispanic families. Increases in median wealth for non-white families after 1989 likely reflect both material improvement in balance sheets and the survey doing a better job reaching non-white households. In 1989 there were only 308 black families and 162 Hispanic families interviewed in the SCF. By 1992 those numbers had risen to 357 and 217 families, respectively, and have continued to increase since. In the 2013 SCF, 747 black families and 555 Hispanic families were interviewed.

and 2013, while the wealth of white families started to recover. Median net worth for black families fell from \$19,200 in 2007 to \$11,100 in 2013, and mean net worth for Hispanic families dropped from \$23,635 to \$13,700.

Additional detail in **Table 1** shows absolute and relative levels of assets (**Panel B**) and debt (**Panel C**) for white, black, and Hispanic families for each survey year. Mean assets in 2013 were \$789,700 for white families, \$146,600 for blacks, and \$167,700 for Hispanics.

Interestingly, the disparity in assets is greater than that in net worth. In particular, while mean assets of white families were roughly five times as great as those held by non-white families, mean debts were only twice as great.

### **3. Wealth Dynamics in the SCF**

A number of important factors are related to the process of accumulating wealth over a person's lifetime, and differences in these factors across race groups of family heads could play an important part in accounting for the wealth gaps described in the previous section.<sup>10</sup> The factors we consider in this section are differences in the distribution people across stages of the "life cycle," differences in education and incomes, inheritance, and attitudes toward saving and investing.

#### *3.1. Aging and Asset accumulation*

A basic stylized pattern of accumulation across the life-cycle expects young people to have low (or negative) wealth, as they have not had time to save and have likely borrowed to build up their human capital. People start to accumulate more wealth as they enter the work force and their income rises. Wealth peaks at the point of retirement, and starts to decline as retirees stop

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<sup>10</sup> Scholz and Levine (2003) review of the range of the factors influencing the racial wealth gap.

accumulating assets and begin to consume out of their savings. **Figure 2** illustrates this standard age pattern using the SCF for 2013.<sup>11</sup> Mean debt and assets both rise steadily up to the point of retirement, peak (at nearly \$1 million) at age 62, and decline thereafter. The ratio of mean debt to assets is highest in the late 20's, a time just after most students finish college or graduate education. Debt grows at a faster rate (by age year in the cross section) than asset up through age 29, at which point growth in assets outstrips that of debt.

The white population in the SCF is older, with a greater portion at their peak earning years, and in the early phases of retirement. Differences in the age profile alone could account for an important part of the wealth differences between the races. Only 18 percent of white family heads are under age 35, compared with 23 percent of black families and nearly 32 percent of Hispanic families (**Table 2**). Thirty percent of white family heads are between the ages of 50 and 64, compared with 29 percent for blacks and 22 percent for Hispanics.

Age alone, of course, cannot account for the wealth gaps. Even more, aging itself is not as closely linked to the patterns of wealth accumulation for non-white households. **Figure 3** shows the age/net worth profile by race for several different survey years. These profiles for white families (both using mean net worth of age-bin in **Panel A** and using median net worth by age-bin in **Panel B**) depict the usual pattern of accumulation up through retirement age, followed by decline. Median net worth of white families with heads aged 55 to 64 peaked at \$350,000 in 2007 and fell over the next two surveys, hitting \$250,000 in 2013, modestly higher than 1989 levels.

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<sup>11</sup> The simple wealth by age profiles in Figure 2 reflects both lifecycle and cohort effects.

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For black families the mean and median wealth levels are much lower, and the pattern wealth rising with age up until retirement and subsequent decline is almost completely absent. In three of the selected years, wealth peaks between the ages of 45 and 54 for black families, and in 2010 it peaks in the 65 and older population. These deviations from the aggregate age/wealth profile could be accounted for by differences in labor force participation, retirement behavior, and life expectancy, but could also be due to relatively small cell sizes in the data and lack precision. There are, for example, fewer than 140 black families with heads between the ages of 55 and 64 in the data in 2013.

The age/net worth profiles for Hispanic families do depict a clear pattern of accumulation up through retirement, following by decline, despite being based on less than half as many observations. At all points of the life cycle, Hispanic families (as well as black families) have net worth levels substantially lower than their white counterparts.

### *3.2. Education, Income, and Asset Accumulation*

Another key factor influencing the accumulation of assets across a lifetime is income. Households with higher income are able to save more out of their income. Education is closely related as earnings are the primary source of pre-retirement income for a large majority of families, and earnings are closely related to educational attainment. Workers with higher levels of education enjoy lower rates of unemployment, work more hours per year at higher rates of pay, and thus receive higher incomes. Income differences, regardless of their origin, by race will in turn generate wealth differences, and could account for an important part of the wealth gaps observed.

Figure 4 shows median family net worth by decile of “usual income” for household heads between the ages of 30 and 59.<sup>12</sup> Median wealth rises monotonically with usual income, starting at just \$2,200 for the lowest income decile, climbing to \$30,500 for the fifth decile, and reaching \$960,000 among the top usual-income group.

Income is closely related to wealth, and incomes and educational attainment are substantially different for white, black, and Hispanic families. Median usual income (among 30 to 59 year olds) in 2013 was \$75,000 for white family heads, and was \$40,600 for non-whites (**Table 3**). The share of families whose head lacks a high school degree was 6 percent for whites, 9 percent for blacks, and 31 percent for Hispanics. The share of family heads with an advanced degree (beyond a BA) was 15 percent for whites, 8 percent for blacks, and 4 percent for Hispanics.

Greater educational achievement results in higher levels of income for all races, but education expressed as highest degree of attainment cannot account by itself for all of the income differences observed between white, black, and Hispanic families. Median income for families with heads between 45 and 59 with a BA (but not an advanced degree) was \$109,000 for whites, \$61,000 for blacks, and \$69,000 for Hispanics (**Table 4, Panel A**).<sup>13</sup> Controlling for educational attainment and age of household head, white family income was between 1.5 and 2 times greater than non-white family income among those with Bachelor’s degrees, and between 1.2 and 1.7 times greater among those with a high school degree only (**Table 4, Panels C and D**).

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<sup>12</sup> In addition to measure the amount of income actually received by the family in the previous calendar year, the SCF (since 1995) also asks about the “usual income” that the family receives in a “normal” year. This income classifier is more stable over time and less subject the short-term transitory fluctuations.

<sup>13</sup> Income in Table 4 is based on the combined data for 2010 and 2013, using inflation-adjusted (2013 \$) dollars.

### 3.3. *Inheritance and Wealth Accumulation*

In addition to saving out of income, wealth is also supplemented through inheritance. Inheritance is closely linked to wealth accumulation, and inheritance is much more prevalent for white households. Twenty-three percent of white families (heads aged 30 to 59) have ever received an inheritance, compared to nearly 11 percent of black families and nearly 6 percent of Hispanic families (**Table 5**). Among those receiving an inheritance, the mean amount received was nearly three times as large for white families. The conditional mean inheritance of white families was \$236,000, compared to \$83,000 for black families and \$86,000 for Hispanic families.<sup>14</sup> Nineteen percent of white families expect an inheritance in the future, compared to just 6 percent of black families and 4 percent of Hispanic families.

Inheritances contribute to wealth directly and indirectly. As long as an inheritance is not totally consumed, at least some of its value shows up directly on a household's balance sheet in its bank accounts or other asset. Indirectly, inheritances can help add to future wealth by allowing a household to invest in an asset that generates net income. The data indicate that inheritances are strongly related to net worth. **Figure 5** displays mean 2013 net worth for families with heads ages 30 to 59 by level of inheritance. Families with no inheritance are grouped together, and have mean net worth of \$390,000. Families with inheritances are grouped together in deciles by level of inheritance. The bottom three deciles of inheriting families all received small inheritances (mean inheritance in the third decile was \$19,000) and have net worth levels lower than non-inheriting families. Starting at the fourth decile of inheritance (mean value of \$34,000), net worth is higher for inheriting families, starting at \$537,000 for families in that decile. For the

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<sup>14</sup> Inheritances are adjusted for inflation using the BEA GDP implicit price deflator, based on year the inheritance was received and expressed in 2013 dollars. The inheritance statistics in Table 5 are based on the combined data for 2010 and 2013.

fifth decile of inheritance (mean value \$56,000), net worth was \$640,000, and in the top decile (mean inheritance of \$1.6 million), net worth was \$4.2 million.

Inheritance is closely related to wealth accumulation, and white families in the SCF have benefitted from much greater inherited wealth than non-white families. Indeed, controlling for the level of inheritances appears to account for part of the gap in net worth between white and non-white households among inheriting families in the survey. Restricting our comparisons to households with no inheritance at all does impact the measured gap in wealth between races, but the impact on white/non-white differentials is substantially different for black and Hispanic families. Among families with household head between ages 30 and 59 and a Bachelor's degree, the median net worth for white families is 7.5 times larger than it is for black families (**Table 6**). Including only families with no inheritance mean white wealth is “only” 5.4 times as large. For Hispanic households, inclusion of inherited wealth appears to reduce the racial wealth gap. Mean net worth of white families is four times as large as that of Hispanic families (for heads ages 30 to 59 and BA degree only) when we exclude families with inherited wealth; white wealth is only three times as large when you include families with inheritances. As an important caveat of these comparisons, inheritance may have a different impact on wealth accumulation among black and Hispanic families, but the statistics in Table 6 are based on relatively few households and are only suggestive.<sup>15</sup>

### *3.4. Attitudes toward Borrowing, Saving, and Investing*

Families who are more successful investors will accumulate greater wealth. The SCF asks a number of attitudinal questions that might be considered proxies for otherwise unobserved skills

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<sup>15</sup> In 2010 and 2013 (combined) the SCF surveyed 129 Black and 76 Hispanic families with heads ages 30 to 49 with a BA degree only and no inheritances.

or effort levels that relevant to saving and asset accumulation; the data suggest there is a correlation between these attitudes and wealth. The particular questions ask respondents about their financial risk tolerance (four-point scale, from willing to “take substantial risk” to “not willing to take any financial risk”), their financial/budgeting time horizon (five-point scale, from “few months” to “longer than 10 years”), and their attitudes toward borrowing. We recode these variables into three indicators. The first is called “risk tolerant,” and it equals one if household is willing to take at least “above average” financial risk. The second variable is called “long-horizon,” and it equals one if household identifies “the next few years” or longer as their planning time horizon. The third variable is called “borrower,” and equals one if a household thinks it is “in general” a “good idea” to borrow either for luxury items, including jewelry, or for vacations.

Respondents (ages 35 to 59) who were identified as “risk tolerant” or who had a long time horizon had mean net worth in 2013 that were three to four times greater than those who were not tolerant of risk or who had shorter time horizons (**Table 7, Panel A**). Respondents who were generally supportive of borrowing to pay for vacations or other luxury items had a mean net worth 20 percent smaller than those who disapproved of such borrowing.

These attitudes also differ racially among the respondents in the SCF. Twenty-three percent of white respondents (ages 35 to 59) were risk tolerant, compared to 15 percent of black and Hispanic respondents (**Table 7, Panel B**). Seventy-one percent of white respondents indicated they had a long time horizon, compared to just over half of all black and Hispanic respondents. Twenty-one percent of black respondents were generally supportive of luxury borrowing, compared with 18 percent of whites and 17 percent of Hispanics. Controlling for these attitudes alone, however, does relatively little to diminish the racial wealth gap (**Table 7, Panel C**).

Among the subset of respondents with long time horizons, the wealth gap is somewhat smaller between white families and both black and Hispanic families. The same is true among the subset of respondents who are not supportive of luxury borrowing. Among risk tolerant respondents, the wealth gap between white and Hispanic families is considerably smaller than it is in the overall population, but the gap between white and black families is even greater.

#### **4. Exploring Contributing Factors with Reduced-Form Regressions**

Age, education, income, inheritance, skill at investing, and other factors influence the wealth accumulation process, and can help us understand the different wealth levels held by white, black, and Hispanic families. In this section, we carry out simple reduced-form regressions and decompositions to describe how much of the wealth gap is accounted for by these observable factors, and how much remains unexplained.

It is worth pointing out that “unexplained” factors here are not intended as a proxy for racial bias and discrimination. Certainly racism – as represented by “red-lining” practices that limited lending and home ownership among non-whites, discriminatory hiring practices of employers, and the lingering influence of past race-driven differentials, among others – could account for an important portion of the “unexplained” differences in wealth accumulation between white, black, and Hispanic families. However, the unexplained portion would also include any other unobserved factors influencing racial wealth differences. At the same time, some of the differences in wealth outcomes that we can account for could very well be influenced by discrimination and racial bias. Educational attainment, for example, could differ systematically across racial groups based on the quality of locally-provided education. Incomes, as mentioned

previously, are not perfectly explained by educational attainment, and could be influenced by biased hiring practices and other forms of racial discrimination.<sup>16</sup>

The modest goal of this analysis is to decompose the contribution to the racial wage gap of the previously discussed wealth accumulation factors as well as some additional influences.

Additional covariates in the regression analysis include: other demographic and family-type measures (number of children living in the home, number of children elsewhere, marital status, presence of spouse/partner, and urban/rural indicator); educational attainment of spouse; labor force, industry and occupation indicators; regional real estate variables (MSA-level quality-adjusted rents and one and five-year metro area house price index growth rates); health status indicators for respondent and spouse; parental survival and age variables for respondent and spouse; numbers of living siblings for respondent and spouse, and; a household-level indicator for homeownership. Summary statistics for each of these covariates are included in Appendix Table 1. Further intuition for including each of these variables is provided below when we review the results of the OLS regressions.

#### *4.1. OLS Results*

Tables 8 and 9 summarize results from simple OLS regressions using the SCF data for 1989-2013. All of the specifications in Table 8 use the inverse hyperbolic sine (IHS) of net worth as the dependent variable. The IHS is the preferred transformation of net worth, because it maps negative (positive) values of net worth into negative (positive) values, is defined at zero, and the interpretation of the coefficients is equivalent to that of a natural log.<sup>17</sup> The key regressors of

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<sup>16</sup> See Fryer, Pager, and Penkuch (2011) for an analysis of the black/white wage differential which estimates at least one-third of the gap is due to racial bias.

<sup>17</sup> See Pence (2006) for a discussion of the use of IHS transformations of net worth.

interest are indicator variables for the self-identified race of the household head, including “white” and “Hispanic,” with black family head being the excluded category.<sup>18</sup> Table 8 shows the full result for specifications using net worth as the dependent variable, highlighting the impact of successively adding covariates to the regression. Table 9 reports only the coefficients for the key regressors, and also uses assets (IHS) and debt (natural log) as alternative dependent variables.

**Column 1 in Table 8** includes only race variables and year fixed effects. With the IHS of net worth regressed on indicators for white and Hispanic family heads, the key coefficients can be interpreted like semi-elasticities; at the mean, the net worth of white families is 370 percent larger than that of black families, and for Hispanic families net worth is 70 percent greater than that of black families. **Column 2** adds basic demographic variables to the specification in column 1: age, including square terms, for both respondent and spouse, number of children in the home, number of children elsewhere, an indicator for family-type (including four categories in the regression: (1) unmarried household head of at least 55 years old without children, (2) unmarried household head less than 55 years old without children, (3) married household head with children, (4) married household head without children, and excluding from the regression (5) unmarried household heads with children), and indicator for presence of “non-primary economic unit” (NPEU) members in the household, and an urban area indicator. Controlling for these basic demographic variables in column 2 reduces the estimated coefficient on the indicators for the race of the family head by between one-third and one-fifth compared with the specification in column 1. The age of the respondent and the spouse is positively related – at a

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<sup>18</sup> Typically the more numerous group is chosen to be excluded, white in this case. For ease of interpretation of the coefficients, however, we are using black as the excluded group. Results of the regressions in Table 8 and Table 9 are unchanged whether white or black is excluded. Each of the regressions also uses only one imputation of the data.

declining rate – to net worth, and most family types have substantially higher net worth than unmarried household heads with children (the excluded group). The number of children inside or outside of the home is negatively correlated with wealth, consistent with Scholz and Seshadri (2009). Finally, residence in an urban area and presence of an NPEU are negatively related with net worth.

In addition to the basic demographic explanatory variables in column 2, the regression in **column 3** controls for the educational attainment of the respondent and spouse using a dummy variable for each completed degree of formal schooling: (1) High school only; (2) some college; (3) BA degree only; (4) MA, (except for MBA) MS, nursing; and (5) PhD, MD, JD, MBA. Less than a high school degree is the excluded category. Controlling for educational attainment reduces the coefficient on the indicator for white family head, but raises the coefficient on the indicator for Hispanic family head. Net worth is higher for each education group, relative to those families with heads with less than a high school degree. The highest education group – those with respondents with advanced degrees – has net worth 290 percent greater than high-school dropouts.

Additional controls for occupation and industry, included in **column 4**, reduce the coefficients on white and Hispanic family heads by approximately one-tenth. Being self-employed or a partner in a business (relative to being employed by someone else) is positively correlated with net worth, while being employed in any other field relative to the excluded group of “managerial and professional workers” is negatively correlated with net worth.

Including several variables to reflect inheritances – the natural log of inflation-adjusted value of inheritance received, an indicator for expecting a future inheritance (not shown), and the number of years since the most recent inheritance – reduces the coefficient on white family head by one-

tenth, but has no impact on the coefficient on Hispanic family head (**Column 5**).<sup>19</sup> This is consistent with Altonji and Doraszelski (2005), who find little impact of inheritance on black-white wealth differences. The coefficient on inheritance indicates that a ten percent increase in inherited wealth, which can be received at any point in the past, raises current net worth 0.7 percent (at the mean).

### *Regional Real Estate Variables*

The specification in **Column 6** of Table 8 introduce variables reflecting local real estate market conditions. These variables could be important for the racial wage gap because of the importance of residential real estate in the portfolios of non-white households, and the relatively high leverage ratios of low net worth households, as booms and busts in home prices likely have a disproportionate effect on low wealth, highly-leveraged homeowners. Consistent with this hypothesis, Wolff (2014) has drawn attention to housing wealth as an important factor explaining the particularly sharp decline in black family wealth in the Great Recession. In column 6, we include measures of the local cost of living. We also include one- and five-year changes in regional real estate price indexes, which capture movements in prices at the local level, an important source of heterogeneity given that race groups are not distributed evenly throughout the country. In particular, we use the CBSA-level housing price index from CoreLogic.

The coefficients on the regional real estate variables are significant and have the anticipated sign. Living in a location with a high (quality-adjusted) cost of living, everything else constant, reduces household net worth.<sup>20</sup> Households may benefit from various locational amenities, but

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<sup>19</sup> Values with zero inheritance are replaced by  $\ln(.05)$ .

<sup>20</sup> The qrent (quality-adjusted rent) variable is developed in Chen and Rosenthal (2008). It varies at the MSA-level, and the values used in this specification are for 2000. Chen and Rosenthal construct their cost measure by estimating a hedonic regression controlling for structural characteristics of housing units in each MSA and state non-

living in a region with higher quality-adjusted cost of housing will increase costs and decrease after-tax income and, eventually, savings and net worth. (Note that the sign on this coefficient switches once we add a covariate for homeownership.) The one-year growth rate in the state-level house price index reduces net worth, but the five-year growth rate raises it. Longer-term increases in the price (value) of real estate are correlated with household net worth, but inclusion of these covariates does not impact the coefficients on the race of the household head. So, the differences in regional real estate prices reflected in these covariates do influence wealth, but appear to have no bearing on the racial differences we observe once we control for basic demographics, education, labor force status, and inheritance.

*Variables for Attitudes toward Saving and Investing*

It is anticipated that households that are more risk tolerant and who have longer time horizons will have greater net worth. Household attitudes toward borrowing – particularly borrowing to afford luxury items and vacations – may negatively influence net worth. The regression in **Column 7** includes indicator variables for risk tolerance, long planning horizons, and luxury borrowing as defined in section 3.4. The estimated coefficients indicate that risk tolerant families and those with longer planning horizons do have higher net worth. In addition, families supportive of borrowing for luxuries or vacations have lower net worth. Adding these variables, however, has only a modest effect (an eight percent decline) on the coefficient for the indicator for white family head and essentially no effect on the coefficient for the indicator for Hispanic family head.

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MSA from the 2000 Census. The estimate reflects renter and owner-occupied housing, and is expressed at an annualized rate, ranging from \$4,300 to \$24,000, with a mean of \$7,900.

*Controlling for Health and Family Longevity*

Respondent and spouse health are both positively and significantly related to net worth. Healthier family heads are more productive and can work more, and may have also incurred fewer health-related expenses. At the same time, affluent households are able to afford health care and other services that help them maintain their good health. An indicator for having a family head with “excellent” health is correlated with 113 percent higher wealth relative to those with only “fair” self-reported health (**Column 8**). Controlling for health status, though, changes the observed racial wealth differences very little; the coefficients on white family head and Hispanic family head decline four percent and three percent, respectively once controlling for indicators of self-reported health status.

Coefficients on indicators for the number of siblings, ranging from zero to 4 or more, for both the respondent and spouse, suggest a non-linear relationship between siblings and wealth. Having one sibling is related to greater family wealth, but three or more siblings is negatively related (**Column 9**). Having a mother or father still living is negatively related to wealth, but, conditional on being alive, the age of the surviving parent is positively related to wealth. The coefficients for the indicators for the race of the family head are little changed after controlling for the number of siblings in the basic specification.

*Considering the Impact of Sequence of Introducing Covariates*

The results reported in Table 8 suggest that, among the different covariates used in the OLS regressions, controlling for demographic characteristics appears to have the largest impact on the coefficient for white and controlling for educational attainment has the largest impact on the coefficient for Hispanic. The key coefficients reported in Table 9 confirm that this impression is

not simply due to the ordering in which these variables are introduced into the regression. The initial Column in Table 9 includes the key coefficients (white and Hispanic) from Column 9 Table 8. Each of the subsequent columns includes those same coefficients from regressions that exclude specific covariates. The excluded variables, labelled in the columns of Table 9, correspond directly to the same covariates sequentially introduced in Table 8. When demographic variables (age of respondent and spouse, number of children, and family type) are excluded from the regression (Column 2), the coefficient on white jumps from 1.48 to 1.74, the largest change for white across all of the specifications reported in Table 9. When educational attainment of respondent and spouse is excluded from the specification (Column 3), the coefficient on Hispanic falls from 0.87 to 0.71, the largest change for Hispanic.

*Controlling for Income and Housing; Considering Alternative Dependent Variables*

The set of covariates included in the specifications reported in Tables 8 and 9 account for more than half of the unconditional wealth advantage of families with white heads relative to families with black heads, but increased the gap for families with Hispanic heads, adding to their advantage relative to families with black heads and closing a substantial portion of the distance between Hispanic and white families. **Table 10** reports specifications that also control for income and home ownership status (Panel A), as well as results from specifications using assets and debt as the dependent variable (Panels B and C).

Income has received special attention in previous research on the white/Black wealth gap; Barsky et al. (2002) focus on the importance of earnings differences for understanding the wealth gap, while Altonji and Doraszelski (2005) argue that lifetime income is more appropriate for understanding group differences in net worth. Specifications reported in **Panel A of Table 10**

separately control for these two income measures as well as for home ownership status.<sup>21</sup>

Homeownership itself is, of course, correlated with race. Using these same variables to estimate a linear probability model for homeownership, we find that white families are 10.2 percent more likely to own their home than black families and Hispanic families are 1.4 percent more likely.

Whatever factors are influencing racial differences in homeownership (or educational attainment for that matter) are also influencing wealth accumulation. Including an indicator for home ownership as an independent variable in our wealth regressions, is one way to help understand how portfolio composition or access to housing influence the wealth gap.

The signs on the income and homeownership variables are large in magnitude, statistically significant and have the anticipated sign. Higher income is correlated with greater wealth, as is homeownership. Including these variables also results in sizeable reductions in the indicator for white family head, but has mixed impacts on the indicator for Hispanic family head.

As anticipated, “usual income,” which is less subject to short-term transitory fluctuations than either actual income or earnings, is more closely related to wealth.<sup>22</sup> The coefficient on usual income (Columns 4) is ten times greater than the coefficient on earnings (Columns 3). Including a control for usual income leads to a 15 percent decline in the coefficient on white family head, compared a two percent decline after controlling for earnings. Controlling for usual income, however, has virtually no effect on the indicator for Hispanic family head. Controlling for usual income, but not for homeownership, we see that average white family wealth is 123 percent larger than average black family wealth; average Hispanic family wealth is 104 percent larger.

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<sup>21</sup> Regressions using actual income have income coefficients and an impact on the coefficient for white that is larger than what we see using earnings and smaller than what we see using “usual income.”

<sup>22</sup> The regressions using income in Table 9 are all based on data from 1995 to 2013, as 1995 is the first year the SCF asks respondents for their “usual income.”

## Exploring the Racial Wealth Gap

Further controlling for homeownership results in a large decline in the coefficient on white, but has only a negligible impact on Hispanic. The coefficient on homeownership is very large itself: average net worth for homeowners is roughly 450 percent higher than for those not owning homes, conditional on all of the other factors being controlled. Controlling for homeownership reduces the coefficient on white by nearly 40 percent. Once both usual income and homeownership are controlled for, average white family wealth is now “only” 77 percent larger than that of the average black family. The wealth differential between Hispanic and black families, though, is hardly affected; average Hispanic family wealth is 97 percent higher than average black family wealth once we control for homeownership and usual income.

### *Using Assets and Debt as the Dependent Variable*

Net worth is defined as the total value of family assets less total debts, and the observed wealth gap could be driven by either assets, debt, or both. **Panels B and C** in **Table 10** report the key coefficients from the same specifications, but instead used assets (IHS) and debt (IHS) as the dependent variables. The results indicate the white-Black wealth gap, conditional on including a covariate for homeownership, is almost entirely due to differences in asset accumulation. The wealth gap between Hispanic and black families is more evenly split between differences in assets and debt, but is mostly due to Hispanic families having less debt.

The baseline specification, conditional on all of the demographic and other controls from Table 8, indicates white family assets are 116 percent greater than black family assets (**Panel B, Column 2**), and white family debt is 52 percent greater (**Panel C, Column 2**). Including usual income and homeownership (Column 6) reduces the coefficient on “white” in the assets regression to .71, very similar to the coefficient from the net worth regression (.77), and takes the coefficient on “white” in the debt regression down to .02 (not statistically different from zero).

Differences in assets and debts each account for roughly half of the wealth gap between Hispanic and black families; the Hispanic coefficient is .31 in the asset model (Panel B, Column 2) and -.53 in the debt model (Panel C, Column 2). Controlling for income and homeownership has little impact on the Hispanic coefficients.

## **5. Decomposing the Wealth Gap: Oaxaca-Blinder and DFL**

Below we provide the key results from a series of decompositions, breaking down the observed differences into components that are accounted for by the observed covariates and an unexplained portion.<sup>23</sup> We first use the standard Oaxaca-Blinder (O-B) method and then move on to non-parametric decomposition techniques developed by DiNardo, Fortin, and Lemieux (1996) and Barsky et al. (2002).

The O-B decomposition assumes a linear relationship between the dependent and independent variables, and is based on separately identifying the contribution of differences in observed traits between groups (such as educational attainment) and differences in returns to those traits (such as returns to education). Separate regressions are run for two groups, and the regression coefficients for one group are applied to the covariates of the other to obtain the counterfactual (e.g. what would black family wealth look like if the traits of black families enjoyed the same “return” as that of white families.)

Among the limitations to these basic decompositions is the underlying O-B assumption that the wealth function (in this case) is linear. As Barsky et al. (2002) argue, there are good reasons to think the wealth function is not linear in income (or any number of additional explanatory factors), and little reason at this point to think that we know the actual functional form. The

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<sup>23</sup> This basic approach was developed by Oaxaca (1973) and Blinder (1973). We estimate the decompositions in STATA using the routine developed by Jann (2008).

standard O-B decomposition can also be sensitive to the choice of the excluded group, giving different answers for the “unexplained portion.” This sensitivity is in part related to a lack of common support in the distributions of the groups being compared. In the case of wealth and income, there are substantial portions where the white, black, and Hispanic distributions do not overlap (**Figure 6A, 6B**). In these cases, the O-B predictions extrapolate beyond the observed income and wealth range for black families.

An alternative decomposition approach that addresses these concerns is the DiNardo, Fortin, and Lemieux (DFL) (1996) re-weighting estimator. The DFL uses a non-parametric approach and does not assume a linear wealth function, and it also assigns a zero (or near zero) weight to observations that lack common support. The DFL can also easily be used to decompose differences across the distribution, not simply at the mean as is the standard O-B decomposition.

Conceptually the DFL estimator is simple: it re-weights data from one group to give it the same composition of traits as is seen another group.<sup>24</sup> When the skills, income, and other traits of groups in the SCF samples are compared, the estimated counterfactual becomes “what would the density of wealth have been among white families if they had the skills, income, and other traits of black families (but retained their own wealth function).” The outcome of interest (here, wealth) and the regressors (here, skills, income and other traits) are assumed to have a joint distribution, so that as the regressors are observed more frequently, so will the outcome. Importantly, no parametric assumptions are placed on the formation of these outcomes and the estimator allows inferences to

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<sup>24</sup> Originally the DLF estimator was used to re-weight over time. Here, and in Barsky et al. (2002), the DFL estimator is used to re-weight different groups in the same period.

be drawn along all points of the distribution of outcomes. The estimator also forces estimates to be drawn from common support across the two samples.<sup>25</sup>

Once white families have been re-weighted so that their distribution of observables ( $z$ ) matches that of black families, the difference between white family wealth in the original sample and the re-weighted sample is our measure of the impact of being white on wealth and of the racial wealth gap. The re-weighting function used is a ratio of propensity scores estimated from probit regressions:

$$\Psi(z) = \frac{\Pr(b|z) \Pr(w)}{\Pr(w|z) \Pr(b)}$$

As noted by DiNardo (2002) and Fortin, Lemieux, and Firpo (2011), this re-weighting by a (ratio of) propensity scores allows the same benefits as Rosenbaum and Rubin (1983) propensity score matching. The weight ( $\psi(z)$ ) allows us to collapse a multidimensional integration problem (i.e. integration over each component of  $z$ ) into a one-dimensional integration problem.

### *5.1. Oaxaca-Blinder Results*

Panel A in **Table 11** contains the O-B decomposition results for the white/Black wealth gap. The decomposition here applies the coefficients from the wealth equation estimated on white households to black households, but the results do not change if black coefficients are applied to white households. Including all of the covariates except for income and homeownership (equivalent to Column 9 in Table 8), group differences in a broad range of observable traits

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<sup>25</sup> Both observables and unobservables determine the outcome. The method assumes that the density of an outcome conditional on inputs and the density of the inputs are independent. The inputs are re-weighted while the conditional density remains unchanged, so the estimates rely on changes in observables only while keeping the distribution of unobservables unchanged. Unobservables may have a possibly large role in determining wealth. It is assumed here that the effect of unobservables is the same across groups.

## Exploring the Racial Wealth Gap

account for sixty percent of the difference in net worth between black and white families. Once we include usual income and (especially) homeownership the portion of the gap we can account for rises to 80 percent. This finding is also unaltered by redefining white Hispanics out of the “white” category.

Decomposition of the Hispanic/white Net worth gap, applying white non-Hispanic coefficients to Hispanic households, is included in Panel B. Without including income and homeownership 82 percent of the wealth differences between white and Hispanic families are accounted for by differences in the observable traits between the two groups (**Panel B Column 1**). After including homeownership and usual income fully 106 percent of the wealth difference is accounted for; when White families are given the same “returns” to observables as Hispanics, average white wealth falls below average Hispanic wealth (**Column 2**).

This basic result does not change even after we use an alternative race definition to reflect changes in the data since 2004. Columns 4 and 5 in Table 11 use only data from 2004 and later, and Column 5 shows decomposition results for a different definition of white and Hispanic families. Previously families identifying as “white” racially, but indicating Hispanic ethnicity were categorized as “white.” Here those families are re-classified as “Hispanic” and the decomposition is re-estimated using the new definitions. The impact of this reclassification is modest, and does not change the overall finding that all of the wealth gap between white and Hispanic families can be accounted for by differences in observable characteristics – including income and homeownership. A separate row in Panel B shows the share of the wealth gap accounted for by observables when we instead apply coefficients from a wealth equation estimated on Hispanic households to non-Hispanic white households. The difference in each of the five specifications in Table 5 is quite small, differing by one percentage points at most.

### *5.2. Non-parametric (DLF) Results*

Following Barsky et al (2002) we reweight white households to have the same distribution as non-white households using the DFL estimator. Despite using a different approach, the DLF reweighting estimator yields very similar results as the O-B decomposition. At the mean of the distribution observables account for nearly 60 percent of the white/Black wealth gap without including income and homeownership and 80 percent when those variables are included (**Table 12, Panel A**). For the white/Hispanic wealth gap, the same observables account for 88 percent and 112 percent, respectively (**Table 12, Panel B**). For Hispanics the explained portion at the median of the distribution is somewhat smaller, with observables accounting for 96 percent of the wealth gap when income and homeownership are included in the decomposition.

Across the distribution of wealth, however, there is considerable variation in the extent to which observables can account for the wealth gap. At the top of the wealth distribution, there is a substantial unexplained portion for both racial wealth gaps. The unexplained portion at the 90<sup>th</sup> percentile of the wealth distribution is more than 30 percent for the white/Black gap and nearly 20 percent for the white/Hispanic gap. At the bottom of the distribution, observables can account for a considerably larger portion of the wealth gap. At the 5<sup>th</sup> and 10<sup>th</sup> percentiles of the wealth distribution, for example, observables can account for all of the black/white gap. Reweighted white households actually have lower levels of net worth than Hispanic households at the bottom of the income distribution, with observable factors more than accounting for the observed wealth gap.

### *5.3 Comparison to previous findings for the white/black wealth gap*

Whether using simple OLS regressions, the O-B decomposition, or the DFL re-weighting estimator, we find that observables (including usual income and homeownership) fully account for the white/Hispanic wealth gap at the mean of the distribution, but only explain 80 percent of the white/black wealth gap. The portion of the white/black wealth gap we can account for in this paper is toward the high end of most previous research. Scholz and Levine (2003, 10) conducted a thorough review of the white/black wealth gap and found that the portion of the gap most researchers accounted for was “between 12 and 84 percent, with most falling between 20 and 35 percent.”<sup>26</sup> Most of the previous literature uses the Panel Study of Income Dynamics, although a couple of use the NLSY and a couple use the 1989 SCF.

Some of the difference between our findings and that of previous research is that this paper is based on much more recent data than all of the previous studies reviewed by Scholz and Levine (2003). In addition, in this paper we tried to overcome many of the limitation of the earlier literature identified by Scholz and Levine, including use of the SCF for its high-quality wealth data that is representative of the entire wealth distribution, analysis of the wealth gap across the distribution, not simply at the mean, and incorporating a wide range of observable factors that could potentially account for the wealth gap.

### **Conclusions**

There are large and persistent unconditional differences in the wealth of white and non-white families alongside substantial differences in observable traits known to be related to the process of accumulating wealth. This paper discusses the findings of some simple OLS regressions and

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<sup>26</sup> Papers using white weights or coefficients tend to find a larger explained share, with estimates falling between 5 and 120 percent, with most between 60 and 90 percent. (Scholz and Levine, 2003, 10). Because there is an absence of common support at the top of distribution, with essentially only white households present at the very top of the income and wealth distributions, the estimates using white weights cannot reliably serve as a counterfactual for the black wealth distribution.

decompositions that try to account for these persistent differences. The findings suggest that nearly all of the Hispanic/white wealth gap at the mean and the median of the distribution can be accounted for by differences in observable traits, with basic demographic characteristics and educational attainment making up most of the gap. Also, most of the white/Black wealth gap can be accounted for by differences in observable characteristics, particularly basic demographic traits and homeownership. Using the full set of observable characteristics discussed in this paper, including home ownership and usual income, we can account for 80 percent of the observed wealth differences between white and black families. While all of the wealth gap between white and black family wealth is due to differences in assets, most of the gap between Hispanic and black families is due to differences in debt. Finally, observable factors account for much less of the racial wealth gap observed at the top of the distribution.

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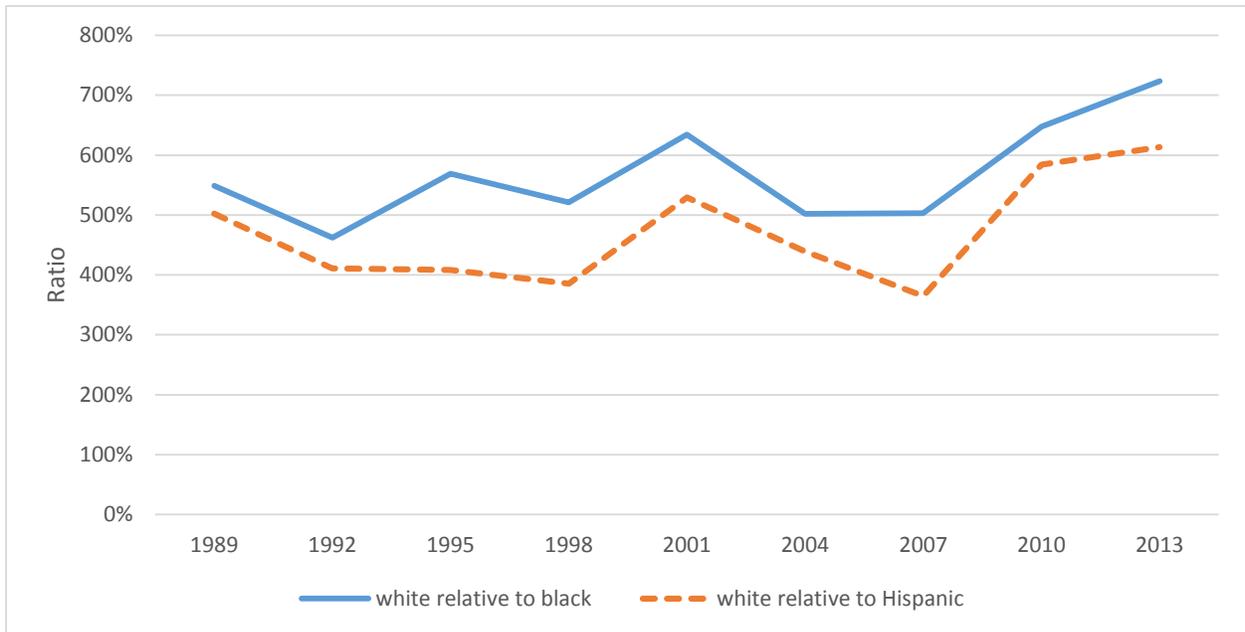
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## Exploring the Racial Wealth Gap

Figure 1. Average White Family Net Worth Relative to black and Hispanic Family Net worth (1989-2013)

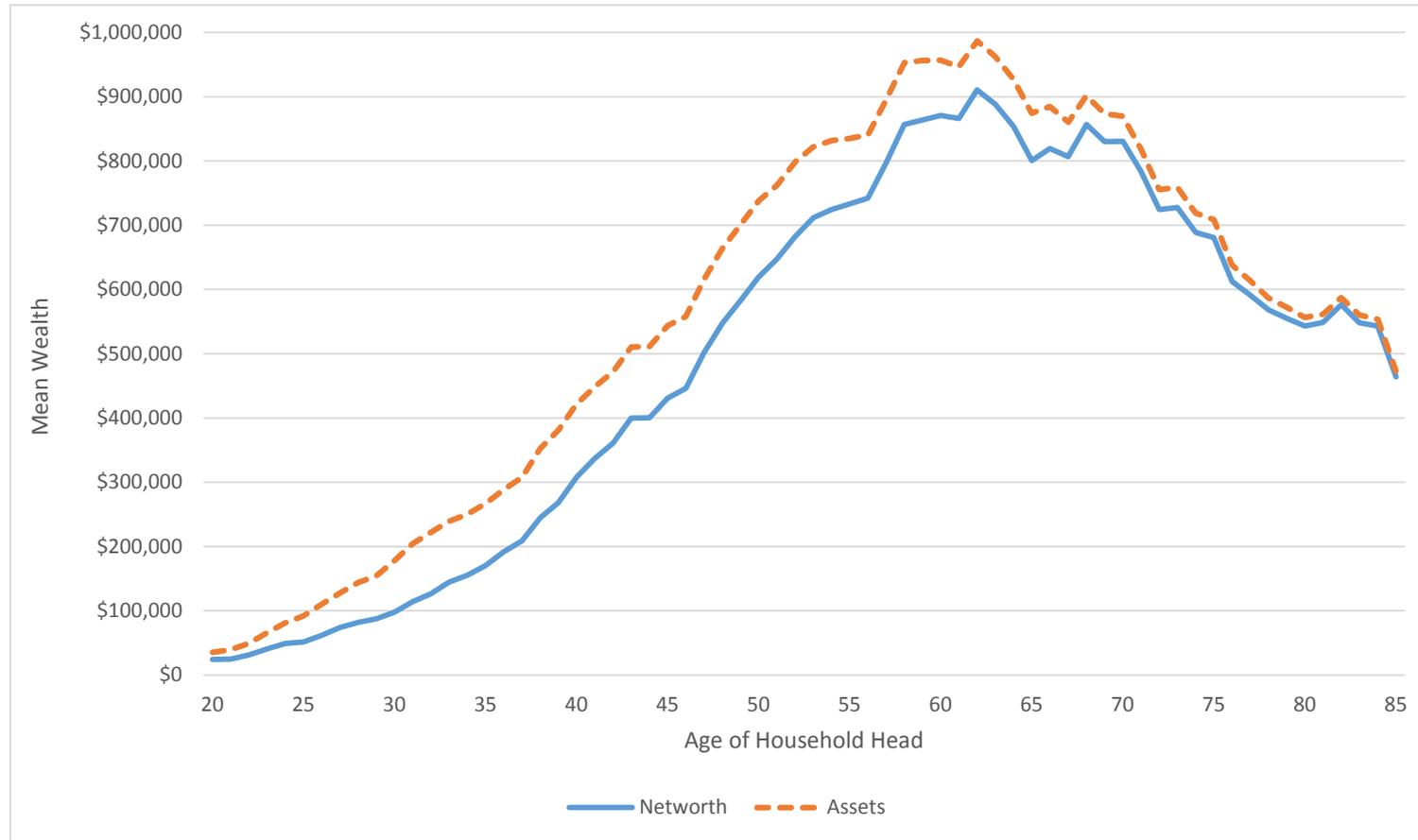
This figure plots the ratios of net worth of the average white family relative to that of the average black family (the blue solid line) and relative to that of the average Hispanic family (the orange dotted line) using responses to the triennial Survey of Consumer Finances conducted by the Federal Reserve between 1989 and 2013.



## Exploring the Racial Wealth Gap

Figure 2. Age and Wealth Profile in the 2013 SCF

This figure plots the 3-year moving average of mean assets (the orange dotted line) and mean net worth (the solid blue line) by age of household head among respondents to the 2013 Survey of Consumer Finances.

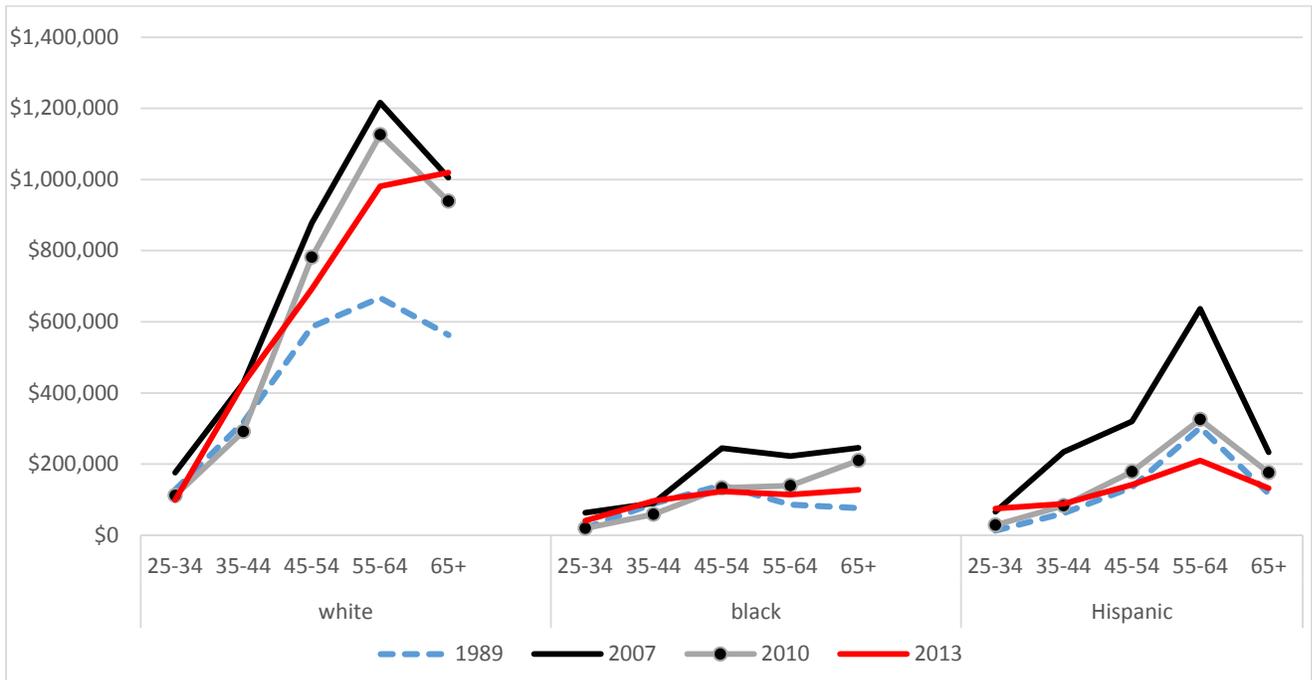


## Exploring the Racial Wealth Gap

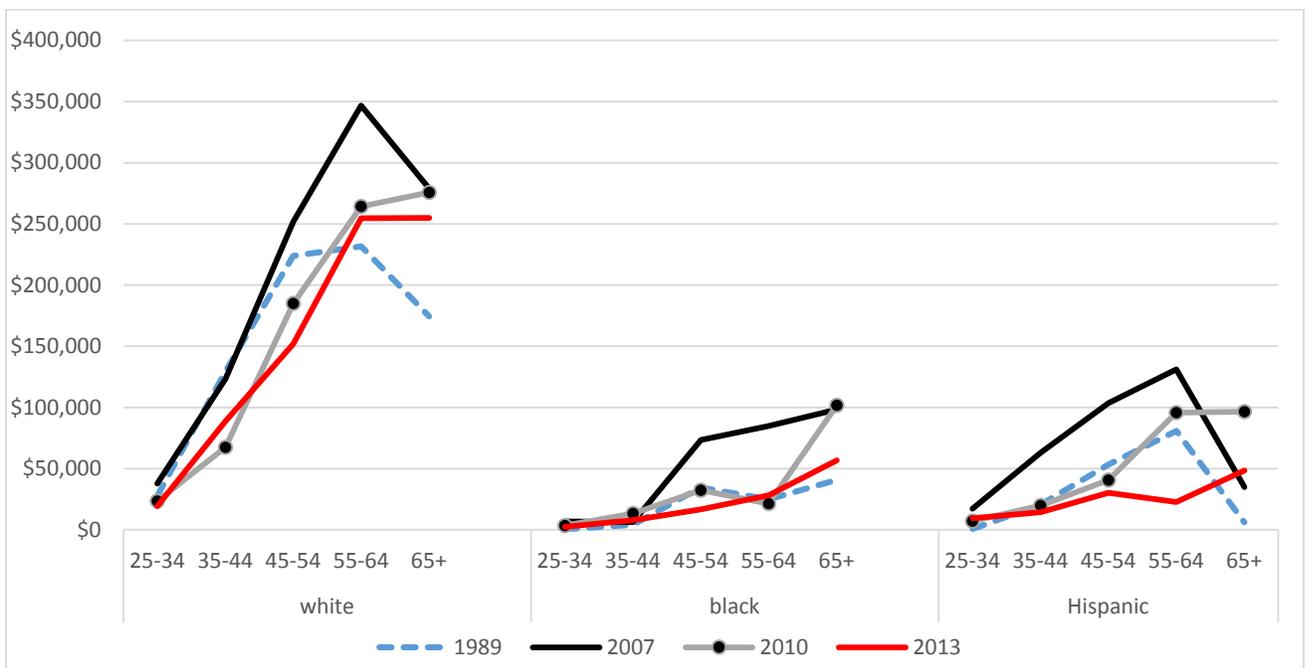
Figure 3. Net Worth by Age Profile for white, black, and Hispanic families in the SCF

Panel A plots the average net worth profile for white, black, and Hispanic families in the Survey of Consumer Finances using the 1989 (the dashed blue line), 2007 (the solid black line), 2010 (the dotted grey line), and 2013 (the solid red line) responses. Panel B plots the median net worth profile for white, black, and families in the same years.

Panel A



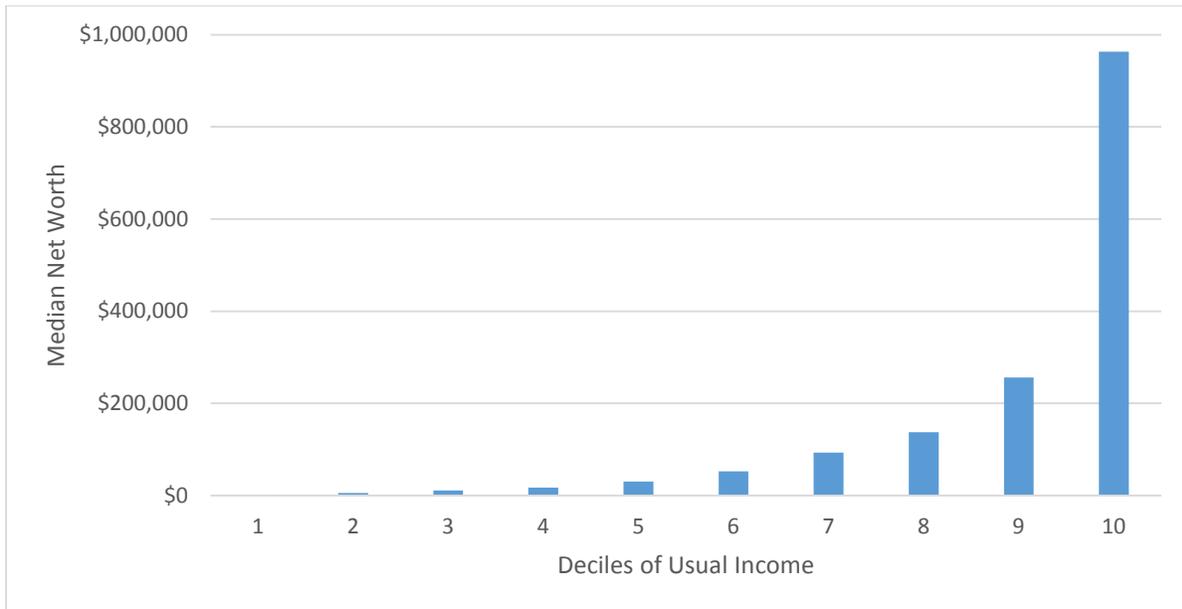
Panel B



## Exploring the Racial Wealth Gap

Figure 4. Median Net Worth by Normal Income Decile for Prime Working-Age Household Heads (Ages 30 to 59) in the 2013 SCF.

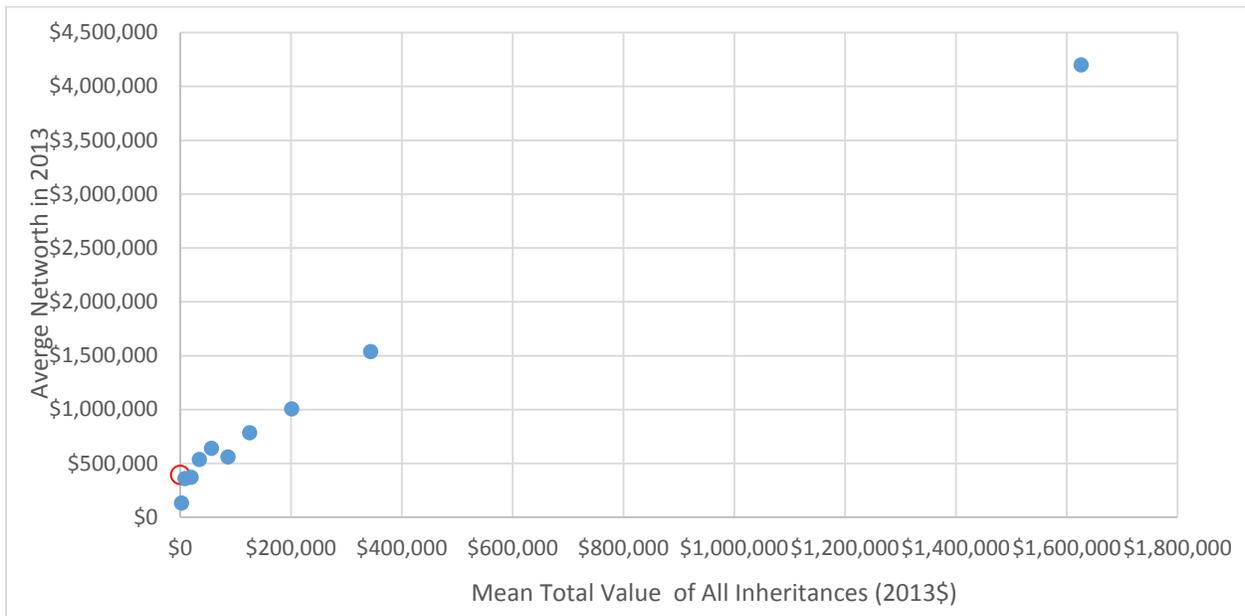
This figure shows median net worth by “usual income” decile for prime working-age household heads (ages 30 to 59) in the Survey of Consumer Finances (SCF) conducted in 2013. Usual income is what families in the survey report for a “normal year.” The leftmost bar represents the decile with the lowest normal income.



## Exploring the Racial Wealth Gap

Figure 5. Mean Net Worth by Inheritance Level

This figure plots the mean net worth for families with prime-aged heads (ages 30 to 59) in the vertical axis against mean value of total inheritances in the horizontal axis by decile using responses to the 2013 Survey of Consumer Finances. All values are expressed in 2013 dollars. All non-inheriting households are combined at zero mean value of total inheritances and have total mean net worth of \$390,000, represented by the hollow circle on the vertical axis above the origin. Inheriting households are split into deciles of total value of inheritance and are represented by full circles.



## Exploring the Racial Wealth Gap

Figure 6A. Distribution of Net worth (IHS) for white (1), black (2), and Hispanic, (3) Families in 2013

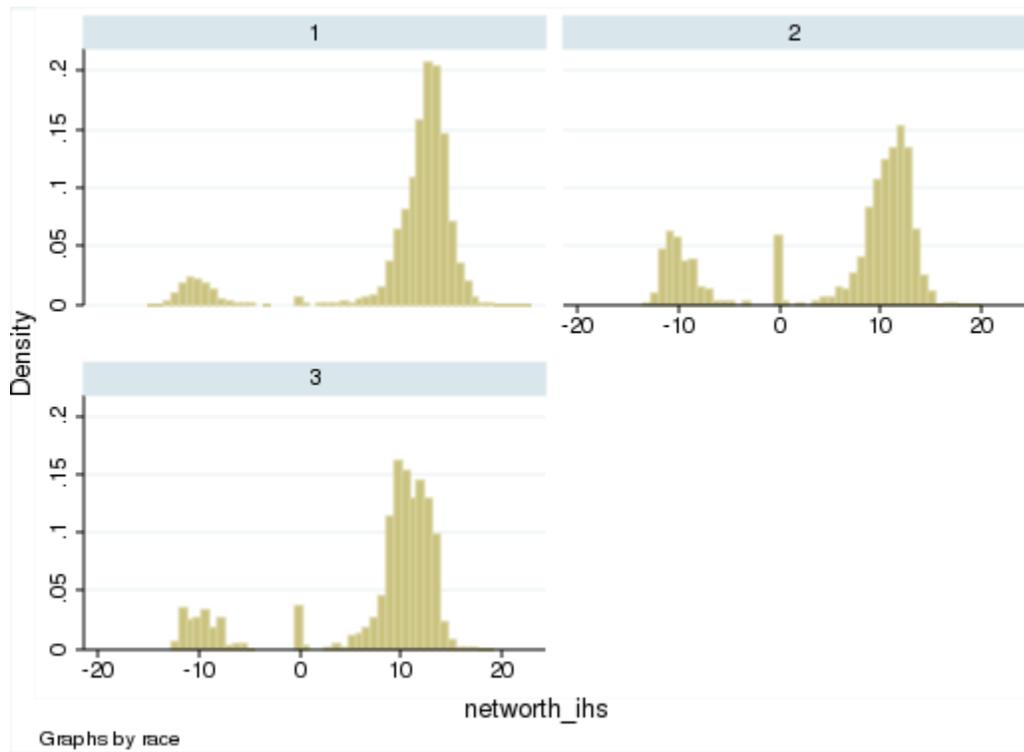
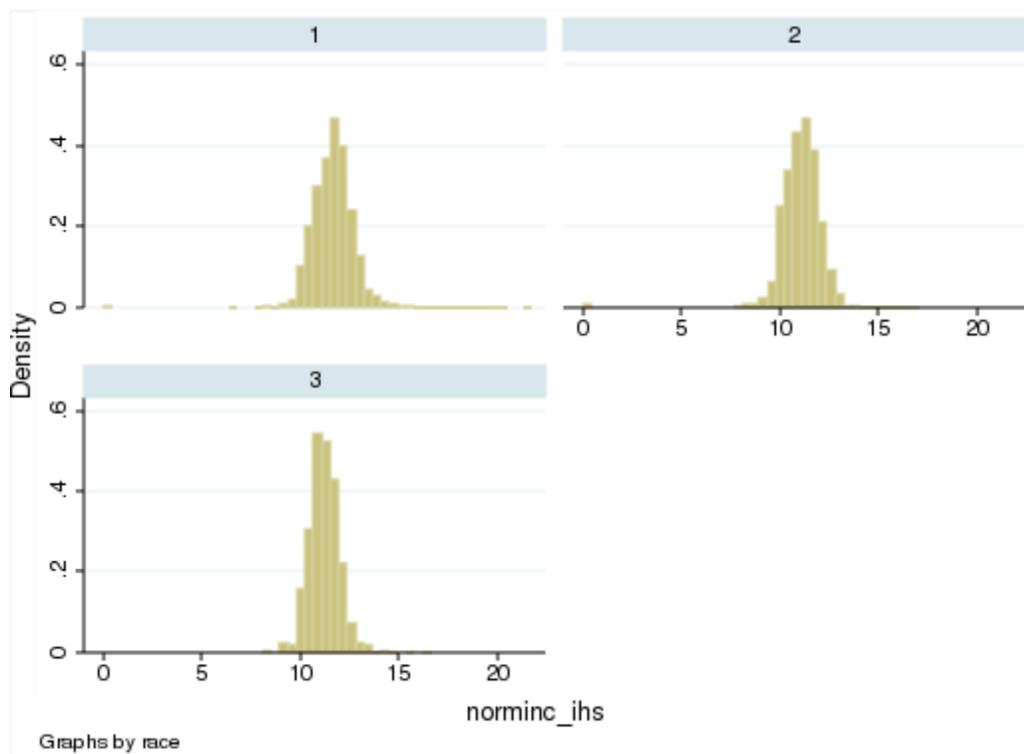


Figure 6B. Distribution of Normal Income (IHS) for White (1), black (2), and Hispanic (3) Families in 2013



## Exploring the Racial Wealth Gap

**Table 1: Assets, Debt, and Net Worth by Race**

This table shows the absolute and relative levels of assets, debt, and net worth of white, black, and Hispanic families included in the Federal Reserve’s Survey of Consumer Finances by survey year (1989 to 2013). Levels of assets, debt, and net worth are expressed in 2013 dollars. Panel A lists the mean values for each race group within a particular year, and Panel B lists the corresponding medians. Both panels also list the values of assets, debt, and net worth for white families relative to those for black and Hispanic families.

	<b>Panel A: Means</b>														
	<b>Assets</b>					<b>Debt</b>					<b>Net worth</b>				
	(1)	(2)	(3)	White family assets relative to:		(6)	(7)	(8)	White family debt relative to:		(11)	(12)	(13)	White family net worth relative to:	
White	Black	Hispanic	Black	Hispanic	White	Black	Hispanic	Black	Hispanic	White	Black	Hispanic	Black	Hispanic	
1989	462,891	95,032	119,137	4.9	3.9	51,755	20,133	37,262	2.6	1.4	411,135	74,899	81,875	5.5	5.0
1992	418,351	101,702	122,202	4.1	3.4	56,973	23,479	34,327	2.4	1.7	361,377	78,223	87,874	4.6	4.1
1995	441,079	94,818	132,547	4.7	3.3	60,045	27,850	39,243	2.2	1.5	381,035	66,968	93,304	5.7	4.1
1998	552,608	127,748	163,097	4.3	3.4	73,769	35,879	38,828	2.1	1.9	478,839	91,869	124,269	5.2	3.9
2001	716,099	142,239	162,708	5.0	4.4	79,191	41,867	42,460	1.9	1.9	636,908	100,373	120,248	6.3	5.3
2004	792,303	189,348	221,400	4.2	3.6	107,107	52,900	65,332	2.0	1.6	685,196	136,448	156,068	5.0	4.4
2007	872,583	227,086	306,080	3.8	2.9	112,953	76,164	97,831	1.5	1.2	759,629	150,922	208,249	5.0	3.6
2010	797,734	160,458	185,164	5.0	4.3	117,302	55,363	68,671	2.1	1.7	680,432	105,095	116,493	6.5	5.8
2013	789,702	146,586	167,740	5.4	4.7	102,002	51,550	55,624	2.0	1.8	687,701	95,036	112,116	7.2	6.1

**Table 1: Assets, Debt, and Net Worth by Race (continued)**

Panel B: Medians	Assets					Debt					Net worth				
	(1)	(2)	(3)	White family assets relative to:		(6)	(7)	(8)	White family debt relative to:		(11)	(12)	(13)	White family net worth relative to:	
				(4)	(5)				(9)	(10)				(14)	(15)
White	Black	Hispanic	Black	Hispanic	White	Black	Hispanic	Black	Hispanic	White	Black	Hispanic	Black	Hispanic	
1989	175,289	13,031	14,641	13.5	12.0	13,367	1,504	5,242	8.9	2.6	128,601	7,212	9,445	17.8	13.6
1992	168,309	28,636	16,248	5.9	10.4	14,714	1,924	2,437	7.6	6.0	113,246	16,085	10,996	7.0	10.3
1995	176,909	28,840	44,094	6.1	4.0	17,456	2,565	11,536	6.8	1.5	116,327	16,571	18,460	7.0	6.3
1998	203,092	36,167	37,604	5.6	5.4	22,872	4,067	5,575	5.6	4.1	135,859	22,122	14,044	6.1	9.7
2001	236,061	57,322	24,032	4.1	9.8	25,345	7,879	5,253	3.2	4.8	159,472	24,977	14,913	6.4	10.7
2004	268,979	51,946	39,152	5.2	6.9	37,627	10,865	8,562	3.5	4.4	168,509	25,186	19,367	6.7	8.7
2007	288,039	55,185	60,294	5.2	4.8	37,052	12,986	15,719	2.9	2.4	183,546	19,176	23,635	9.6	7.8
2010	245,453	42,868	43,150	5.7	5.7	39,653	8,907	10,738	4.5	3.7	132,354	16,617	16,056	8.0	8.2
2013	229,350	31,940	33,425	7.2	6.9	30,853	10,000	8,000	3.1	3.9	134,118	11,068	13,725	12.1	9.8

**Table 2: Age Profile (for household head) by Race (2013)**

This table summarizes the age distribution of the household head of white, black, and Hispanic families in the Survey of Consumer Finances in 2013. Column (1) lists the average age for the head of household by race, and columns (2) to (5) list the percentage of households for a race which have a family head in a particular age group.

	(1)	Percent of distribution			
		(2)	(3)	(4)	(5)
Average age		Under 35	35 to 49	50 to 64	65+
White	53	18.3%	24.0%	30.3%	27.3%
Black	49	23.4%	29.3%	29.0%	18.2%
Hispanic	44	31.5%	35.5%	22.2%	10.8%

**Table 3: Education and Income for “Prime” Working-Age Household Heads (30 to 59) by Race Group**

This table summarizes income and education for families with heads ages 30 to 59 by race, as reported in the Survey of Consumer Finances for 2007, 2010, and 2013. Columns (1) and (2) show the mean and median “usual income” for household heads between the ages of 30 to 59 by race. “Usual income” is a measure of household earnings that smooths out transitory fluctuations (unemployment, salary bonus etc.). Mean and median income are expressed in 2013 dollars. Columns (3) to (7) show the percentage of household heads between the ages 30 to 59 by the highest scholar degree they attained.

	"Usual" income		Highest degree obtained				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Mean	Median	Less than high school	High school only	Some college, no degree	BA only	Advanced degree
White	\$118,259	\$75,371	6%	29%	26%	24%	15%
Black	\$54,107	\$40,581	9%	33%	34%	17%	8%
Hispanic	\$55,770	\$40,581	31%	36%	21%	7%	4%
Total	\$99,162	\$60,872	9.7%	30.8%	26.5%	20.8%	12.2%

**Table 4: Usual Income by Education, Age, and Race**

Panels A and B show mean and median usual income for household heads with a BA degree only (Panel A) and a high school diploma only (Panel B), split by age group (ages 30 to 44 and ages 45 to 59), as reported in the Survey of Consumer Finances. Panels B and C show the income of white household heads relative to black and Hispanic household heads with the same level of education in the same age group. Income in this table is based on the combined data for 2010 and 2013, using inflation-adjusted (2013) dollars.

Panel A. Household Head with BA Only				
	Age 30 to 44		Age 45 to 59	
	(1)	(2)	(3)	(4)
	Mean	Median	Mean	Median
White	136,104	93,337	163,947	108,555
Black	67,593	54,469	83,815	60,872
Hispanic	74,838	60,872	96,193	68,988

Panel B. Household Head with High School Only				
	Age 30 to 44		Age 45 to 59	
	(1)	(2)	(3)	(4)
	Mean	Median	Mean	Median
White	67,971	59,858	72,888	55,799
Black	43,868	35,407	46,849	36,527
Hispanic	51,647	40,612	56,942	46,999

**Table 4: Usual Income by Education, Age, and Race (continued)**

Panel C. BA Only				
	Age 30 to 44		Age 45 to 59	
	(1)	(2)	(3)	(4)
	Mean	Median	Mean	Median
Black	2.0	1.7	2.0	1.8
Hispanic	1.8	1.5	1.7	1.6

Panel D. High School Only				
	Age 30 to 44		Age 45 to 59	
	(1)	(2)	(3)	(4)
	Mean	Median	Mean	Median
Black	1.5	1.7	1.6	1.5
Hispanic	1.3	1.5	1.3	1.2

**Table 5: Inheritance by Major Race Group – Household Head Ages 30 to 59**

This table summarizes statistics about the frequency and value of inheritances for families with heads ages 30 to 59 by race, as reported in the Survey of Consumer Finances conducted in 2010 and 2013. Column (1) shows the proportion of families which have received an inheritance by race. Columns (2) and (3) show the mean and median of inheritances received among those families who received an inheritance. Column (4) lists the percentage of people in the sample who expected an inheritance in the future. Inheritances are adjusted for inflation using the BEA GDP implicit price deflator and expressed in 2013 dollars.

	(1)	(2)	(3)	(4)
	Ever received inheritance	Conditional mean value of total inheritances received	Conditional median value of total inheritances received	Expect to receive an (another) inheritance
White	22.9%	\$236,495	\$55,207	18.8%
Black	10.6%	\$82,940	\$49,441	5.9%
Hispanic	5.5%	\$85,698	\$28,708	3.6%

**Table 6: Wealth by Inheritance Status, Race, and Age Group – Household Heads Ages 30 to 59 with Bachelor’s Degree Only**

This table shows the mean and median wealth (in 2013 dollars) for households with inheritance and without inheritance by race, as reported in the Survey of Consumer Finances (SCF) conducted in 2010 and 2013. Columns (1) and (2) show these metrics for households that received an inheritance, and columns (3) and (4) show the corresponding measures for households that did not. The bottom section shows the net worth of white families relative to that of black and Hispanic families for the mean and median within these two groups. In 2010 and 2013 (combined) the SCF surveyed 129 Black and 76 Hispanic families with heads ages 30 to 49 with a BA degree only and no inheritances.

	Including households with inheritances		Only households without inheritance	
	(1) Mean wealth	(2) Median wealth	(3) Mean wealth	(4) Median wealth
White	\$1,152,818	\$287,457	\$742,627	\$183,050
Black	\$168,238	\$38,174	\$185,702	\$33,969
Hispanic	\$399,498	\$65,960	\$196,541	\$38,125
White family relative net worth:				
Black	6.9	7.5	4.0	5.4
Hispanic	2.9	4.4	3.8	4.8

**Table 7: Wealth, Race, and Attitudes toward Saving and Investing**

Panel A shows the average family wealth (in 2013 dollars) by attitudes regarding saving and investing as reported in the Survey of Consumer Finances conducted in 2010 and 2013. Panel B shows the percent of individuals who are risk-tolerant, have a long time horizon for saving and investing, and approve of borrowing for luxuries by race. Panel C shows the mean net worth for each race by attitudes toward saving, investing and borrowing. The bottom section of Panel C shows the relative white family net worth for each category of attitude.

<b>Panel A. Average 2013 Family Wealth by Attitudes Toward Saving and Investing (Family Head Ages 35 to 59)</b>	
	(1) Net worth
Tolerant of risk	\$1,079,478
Not tolerant	\$375,608
Long time horizon for saving and investing	\$748,093
Short or medium time horizon	\$183,354
Approve of borrowing for vacations or luxuries	\$435,134
Do not approve	\$532,150

**Table 7: Wealth, Race, and Attitudes toward Saving and Investing (continued)**

<b>Panel B. Distribution of Attitudes by Race</b>			
	(1)	(2)	(3)
	Risk tolerant	Long horizon	Luxury borrower
White	23%	71%	18%
Black	15%	53%	21%
Hispanic	15%	52%	17%
Total	21%	67%	18%

<b>Panel C. Mean Net Worth (2010-13) by Race and Attitude Toward Saving and Investing</b>				
	(1)	(2)	(3)	(4)
	All types	Risk tolerant	Long horizon	NOT a luxury borrower
White	\$667,779	\$1,240,181	\$911,782	\$678,346
Black	\$105,138	\$164,217	\$155,760	\$113,421
Hispanic	\$139,696	\$402,268	\$202,987	\$149,182
Total	\$512,266	\$1,033,526	\$741,016	\$521,350
White family wealth relative to:				
Black	6.4	7.6	5.9	6.0
Hispanic	4.8	3.1	4.5	4.5

**Table 8: Net Worth Regressions**

This table summarizes the results from OLS regressions for the years 1989 to 2013 using data from the Survey of Consumer Finances. The inverse hyperbolic sine (IHS) of family net worth is the dependent variable in all columns. The coefficients for each predictor, along with a standard error (in parentheses) is given for each regression. The category of black family is the omitted category in all regressions. Column (1) includes only race variables and year fixed effects. Column (2) adds demographic variables along with the variables in column (1). Column (3) adds dummy variables for each level of formal schooling, with less than high school as the omitted category. Column (4) adds controls for employment status, occupation, and industry with employed by someone else, managerial and professional occupations, and the mining, construction, manufacturing industry as the omitted categories, respectively. Column (5) controls for inheritances, and replaces values with no inheritance with  $\ln(0.05)$ . Column (6) further controls for local real estate market conditions. Column (7) adds indicator variables for risk tolerance, long saving and investment horizons, and luxury borrowing. Column (8) further includes self-reported indicator variables for health for both the household head and spouse health with fair health as the omitted category. Column (9) includes, for both respondent and spouse, indicator variables for the number of siblings, ranging from zero to four or more, as well as variables for the longevity of the mother and father. The spouse coefficients for health, siblings, and parental longevity are not shown for space. \*, \*\*, and \*\*\* indicate significance at the 10%, 5%, and 1% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Dummy for white family head	3.699 (0.093) ***	2.514 (0.090) ***	2.211 (0.090) ***	1.984 (0.090) ***	1.778 (0.090) ***	1.764 (0.090) ***	1.621 (0.090) ***	1.561 (0.089) ***	1.483 (0.091) ***
Dummy for Hispanic family head	0.701 (0.137) ***	0.621 (0.129) ***	1.105 (0.130) ***	0.957 (0.129) ***	0.974 (0.129) ***	0.967 (0.130) ***	0.957 (0.130) ***	0.930 (0.129) ***	0.870 (0.129) ***
Household head age		0.368 (0.012) ***	0.346 (0.012) ***	0.302 (0.012) ***	0.297 (0.012) ***	0.299 (0.012) ***	0.287 (0.012) ***	0.307 (0.012) ***	0.264 (0.016) ***
Household head age squared		-0.002 (0.000) ***	-0.002 (0.000) ***	-0.002 (0.000) ***	-0.002 (0.000) ***	-0.002 (0.000) ***	-0.001 (0.000) ***	-0.002 (0.000) ***	-0.001 (0.000) ***
Number of kids in home		-0.080 (0.044) *	-0.033 (0.043)	-0.008 (0.043)	0.002 (0.043)	0.005 (0.043)	0.016 (0.043)	0.003 (0.043)	-0.004 (0.043)
Number of kids elsewhere		-0.250 (0.019) ***	-0.158 (0.019) ***	-0.151 (0.018) ***	-0.143 (0.018) ***	-0.141 (0.018) ***	-0.137 (0.018) ***	-0.131 (0.018) ***	-0.121 (0.018) ***
Dummy for non-primary economic unit members		-0.224 (0.092) **	-0.046 (0.092)	-0.010 (0.091)	-0.025 (0.091)	-0.041 (0.091)	-0.002 (0.090)	0.041 (0.090)	0.049 (0.090)
Non-married head with no kids, < 55 years old		0.382 (0.139) ***	0.264 (0.138) *	0.097 (0.137)	0.055 (0.137)	0.063 (0.138)	0.034 (0.137)	0.042 (0.136)	-0.015 (0.136)

**Table 8: Net Worth Regressions (continued)**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Non-married head with no kids, at least 55 years old		0.086 (0.163)	0.102 (0.161)	0.221 (0.160)	0.133 (0.159)	0.147 (0.160)	0.114 (0.159)	0.109 (0.158)	0.170 (0.159)
Married head with kids		0.040 (0.411)	0.035 (0.459)	-0.182 (0.456)	-0.210 (0.454)	-0.152 (0.456)	-0.063 (0.453)	-0.404 (0.454)	0.482 (0.559)
Married head with no kids		-0.469 (0.420)	-0.454 (0.466)	-0.562 (0.464)	-0.605 (0.461)	-0.527 (0.463)	-0.435 (0.460)	-0.797 (0.461)	0.120 (0.564)
Urban status		-0.052 (0.080)	0.264 (0.080) ***	0.295 (0.080) ***	0.256 (0.079) ***	0.245 (0.085) ***	0.277 (0.084) ***	0.295 (0.084) ***	0.311 (0.084) ***
Dummy for high school degree only			1.496 (0.094) ***	1.348 (0.094) ***	1.278 (0.093) ***	1.301 (0.094) ***	1.236 (0.093) ***	1.036 (0.093) ***	1.022 (0.093) ***
Dummy for some college studies			1.456 (0.103) ***	1.241 (0.103) ***	1.092 (0.103) ***	1.117 (0.103) ***	0.994 (0.103) ***	0.734 (0.103) ***	0.703 (0.103) ***
Dummy for BA degree only			2.337 (0.114) ***	1.967 (0.117) ***	1.725 (0.117) ***	1.750 (0.118) ***	1.544 (0.118) ***	1.183 (0.119) ***	1.121 (0.119) ***
Dummy for MA,MS nursing (not MBA) degrees			2.424 (0.146) ***	2.060 (0.151) ***	1.765 (0.150) ***	1.798 (0.151) ***	1.589 (0.151) ***	1.200 (0.151) ***	1.132 (0.152) ***
Dummy for PhD, MD, JD, MBA degrees				2.369 (0.172) ***	2.065 (0.172) ***	2.069 (0.173) ***	1.786 (0.172) ***	1.368 (0.173) ***	1.277 (0.173) ***
Dummy for self-employed/partnership				1.044 (0.096) ***	0.952 (0.096) ***	0.959 (0.096) ***	0.930 (0.096) ***	0.914 (0.096) ***	0.912 (0.095) ***
Dummy for retired, disabled, student, homemaker				-3.182 (5.071)	-2.449 (5.044)	-2.592 (5.037)	-1.901 (5.005)	-1.494 (4.979)	-1.379 (4.974)

**Table 8: Net Worth Regressions (continued)**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Dummy for not in labor force, other not working				-4.411 (5.072)	-3.684 (5.045)	-3.812 (5.038)	-3.112 (5.006)	-3.006 (4.980)	-2.955 (4.975)
Dummy for technical, sales, services occupations				-0.541 (0.090) ***	-0.539 (0.090) ***	-0.550 (0.090) ***	-0.485 (0.090) ***	-0.467 (0.089) ***	-0.446 (0.089) ***
Dummy for production occupations (production/craft, operators, labor, farm, fish)				-0.536 (0.102) ***	-0.520 (0.101) ***	-0.524 (0.102) ***	-0.411 (0.101) ***	-0.400 (0.101) ***	-0.379 (0.101) ***
Dummy for transportation, communication and utilities industry				-0.177 (0.107) *	-0.158 (0.107)	-0.177 (0.107) *	-0.239 (0.106) **	-0.232 (0.106) **	-0.241 (0.106) **
Dummy for wholesale trade, finance, insurance, and real estate industry				-0.891 (0.092) ***	-0.885 (0.092) ***	-0.891 (0.092) ***	-0.861 (0.092) ***	-0.838 (0.091) ***	-0.833 (0.091) ***
Ln(total inheritance)					0.070 (0.004) ***	0.070 (0.004) ***	0.069 (0.004) ***	0.067 (0.004) ***	0.070 (0.004) ***
Dummy for expected inheritance					0.727 (0.087) ***	0.717 (0.087) ***	0.663 (0.087) ***	0.652 (0.086) ***	0.558 (0.087) ***
Years since inheritance					-0.012 (0.005) **	-0.012 (0.005) **	-0.012 (0.005) **	-0.012 (0.005) **	-0.013 (0.005) **
Quality-adjusted cost of living						-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000) *	-0.000 (0.000) **
1-yr change in housing price index						-1.148 (0.668) *	-1.259 (0.663) *	-1.297 (0.660) **	-1.249 (0.659) *

**Table 8: Net Worth Regressions (continued)**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
5-yr change in housing price index						0.692 (0.205) ***	0.700 (0.203) ***	0.691 (0.202) ***	0.685 (0.202) ***
10-yr change in housing price index						0.028 (0.106)	0.061 (0.105)	0.057 (0.105)	0.056 (0.104)
Dummy for risk-tolerance							0.810 (0.076) ***	0.764 (0.076) ***	0.754 (0.076) ***
Dummy for long horizon planning							1.194 (0.061) ***	1.087 (0.061) ***	1.080 (0.061) ***
Dummy for luxury borrower							-0.408 (0.077)	-0.439 (0.076)	-0.444 (0.076)
Dummy for excellent health								1.134 (0.093) ***	1.130 (0.092) ***
Dummy for good health								0.807 (0.081) ***	0.803 (0.081) ***
Dummy for poor health								-0.828 (0.132) ***	-0.836 (0.132) ***
Dummy for one sibling									0.213 (0.113) *
Dummy for two siblings									0.111 (0.114)
Dummy for three siblings									-0.248 (0.121) **
Dummy for four or more siblings									-0.168 (0.113)

**Table 8: Net Worth Regressions (continued)**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Dummy for mother living									-0.604 (0.411)
Mom age									0.012 (0.005) **
Dummy for father living									-1.230 (0.416) ***
Dad age									0.018 (0.006) ***
Constant	7.013 (0.129) ***	-4.781 (0.344) ***	-5.661 (0.348) ***	-3.046 (0.365) ***	-2.241 (0.369) ***	-2.467 (0.382) ***	-2.800 (0.380) ***	-3.714 (0.385) ***	-2.417 (0.528) ***
Observations	41,566	41,566	41,562	41,562	41,528	40,952	40,952	40,952	40,952
R-squared	0.051	0.181	0.197	0.213	0.222	0.224	0.234	0.242	0.244

**Table 9: OLS Key Coefficients, by Exclusion of Regressors**

This table reports estimated coefficients for key predictors, using the inverse hyperbolic sine of net worth using data from the Survey of Consumer Finances for 1989 to 2013. Column (1) reports the key coefficients from a specification using all of the covariates from Table 8, column (9). Columns (2) to (9) report the key coefficients from specifications that exclude also control for income and home ownership status. The specific variables excluded from the regressions reported in columns (2) through (9) correspond directly to the variables introduced in those same Columns in Table 8. Coefficients are reported with standard errors in parentheses, and \*, \*\*, and \*\*\* indicate significance at the 10%, 5%, and 1% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	All covariates included	Excluding demographics only	Excluding education only	Excluding occupation, industry only	Excluding inheritance only	Excluding real estate only	Excluding attitudes only	Excluding health only	Excluding family longevity only
White	1.483 (0.091) ***	1.739 (0.091) ***	1.532 (0.091) ***	1.640 (0.091) ***	1.658 (0.091) ***	1.502 (0.090) ***	1.600 (0.091) ***	1.532 (0.091) ***	1.555 (0.089) ***
Hispanic	0.870 (0.129) ***	0.825 (0.130) ***	0.707 (0.127) ***	0.977 (0.130) ***	0.879 (0.130) ***	0.861 (0.128) ***	0.884 (0.130) ***	0.899 (0.130) ***	0.936 (0.129) ***
Observations	40,952	40,952	40,952	40,952	40,952	40,952	40,952	40,952	40,952
R-squared	0.243	0.222	0.240	0.233	0.235	0.242	0.235	0.236	0.242

**Table 10: OLS Key Coefficients, by Dependent Variable and Inclusion of Income and Housing**

This table reports estimated coefficients for key predictors, using the inverse hyperbolic sine of net worth, assets and the natural log of debt as dependent variables using data from the Survey of Consumer Finances. Column (1) uses data from 1989 to 2013, for comparability to the results from Table 8; Columns (2) to (6) use data from 1995 to 2013 because usual income is only available starting in 1995. All specifications include the demographic, education, real estate, and labor force explanatory variables from Table 8, column (9). Columns (3) to (5) report specifications that also control for income and home ownership status. Panel A summarizes results for net worth as dependent variable, and Panels B and C report results with assets and debt, respectively, as dependent variables. Coefficients are reported with standard errors in parentheses, and \*, \*\*, and \*\*\* indicate significance at the 10%, 5%, and 1% levels, respectively.

<b>Panel A. Net Worth Dependent Variable</b>						
	(1)	(2)	(3)	(4)	(5)	(6)
White	1.483 (0.091) ***	1.448 (0.101) ***	1.421 (0.101) ***	1.237 (0.100) ***	0.888 (0.096) ***	0.781 (0.095) ***
Hispanic	0.870 (0.129) ***	1.044 (0.144) ***	1.035 (0.144) ***	1.037 (0.142) ***	0.960 (0.136) ***	0.964 (0.136) ***
Earnings			0.107 (0.010) ***		0.074 (0.010) ***	
Usual income				1.067 (0.038) ***		0.749 (0.037) ***
Homeowner					4.668 (0.076) ***	4.472 (0.076) ***
R-squared	0.244	0.239	0.242	0.256	0.318	0.325

**Table 10: OLS Key Coefficients, by Dependent Variable and Inclusion of Income and Housing (continued)**

<b>Panel B. Assets Dependent Variable</b>						
	(1)	(2)	(3)	(4)	(5)	(6)
White	1.268 (0.036) ***	1.160 (0.038) ***	1.136 (0.038) ***	1.002 (0.037) ***	0.798 (0.032) ***	0.716 (0.032) ***
Hispanic	0.318 (0.051) ***	0.317 (0.055) ***	0.308 (0.054) ***	0.311 (0.052) ***	0.261 (0.046) ***	0.266 (0.045) ***
Earnings			0.098 (0.004) ***		0.077 (0.003) ***	
Usual income				0.800 (0.014) ***		0.601 (0.012) ***
Homeowner					2.952 (0.026) ***	2.802 (0.025) ***
R-squared	0.430	0.423	0.434	0.474	0.594	0.615
<b>Panel C. Debt Dependent Variable</b>						
	(1)	(2)	(3)	(4)	(5)	(6)
White	0.553 (0.067) ***	0.520 (0.074) ***	0.482 (0.074) ***	0.377 (0.074) ***	0.079 (0.070)	0.027 (0.070)
Hispanic	-0.521 (0.096) ***	-0.522 (0.106) ***	-0.536 (0.106) ***	-0.528 (0.105) ***	-0.593 (0.100) ***	-0.583 (0.100) ***
Earnings			0.155 (0.008) ***		0.130 (0.007) ***	
Usual income				0.723 (0.028) ***		0.478 (0.027) ***
Homeowner					3.526 (0.055) ***	3.435 (0.056) ***
R-squared	0.318	0.305	0.313	0.318	0.386	0.386
Observations	40,952	33,931	33,931	33,931	33,931	33,931
Years:	1989-13	1995-13	1995-13	1995-13	1995-13	1995-13

**Table 11: Decomposition of Racial Wealth Gap (Oaxaca/Blinder) by Race Group and Selected Control Variables**

This table summarizes the Oaxaca-Blinder (O-B) decomposition for the wealth gap across racial groups using data from the Survey of Consumer Finances. Panel A shows decomposition results for the black/white wealth gap, while Panel B shows results for the Hispanic/white wealth gap. Wealth is measured as the inverse hyperbolic sine (IHS) of net worth as reported in the survey. The O – B decomposition assumes a linear relationship between the explanatory and dependent variables, and aims to obtain counterfactual estimates. Coefficients from a wealth equation for white households are applied to explanatory variables for non-white households. The decomposition in column (1) includes all the baseline covariates in column (9) of Table 8: demographic variables, labor force indicators, inheritance, health status, investment attitudes, parental longevity, and regional real estate variables. Columns (2) to (5) add covariates as listed in the column titles.

	<b>Panel A. Black/White Net worth (IHS) Gap</b>			Sensitivity: Altering race category definitions	
	Baseline controls (1)	Also control for usual income (2)	Covariates also include usual income and home ownership (3)	Covariates also include usual income and home ownership (4)	Reclassifying white- Hispanics as "Hispanic" (5)
White net worth (IHS)	10.81	10.81	10.81	10.71	10.80
Black net worth (IHS)	7.15	7.15	7.15	6.92	6.92
Difference	3.66	3.66	3.66	3.79	3.88
Explained by observed differences in controls	2.21	2.44	2.91	3.01	3.05
Unexplained by observed differences in controls	1.45	1.22	0.75	0.78	0.83
Percent of net worth difference explained	60%	67%	80%	79%	79%
<b>Panel B. Hispanic/White Net Worth (IHS) Gap</b>					
	(1)	(2)	(3)	(4)	(5)
White net worth (IHS)	10.81	10.81	10.81	10.71	10.80
Hispanic net worth (IHS)	7.98	7.98	7.98	8.11	8.11
Difference	2.83	2.83	2.83	2.60	2.69
Explained by observed differences in controls	2.31	2.53	2.99	2.91	2.93
Unexplained by observed differences in controls	0.52	0.30	-0.16	-0.31	-0.24
Percent of net worth difference explained	82%	89%	106%	112%	109%
Memo: % explained using Hispanic coefficients	81%	89%	105%	111%	108%
Years Included:	1995-2013	1995-2013	1995-2013	2004-2013	2004-2013

**Table 12: Wealth Differences Using the DiNardo, Fortin, and Lemieux Reweighting Estimator**

This table summarizes the results of a decomposition of the wealth gap using the DiNardo, Fortin, and Lemieux (DFL) re-weighting estimator applied to the data reported in the Survey of Consumer Finances. The DFL estimator reweights data from one group to make it similar in composition to another. Panel A shows results of the reweighting at the mean and for various percentiles of net worth distribution for black/white wealth differences, while Panel B shows the results for Hispanic/white wealth differences. The usual income variable is only available since 1995; only data from 1995 to 2013 are used in the DFL decompositions.

**Panel A. Black/White Wealth Differences**

	Observed net worth		White net worth using black weights			Observables explain:		
	(1) Black families	(2) White families	(3) Reweight without income or housing	(4) Reweight with usual income	(5) Reweight with usual income and housing	(6) No income or housing	(7) With income	(8) With income and housing
Mean	7.2	10.8	8.7	8.4	7.9	59%	67%	80%
Percentile								
5	-10.2	-9.2	-10.1	-10.1	-10.3	85%	89%	103%
10	-8.7	8.0	-8.1	-8.1	-8.7	96%	97%	100%
25	6.7	11.0	9.1	8.8	8.3	44%	52%	63%
50	10.5	12.6	11.4	11.3	10.9	57%	63%	81%
75	12.2	13.7	12.8	12.7	12.6	57%	64%	73%
90	13.2	14.6	13.8	13.7	13.6	59%	64%	68%
95	13.6	15.2	14.3	14.2	14.2	58%	62%	65%
99	14.7	16.6	15.6	15.4	15.4	55%	64%	65%

**Table 12: Wealth Differences Using the DiNardo, Fortin, and Lemieux Reweighting Estimator (continued)**

<b>Panel B. Hispanic/White Wealth Differences</b>								
	Observed net worth		White net worth using Hispanic weights			Observables explain:		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Hispanic families	White families	Reweight without income or housing	Reweight with usual income	Reweight with usual income and housing	No income or housing	With income	With income and housing
Mean	8.0	10.8	8.4	8.1	7.7	88%	97%	112%
Percentile								
5	-9.7	-9.2	-10.1	-10.1	-10.2	166%	168%	187%
10	-7.1	8.0	-8.0	-7.9	-8.5	106%	105%	109%
25	8.5	11.0	8.9	8.4	7.9	85%	102%	125%
50	10.4	12.6	11.1	11.0	10.5	70%	76%	96%
75	12.2	13.7	12.6	12.5	12.4	72%	79%	88%
90	13.2	14.6	13.6	13.5	13.5	72%	78%	81%
95	13.8	15.2	14.2	14.2	14.1	71%	76%	79%
99	14.9	16.6	15.7	15.4	15.4	59%	74%	76%

**Appendix Table 1: Summary Statistics**

	(1)	(2)	(3)	(4)
	Mean	Std. Dev.	Min	Max
Net worth	466,697	3,638,578	-244,000,000	5,140,000,000
Assets	545,729	3,691,963	-22,000,000	5,140,000,000
Debt	79,049	240,574	0	1,500,000,000
White	0.74	0.44	0	1
Hispanic	0.09	0.28	0	1
Black	0.13	0.34	0	1
Other races	0.04	0.20	0	1
Respondent age	49.4	17.3	17	105
Spouse age	26.8	25.4	0	96
Number kids in household	0.84	1.16	0	10
Number of kids living elsewhere	1.45	1.86	0	26
Family structure				
Unmarried (non-partnered) with children	0.12	0.32	0	1
Unmarried (non-partnered), no children, head age less than 55	0.15	0.36	0	1
Unmarried (non-partnered), no children, head age 55 or older	0.15	0.35	0	1
Married (partnered) with children	0.32	0.47	0	1
Married (partnered), no children	0.26	0.44	0	1
"Non-primary" subfamily present in household	0.12	0.33	0	1
Urban				
Resides in MSA	0.84	0.37	0	1
Resides outside MSA	0.16	0.37	0	1
Education attainment (respondent)				
Less than high school	0.16	0.37	0	1
High school degree only	0.32	0.47	0	1
Some college	0.24	0.43	0	1
BA degree only	0.17	0.38	0	1
MA,MS, nursing degree (excluding MBA)	0.06	0.25	0	1
PhD, MD, JD, MBA degree	0.05	0.21	0	1
Education Attainment (Spouse)				
Less than high school	0.08	0.28	0	1
High school only	0.19	0.39	0	1
Some College	0.10	0.30	0	1
BA degree only	0.14	0.35	0	1
MA,MS, nursing degree (excluding MBA)	0.04	0.20	0	1
PhD, MD, JD, MBA degree	0.01	0.12	0	1

**Appendix Table 1: Summary Statistics (continued)**

	(1)	(2)	(3)	(4)
	Mean	Std. Dev.	Min	Max
<b>Occupation 1</b>				
Employed by Someone Else	0.58	0.49	0	1
Self-employed/Partnership	0.11	0.31	0	1
Retired, Disabled, Student, Homemaker	0.25	0.43	0	1
Not in Labor Force, Other Not Working	0.06	0.23	0	1
<b>Occupation 2</b>				
Managerial, Professional	0.25	0.44	0	1
Technical, Sales, Services	0.22	0.42	0	1
Other (Incl. production/craft/repair workers, operators, laborers, farmers, foresters, fishers)	0.22	0.41	0	1
Not Working	0.31	0.46	0	1
<b>Industry</b>				
Mining, Construction, Manufacturing	0.19	0.39	0	1
Transportation, Communication, Utilities	0.13	0.34	0	1
Wholesale Trade, Finance, Insurance, Real Estate	0.37	0.48	0	1
Agriculture, Retail, Services, Public Admin.	0.31	0.46	0	1
% Households with Any Inheritance	0.21	0.41	0	1
Total Inheritance (2013\$)	43,533	1,328,661	0	3,420,000,000
Conditional Total Inheritance (2013\$)	208,912	2,908,452	2	3,420,000,000
Years Since Last Inheritance (conditional)	11.7	11.7	0	98
% Househlds Expecting Inheritance in the Future	0.14	0.34	0	1
Quality-Adjusted Rent (MSA)	8,789	3,464	4,341	23,635
1-year housing price index growth	0.04	0.06	-0.14	0.23
5-year housing price index growth	0.21	0.26	-0.42	1.04
Dummy for risk tolerant	0.18	0.39	0	1
Dummy for long planning horizon	0.63	0.48	0	1
Willing to borrow for luxury items and vacations	0.17	0.37	0	1
<b>Respondent Health</b>				
Excellent	0.29	0.45	0	1
Good	0.46	0.50	0	1
Fair	0.19	0.39	0	1
Poor	0.06	0.24	0	1

**Appendix Table 1: Summary Statistics (continued)**

	(1) Mean	(2) Std. Dev.	(3) Min	(4) Max
Spouse Health (conditional)				
Excellent	0.32	0.47	0	1
Good	0.48	0.50	0	1
Fair	0.16	0.36	0	1
Poor	0.04	0.20	0	1
Respondent number of siblings	2.9	2.5	0	33
Spouse number of siblings	1.7	2.3	0	25
Respondent mother living	0.57	0.50	0	1
Respondent mother age (conditional)	64.8	12.4	29	103
Spouse mother living	0.37	0.48	0	1
Spouse mother age (conditional)	64.5	12.2	33	104
Respondent father living	0.42	0.49	0	1
Respondent father age (conditional)	64.6	11.3	35	105
Spouse father living	0.28	0.45	0	1
Spouse father age (conditional)	64.4	11.2	35	100
Earnings (2013\$)	55,689	134,483	0	121,000,000
"Normal Income" (2013\$)	83,776	322,488	0	916,000,000
Dummy for owns Home	0.66	0.47	0	1