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Updating the Racial Wealth Gap

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Abstract: Using newly available data from the Survey of Consumer Finances, this paper updates and extends the literature exploring the racial wealth gap. We examine several hypotheses proposed by previous researchers, including the importance of inherited wealth and other family support and that of trends in local real estate markets, and also extend the literature by exploring the gap across the distribution of wealth and simultaneously considering white, African American and Hispanic households. The findings indicate that observable factors account for all of wealth gap between white and Hispanic households and most of the gap between white and black families – more than in most previous research – 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. Home ownership and educational attainment are the single largest observable factors that account for the racial wealth gaps, with income and financial assistance from family members playing important roles as well. The unexplained portion of the wealth gap between white and non-white families is greater at the top of the wealth distribution.

Key words: Racial wealth gap, inequality, savings

JEL: D31, D63

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The wealth of white families is considerably greater than that of black or Hispanic families, and the gulf that separates them appears to have changed little over most of the last three decades. The distance between the net worth of white and non-white families – referred to as the "wealth gap" – increased sharply following the Great Recession, as non-white families experienced proportionally larger losses in net worth, and then declined modestly between 2013 and 2016. 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 other forms of family support, 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.[1] Wealth is also greater for families whose heads are 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 and longer work histories, receive larger inheritances, are more likely to receive other types of financial assistance from family members, 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, local house price

[1] Among other sources for basic facts and theories about household savings and wealth see Diamond and Hausman (1984) and Browning and Lusardi (1996).

levels and trends, measures of earnings, and of "usual income" (a proxy for lifetime income). We find that these factors account for essentially all of the wealth difference between white and Hispanic families at the mean of the distribution. These same factors also account for approximately three-quarters 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 portion of the gap between whites and non-whites that we can explain with observable factors rises between 10 and 15 percentage points when an indicator for homeownership is included. 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 67 percent or less of the gap between white and black families and 86 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.[2]

[2] 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.

It is important to note that we do not interpret the race coefficients in our OLS regressions as causal. In addition, we do not necessarily 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 education, 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 black-white wealth gap than most previous research (Scholz and Levine, 2003).[3] 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.

[3] 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."

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 (DFL) (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 2016. 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 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).[4] This list sample consists of households with a high probability of having high net worth.[5] 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.[6] 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 interview.[7] 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

[4] See Bricker et al (2017) 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.
[5] 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.
[6] 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.
[7] 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.

approximate the economic concept of "permanent" income (Bricker et al., 2017). 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. A series of questions on work history allow us to measure the number of year of full-time work over a respondent's lifetime.

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.

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).[8] Over the entire 1989-2016 period, 74 percent of

[8] The wealth numbers here will differ somewhat from Dettling et al (2017), which focuses on recent years and identifies "white" families as those headed by respondents identifying as white, non-Hispanic only; "Black" as those identify as Black or African American, non-Hispanic only, and "Hispanic" as those identifying as Hispanic only. Later we show that these different definitions are not important for the decomposition analysis.

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."[9] 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 last three decades, 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 (**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. Between 2013 and 2016 non-white families saw proportionally larger

[9] A typical question in the SCF asks the respondent to consider "you and your family living here" in providing answers.

increases in wealth, and by 2016 white wealth fell back to being 6.5 times as large as that of black families and five times as large as Hispanic families.

In absolute terms the wealth differences between race groups are very large, and the relative gaps are even larger if we look at median instead of mean net worth. Mean net worth in 2016 was $904,000 for white families, $140,000 for black families, and $182,000 for Hispanic families (**Table 1, Panel A**).

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., 2017). Median net worth in 2016 was $163,000 for white families, $16,600 for black families, and $21,500 for Hispanic families (**Table 1, Panel B**). 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.[10]

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 $783,000 to $702,000, and their median net worth fell from $189,000 to $137,000. Mean and median net worth also declined for non-white families between 2007 and 2010, but it continued to fall between 2010 and 2013, while the wealth of white families started to recover. Between 2013 and 2016 median

[10] 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 2016 SCF, 835 black families and 612 Hispanic families were interviewed.

and mean net worth rose for all race groups. Median wealth for black families rose from $11,400 in 2013 to $16,600 in 2016, and for Hispanic families it rose from $14,200 to $21,500.

Additional detail in **Table 1** shows absolute and relative levels of assets and debt for white, black, and Hispanic families for each survey year. Mean assets in 2016 were $1 million for white families, $196,100 for blacks, and $247,000 for Hispanics. The differences in assets are greater than that in debt. 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.

The sample sizes in the SCF are large enough to allow reliable estimates of statistics such as mean and median net worth, but, like all surveys, these estimates do come with some sampling error. Taking the 95% confidence interval into account confirms that the wealth differences between white and non-white households are substantial and persistent (**Figure 2A, Table 2**). The white-to-black ratio of mean household wealth was between 4.0 and 8.0 in each year from 1989 to 2007, but exhibits no trend. Since 2010 the gap has risen to somewhere between 5.0 and 11.0, with a more pronounced upward trend.

Also, summary measures of the distribution such as the ratios of means described above are potentially quite sensitive to large changes in the extreme tails of the distribution. White/Black ratios that exclude the top and bottom one-percent of the data or that rely on transformations of the data that otherwise moderate the impact of extreme tails – such as the inverse hyperbolic sine – even more clearly show a flat trend over most of the last quarter century followed by a pronounced uptick in recent years (**Figure 2B**).

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.[11] The factors we consider in this section are differences in the distribution of people across stages of the "life cycle," differences in education, years of full-time work, and incomes, inheritance and other measures of family financial support, 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 accumulating assets and begin to consume out of their savings. **Figure 3** illustrates this standard age pattern using the SCF for 2016.[12] Mean assets and net worth both rise steadily up to the point of retirement, peak (at $1.3 to $1.4 million) at age 59, 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 assets up through the late 20s, at which point growth in assets outstrips that of debt. The simple wealth by age profiles in Figure 2 reflects both lifecycle and cohort effects.

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 22 percent of black families and nearly 26 percent of

[11] Scholz and Levine (2003) review the range of the factors influencing the racial wealth gap.
[12] The simple wealth by age profiles in Figure 3 reflects both lifecycle and cohort effects.

Hispanic families (**Table 3**). Nearly thirty percent of white family heads are 65 and older, compared with 21 percent for blacks and 13 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 4** 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 $360,000 in 2007 and fell over the next two surveys, hitting $260,000 in 2013, before climbing to $275,000 in 2016.

For black families the mean and median wealth levels are much lower, and the pattern of wealth rising with age up until retirement and subsequent decline is almost completely absent. Median wealth peaks at age 65 and older for black families in each of the selected years. 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 150 black families with heads ages 65 and older in the data in 2016.

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 Full-time Work Effort

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. Longer careers also give workers more time over which to build up savings, and, conditional on age, indicate fewer unemployment spells.

Figure 5 shows median family net worth by decile of "usual income" for household heads between the ages of 30 and 59.[13] Median wealth rises monotonically with usual income, starting at just $3,800 for the lowest income decile, climbing to $52,500 for the fifth decile, and reaching $1.25 million 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) was $78,500 for white family heads, and was just under $45,000 for non-whites in 2010-16 (**Table 4**). The share of families whose head lacks a high school degree was 7 percent for whites, 13 percent for blacks, and 36 percent for Hispanics. The share of family heads with an

[13] 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.

advanced degree (beyond a BA) was 14 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 $112,000 for whites, $67,000 for blacks, and $53,000 for Hispanics (**Table 5, Panel A**).[14] Controlling for educational attainment and age of household head, white family income was between 1.3 and 2.6 times greater than non-white family income among those with Bachelor's degrees, and between 1.1 and 1.7 times greater among those with a high school degree only (**Table 5, Panels C and D**).

Longer careers are also associated with greater wealth. Among households with heads nearing retirement age (55 to 59), net worth rises steadily with the number of full-time years worked over the respondent's career (**Figure 6**). White households, on average, do work a substantially larger number of full-time years (46.6) compared to Black or Hispanic households (38.3 and 39.3 years, respectively) (**Table 6**). Most of the difference in full-time years between white and Black older workers, though, is actually due to a greater prevalence of married or partnered households among whites. Looking only at coupled households there is a much smaller full-time years worked advantage for white workers relative to Blacks (57 compared to 54), and no difference among single older workers.

3.3. Inheritance and Other Family Support

[14] Income in Table 4 is based on the combined data for 2010 and 2013, using inflation-adjusted (2013 $) dollars.

In addition to saving out of income, wealth is also supplemented through gifts and assistance provided by parents and other family members. These can occur at the death of the family member in the form of inheritances or as inter-vivos transfers. Examples of the latter form of assistance include help with a down-payment on a home or paying for college education among others. The SCF collects data on gifts and bequests that can take place while the family member is living or dead. Respondents are specifically asked if the homes, investment real estate, and businesses they own were a gift/inheritance. Other specific forms of family assistance are not directly asked about (down payments, college education, etc.) but the data do contain a number of proxies that signal the influence of family support.

3.3A. 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 nine percent of black families and just 5 percent of Hispanic families (**Table 7**). Among those receiving an inheritance, the amounts received were considerably larger for white families. The conditional mean inheritance of white families was $246,000, compared to $107,000 for black families and $196,000 for Hispanic families.[15]

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 assets. 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

[15] Inheritances are adjusted for inflation using the BEA GDP implicit price deflator, based on year the inheritance was received and expressed in 2016 dollars. The inheritance statistics in Table 7 are based on the combined data for 2013 and 2016.

strongly related to net worth. **Figure 7** displays mean 2013-16 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 $423,000. Families with inheritances are grouped together in deciles by level of inheritance. The bottom two deciles of inheriting families received small inheritances (mean inheritance in the second decile was $13,000) and have net worth levels less than or equal to non-inheriting families. Starting at the third decile of inheritance (mean value of $24,000), net worth is higher for inheriting families, starting at $523,000 for families in that decile. For the fifth decile of inheritance (mean value $61,000), net worth was $637,000, and in the top decile (mean inheritance of $1.8 million), net worth was $4.3 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. Controlling for the level of inheritances appears to account for a modest portion of the gap in net worth between white and black households. Among families with household head between ages 30 and 59 and a Bachelor's degree, the median net worth for white families is 7.2 times larger than it is for black families (**Table 8**). When including only families with no inheritance, mean white wealth is "only" 6.8 times as large. For Hispanic households, however, 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 when we exclude families with inherited wealth; white wealth is "only" 3.7 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 8 are based on relatively few households and are only suggestive.[16]

3.3B. Other Family Financial Assistance

In addition to direct measures of inherited assets, including cash, businesses, homes and real estate, the SCF asks a number of questions that predict wealth and reflect the influence of family support from family members. In addition to inheritances received, respondents are asked if they expect to receive any inheritance in the future. In principal, expectation of an inheritance could have a negative impact on current wealth accumulation. Knowledge of future bequests lowers the amount of saving required to hit future target consumption or wealth levels. Expectation of an inheritance in the future, however, could also serve as an indicator of having already received other forms of valuable financial assistance from family members that is not otherwise recorded in the survey. Twenty percent of white families (heads ages 30 to 49) expect an inheritance in the future, compared to just 5 percent of black families and 7 percent of Hispanic families (**Table 9**).[17]

The SCF also asks respondents if "in an emergency you could get financial assistance of $3,000 or more from any friends or relatives who do not live with you?" This is also a likely indicator for having received family financial assistance of other kinds in the past. Being able to get substantial financial assistance from family or friends also acts as a form of insurance, allowing people to pursue risky, but potentially high reward, employment or investment opportunities. A narrow majorities of black families (heads age 30 to 49) and nearly half of Hispanic families

[16] In 2013 and 2016 (combined) the SCF surveyed 129 Black and 76 Hispanic families with heads ages 30 to 49 with a BA degree only and no inheritances.
[17] Calculated using data from 2007-2016.

cannot get $3,000 in a financial emergency, compared with just one-fourth of white households. These two indicators of family financial assistance are highly correlated with wealth. Median net worth of families (heads 30 to 49, 2007-16) that both expect an inheritance at some point in the future and can get $3,000 in assistance in case of an emergency is $163,000, compared to just $11,000 for those without either form of family financial assistance. The relationship is particularly strong for Black families. Median wealth of Black families who expect an inheritance and can get $3,000 is ten times greater than those without either support.

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 or effort levels that are 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 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 2013-16 that was three to four times greater than those who were not tolerant of risk or who had shorter time horizons (**Table 10, Panel A**). Respondents who

were generally supportive of borrowing to pay for vacations 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 with 17 percent of black and 14 percent of Hispanic respondents (**Table 10, Panel B**). Sixty-six percent of white respondents indicated they had a long time horizon, compared with roughly half of black and Hispanic respondents. There were no differences by race in support of borrowing to fund vacations. Controlling for these attitudes alone, however, has little influence on the racial wealth gap (**Table 10, Panel C**). Among the subset of respondents with long time horizons, the wealth gap is somewhat smaller between white and Hispanic families, but no different between white and black 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, work history, 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 again 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 other past race-driven differentials – 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.[18]

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, five, and ten-year county-level 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; household-level indicators for stock and homeownership. Summary statistics for each of these covariates are

[18] 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.

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 11 and 12 report results from simple OLS regressions using the SCF data for 1989-2016. All of the specifications in Table 11 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.[19] The key regressors of 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.[20] Table 11 shows the full results for specifications using net worth as the dependent variable, highlighting the effects of successively adding covariates to the regression. Table 12 reports only the coefficients for the key regressors, also uses assets (IHS) and debt (IHS) as alternative dependent variables, and explores the influence of incorporating additional covariates for income and ownership of homes and stocks.

Column 1 in **Table 11** 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 77 percent greater than that of black families. **Column 2** adds basic demographic variables to the specification in

[19] See Pence (2006) for a discussion of the use of IHS transformations of net worth.
[20] 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.

column 1: age, including square terms, for both respondent and spouse, number of children in the home, number of children elsewhere, a categorical variable for family type, with unmarried household heads with children as the excluded group, 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-tenth compared with the specification in column 1. The age of the respondent and the spouse is positively related – at a declining rate – to net worth, and the number of children inside or outside of the home is negatively correlated with wealth, consistent with Scholz and Seshadri (2009). Conditional on age and numbers of children, the family structure variables have a mixed relationship with net worth. Finally, residence in an urban area and presence of an NPEU are only weakly 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) Less than high school; (2) High school only; (3) BA degree only; (4) Advanced degrees, including MA, MBA, MS, PhD, MD, and JD. Some college, but no 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. Respondents with advanced degrees have net worth 113 percent greater than those with some college only.

Additional controls for occupation and industry and number of years of full-time work, 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 (not shown for space). Each additional year of full-time work of the respondent raises family net worth by 4.8 percent. The effect of additional years of work by a spouse is also positively related to wealth, but the magnitude of the coefficient is just a fraction of that of the respondent.

Regional Real Estate Variables

The specification in **Column 5** of Table 11 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. We include one, five, and ten-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. Specifically, we use the county-level housing price

index from CoreLogic. We also use a measure of regional cost of living (quality-adjusted rent) as well as housing tenure in current residence. [21]

The coefficients on the regional real estate variables generally have the anticipated signs, but are not all statistically significant. 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. Additional years of tenure in the current residence – either owned or rented – are positively related to net worth, as is living in a region with a high (quality-adjusted) cost of living. So, the differences in regional real estate prices reflected in these covariates are related to wealth, but appear to have only modest bearing on the racial differences we observe once we control for basic demographics, education, and labor force status.

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 luxuries – may negatively influence net worth. The regression in **Column 6** 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

[21] 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-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.

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.

Self-reported Health

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 78 percent higher wealth relative to those with only "fair" self-reported health (**Column 7**). Controlling for health status, though, has almost no impact on the observed racial wealth differences; the coefficients on white family head and Hispanic family head decline only three percent once controlling for indicators of self-reported health status.

Past and Expected Inheritance

Including several variables to reflect inheritances – the IHS of inflation-adjusted value of inheritance received, the number of years since the most recent inheritance, and indicators for receipt of a house, other real estate, or a family businesses – has only a modest additional impact on the coefficients for white or Hispanic family heads (**Column 8**). 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 0.8 percent (at the

mean). Inheriting a house, a business or other real estate are associated with increases in net worth of 32 percent, 116 percent, and 81 percent, respectively.

Expectation of receiving a future inheritance increases wealth by more than 43 percent and its inclusion in the regression results in slight further diminution in the coefficient on white (**Column 9**). This is consistent with the idea the households expecting to receive a future inheritance have already benefitted from inter-vivos family assistance that has contributed to their personal wealth.

Controlling for Family Longevity

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 (not shown for space). Having one sibling is related to greater family wealth, but three or more siblings is negatively related (**Column 10**).[22] 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.

Ability to get $3,000 in a Financial Emergency

The specifications included in Columns 1 through 10 use data from all SCF cross sections (1989-2016), but the question asking households if they could get $3,000 from friends or family living outside of their home in a financial emergency was only added in 2001. **Column 11** replicates the previous regression, restricting the years to include only 2001 to 2016. In **Column 12** we

[22] Equivalent coefficients for the spouse are also included, but are not shown for space. The coefficients are similar to those of the respondent.

added the covariate for "can get $3k," which results in an 11 percent reduction in the white coefficient and a somewhat more modest drop in Hispanic (-6 percent). Being able to get $3,000 in financial assistance from your family results in a 110 percent increase in net worth. Receiving income from a family member in the previous year is negatively, though not significantly, related to wealth, and *giving* income to a family member not living in the same residence is positively associated with wealth.

Controlling for Income and Housing; Considering Alternative Dependent Variables

The set of covariates included in the specifications reported in Table 11 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 nearly all of the distance between Hispanic and white families. **Table 12** reports key coefficients from specifications that also control for income, home ownership status, and an indicator for holding stocks (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 **Table 12 Panel A** separately control for these two income measures as well as for home ownership status and an indicator for stock ownership.[23] Homeownership itself is, of course, correlated with race. Using these same variables to estimate a linear probability model for homeownership, we find that

[23] 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."

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, homeownership, and stock holding variables are large in magnitude, statistically significant and have the anticipated sign. Higher income is correlated with greater wealth, as are homeownership and stock holding. Including these variables also results in sizeable reductions in the indicator for white family head, but a more modest decline for the Hispanic family head variable.

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.[24] The coefficient on usual income (**Columns 3**) is more than 20 times greater than the coefficient on earnings (**Column 2**). Including a control for usual income leads to a 20 percent decline in the coefficient on white family head, compared a one percent decline after controlling for earnings. Controlling for usual income, however, has 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 92 percent larger than average black family wealth; average Hispanic family wealth is 114 percent larger.

[24] The regressions using income in Table 12 are all based on data from 2001 to 2016, as 2001 is the first year the SCF asks respondents whether they can get $3,000 in financial assistance from friends or family living outside of the home in a financial emergency.

Controlling for homeownership results in a dramatic reduction in the coefficient on white, but a more modest impact on Hispanic. The coefficient on homeownership is very large itself: average net worth for homeowners is more than 400 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 47 percent (comparing **Column 4** and Column1). Controlling for stock ownership, in contrast, has more limited (-8 percent) effect on the coefficient for white and almost no impact on Hispanic (**Column 5**). Once usual income, homeownership, and stock holding are all included, average white family wealth is now "only" 44 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 88 percent higher than average black family wealth once we control for homeownership, stock holding, 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 12** report the key coefficients from the same specifications, but instead use 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 11, indicates white family assets are 77 percent greater than black family assets (**Panel B, Column 1**), and white family debt is 47 percent greater (**Panel C, Column 1**). Including usual

income and homeownership (Column 6) reduces the coefficient on "white" in the assets regression to .60, and takes the coefficient on "white" in the debt regression down to .34.

Differences in assets and debts account for roughly two-thirds and one-third, respectively, of the wealth gap between Hispanic and black families. The Hispanic coefficient is .41 in the asset model (Panel B, Column 1) and -.31 in the debt model (Panel C, Column 1). Controlling for income, homeownership, and stock holding has a more modest impact on the Hispanic coefficients, decreasing the asset model coefficient by one-third and increasing the debt model coefficient by four-fifths.

Considering the Influence of Sequence of Introducing Covariates

Some of the different covariates introduced into the specifications in Tables 11 and 12 appear to have large effect on the conditional racial gap, while others appear to have no measurable influence. In **Table 13** we explore which of these variables have the largest influence on the coefficients for white and Hispanic. We reproduce the final specification from Table 12 (Column 6) and proceed by sequentially excluding clusters of covariates. The coefficients on white and Hispanic are most impacted by the inclusion of homeownership and educational attainment. Conditional on all other covariates, the inclusion of an indicator for homeownership lowers the coefficient on white by 44 percent and on Hispanic by 24 percent (**Column 13**). The inclusion of education variables (Column 4) reduces the white coefficient by 32 percent and Hispanic by 35 percent. The family financial assistance variables and the income variable are also important for the white coefficient, lowering it by 13 and 12 percent, respectively (**Columns 11, 12**).

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.[25] We first use the 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 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 portions where the white, black, and Hispanic distributions do not overlap

[25] This basic approach was developed by Oaxaca (1973) and Blinder (1973). We estimate the decompositions in STATA using the routine developed by Jann (2008).

(**Figure 8A, 8B**). 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 seen in another group.[26] 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 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.[27]

[26] 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.

[27] 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.

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:

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

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 14** 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 in this case the results do not change appreciably if black coefficients are applied to white households. Including all of the covariates except for income, homeownership, and stock holding (equivalent to Column 12 in Table 11), group differences in a broad range of observables traits account for 63 percent of the difference in net worth between black and white families (**Column 1**). Once we include usual income, stock holding, and (especially) homeownership the portion of the gap we can account for rises to 83 percent

(**Column 4**). This finding is unaltered by redefining white Hispanics out of the "white" category (**Column 6**). [28]

Decomposition of the Hispanic/white Net worth gap, applying white non-Hispanic coefficients to Hispanic households, is included in Panel B. Without including income, homeownership, and stock holding, 92 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**). After including homeownership, stock holding, and usual income fully 113 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.

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 12 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 observables.

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 re-

[28] The estimate of the explained portion change only slightly if we instead apply coefficients from a wealth equation estimated on Black (Hispanic) households to white (non-Hispanic) households.

weighting estimator yields very similar results as the O-B decomposition. At the mean of the distribution observables account for 64 percent of the white/Black wealth gap without including income, homeownership, and stock holding, and 92 percent when those variables are included (**Table 15, Panel A**). Observables account for a nearly identical portion of the white/Black wealth gap at the median. For the white/Hispanic wealth gap, the same observables account for 105 percent and 129 percent, respectively (**Panel B**). For Hispanics the explained portion at the median of the distribution is somewhat smaller, with observables accounting for 79 percent of the wealth gap before income, homeownership and stock holding are included in the decomposition, and 99 percent once they are included.

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 90th percentile of the wealth distribution is 33 percent for the white/Black gap and 14 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 10th percentile of the wealth distribution, for example, observables can account for all of the difference between white and non-white households. In the bottom quarter of the distribution, reweighted white households have *lower* levels of net worth than Hispanic households, with observable factors more than accounting for the 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, and explain between 80 and 90 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."[29] 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 limitations 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 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

[29] 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.

be accounted for by differences in observable characteristics, particularly basic demographic traits, homeownership, and financial assistance from family and friends. Using the full set of observable characteristics discussed in this paper, including home ownership and usual income, we can account for up to 90 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. Observable factors account for much less of the racial wealth gap observed at the top of the distribution. Finally, conditional wealth gaps between white and non-white families had been shrinking in the years leading up to the Great Recession, but after 2007 they rose sharply. These changes are evident in both housing and non-housing wealth. The increasing gaps in housing wealth due both to falling homeownership among non-white households as well as rising mortgage debt among owners.

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Figure 1. Average White Family Net Worth Relative to black and Hispanic Family Net worth (1989-2016)

This figure plots the ratios of net worth of the average white family relative to that of the average black family (the blue line) and relative to that of the average Hispanic family (the orange line) using responses to the triennial Survey of Consumer Finances conducted by the Federal Reserve between 1989 and 2016.

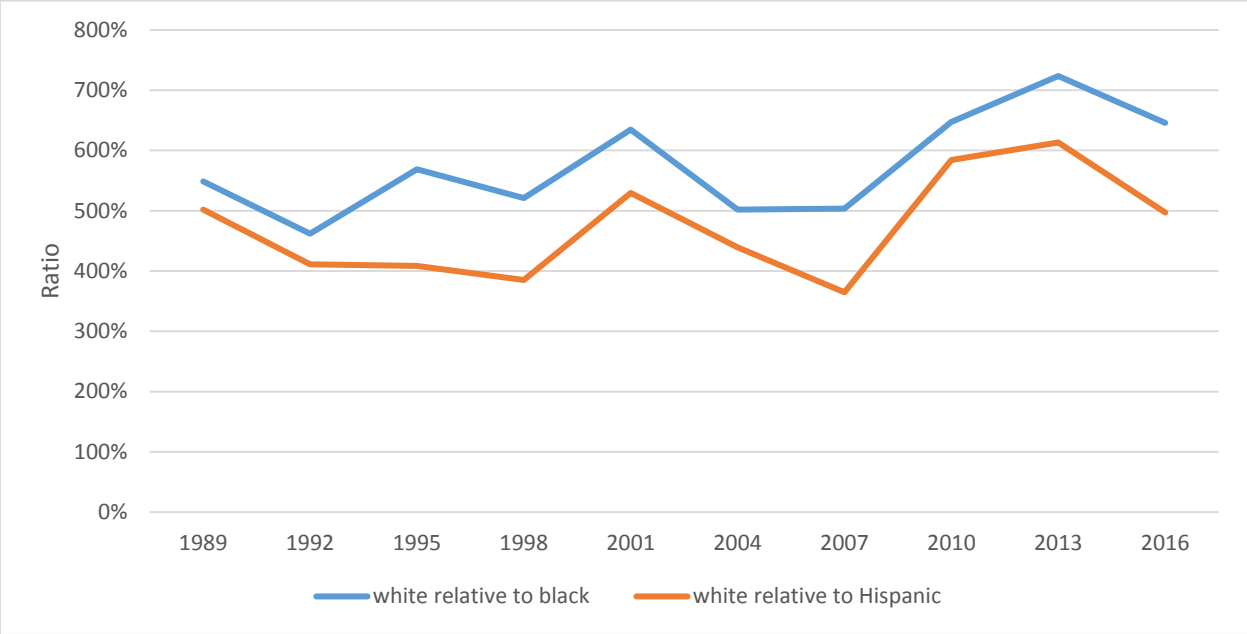
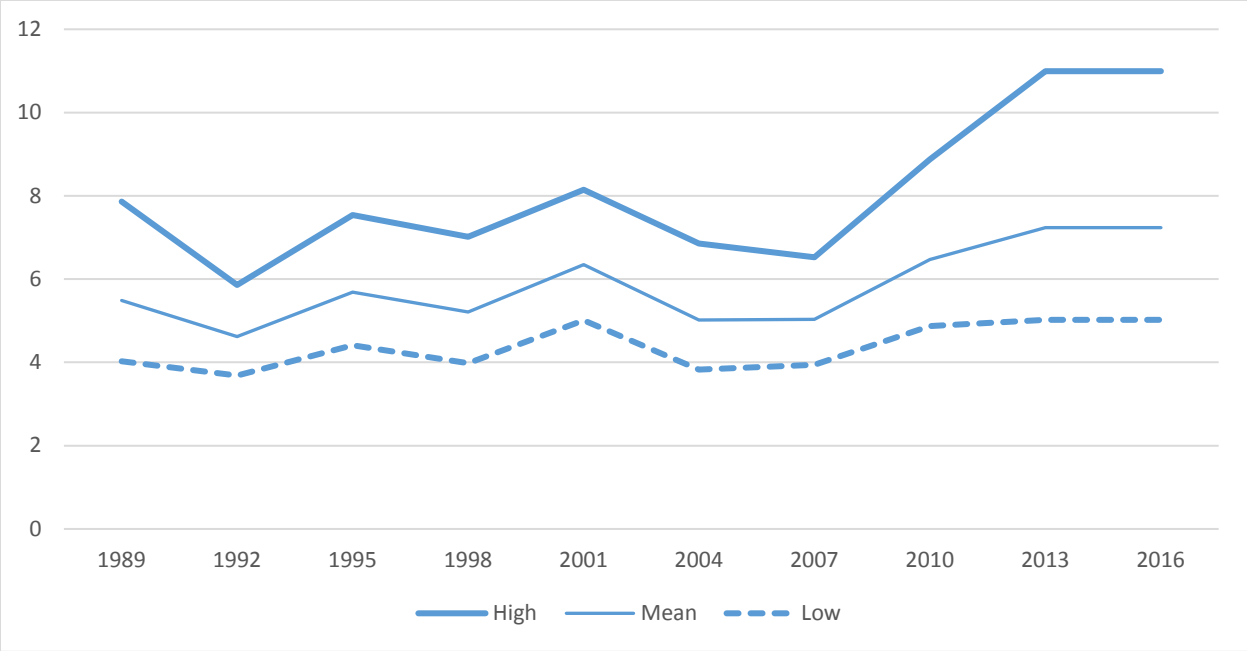


Figure 2. Trends in White, Black Wealth Gap Account for Sampling Error and Extreme Distribution Tails

2A. Range of the White/Black Wealth Ratios (Boundaries of 95% CI)



2B. Ratios of White/Black Wealth Means by Sensitivity to Tails of Distribution

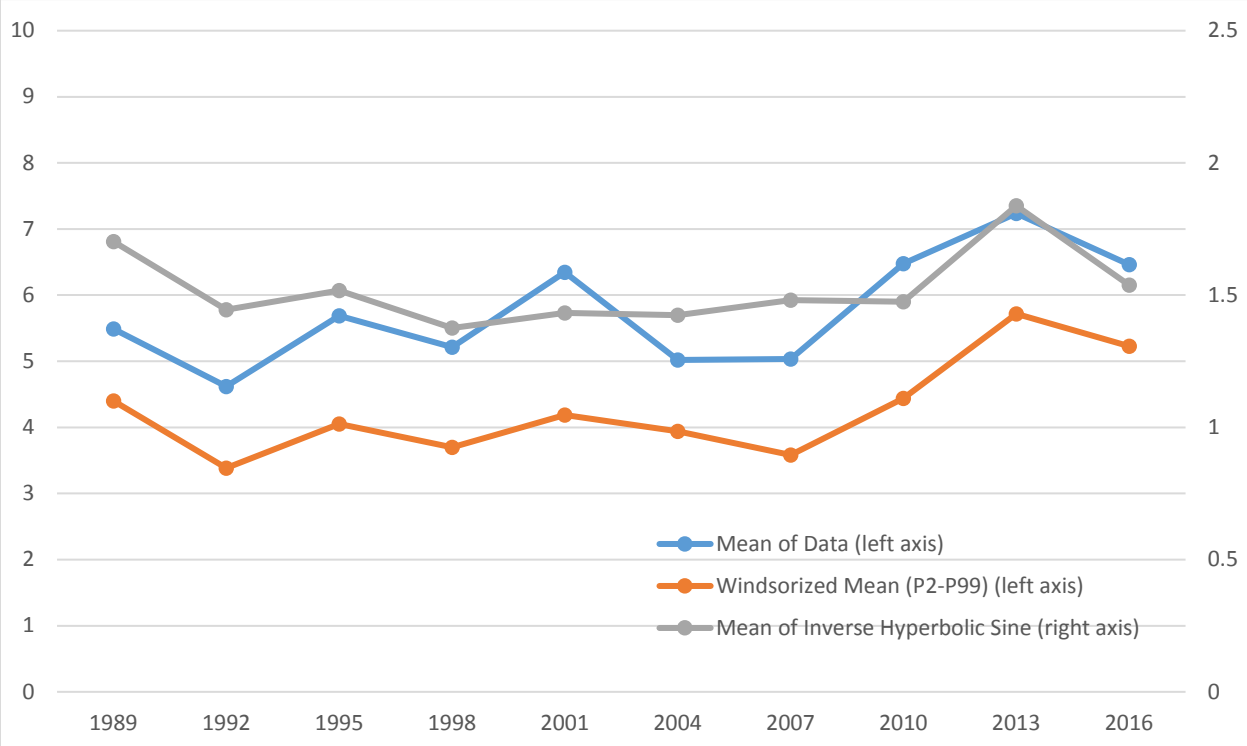


Figure 3. Age and Wealth Profile in the 2016 SCF

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 2016 Survey of Consumer Finances.

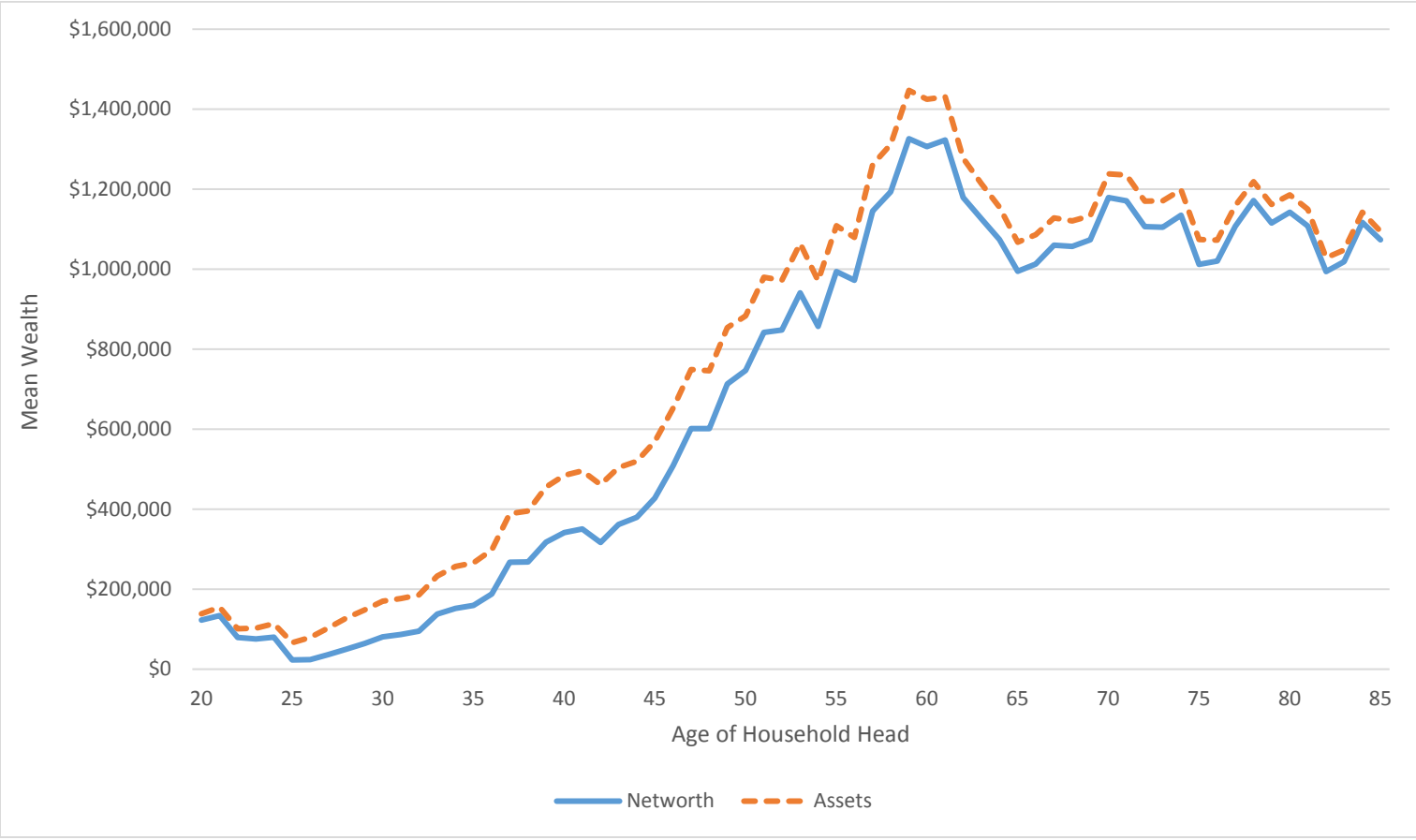
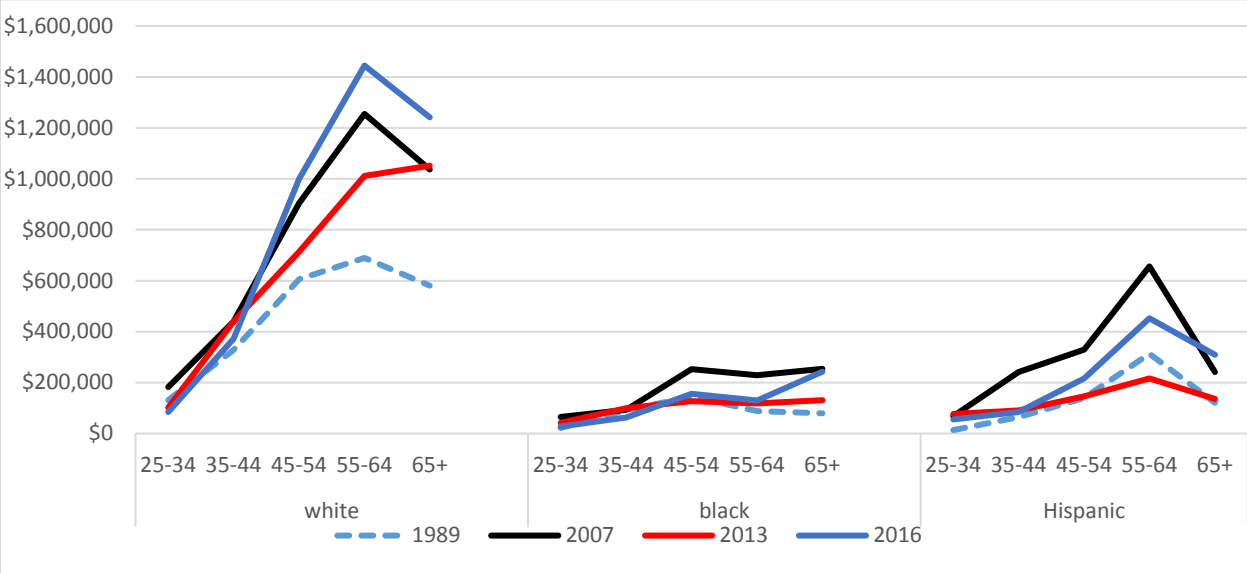


Figure 4. Net Worth by Age Profile for white, black, and Hispanic families in the SCF

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), 2013 (the solid red line), and 2016 (the solid blue line) responses. Panel B plots the median net worth profile for white, black, and Hispanic families in the same years.

Panel A



Panel B

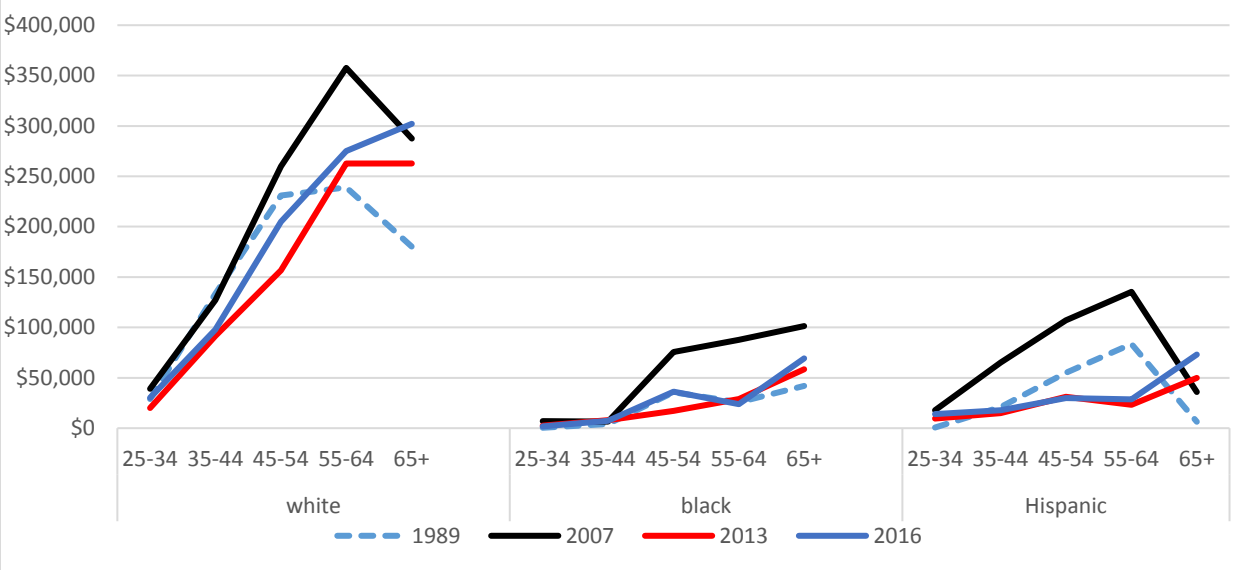


Figure 5. Median Net Worth by Normal Income Decile for Prime Working-Age Household Heads (Ages 30 to 59) in the 2016 SCF.

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 2016. Usual income is what families in the survey report for a "normal year." The leftmost bar represents the decile with the lowest normal income.

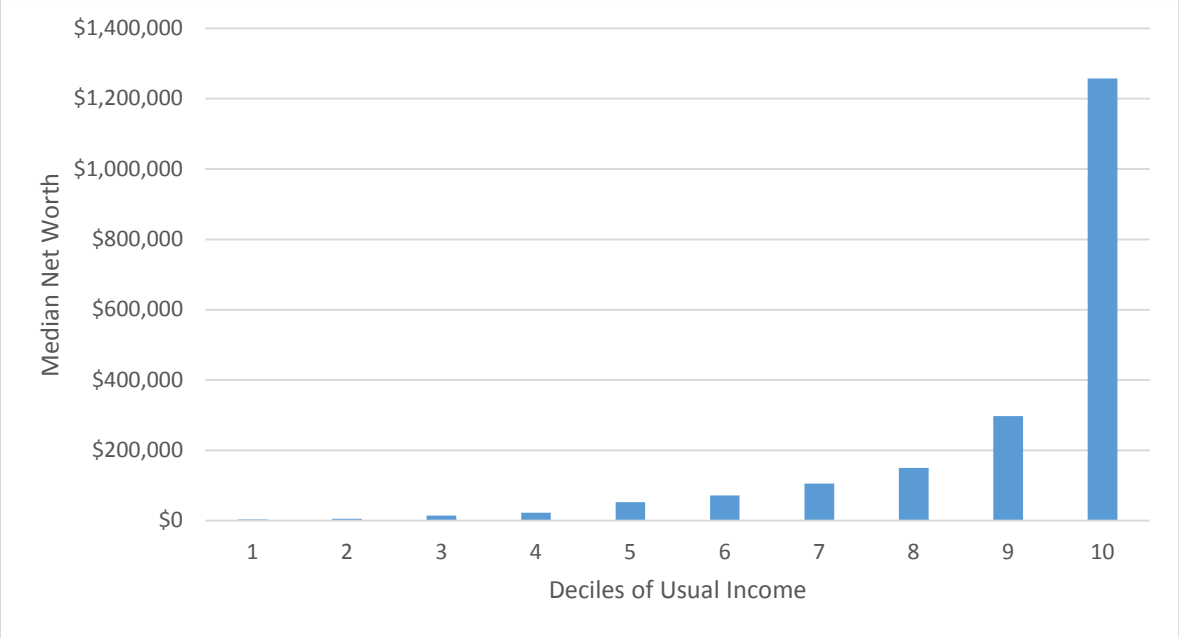


Figure 6. Mean Networth (IHS) by Years of Full-time work for Near-Retirement Age Household Heads (Ages 55 to 59) in 2010-2016 SCF

The figure shows the fitted quadratic relationship with a 95% confidence interval of the inverse hyperbolic sine of net worth by total years of full-time work of respondents between ages 55 and 59.

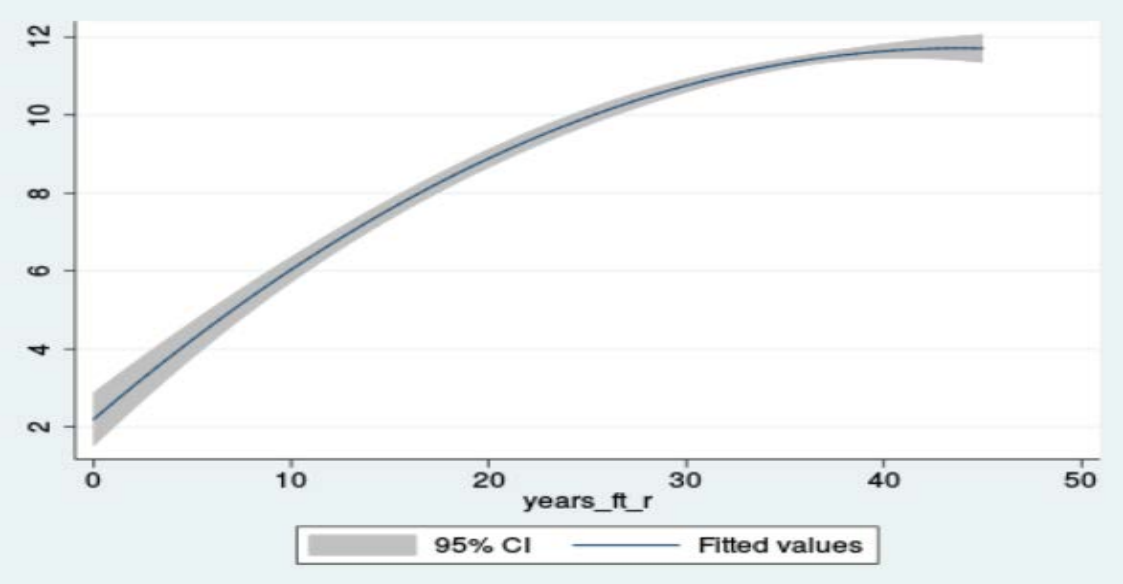


Figure 7. Mean Net Worth by Inheritance Level

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 2013-16 Survey of Consumer Finances. All values are expressed in 2016 dollars. All non-inheriting households are combined at zero mean value of total inheritances and have total mean net worth of $425.000, 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.

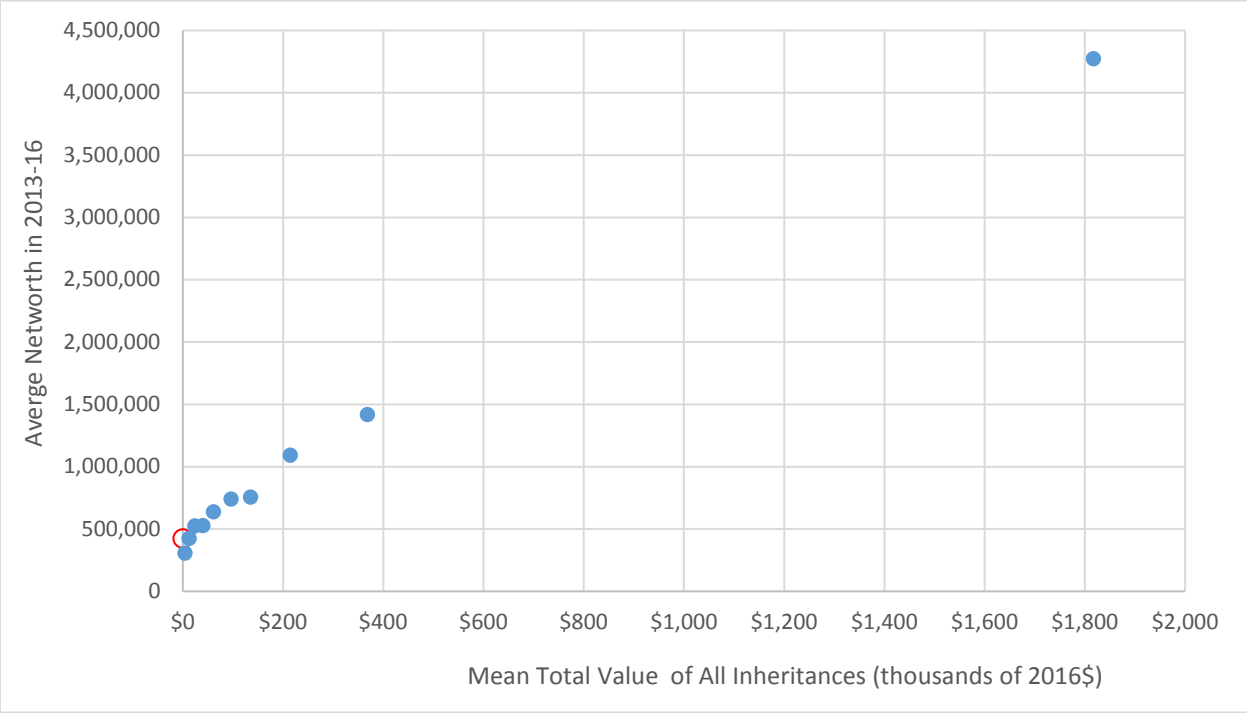


Figure 8A. Distribution of Net worth (IHS) for white(1), Black(2), and Hispanic(3) Families in 2016

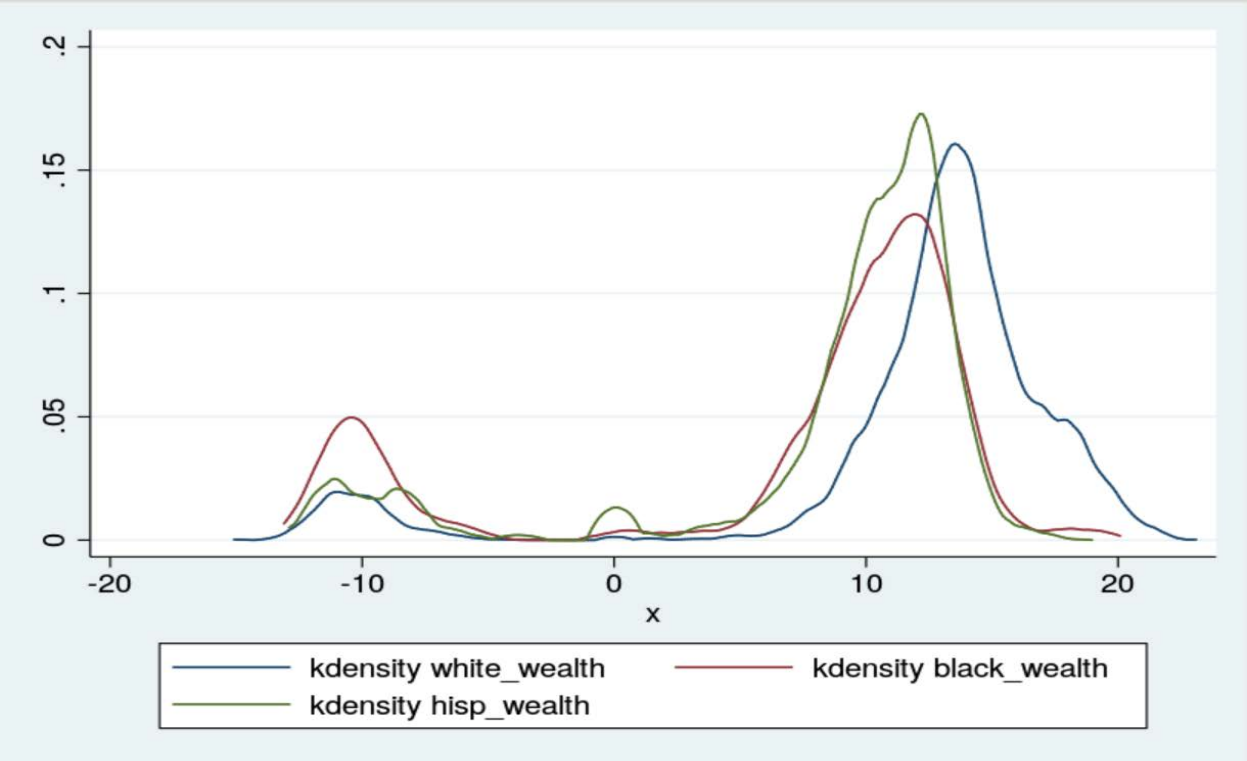


Figure 8B. Distribution of Normal Income (IHS) for white(1), Black(2), and Hispanic(3) Families in 2016

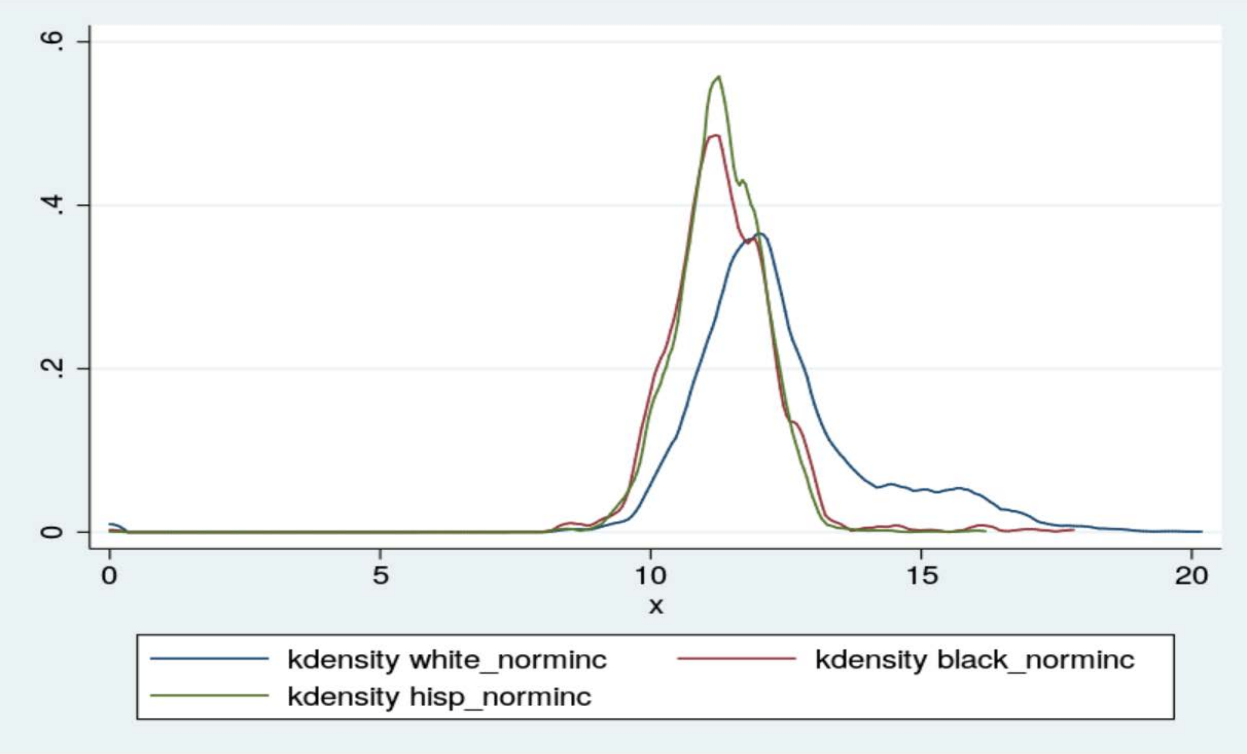


Table 1: Assets, Debt, and Net Worth by Race

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 2016). Levels of assets, debt, and net worth are expressed in 2016 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.

Panel A: Means	**Assets**					**Debt**					**Net worth**				
				White family assets relative to:					White family debt relative to:					White family net worth relative to:	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	White	Black	Hispanic	Black	Hispanic	White	Black	Hispanic	Black	Hispanic	White	Black	Hispanic	Black	Hispanic
1989	477,818	98,097	122,979	4.9	3.9	53,424	20,782	38,464	2.6	1.4	424,393	77,314	84,516	5.5	5.0
1992	431,818	104,976	126,136	4.1	3.4	58,808	24,235	35,433	2.4	1.7	373,011	80,741	90,703	4.6	4.1
1995	455,063	97,824	136,749	4.7	3.3	61,948	28,733	40,487	2.2	1.5	393,115	69,091	96,262	5.7	4.1
1998	570,366	131,853	168,338	4.3	3.4	76,140	37,032	40,076	2.1	1.9	494,226	94,821	128,262	5.2	3.9
2001	738,803	146,749	167,867	5.0	4.4	81,702	43,194	43,806	1.9	1.9	657,101	103,555	124,060	6.3	5.3
2004	817,130	195,281	228,337	4.2	3.6	110,463	54,558	67,379	2.0	1.6	706,666	140,723	160,958	5.0	4.4
2007	899,953	234,210	315,681	3.8	2.9	116,496	78,553	100,900	1.5	1.2	783,457	155,656	214,781	5.0	3.6
2010	822,770	165,493	190,975	5.0	4.3	120,984	57,101	70,826	2.1	1.7	701,786	108,393	120,149	6.5	5.8
2013	814,266	151,145	172,957	5.4	4.7	105,174	53,153	57,354	2.0	1.8	709,091	97,992	115,603	7.2	6.1
2016	1,010,592	196,144	246,977	5.2	4.1	106,303	56,182	65,010	1.9	1.6	904,289	139,962	181,968	6.5	5.0

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

Panel B: Medians	Assets					Debt					Net worth				
				White family assets relative to:					White family debt relative to:					White family net worth relative to:	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	White	Black	Hispanic	Black	Hispanic	White	Black	Hispanic	Black	Hispanic	White	Black	Hispanic	Black	Hispanic
1989	180,942	13,451	15,113	13.5	12.0	13,798	1,552	5,411	8.9	2.6	132,749	7,445	9,749	17.8	13.6
1992	173,728	29,558	16,771	5.9	10.4	15,188	1,986	2,516	7.6	6.0	116,892	16,603	11,350	7.0	10.3
1995	182,518	29,754	45,492	6.1	4.0	18,009	2,647	11,902	6.8	1.5	120,015	17,096	19,046	7.0	6.3
1998	209,618	37,329	38,812	5.6	5.4	23,607	4,198	5,754	5.6	4.1	140,225	22,833	14,495	6.1	9.7
2001	243,545	59,139	24,794	4.1	9.8	26,149	8,129	5,419	3.2	4.8	164,528	25,769	15,386	6.4	10.7
2004	277,407	53,574	40,379	5.2	6.9	38,806	11,206	8,830	3.5	4.4	173,789	25,975	19,973	6.7	8.7
2007	297,074	56,916	62,185	5.2	4.8	38,215	13,394	16,212	2.9	2.4	189,303	19,778	24,376	9.6	7.8
2010	253,156	44,213	44,504	5.7	5.7	40,897	9,186	11,075	4.5	3.7	136,508	17,138	16,560	8.0	8.2
2013	236,484	32,933	34,465	7.2	6.9	31,813	10,311	8,249	3.1	3.9	138,290	11,412	14,152	12.1	9.8
2016	258,931	44,800	47,683	5.8	5.4	33,600	15,634	10,000	2.1	3.4	162,550	16,555	21,482	9.8	7.6

Table 2: Confidence Intervals Around Means of Net worth by Race

2A. Means, Lower Bounds, and Upper Bounds of 95% Confidence Interval

	White			Black			Hispanic		
	Lower Bound	Mean	Upper Bound	Lower Bound	Mean	Upper Bound	Lower Bound	Mean	Upper Bound
1989	385,558	424,393	463,229	58,913	77,314	95,715	59,667	84,516	109,364
1992	339,023	373,011	406,998	69,462	80,741	92,020	63,953	90,703	117,454
1995	360,191	393,115	426,039	56,536	69,091	81,647	80,958	96,262	111,566
1998	448,176	494,226	540,275	76,978	94,821	112,663	93,514	128,262	163,011
2001	596,610	657,101	717,591	88,094	103,555	119,015	89,561	124,060	158,559
2004	650,652	706,666	762,680	111,290	140,723	170,156	106,330	160,958	215,587
2007	708,463	783,457	858,451	131,647	155,656	179,665	167,751	214,781	261,812
2010	633,225	701,786	770,347	86,793	108,393	129,992	91,062	120,149	149,237
2013	619,267	709,091	798,915	72,672	97,992	123,312	86,798	115,603	144,409
2016	810,684	904,289	997,894	102,341	139,962	177,583	143,644	181,968	220,291

2B. White/Non-white Wealth Ratios at Mean and Bounds of Confidence Interval

	White/Black Ratio			White/Hispanic Ratio		
	High*	Mean	Low*	High*	Mean	Low*
1989	7.9	5.5	4.0	7.8	5.0	3.5
1992	5.9	4.6	3.7	6.4	4.1	2.9
1995	7.5	5.7	4.4	5.3	4.1	3.2
1998	7.0	5.2	4.0	5.8	3.9	2.7
2001	8.1	6.3	5.0	8.0	5.3	3.8
2004	6.9	5.0	3.8	7.2	4.4	3.0
2007	6.5	5.0	3.9	5.1	3.6	2.7
2010	8.9	6.5	4.9	8.5	5.8	4.2
2013	11.0	7.2	5.0	9.2	6.1	4.3
2016	9.8	6.5	4.6	6.9	5.0	3.7

* The high ratio divides the white upper bound of the 95% CI by the non-white lower bound. The low ratio divides the lower bound of the white CI by the upper bound of the non-white CI.

Table 3: Age Profile (for household head) by Race (2016)

This table summarizes the age distribution of the household head of white, black, and Hispanic families in the Survey of Consumer Finances in 2016. 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.

		Percent of distribution			
	(1)	(2)	(3)	(4)	(5)
	Average age	Under 35	35 to 49	50 to 64	65+
White	54	18.2%	22.5%	29.9%	29.4%
Black	49	22.0%	28.9%	28.6%	20.5%
Hispanic	46	25.5%	36.8%	24.5%	13.2%

Table 4: 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 2010, 2013, and 2016. 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	$126,306	$78,584	7%	27%	16%	25%	14%
Black	$58,502	$43,702	13%	29%	25%	16%	8%
Hispanic	$63,873	$44,929	36%	28%	14%	11%	4%
Total	$105,663	$65,627	12%	28%	18%	21%	12%

Table 5: 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 C and D 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 2013 and 2016, using inflation-adjusted (2016) 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	142,962	101,264	204,117	111,931
Black	71,829	60,673	90,376	66,960
Hispanic	83,288	79,502	78,988	52,896

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	71,649	61,204	73,549	54,794
Black	44,392	35,442	48,480	36,438
Hispanic	59,079	42,806	59,601	50,212

Relative Income

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	2.3	1.7
Hispanic	1.7	1.3	2.6	2.1

Panel D. High School Only

	(1)	(2)	(3)	(4)
	Age 30 to 44		Age 45 to 59	
	Mean	Median	Mean	Median
Black	1.6	1.7	1.5	1.5
Hispanic	1.2	1.4	1.2	1.1

Table 6: Average Cumulative Full-time Years Worked for Households with Head Nearing Retirement Age (55 to 59), by Race for Different Relationships (2001-2016)

	All Households		
	Years full-time	Respondent	spouse
White	46.6	33.0	13.6
Black	38.3	30.4	7.9
Hispanic	39.3	30.0	9.3

	Coupled Households Only		
	Years full-time	Respondent	spouse
White	57.0	35.2	21.8
Black	53.7	32.1	21.6
Hispanic	47.1	32.5	14.6

	Single-headed
	Years full-time
White	29.5
Black	29.4
Hispanic	25.8

Table 7: 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 2013 and 2016. 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. Inheritances are adjusted for inflation using the BEA GDP implicit price deflator and expressed in 2016 dollars.

	(1)	(2)	(3)
	Ever received inheritance	Conditional mean value of total inheritances received	Conditional median value of total inheritances received
White	22.7%	$246,136	$56,217
Black	9.1%	$106,601	$38,224
Hispanic	5.2%	$196,234	$37,124

Table 8: 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 2016 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 2013 and 2016 (combined) the SCF surveyed 90 Black and 50 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)	(2)	(3)	(4)
	Mean wealth	Median wealth	Mean wealth	Median wealth
White	$1,133,883	$271,075	$1,005,751	$239,111
Black	$184,506	$37,588	$175,966	$35,025
Hispanic	$304,374	$47,850	$251,572	$38,788
White family relative net worth:				
Black	6.1	7.2	5.7	6.8
Hispanic	3.7	5.7	4.0	6.2

Table 9. Net worth and Distribution of Race Groups by Extended Family Support Indicators (Heads Ages 30 to 49, 2007-2016)

	Can get $3,000 from family or friends in a financial emergency		Cannot get $3,000	
	No Inheritance Expected	Expect Inheritance	No Inheritance Expected	Expect Inheritance
Distribution of family support by Race:				
White	55%	18%	25%	2%
Black	41%	4%	54%	1%
Hispanic	47%	5%	47%	2%
Net worth by family support by Race:				
Mean	$401,531	$608,778	$97,609	$200,215
White	$493,838	$654,626	$142,203	$233,800
Black	$153,478	$241,129	$34,868	$46,365
Hispanic	$160,505	$182,599	$70,740	$118,432
Median	$91,502	$163,366	$11,441	$33,349
White	$127,627	$180,274	$21,040	$35,980
Black	$22,447	$51,833	$5,295	$0
Hispanic	$35,341	$81,291	$10,943	$66,139

Table 10: Wealth, Race, and Attitudes toward Saving and Investing

Panel A shows the average family wealth (in 2016 dollars) by attitudes regarding saving and investing as reported in the Survey of Consumer Finances conducted in 2013 and 2016. 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.

Panel A. Average 2013 Family Wealth by Attitudes Toward Saving and Investing (Family Head Ages 35 to 59)

	(1) Net worth
Tolerant of risk	$1,247,119
Not tolerant	$420,223
Long time horizon for saving and investing	$846,382
Short or medium time horizon	$189,053
Approve of Borrowing for Vacations	$491,530
Do Not Approve	$610,553

Panel B. Distribution of Attitudes by Race

	(1) Risk tolerant	(2) Long horizon	(3) Luxury borrower
White	23%	66%	13%
Black	17%	53%	13%
Hispanic	14%	49%	13%
Total	21%	61%	13%

Panel C. Mean Net Worth (2010-13) by Race and Attitude Toward Saving and Investing

	(1) All types	(2) Risk tolerant	(3) Long horizon	(4) NOT a luxury borrower
White	$782,767	$1,531,242	$1,062,646	$802,506
Black	$113,516	$183,806	$155,443	$110,992
Hispanic	$162,911	$371,885	$242,517	$165,347
Total	$585,270	$1,236,463	$840,222	$598,846
White family wealth relative to:				
Black	6.9	8.3	6.8	7.2
Hispanic	4.8	4.1	4.4	4.9

Table 11: Net Worth Regressions

This table summarizes the results from OLS regressions for the years 1989 to 2016 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 and family structure variables along with the variables in column (1). Column (3) adds dummy variables for each level of formal schooling for respondent and spouse, with some college, but no degree as the omitted category. Column (4) adds controls for employment status, years employed full-time, occupation, and industry. Coefficients for industry and occupation are not included for space. Column (5) further controls for local real estate market conditions and the number of years the respondent has been living in his or her current residence. Column (6) adds indicator variables for risk tolerance, long saving and investment horizons, and luxury borrowing. Column (7) further includes self-reported indicator variables for health for both the household head and spouse health with fair health as the omitted category. Column (8) controls for inheritances, including total value (IHS), years since inheriting, and indicators for inheriting real estate or a business. Column (9) includes an indicator for expectation of a future inheritance. Column (10) 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. Coefficients for number of siblings, as well as the spouse coefficients for education, health, and parental longevity are not shown for space. Column (11) replicates the regression shown in Column (10), but only includes the years from 2001 to 2016. Column (12) includes an indicator showing whether the respondent thinks they could get $3K from family or friends in a financial emergency. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

											2001+	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
white	3.6890	2.5050	1.7875	1.5089	1.5933	1.4594	1.4061	1.3393	1.2938	1.2037	1.3202	1.1696
	(0.0931)	(0.0912)	(0.1382)	(0.1385)	(0.1461)	(0.1440)	(0.1460)	(0.1459)	(0.1463)	(0.1418)	(0.1509)	(0.1512)
	***	***	***	***	***	***	***	***	***	***	***	***
Hispanic	0.7748	0.6950	1.0216	0.9300	0.9583	0.9830	0.9631	0.9761	0.9667	0.8660	1.2136	1.1437
	(0.1337)	(0.1318)	(0.1749)	(0.1784)	(0.1922)	(0.1909)	(0.1928)	(0.1914)	(0.1912)	(0.1908)	(0.2062)	(0.2046)
	***	***	***	***	***	***	***	***	***	***	***	***
r_age		0.3686	0.2639	0.1651	0.1699	0.1627	0.1796	0.1775	0.1778	0.0964	0.0496	0.0504
		(0.0122)	(0.0264)	(0.0265)	(0.0292)	(0.0291)	(0.0292)	(0.0288)	(0.0289)	(0.0326)	(0.0355)	(0.0354)
		***	***	***	***	***	***	***	***	***		
r_age2		-0.0023	-0.0019	-0.0013	-0.0014	-0.0013	-0.0014	-0.0014	-0.0014	-0.0007	-0.0004	-0.0004
		(0.0001)	(0.0002)	(0.0002)	(0.0003)	(0.0002)	(0.0003)	(0.0002)	(0.0002)	(0.0003)	(0.0003)	(0.0003)
		***	***	***	***	***	***	***	***	***		
#kids in home		-0.0705	0.0630	0.0702	0.0818	0.0911	0.0757	0.0813	0.0825	0.0733	0.0854	0.0945
		(0.0401)	(0.0447)	(0.0446)	(0.0486)	(0.0482)	(0.0485)	(0.0483)	(0.0482)	(0.0479)	(0.0551)	(0.0554)
		*			*	*		*	*			*
npeu_present		-0.2382	-0.2094	-0.1647	-0.2170	-0.1692	-0.1122	-0.1210	-0.1196	-0.0951	-0.3978	-0.3805
		(0.0920)	(0.1036)	(0.1012)	(0.1023)	(0.1042)	(0.1045)	(0.1050)	(0.1051)	(0.1051)	(0.1432)	(0.1423)
		***	**		**						***	***

Table 11: Net Worth Regressions (continued)

										2001+	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
non-marr no kids, <55		0.3621	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
		(0.1420)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
		**										
non-marr no kids, 55+		0.0670	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
		(0.1486)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
married w/kids		-0.0065	0.1057	0.1346	0.1330	0.0982	0.1656	0.1301	0.1282	0.1273	0.0830	0.0710
		(0.4843)	(0.2057)	(0.1888)	(0.1374)	(0.1481)	(0.1593)	(0.1801)	(0.1784)	(0.1356)	(0.1243)	(0.1373)
married no kids		-0.5177	-0.1306	-0.0963	-0.0251	-0.0572	-0.0333	-0.0780	-0.0769	-0.0430	-0.0175	-0.0463
		(0.4867)	(0.1776)	(0.1856)	(0.1072)	(0.1233)	(0.1317)	(0.1594)	(0.1574)	(0.1413)	(0.0943)	(0.1132)
urban status		-0.1011	0.1196	0.1501	0.2507	0.2713	0.2727	0.2248	0.2259	0.2427	0.4406	0.4517
		(0.0793)	(0.0854)	(0.0857)	(0.1199)	(0.1217)	(0.1219)	(0.1188)	(0.1193)	(0.1176)	(0.1558)	(0.1571)
				*	**	**	**	*	*	**	***	***
#kids elsewhere		-0.2574	-0.1623	-0.1645	-0.1448	-0.1386	-0.1317	-0.1307	-0.1299	-0.1148	-0.1161	-0.1167
		(0.0148)	(0.0193)	(0.0194)	(0.0207)	(0.0199)	(0.0201)	(0.0196)	(0.0196)	(0.0200)	(0.0264)	(0.0258)
		***	***	***	***	***	***	***	***	***	***	***
divorced		-0.0099	-0.8031	-0.7180	-0.6511	-0.5615	-0.5014	-0.4830	-0.4785	-0.5217	-0.3380	-0.2961
		(0.0911)	(0.1857)	(0.1862)	(0.2031)	(0.1967)	(0.1952)	(0.1949)	(0.1950)	(0.1946)	(0.2117)	(0.2154)
			***	***	***	***	**	**	**	***		
Less-than_HS			-0.6730	-0.5382	-0.5946	-0.4613	-0.2869	-0.2308	-0.2149	-0.1991	0.1399	0.2361
			(0.1185)	(0.1220)	(0.1320)	(0.1325)	(0.1326)	(0.1307)	(0.1315)	(0.1326)	(0.1686)	(0.1683)
			***	***	***	***	**	*				
HS only			0.2089	0.2445	0.1676	0.2200	0.2680	0.2937	0.3069	0.3219	0.3795	0.3976
			(0.0875)	(0.0884)	(0.0871)	(0.0887)	(0.0893)	(0.0891)	(0.0890)	(0.0886)	(0.1136)	(0.1151)
			**	***	*	**	***	***	***	***	***	***
BA only			0.8253	0.7190	0.7122	0.6246	0.5359	0.4939	0.4928	0.4707	0.5938	0.5796
			(0.0994)	(0.1027)	(0.1053)	(0.1055)	(0.1060)	(0.1062)	(0.1060)	(0.1046)	(0.1379)	(0.1384)
			***	***	***	***	***	***	***	***	***	***
Advanced Degrees			1.1331	0.9969	1.0018	0.8691	0.7375	0.6568	0.6527	0.6136	0.8106	0.7769
			(0.1014)	(0.1090)	(0.1047)	(0.1040)	(0.1046)	(0.1036)	(0.1038)	(0.1033)	(0.1327)	(0.1332)
			***	***	***	***	***	***	***	***	***	***
Self-employed/Partnership				1.1604	1.0744	1.0307	0.9887	0.9110	0.9139	0.9092	0.8916	0.8521
				(0.0704)	(0.0738)	(0.0736)	(0.0743)	(0.0741)	(0.0740)	(0.0747)	(0.0986)	(0.0987)
				***	***	***	***	***	***	***	***	***
Retired, Disabled, Student, Homemaker				-2.1147	-1.6313	-0.6564	-0.3539	0.3819	0.3013	0.3990	0.3142	0.2918
				(1.3023)	(1.0709)	(0.6627)	(0.6029)	(0.4481)	(0.4623)	(0.4772)	(1.1394)	(1.0621)
Not in Labor Force, Other Not Working				-3.6506	-3.0675	-1.9893	-1.7855	-1.0319	-1.1065	-1.0897	-1.2598	-1.1710
				(1.3613)	(1.1369)	(0.7367)	(0.6710)	(0.5015)	(0.5180)	(0.5383)	(1.1419)	(1.0653)
				***	***	***	***	**	**	**		

Table 11: Net Worth Regressions (continued)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	2001+ (11)	2001+ (12)
years_ft_r				0.0478	0.0443	0.0405	0.0365	0.0350	0.0355	0.0380	0.0420	0.0379
				(0.0047)	(0.0047)	(0.0046)	(0.0045)	(0.0045)	(0.0045)	(0.0046)	(0.0058)	(0.0058)
				***	***	***	***	***	***	***	***	***
years_ft_sp				0.0084	0.0106	0.0101	0.0091	0.0095	0.0094	0.0102	0.0100	0.0106
				(0.0022)	(0.0025)	(0.0024)	(0.0024)	(0.0024)	(0.0024)	(0.0025)	(0.0029)	(0.0030)
				***	***	***	***	***	***	***	***	***
qrent					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
					(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
					**	**	**	*	*		**	
hpi_changeyr1					-0.0114	-0.0114	-0.0113	-0.0113	-0.0111	-0.0109	-0.0148	-0.0137
					(0.0042)	(0.0042)	(0.0041)	(0.0041)	(0.0041)	(0.0041)	(0.0041)	(0.0041)
					***	***	***	***	***	***	***	***
hpi_changeyr5					0.0091	0.0091	0.0088	0.0087	0.0087	0.0086	0.0090	0.0088
					(0.0021)	(0.0021)	(0.0020)	(0.0020)	(0.0021)	(0.0021)	(0.0022)	(0.0022)
					***	***	***	***	***	***	***	***
hpi_changeyr10					0.0009	0.0012	0.0012	0.0013	0.0014	0.0013	0.0007	0.0008
					(0.0013)	(0.0013)	(0.0013)	(0.0013)	(0.0013)	(0.0013)	(0.0014)	(0.0014)
tenure					0.0544	0.0525	0.0495	0.0489	0.0487	0.0489	0.0486	0.0466
					(0.0027)	(0.0027)	(0.0027)	(0.0027)	(0.0027)	(0.0027)	(0.0036)	(0.0035)
					***	***	***	***	***	***	***	***
risk_tolerant						0.8505	0.8141	0.8022	0.7871	0.7693	0.6869	0.6624
						(0.0668)	(0.0670)	(0.0674)	(0.0676)	(0.0671)	(0.0866)	(0.0859)
						***	***	***	***	***	***	***
long_horizon						1.2587	1.1716	1.1475	1.1441	1.1280	1.3093	1.2541
						(0.0846)	(0.0835)	(0.0830)	(0.0836)	(0.0832)	(0.0909)	(0.0888)
						***	***	***	***	***	***	***
luxury borrower						-0.4905	-0.5138	-0.5118	-0.5138	-0.5146	-0.6160	-0.6330
						(0.0907)	(0.0890)	(0.0892)	(0.0894)	(0.0892)	(0.1106)	(0.1105)
						***	***	***	***	***	***	***
r_excellent_health							0.7792	0.7762	0.7714	0.7465	0.6683	0.6044
							(0.1017)	(0.1017)	(0.1021)	(0.1000)	(0.1204)	(0.1186)
							***	***	***	***	***	***
r_good_health							0.5235	0.5365	0.5329	0.5080	0.4771	0.4346
							(0.0843)	(0.0851)	(0.0852)	(0.0853)	(0.1050)	(0.1060)
							***	***	***	***	***	***
r_poor_health							-0.1767	-0.1239	-0.1203	-0.1276	-0.2937	-0.2308
							(0.1663)	(0.1659)	(0.1663)	(0.1661)	(0.2127)	(0.2098)

Table 11: Net Worth Regressions (continued)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	2001+ (11)	2001+ (12)
totalinherit (IHS)								0.0818	0.0774	0.0869	0.0882	0.0843
								(0.0064)	(0.0064)	(0.0065)	(0.0076)	(0.0076)
								***	***	***	***	***
years_since_inherit								-0.0219	-0.0213	-0.0230	-0.0202	-0.0205
								(0.0042)	(0.0042)	(0.0041)	(0.0042)	(0.0042)
								***	***	***	***	***
inherited house?								0.3155	0.3355	0.3086	0.1394	0.2206
								(0.1838)	(0.1838)	(0.1815)	(0.2384)	(0.2353)
								*	*	*		
inherited business?								1.1613	1.1379	1.0775	0.9876	0.9922
								(0.2121)	(0.2089)	(0.2070)	(0.3090)	(0.3008)
								***	***	***	***	***
inherited RE?								0.8145	0.8138	0.7850	0.8093	0.7777
								(0.0980)	(0.0976)	(0.1007)	(0.1253)	(0.1237)
								***	***	***	***	***
expect inheritance?									0.4313	0.3139	0.4055	0.2863
									(0.0889)	(0.0898)	(0.1129)	(0.1123)
									***	***	***	**
r_mother living										-0.7948	-0.8977	-0.9911
										(0.6014)	(0.6991)	(0.7045)
r_mom age										0.0145	0.0145	0.0152
										(0.0074)	(0.0085)	(0.0085)
										*	*	*
r_father living										-2.0740	-1.8812	-1.8419
										(0.5970)	(0.8056)	(0.8001)
										***	**	**
r_dad age										0.0311	0.0285	0.0273
										(0.0077)	(0.0103)	(0.0102)
										***	***	***
can get $3k?												1.0981
												(0.0936)
												***
Receive income from family												-0.0758
												(0.0722)
Give income to family												0.0377
												(0.0093)
												***
Constant	7.0622	-4.8367	-3.7827	-0.3391	-0.6096	-1.1166	-2.6794	-2.6008	-2.7065	0.6844	1.2235	0.7942
	(0.1501)	(0.3850)	(0.4852)	(0.5388)	(0.5541)	(0.5757)	(0.5594)	(0.5673)	(0.5683)	(0.8579)	(1.1118)	(1.0930)
	***	***	***			*	***	***	***			

Table 12: 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 debt as dependent variables using data from the Survey of Consumer Finances using surveys from 2001 to 2016. All specifications include the demographic, education, real estate, labor force, and other explanatory variables from Table 11, column (12), which is reproduced here in Column (1). Columns (2) to (5) report specifications that separately control for earnings, usual income, home ownership status, and an indicator for stock ownership. Column (6) includes coefficients for a specification that includes usual income, home ownership, and stock ownership simultaneously. 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.

Panel A. Networth Regressions

	(1)	(2)	(3)	(4)	(5)	(6)
white	1.1696	1.1596	0.9266	0.6255	1.0789	0.4366
	(0.1512)	(0.1504)	(0.1509)	(0.1455)	(0.1497)	(0.1454)
	***	***	***	***	***	***
hisp	1.1437	1.1401	1.1431	0.8810	1.1137	0.8832
	(0.2046)	(0.2050)	(0.2071)	(0.1961)	(0.2059)	(0.1995)
	***	***	***	***	***	***
wageinc_ihs		0.0611				
		(0.0098)				
		***				
norminc_ihs			1.4811			1.0674
			(0.0830)			(0.0709)
			***			***
hhouses				4.1361		3.7746
				(0.1254)		(0.1257)
				***		***
hstocks					1.2604	0.8532
					(0.0846)	(0.0790)
					***	***
Constant	0.8100	0.3371	-14.2196	2.0019	0.9100	-8.8796
	(1.1174)	(1.0855)	(1.3999)	(1.0966)	(1.1174)	(1.3028)
			***	*		***

Table 12: OLS Key Coefficients, by Dependent Variable and Inclusion of Income and Housing (continued)

Panel B. Asset Regressions

	(1)	(2)	(3)	(4)	(5)	(6)
white	0.7656	0.7583	0.6042	0.4393	0.7230	0.3243
	(0.0488)	(0.0484)	(0.0468)	(0.0425)	(0.0485)	(0.0414)
	***	***	***	***	***	***
hisp	0.4153	0.4127	0.4150	0.2578	0.4012	0.2653
	(0.0679)	(0.0679)	(0.0699)	(0.0583)	(0.0680)	(0.0607)
	***	***	***	***	***	***
wageinc_ihs		0.0448				
		(0.0041)				
		***				
norminc_ihs			0.9841			0.7554
			(0.0470)			(0.0384)
			***			***
hhouses				2.4804		2.2373
				(0.0291)		(0.0309)
				***		***
hstocks					0.5930	0.3211
					(0.0199)	(0.0189)
					***	***
Constant	7.2861	6.9455	-2.7008	7.9939	7.3331	0.2827
	(0.2680)	(0.2695)	(0.5761)	(0.2240)	(0.2653)	(0.4838)
	***	***	***	***	***	

Panel C. Debt Regressions

	(1)	(2)	(3)	(4)	(5)	(6)
white	0.4719	0.4543	0.3461	-0.0814	0.4834	-0.1080
	(0.0954)	(0.0953)	(0.0926)	(0.0879)	(0.0960)	(0.0868)
	***	***	***		***	
hisp	-0.3139	-0.3201	-0.3142	-0.5810	-0.3100	-0.5639
	(0.1308)	(0.1301)	(0.1285)	(0.1227)	(0.1310)	(0.1216)
	**	**	**	***	**	***
wageinc_ihs		0.1069				
		(0.0092)				
		***				
norminc_ihs			0.7669			0.4387
			(0.0634)			(0.0534)
			***			***
hhouses				4.2054		4.0917
				(0.0774)		(0.0768)
				***		***
hstocks					-0.1611	-0.4234
					(0.0709)	(0.0688)
					**	***
Constant	2.8563	2.1184	-4.9266	3.9688	2.8435	-0.4647
	(0.8210)	(0.8257)	(1.1171)	(0.6414)	(0.8224)	(0.9224)
	***	**	***	***	***	

Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Table 13: OLS Key Coefficients, by Sequential 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 2001 to 2016. Column (1) reports coefficients from a specification using only year fixed effects, and Column (2) reports the key coefficients from a specification using all of the covariates from Table 12, column (6). Columns (3) to (14) report the key coefficients from specifications that exclude the variables entered in columns (2) through (12) in Table 11 and columns (3) through (5) in Table 12. Coefficients are reported with standard errors in parentheses, and *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

	Race Coefficients													
	Using:		Dropping:											
	Year FE only	All Covariates	Demographics	Education	Occ, Ind, Years FT	Real Estate & Tenure	Attitudes	Health	Inheritance	Extended Family	Family Financial Support	Income	Houses	Stocks
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
white	3.7293	0.4366	0.4919	0.7585	0.4909	0.4114	0.4845	0.4176	0.4672	0.4629	0.5635	0.5524	0.8744	0.4836
	(0.0987)	(0.1454)	(0.1440)	(0.1121)	(0.1439)	(0.1418)	(0.1465)	(0.1453)	(0.1461)	(0.1466)	(0.1432)	(0.1445)	(0.1505)	(0.1457)
	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Hispanic	1.1248	0.8832	0.8780	1.2356	0.9009	0.8883	0.8742	0.8902	0.8815	0.9496	0.9258	0.8578	1.1215	0.9025
	(0.1494)	(0.1995)	(0.2011)	(0.1531)	(0.1960)	(0.1873)	(0.2005)	(0.1994)	(0.2009)	(0.1970)	(0.2008)	(0.1978)	(0.2079)	(0.1984)
	***	***	***	***	***	***	***	***	***	***	***	***	***	***

Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Table 14: 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.

Panel A. Black/White Networth (IHS) Gap

					Sensitivity: Altering Race Category Definitions	
					Covariates Also Include Usual Income and Home Ownership	
	Controls Include Demographic, Labor Force, Inheritance, Health Status, Investment Attitudes, Parental Longevity, and Regional Real Estate Variables	Controls Also Include Usual Income	Covariates Also Include Usual Income and Home Ownership	Covariates Also Include Usual Income, Home Ownership, and Stocks	Original Race Definitions	Reclassifying White Hispanics as "Hispanic"
	(1)	(2)	(3)	(4)	(5)	(6)
White Networth (IHS)	10.82	10.82	10.82	10.82	10.72	10.81
Black Networth (IHS)	6.95	6.95	6.95	6.95	6.81	6.81
Difference	3.87	3.87	3.87	3.87	3.91	4.00
Explained by Observed Differences in Controls	2.43	2.67	3.18	3.21	3.22	3.28
Unexplained by Observed Differences in Controls	1.44	1.20	0.69	0.66	0.69	0.73
Pecent of Networth Difference Explained	0.63	0.69	0.82	0.83	0.82	0.82

Panel B. Hispanic/White Networth (IHS) Gap

White Networth (IHS)	10.82	10.82	10.82	10.82	10.73	10.82
Hispanic Networth (IHS)	8.08	8.08	8.08	8.08	8.11	8.11
Difference	2.74	2.74	2.74	2.74	2.61	2.70
Explained by Observed Differences in Controls	2.53	2.75	3.06	3.09	2.97	3.01
Unexplained by Observed Differences in Controls	0.21	-0.01	-0.32	-0.35	-0.36	-0.31
Pecent of Networth Difference Explained	0.92	1.00	1.12	1.13	1.14	1.11
Years Included:	2001-2016	2001-2016	2001-2016	2001-2016	2004-2016	2004-2016

Source: Authors Analysis of SCF

Table 15: 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 "can you get $3K?" variable is only available since 2001; only data from 2001 to 2016 are used in the decompositions in this table.

Panel A. Black/White Wealth Differences

	Observed Networth		White Networth Using Black Weights				Observables Explain:			
	Black Families	White Families	Reweight Without Income or Housing	Reweight with Usual Income	Reweight with Usual Income and Housing	Reweight with Usual Income, Housing, and Stocks	No Income or Housing	With Income	With Income and Housing	With Income, Housing, and Stocks
Mean	7.1	10.8	8.4	7.6	7.3	7.4	64%	86%	93%	92%
ptile of wealth dist.										
10	-9.3	7.7	-9.0	-8.9	-9.3	-9.4	98%	97%	100%	100%
25	6.8	11.0	9.0	6.9	6.9	7.4	49%	98%	98%	87%
50	10.5	12.7	11.5	11.0	10.7	10.7	56%	77%	92%	90%
75	12.2	13.8	13.0	12.8	12.7	12.7	53%	65%	72%	73%
90	13.2	14.8	14.0	13.8	13.8	13.8	51%	61%	64%	67%

Panel B. Hispanic/White Wealth Differences

	Observed Networth		White Networth Using Hispanic Weights				Observables Explain:			
	Hispanic Families	White Families	Reweight Without Income or Housing	Reweight with Usual Income	Reweight with Usual Income and Housing	Reweight with Usual Income, Housing, and Stocks	No Income or Housing	With Income	With Income and Housing	With Income, Housing, and Stocks
Mean	8.2	10.8	8.0	7.6	7.4	7.4	105%	121%	128%	129%
ptile of wealth dist.										
10	-7.4	7.7	-8.7	-8.8	-9.0	-9.1	109%	110%	111%	111%
25	8.6	11.0	8.4	7.5	7.1	7.2	107%	147%	162%	158%
50	10.5	12.7	11.0	10.7	10.5	10.6	79%	90%	99%	99%
75	12.3	13.8	12.7	12.5	12.5	12.4	74%	82%	86%	89%
90	13.3	14.8	13.7	13.6	13.6	13.5	73%	80%	82%	86%

Note: The "can get $3k" varible is only available since 2001; only data for 2001 to 2016 are used in this table.

Appendix Table 1: Summary Statistics

	(1) Mean	(2) Std. Dev.	(3) Min	(4) Max
Networth	507,618	4,058,350	-252,000,000	5,380,000,000
Assets	590,730	4,112,031	-30,000,000	5,380,000,000
Debt	83,112	245,665	0	1,550,000,000
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	49.7	17.3	17	105
Spouse Age	26.9	25.6	0	96
# Kids in Household	0.8	1.2	0	10
# Kids Living Elsewhere	1.5	1.9	0	26
"Non-primary" subfamily present in household	0.12	0.33	0	1
Divorced	0.13	0.34	0	1
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	0.36	0	1
Married (partnered) with Children	0.32	0.47	0	1
Married (partnered), No Children	0.26	0.44	0	1
Urban				
Resides in MSA	0.84	0.36	0	1
Resides outside MSA	0.16	0.36	0	1
Education Attainment (Respondent)				
Less than HS	0.18	0.38	0	1
HS Only	0.29	0.45	0	1
Some College	0.18	0.38	0	1
BA only	0.18	0.38	0	1
Advanced Degree	0.11	0.32	0	1
Education Attainment (Spouse)				
Less than HS	0.14	0.34	0	1
HS Only	0.31	0.46	0	1
Some College	0.17	0.38	0	1
BA only	0.19	0.39	0	1
Advanced Degree	0.10	0.30	0	1

Appendix Table 1: Summary Statistics (continued)

	(1) Mean	(2) Std. Dev.	(3) Min	(4) Max
Occupation1				
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
Occupation2				
Managerial, Professional	0.26	0.44	0	1
Technical, Sales, Services	0.22	0.42	0	1
Other (Incl. production/craft/repair workers, operators, laborers, farmers, foresters, fishers)	0.21	0.41	0	1
Not Working	0.31	0.46	0	1
Industry				
Mining, Construction, Manufacturing	0.18	0.38	0	1
Transportation, Communication, Utilities	0.13	0.34	0	1
Wholesale Trade, Finance, Insurance, Real Estate	0.38	0.48	0	1
Agriculture, Retail, Services, Public Admin.	0.31	0.46	0	1
Total Full-time Work Years of Respondent	23.6	14.8	0	82
Total Full-time Work Years of Spouse	8.5	11.7	0	70
% Households with Any Inheritance	0.21	0.40	0	1
Total Inheritance ($)	46,077	1,331,036	-11	3,530,000,000
Conditional Total Inheritance ($)	154,305	2,432,347	-11	3,530,000,000
Years Since Last Inheritance (conditional)	8.2	11.2	0	98
% Households Expecting Inheritance in the Future	0.14	0.34	0	1
Inherit Residence?	0.04	0.19	0	1
Inherit Business?	0.01	0.08	0	1
Inherit Other Real Estate?	0.03	0.18	0	1
Can get $3,000 from family/friends in Emergency*	0.65	0.48	0	1
Income Received from family last year	146	4,725	0	1,641,387
Income Given to family last year	1,032	50,372	0	52,700,000
Quality-Adjusted Rent (MSA)	8,730	3,335	4,341	23,635
HPI Growth (1 year)	4.8	9.2	-40.1	52.2
HPI Growth (5 year)	18.9	33.9	-128.9	145.7
HPI Growth (10 year)	34.1	37.0	-83.9	190.8
Tenure in current residence	11.1	12.5	0	94

Appendix Table 1: Summary Statistics (continued)

	(1) Mean	(2) Std. Dev.	(3) Min	(4) Max
Risk Tolerant	0.19	0.39	0	1
Long Planning Horizon	0.63	0.48	0	1
Willing to borrow for luxury items and vacations	0.14	0.34	0	1
Respondent Health				
Excellent	0.28	0.45	0	1
Good	0.47	0.50	0	1
Poor	0.06	0.24	0	1
Spouse Health (conditional)				
Excellent	0.18	0.39	0	1
Good	0.28	0.45	0	1
Poor	0.02	0.15	0	1
r_#siblings	2.5	1.4	0	4
sp_#siblings	1.6	1.7	0	4
R mother living	0.57	0.50	0	1
R mother age (conditional)	37.0	33.6	0	104
SP mother living	0.37	0.48	0	1
SP mother age (conditional)	24.0	32.1	0	104
R father living	0.42	0.49	0	1
R father age (conditional)	27.5	32.9	0	105
SP father living	0.28	0.45	0	1
SP father age (conditional)	17.9	29.5	0	100
Earnings (2013$)	57,911	155,861	0	125,000,000
"Normal Income" (2013$)	88,312	351,062	0	944,000,000
Owns Home	0.66	0.47	0	1
Owns Stocks	0.17	0.38	0	1

Source: SCF 1989-2016. 47,821 observations.

* “Can get $3,000” - 2001-2016

** Normal Income - 1995-2016