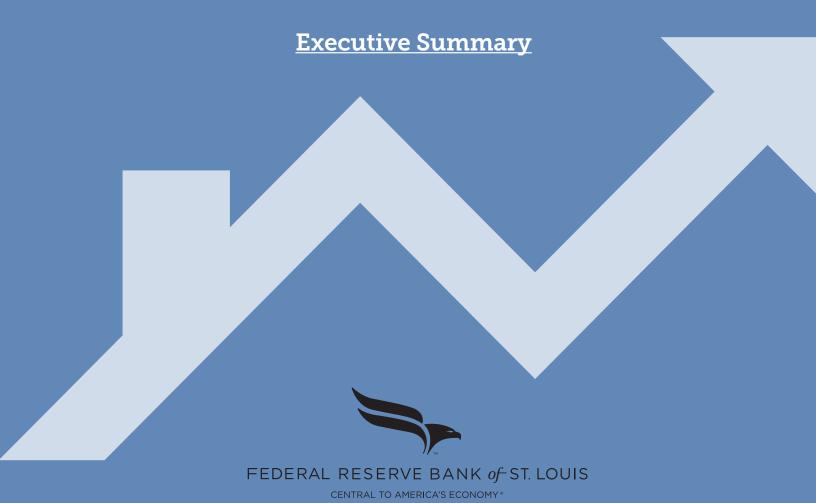
The Demographics of Wealth

2018 Series

The Bigger They Are, The Harder They Fall: The Decline of the White Working Class

Essay No. 3: Race, Ethnicity, and Education | September 2018



About the Center for Household Financial Stability

The Center for Household Financial Stability at the Federal Reserve Bank of St. Louis focuses on family balance sheets, especially those of struggling American families. The Center researches the determinants of healthy family balance sheets, their links to the broader economy and new ideas to improve them. The Center's original research, publications and public events aim to impact future research, community practice and public policy. For more information, see www.stlouisfed.org/hfs.

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An Introduction to the Series

The Demographics of Wealth

How Education, Race and Birth Year Shape Financial Outcomes

By William R. Emmons, Ana H. Kent and Lowell R. Ricketts

Tncome and wealth rebounded for many \perp families between 2013 and 2016, the dates of the two most recent waves of the Federal Reserve's Survey of Consumer Finances (SCF). Groups that had struggled the most during and after the Great Recession, including less-educated, Hispanic and black, and young families, participated in the recovery. Nonetheless, long-standing income and wealth gaps across education levels, races and ethnicities, and age groups remain large.

This is the third in a series of three new essays that the **Center for Household Financial Stability** is publishing on how a family's demographic characteristics including educational attainment, race and ethnicity, and birth year—are related to the family's financial outcomes. Like the previous essay series published in 2015, the 2018 series focuses on these three key demographic dimensions in turn. An important new feature of the 2018 series is the inclusion of two generations of educational data for each family. In addition to the educational attainment of the SCF respondent, the 2016 SCF for the first time contains detailed information on the respondents' parents' education. This new information reveals even more clearly that inherited demographic characteristics your race or ethnicity, your age and birth

year, and even your parents' level of education—profoundly shape the economic and financial opportunities you have and the outcomes you achieve.

As before, our primary data source is the triennial SCF, which provides the most comprehensive picture available of American families' balance sheets and financial behavior over time. In some of our analyses, we use information from 47,776 families, each of which was surveyed in one of 10 survey waves between 1989 and 2016. When we focus on the education of SCF respondents' parents, we draw upon data collected from 6,248 families in 2016. In every case, the SCF has been designed to be nationally representative, so we can safely generalize about the population as a whole.

As we documented three years ago, demographic characteristics remain remarkably powerful in predicting a family's income and wealth. By expanding the scope of inherited demographic characteristics to include parents' education, we believe the **2018 Demographics of Wealth series** sheds additional light on the deeply rooted sources of economic and financial disparities. Fruitful approaches to policy should be based on the facts established here.

Executive Summary of Essay No. 3

This essay explores the intersection of race, eth- \perp nicity and education, which we use as a proxy for class. We examine five measures of well-being between 1989 and 2016, the range spanned by the Federal Reserve's Survey of Consumer Finances.

We document three main findings:

1. Large racial and ethnic gaps in a range of measures of well-being lessened solely because of improvements for nonwhite families without college degrees. Over time, nonwhite working class families—those without a four-year college degree—became more similar to working class non-Hispanic whites in terms of family income and wealth. This also was true of the likelihood of being a homeowner, of being married or cohabiting and of reporting good or excellent health.

Conversely, families headed by someone with a four-year college degree who identified as non-Hispanic black or Hispanic of any race fell further behind similarly educated white families on all of those measures. More families are working class than college educated, so declining gaps are evident in the population as a whole.

- 2. The white working class has declined both in size and relative well-being. Uniquely among major socioeconomic groups, the white working class decreased in absolute numbers and population share in recent decades. At the same time, the five measures of well-being we tracked all deteriorated for the white working class relative to the overall population. The shares of all income earned and wealth owned by the white working class fell even faster than their population share. (See Figure 1.)
- 3. Neither race nor education is sufficient alone to explain the decline of the white working class.

White college graduate families are doing very well, suggesting that factors related to identifying as white are not sufficient to explain the decline. Education and class also don't provide a full explanation: Hispanic and black working class families made some progress on many measures, while the white working class regressed.

A more plausible explanation for the decline of the white working class is their diminishing set of advantages relative to nonwhite working class families in terms of high school graduation rates, access to relatively high-paying jobs, and freedom from explicit workplace discrimination.

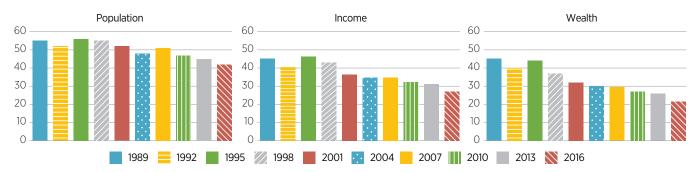


Figure 1: White Working Class Share of Population, Income and Wealth (percent)

The income and wealth bar graphs in Figure 1 have been updated for accuracy.

The sources for all the tables and figures are the Federal Reserve's Survey of Consumer Finances and authors' calculations.

The Bigger They Are, The Harder They Fall: The Decline of the White Working Class

By William R. Emmons, Ana H. Kent and Lowell R. Ricketts

ace and class remain defining demographic $oldsymbol{ extstyle ex$ explores the socioeconomic implications of the intersection of race, ethnicity and class. We provide both a broad overview of trends in well-being between 1989 and 2016, as well as a detailed investigation of a singularly important group—the white working class, which we define as families headed by a non-Hispanic white person without a fouryear college degree.1

We focus attention on the white working class for several reasons: first, because this group is by far the largest among the subgroups formed by race and education levels; second, because the group's outcomes have diverged from otherwise similar groups in some respects; and third, because it is the focus of intense scholarly discussion and popular discourse.2

To explore long-term socioeconomic changes along race and class lines, we track five measures in the Federal Reserve's triennial Survey of Consumer Finances (SCF): family income; family wealth; the share of a group that is made up of homeowners; the share of respondents married or cohabiting with another adult of the same or opposite sex; and the share reporting good or excellent health.

The evidence points toward both the tightening and widening of gaps along racial and ethnic lines, depending on how narrowly groups of families are defined. The fate of the white working class turns out to be the key to reconciling what at first appear to be contradictory results.

We show that the white working class is in decline, as measured by a broad set of indicators. Which aspect of the white working class's identity is responsible for its decline—class, defined here by college degree status, or race? We conclude that the decline of the white working class cannot be explained by factors related either to race or class alone:

- · As a group, white college graduates are thriving, so identifying as white is not itself a sufficient explanation for decline.
- Nonwhite working classes showed improvements in a range of measures of well-being over time, while the white working class had declines, so lack of a college degree likewise is not definitive.

We suggest the broad-based decline that is unique to the white working class may be due in part to the group's loss over time of advantages it once enjoyed relative to those of nonwhite working classes. These included more years of education and plentiful high-paying jobs available in white working class communities. And, as the explicit discrimination minorities faced in the workplace has diminished, so has the advantage that it had given the white working class. As these advantages eroded, income, wealth and other measures of well-being also may have weakened.

The essay has four parts. In **Section I**, we provide an overview of income and wealth trends since 1989 among the major racial and ethnic groups in the U.S., using data from the SCF. We describe median family income and wealth trends, as well as changes in the shares of total income earned and wealth owned by each racial or ethnic group. Share comparisons take into account the changing composition of the population, notably the declining share made up of white—and especially white working class families. We also track changes in the share of families in each group that owned their own homes, were married or cohabiting and reported good or excellent health.

Section II combines each SCF respondent's education level with his or her race or ethnicity to form six major socioeconomic groups—three racial or ethnic groups subdivided by four-year college degree status (completed or not).3 Trends in median income, median wealth, income and wealth shares and three nonfinancial measures illustrate the unusual decline of the white working class. The black and Hispanic working classes generally show improvement over time, while their college-educated peer families show declines.

Section III takes a closer look at the white working class to uncover similarities to and differences among related groups. We compare the white working class both to whites with college degrees and to nonwhite working classes. We offer tentative explanations for the patterns we document but leave detailed exploration to future research.4 Section IV concludes.

I. Overall, Racial and Ethnic Gaps in Well-Being Measures are Shrinking

Convergence—that is, narrowing gaps—of economic, financial and other socioeconomic measures of well-being by Hispanic (of any race), non-Hispanic African-American or black (henceforth "black") and other nonwhite (henceforth "other-race") families toward levels enjoyed by non-Hispanic white (henceforth "white") families has been slow and uneven since 1989, but it is unmistakable nonetheless.5

Median family income and median family net worth (i.e., wealth) generally increased over the 27-year span covered by our data. 6 Gaps between white and all nonwhite family groups' median incomes and wealth levels decreased. (See Table 1.)

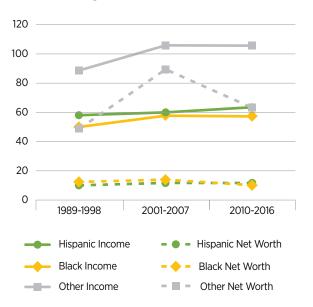
The median income of other-race families even surpassed the white median.7 (See Figure 2.) We documented these trends through 2013 in the 2015 Demographics of Wealth series and update them here using data through 2016.8

Table 1: Median Income and Net Worth

Race/ ethnicity	Year	Median income	Percentage of whites' income	Median net worth	Percentage of whites' net worth
White	1989	\$56,900	-	\$134,300	-
	2016	\$60,800	-	\$162,600	-
Black	1989	\$21,400	38	\$8,000	6
	2016	\$35,400	58	\$16,400	10
Hispanic	1989	\$27,700	49	\$9,500	7
	2016	\$39,900	66	\$21,600	13
Other	1989	\$41,700	73	\$66,200	49
	2016	\$63,400	104	\$100,200	62

NOTES: Incomes are rounded to the nearest \$100. All dollar figures are adjusted for inflation using the Consumer Price Index for All Urban Consumers Research Series.

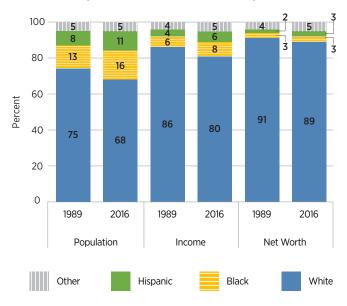
Figure 2: Median Family Income and Net Worth as a Percentage of Whites' Medians



NOTES: The 10 individual SCF waves were combined into three time periods to reduce the effect of sampling variability and to better observe long-term trends. Estimates use standardized income and net worth. See the appendix for details.

The sources for all the tables and figures are the Federal Reserve's Survey of Consumer Finances and authors' calculations. All figures in this essay refer to families, not individuals. Because average family sizes differ across race and ethnicity, population shares by family are different from shares of individuals. Totals may not equal 100 percent because of rounding.

Figure 3: Shares of Households in Population, Total Family Income, and Total Family Net Worth



NOTE: Numbers may not equal 100 percent because of rounding.

Table 2: Other Indicators of Well-Being

	1989- 1998	2001- 2007	2010- 2016	Change between early and late periods (% points)	Net improve- ment vs. white households?			
Homeownership rate (percent)								
White	70.8	74.9	73.2	2.4	N/A			
Black	43.7	48.8	45.1	1.4	No			
Hispanic	42.2	47.3	45.5	3.3	Yes			
Other	53.6	58.7	57.9	4.2	Yes			
Marriage or cohabitation rate (percent)								
White	61.5	61.6	60.5	-0.9	N/A			
Black	34.0	37.7	37.3	3.3	Yes			
Hispanic	64.5	66.1	61.3	-3.2	No			
Other	60.0	66.0	62.7	2.7	Yes			
Healthy share (percent)								
White	78.1	76.6	74.6	-3.5	N/A			
Black	66.1	69.6	67.9	1.8	Yes			
Hispanic	67.8	67.9	71.4	3.6	Yes			
Other	74.6	77.3	72.4	-2.2	Yes			

NOTES: The 10 individual SCF waves were combined into three time periods to reduce the effect of sampling variability and to better observe long-term trends. See the appendix for details. Numbers have been rounded. The differences in values noted in the "Change" column were calculated before rounding.

The sources for all the tables and figures are the Federal Reserve's Survey of Consumer Finances and authors' calculations.

Figure 3 shows how population, income and wealth shares changed between 1989 and 2016. The share of total income and total wealth owned by whites declined but became even more disproportionate to their share in the population. White families remain the largest racial or ethnic group in the United States by far. While the representation of both Hispanic and black families grew noticeably, their income and wealth didn't increase as much because their average incomes and wealth are low.

Table 2 summarizes three nonfinancial measures of well-being by race and ethnicity. Homeownership was more common in the latest period (2010-16) than in the earliest period (1989-98) among all four groups. The Hispanic and other-race homeownership rates increased by more than the white rate, while the increase was slightly less among blacks.

Black and Hispanic marriage or cohabitation rates came closer to the white rate over time, albeit from different directions. The other-race group went from slightly below to slightly above the white rate. Finally, self-reported good or excellent health of all nonwhite groups came closer to the white level over time.9

In sum, there is evidence of declining racial and ethnic gaps in family income, family wealth, homeownership, marriage rates and self-reported health. When we take college degree status into account, however, the picture becomes more complex.

II. Racial and Ethnic Gaps Are Closing Only among the Working Class¹⁰

Racial and ethnic gaps in well-being turn out to be narrowing only among working class (nongraduate) groups. Gaps actually have increased between groups of college graduates by race and ethnicity; white college graduates are faring much better than their black or Hispanic peers. 11

The existence of those growing gaps does not negate or reverse the overall conclusion of racial and ethnic convergence because working class families are much more numerous and the patterns they exhibit dominate the population statistics.

Distinguishing between families with and without college degrees reveals another complication: Whether college graduates are pulling away from

Sidebar 1: Family Income and Wealth

o measure income for the SCF, the interviewers requested information on the family's cash income, before taxes, for the full calendar year preceding the survey. The components of income in the SCF are wages, self-employment and business income, taxable and tax-exempt interest, dividends, realized capital gains, food stamps and other related support programs provided by government, pensions and withdrawals from retirement accounts, Social Security, alimony and other support payments, and miscellaneous sources of income for all members of the primary economic unit in the household. All income figures were adjusted for inflation to be comparable to values recorded in 2016.

Wealth is a family's net worth, consisting of the excess of its assets over its debts at a point in time. Total assets include both financial assets (such as bank accounts, mutual funds and securities) and tangible assets (including real estate, vehicles and durable goods). Total debt includes home-secured borrowing, or mortgages; other secured borrowing (such as vehicle loans); and unsecured debts (such as credit cards and student loans). Debt incurred in association with a privately owned business or to finance investment real estate is subtracted from the asset's value, rather than being included in the family's debt. All wealth figures were adjusted for inflation.

working class families of the same race or ethnicity depends on race. Among whites, well-being gaps are growing; among blacks and Hispanics, the gaps are shrinking.

A particularly dramatic way to illustrate the diverging fortunes of white college graduates and the white working class is to track their respective shares of all income earned and wealth owned. Income and wealth shares combine trends in population and average income or wealth. (See Figures 4 and 5.) The trends are virtual mirror images of each other.

We first illustrate the complexities of race and class before proposing explanations in the next section for the crosscurrents we observe. The white working class and its relationship to nonwhite working classes turn out to be keys to the complex patterns revealed by the data.

Figure 4: Share of Total Family Income for Whites by Education (percent)

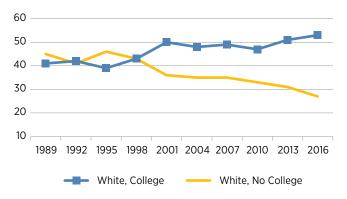
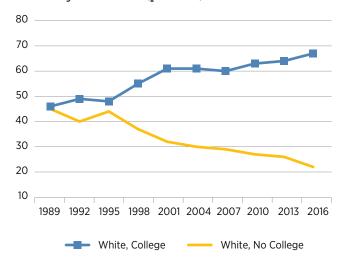


Figure 5: Share of Total Family Net Worth for Whites by Education (percent)



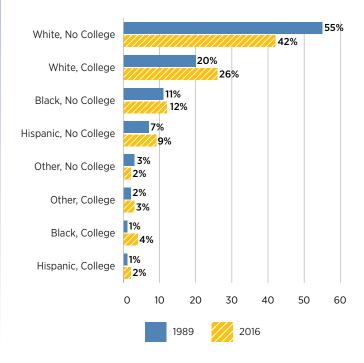
Sidebar 2: SCF Sample Sizes and Sampling Variability

isaggregating families into four or eight groups of unequal size means that the number of families interviewed was very small in some cells in some years. This adds a significant amount of sampling variability to the estimates reported here.

Nonwhite groups with college education are most subject to this small-sample variability; this is particularly true in the early years of the sample and should be kept in mind when viewing the data.

To reduce the effect of sampling variability caused by very small cell sizes and to better view long-term trends, we combined individual SCF waves into three time periods, as described in the appendix.

Figure 6: Share of Families in Population (percent)



The sources for all the tables and figures are the Federal Reserve's Survey of Consumer Finances and authors' calculations.

Population shares. The white working class made up by far the largest group of families defined by race, ethnicity and college degree status in 1989; they accounted for 55 percent of all families. (See Figure 6.) By 2016, the white working class share had dropped a sizable 13 percentage points. Meanwhile, white college graduate families increased by 6 percentage points. Most other groups increased as the white working class shrank.

Median incomes. Median family incomes of college graduates of all races and ethnicities are significantly higher than those of their noncollege-educated counterparts of the same race and ethnicity. Moreover, there are income gaps across races and ethnicities at the same education level. The result is a wide range of typical incomes earned by families when they are grouped by race, ethnicity and education.

The \$43,300 median income among white working class families in the 1989-98 period, for example, was about half the median income among white college-educated families (\$86,100) and almost twice as high as the median income among black working class families (\$22,200). By 2010-16, the

former gap had grown while the latter gap had shrunk.

Figure 7 shows the median incomes of college graduate families by race and ethnicity relative to the overall population median over time. Black college graduate families' median income grew at a slower pace than the overall population median from the early (1989-98) to middle periods (2001-07). Both Hispanic and black college graduate families' median incomes declined relative to the overall population median after the middle period (2001-07). Median white college graduate family incomes, on the other hand, grew faster than the population median throughout the entire sample period. Thus, typical incomes diverged between white and nonwhite college graduates.

Figure 8 shows virtually the opposite pattern among families without college degrees. Hispanic and black median family incomes grew faster than the overall population median, while white median family incomes declined slightly relative to the overall rate. As a result, median incomes across race and ethnicity were closer together in the late period than in the early period.

Figure 7: Median Income Relative to Population Median, College Graduate Families

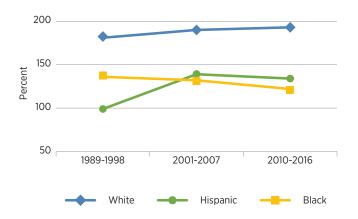
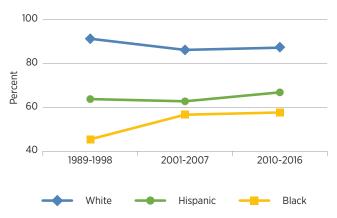


Figure 8: Median Income Relative to Population Median, Noncollege-Graduate Families



NOTE: In Figures 7-10, the 10 individual SCF waves were combined into three time periods to reduce the effect of sampling variability and to better observe long-term trends. See the appendix for details.

Median net worth. Wealth gaps, already large when comparing different races and ethnicities, are even larger when taking educational attainment into account.12 Among all families, white median wealth was 10 times black median wealth in 2016.

When college degree status is taken into account:

- The largest gap was between white college families and noncollege-graduate black families, with the white families' having 35 times more median wealth.
- White college graduate families had about six times more wealth than their black counterparts.
- White working class families had nine times more wealth than their black counterparts.

Figure 9 shows dramatic divergence of median wealth levels across race and ethnicity among college graduates, especially between the middle and late periods. It includes the loss of ground in Hispanic and black median wealth due to the Great Recession and rapidly rising median wealth for white college graduate families.

As was true for income, the pattern across

Figure 9: Median Net Worth Relative to Population Median, College Graduate Families

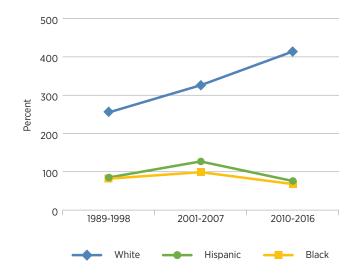


Figure 10: Median Net Worth Relative to Population Median, Noncollege-Graduate Families

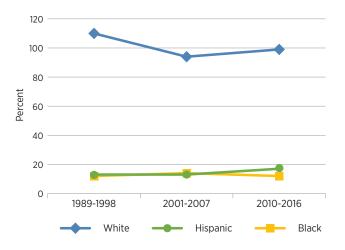


Table 3: Other Indicators of Well-being, College Graduates Only

	1989- 1998	2001- 2007	2010- 2016	Change between early and late periods (% points)	Net im- provement vs. white college graduates?		
Homeownership rate (percent)							
White	74.5	81.8	80.4	5.9	N/A		
Black	61.0	69.4	59.9	-1.0	No		
Hispanic	56.6	65.7	56.5	-0.1	No		
Other	54.8	64.7	64.6	9.8	Yes		
Marriage o	or cohabita						
White	66.3	69.1	66.4	0.1	N/A		
Black	46.6	44.7	36.7	-9.9	No		
Hispanic	57.0	67.8	49.3	-7.7	No		
Other	67.4	72.1	68.8	1.4	Yes		
Healthy share (percent)							
White	89.6	89.6	87.2	-2.4	N/A		
Black	88.8	86.2	81.2	-7.7	No		
Hispanic	80.1	80.7	85.5	5.4	Yes		
Other	88.5	85.4	84.4	-4.1	No		

NOTES FOR TABLES 3 AND 4: The 10 individual SCF waves were combined into three time periods to reduce the effect of sampling variability and to better observe long-term trends. See the appendix for details. Numbers have been rounded. The differences in values noted in the "Change" column were calculated before rounding.

The sources for all the tables and figures are the Federal Reserve's Survey of Consumer Finances and authors' calculations.

race and ethnicity in median wealth holdings of working class families tells a different story from that of college graduates. (See Figure 10.) Hispanic median wealth grew slightly faster than the population median over the sample period, while white median family wealth lost ground relative to the population median. Median wealth levels across race and ethnicity were a bit closer together in the late period than in the early period.

Shares of total income and wealth. As previously shown in Figure 4, white college graduates' share of income increased from 41 percent in 1989 to 53 percent in 2016, despite their increase in population share of only 6 percentage points. At the same time, working class whites' decline in total income share, from 45 to 27 percent, exceeded even their population-share decline, reflecting substantially sharper declines in average incomes than in the population as a whole. Collectively, all nonwhite groups earned 14 percent of all income in 1989, rising to 20 percent in 2016.

The decline in share of total wealth owned by working class whites is even more stunning than their falling income share:

- In 1989, working class whites and white college graduates owned nearly the same share of all wealth-45 percent and 46 percent, respectively.
- By 2016, white college graduate families' share of all wealth was three times that of working class white families - 67 percent to 22 percent, respectively. (See Figure 5.)

Most other groups (not shown in figures) experienced little change—between 0.1 and 1.4 percentage points—in their shares of total wealth. As with income, these shares each remained under 5 percent. Collectively, nonwhite families owned 9 percent of all wealth in 1989, with the percentage rising to 11 percent in 2016.

Nonfinancial measures' similar patterns.

With few exceptions, trends in the nonfinancial measures of well-being we tracked mimicked those for income and wealth. Table 3 summarizes three nonfinancial measures of well-being by race and ethnicity among college graduates.

Homeowners as a share of white college graduate families increased by almost 6 percentage points between the early and late periods. Their marriage rate remained steady and the share of white college graduate families reporting good or excellent health declined slightly but remained the highest level reported by any group.

Among black and Hispanic college graduates, homeownership and marriage rates declined. Trends were generally more favorable among other-race college graduates. Self-reported good or excellent health decreased among black college graduates, although not among Hispanics.

Table 4 summarizes the three nonfinancial measures of well-being by race and ethnicity among families without college degrees. Among working class families, whites slipped on all three measures. Black and Hispanic working class metrics generally improved. Even though the marriage rate slipped among Hispanic working class families, it declined less than it did among white working class families and it remained higher than the white rate. Trends generally were poor among other-race working class families.

III. Why Is the White Working Class in Decline?

Until recently, the white working class arguably constituted the economic and political backbone of the country. 13 Today, the white working class is greatly diminished. Alone among major socioeconomic groups defined by race, ethnicity and college degree status, the white working class shrank not only as a share of the population but even in absolute numbers over the past two decades. Their long-term economic and financial declines are even steeper.

To gauge whether the decline of the white working class has been driven primarily by factors associated with race or education, we compared the group first to white college graduate families and then to working classes of other races and ethnicities. We conclude that neither race nor education in isolation is sufficient to explain the trends we have documented.

Comparison with white college graduate families. If race—more specifically, being non-Hispanic white—is the key demographic factor behind the decline of the white working class, we

Table 4: Other Indicators of Well-being, Working Class Only

	1989- 1998	2001- 2007	2010- 2016	Change between early and late periods (% points)	Net im- provement vs. white working class?			
Homeownership rate (percent)								
White	69.4	71.6	69.2	-0.2	N/A			
Black	41.0	44.3	41.1	0.0	Yes			
Hispanic	40.8	45.0	43.6	2.8	Yes			
Other	53.1	52.2	50.5	-2.6	No			
Marriage or cohabitation rate (percent)								
White	59.5	58.0	57.3	-2.3	N/A			
Black	32.1	36.2	37.5	5.4	Yes			
Hispanic	65.2	65.9	63.4	-1.8	Yes			
Other	56.4	59.4	56.0	-0.5	Yes			
Healthy share (percent)								
White	73.4	70.4	67.5	-5.9	N/A			
Black	62.6	66.1	64.4	1.7	Yes			
Hispanic	66.6	66.2	69.0	2.3	Yes			
Other	68.0	68.2	59.3	-8.6	No			

would expect to see similar, if not identical, patterns in the group of white college graduate families over time.

In fact, trends in the two groups are better described as mirror images of each other than parallel developments, as we documented in Section II. Thus, factors related to race alone do not appear to be a compelling explanation. Diverging trends between white working class and white college graduate families are clear in all of the following indicators; in each case, we compare the early (1989-98) to the late period (2010-16) in our sample:14

- The white working class's median family income declined from 91 to 87 percent of the overall median income, while the white college graduates' median family income increased from 181 to 193 percent. (See Figures 8 and 7, respectively.)
- The white working class's median family wealth declined from 110 to 99 percent of the overall population median wealth, while the white college graduates' median family wealth increased from 255 to 414 percent. (See Figures 10 and 9, respectively.)
- White working class homeownership and marriage rates, as well as self-reported health metrics, all declined while trends in all three measures were more favorable among white college graduates. (See Tables 4 and 3, respectively.)

Comparison with working class families of other races and ethnicities. If an increasing premium associated with a four-year college degree is the primary factor contributing to the decline of the white working class, we would expect the working classes of other races and ethnicities to demonstrate similar trends. As with race, we find that class, as defined by college degree status, also is inadequate by itself to explain the declines experienced by the white working class.

Trends visible among the white working class differ noticeably from those evident among the Hispanic working class and the black working class. Thus, broad economic changes related to four-year college degree status alone do not appear sufficient to explain the decline of the white working class. As before, we compare the early (1989-98) to the late period (2010-16) in our sample to document the contrast between the declines and the increases in the white working class measures of well-being and the increases for Hispanic and black working class families.15

- Median income rose by 3 percentage points to 67 percent of the population median for Hispanic working class families, and by 12 percentage points to 58 percent for black working class families, while the white measure declined from 91 to 87 percent. (See Figure 8.)
- Hispanic working class median wealth increased from 13 to 17 percent of the population median, and the black working class's median wealth held steady at about 12 percent, while the white measure declined from 110 to 99 percent. (See Figure 10.)
- Among working class families, all nonfinancial metrics improved for black and Hispanic families except for the Hispanic marriage rate, while all three metrics for the white and other-race working classes deteriorated. (See Table 4.)

Conclusions from cross-education and *cross-race/ethnicity comparisons.* Evidence from all of the indicators we considered in this essay casts doubt on factors related either to race or education alone as singular explanations for the decline of the white working class. White college graduate families are doing very well, suggesting

that a "white disadvantage" or "reverse discrimination" theory is not a plausible explanation.

As for education or class as an explanation, Hispanic and black working classes, while still clearly disadvantaged in many respects, are making broad-based progress over time, while the white working class has slipped. Thus, the economic disadvantages associated with not having a fouryear college degree—while clearly present—do not appear solely responsible for the deterioration in well-being for the white working class.

A more plausible set of explanations combines race and education; that is, the group's unusual outcomes may be the result of circumstances unique to the white working class.

It is possible that the loss over time of advantages enjoyed by members of the white working class over Hispanic and black working class families may be contributing to their relative decline. While not conclusive, developments that may have adversely affected the white working class (through the lessening of previous advantage) include:

- Rising high school graduation rates and postsecondary school attendance among blacks and especially Hispanics, decreasing racial and ethnic education gaps and increasing competition for low- and medium-skill jobs;16
- Structural changes in the economy, including globalization, the China trade shock, de-industrialization and technological advancement, which may have disproportionately reduced job opportunities in white working class communities:17
- Increased enforcement of antidiscrimination laws and the declining significance of explicit racial and ethnic discrimination in the labor market.18

These changes, together with ongoing trends in the labor market favoring workers with collegelevel skills, suggest mechanisms that could explain weak income and wealth growth among the white working class. As incomes and wealth stagnated, other socioeconomic indicators (homeownership, marriage or cohabitation, and health) also may have deteriorated.

IV. Summary and Conclusions

This essay documented the changing income and wealth of American families since 1989 along racial and ethnic lines, as well as by college degree status. We paid particular attention to the decline of the white working class, which remains the single largest socioeconomic group in the U.S. by far.

There is evidence of racial and ethnic convergence at the broadest level across a range of indicators. Moreover, whites declined as a share of all families between 1989 and 2016, while all other major groups increased. Nonetheless, the share of all income earned and wealth owned by white families became even more disproportionate, and other key socioeconomic indicators generally remained more favorable for whites than for other groups.

We showed that the convergence seen across racial and ethnic lines on many indicators is due entirely to trends among noncollege graduates, who made up two-thirds of all families in 2016. We suggested that nonwhite families' starting to "catch up" to whites' economic standing and levels of socioeconomic well-being may be related to adverse developments within the white working class.

This group's vital indicators have declined relative both to white families with college degrees and to nonwhite working class families. We suggest that the long-term decline of the white working class may be due, in part, to the reduction over time of their previous advantages over nonwhite working classes. Rising Hispanic and black high school graduation rates, structural changes in the economy impacting white working class communities and the decline of explicit racial discrimination in the workplace all may have increased competition for jobs traditionally held by members of the white working class. Corroborating evidence from several nonfinancial indicators of well-being testifies to the distress being experienced by many members of the white working class.

Appendix

Grouping and Standardization of the Data

To increase the cell sizes of very small groups (e.g., Hispanic college graduates) and to make long-term trends easier to see, we grouped the 10 SCF waves into three periods:

- 1989, 1992, 1995 and 1998, which we term the early period (15,653 families);
- 2001, 2004 and 2007, which we term the middle period (13,378 families); and
- 2010, 2013 and 2016, which we term the late period (18,745 families).

This grouping method was used for Tables 2-4 and Figures 2 and 7-10.

Our aim was to preserve the population representativeness of the individual survey waves while combining observations on income and wealth from different years. To do so, we first transformed each family's income and wealth into standardized measures for that survey year (i.e., the ratio of actual income or wealth to median or mean income or wealth in that year).

Then we calculated medians and means of standardized income and wealth for groups in a particular period (early, middle or late). The statistical representativeness of the individual survey waves would be lost without that standardization before the observations are pooled into multiyear groups.

All SCF data are expressed in dollars of constant purchasing power using the Consumer Price Index for All Urban Consumers Research Series so inflation does not affect pooling across different years.

For homeownership rates, marriage or cohabitation rates, self-assessed health status, and income and wealth shares, we simply pooled the individual year observations into periods. We did not standardize them first because the sample weights were representative of the population in each SCF year and contiguous surveys were of approximately the same size.

We calculated standardized income and net worth as follows:

$$\frac{O_{i,y}}{\overline{X_{y}}}$$

where O_{iv} is observation i in year y; and $\overline{X_y}$ is the median in year y being standardized. We used the standardization for white median income and net worth (Figure 2), population median income (Figures 7 and 8), and population median net worth (Figures 9 and 10). Period medians for each group (race/ethnicity and education) are then calculated on these standardized statistics.

This approach yields estimates that are within 3 percentage points of estimates using a nonstandardized approach. We believe our approach is more accurate because it allows for trends across individual years to be taken into account while still combining results into three periods, so that longterm patterns are clear. When these figures are mentioned in the text, the numbers refer to the standardized estimates.

Endnotes

- 1 Scholars typically define class by education, occupation, income, self-identification, aspirations and/or other criteria. Because education level is established in early adulthood and remains fixed thereafter for most people, we use only education here. See Abramowitz and Teixeira (2009).
- 2 An internet search of the term "white working" class" brings up hundreds of recent books and articles on the topic.
- 3 Our main discussion follows white, black and Hispanic families. We also report on the otherrace group when its outcomes are of particular interest.
- 4 Other important demographic dimensions we do not discuss in this essay, but which may be important, are age and the closely related but distinct concept of birth year, or generation. See Emmons, Kent and Ricketts (May 2018a).
- The "other" category includes Asians, American Indians, Alaska Natives, Native Hawaiians, Pacific Islanders, other races and respondents who report more than one racial identification. Because of confidentiality concerns, responses for all of these groups are combined, and further disaggregation by race and ethnicity is unavailable. Classification is based on respondents' selfreported identification. All population figures cited in this essay refer to families, not individuals. Because average family sizes differ across race and ethnicity, population shares by family are different from shares of individuals. Totals may not equal 100 percent because of rounding.
- 6 See Sidebar 1 for the definitions of income and wealth in the SCF. Median income (net worth) is the income (net worth) earned (owned) by the family exactly in the middle of its distribution. Using the median reduces the influence of extreme observations and sampling variability, which is discussed in Sidebar 2.
- To make longer-term trends easier to see and to reduce the effect of sampling variability, we combined the 10 individual SCF waves into three periods for some of our analysis. See the appendix for details.
- 8 See Emmons and Noeth (2015a).
- 9 The SCF asks respondents to rate their own health on a five-point scale. We grouped the

- two highest responses—"good" and "excellent" to form an indicator of good health. Self-reported health status is a strong predictor of objective health status and various health outcomes, including mortality. See Mossey and Shapiro (1982).
- 10 In this section, we discuss only white, black and Hispanic families, except when trends in otherrace families are of particular interest. The other-race group of families is relatively small and heterogeneous, so the data are noisy and somewhat difficult to interpret. In general, levels and trends for other-race families are more similar to those of whites with the same education level than to those of similarly educated black or Hispanic families.
- 11 See Emmons and Noeth (2015b) and Emmons and Ricketts (2017) for extensive discussions of income and wealth trends among Hispanic and black college graduates. Hispanic and black college graduate families have earned lower incomes than whites with the same level of education and on average they suffered large wealth losses during and after the Great Recession.
- 12 See Emmons, Kent and Ricketts (February and May 2018a).
- 13 See Draut (2016).
- 14 All of these comparisons are based on the standardized data described in the appendix.
- 15 Again, these comparisons are based on the standardized data described in the appendix.
- 16 See National Center for Education Statistics (2017).
- 17 See Autor, Dorn, Hanson and Majlesi (2017), and Autor, Dorn and Hanson (2017).
- 18 See Fryer (2011). Tables 1 and 2 show regressions of wages and unemployment on race, age and an assessment of skills for the 1979 and 1997 National Longitudinal Survey of Youth cohorts. The labor market outcomes were observed in 2006. A comparison of the coefficients related to race suggests that the potential effect of discrimination had declined for the 1997 cohort relative to the 1979 cohort. Assuming that explicit discrimination in the workplace didn't increase for minority workers since 2006, this generally supports the suggestion that explicit discrimination declined between 1989 and 2016

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