The Great Recession and Racial Inequality: Evidence from Measures of Economic Well-Being

Thomas Masterson[*], Ajit Zacharias[*], Fernando Rios-Avila[*], and Edward N. Wolff[†]

Draft only: Do Not Cite

Abstract

The Great Recession had a tremendous impact on low-income Americans, in particular Black and Latino Americans. The losses in terms of employment and earnings are matched only by the losses in terms of real wealth. In many ways, however, these losses are merely a continuation of trends that have been unfolding for more than two decades. We examine the changes in overall economic wellbeing and inequality, as well as changes in racial economic inequality over the Great Recession, using the period from 1989 to 2007 for historical context. We find that while racial inequality has increased overall, during the Great Recession racial inequality in terms of LIMEW has decreased. We find that changes in base income, taxes and income from non-home wealth during the Great Recession produced declines in overall inequality, while only taxes reduced between-group racial inequality.

Acknowledgements:

Financial support for the production of some of the estimates used in this paper was provided by the Sloan Foundation. The estimates used in the analysis in this paper were partly the product of the work of Selcuk Eren, Melissa Mahoney, and Hyunsub Kum. Travis Bostick and Devon Scarlett contributed research assistance.

Corresponding author: Thomas Masterson, masterso@levy.org

---

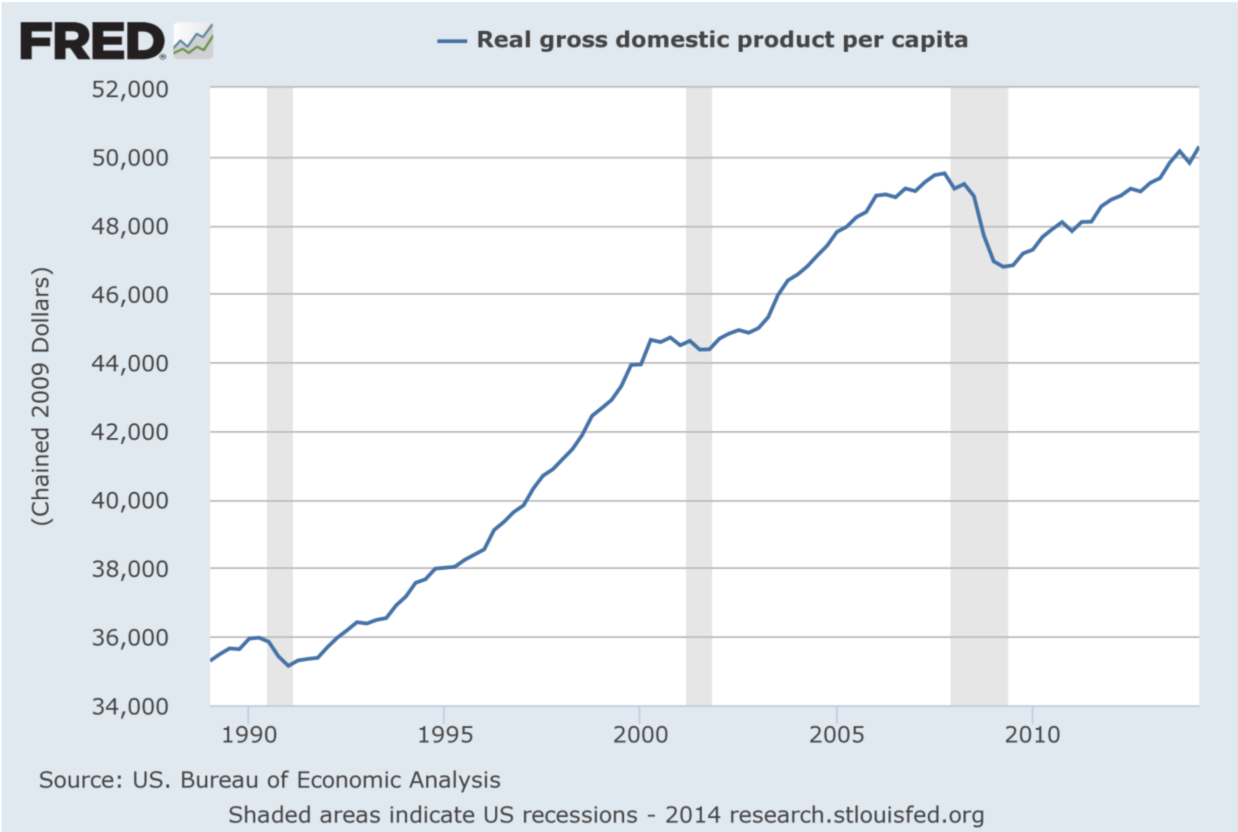
[*] Levy Economics Institute of Bard College
[†] New York University

Introduction

Economic disparities between racial groups in the United States have in some ways undergone profound transformations over the last half-century, while in other ways things remain the same. The Great Recession and especially the housing bubble the collapse of which produced the financial crisis and recession had decidedly unequal effects on different racial groups. In this paper we trace racial economic inequality over the last two decades, with particular emphasis on the period between 2007 and 2010. This period includes the official beginning and end of the Great Recession (measured as usual in terms of economic growth), the election of the first Black President of the United States, and the enactment of a very large fiscal stimulus aimed at reversing the downturn in employment.

Unlike the previous two recessions, the Great Recession was long, lasting one and a half years, and deep, with real gross domestic product per capita falling by 5.5 percent (see Figure 1). Recovery has been slow, as well. It took over four years to recover the level achieved in the fourth quarter of 2007. Four years after both the 1990 and 2000 recessions, the real GDP per capita had grown by more than 8 percent. Real GDP per capita is not necessarily the best indicator of the trend in household economic well-being. Changes in employment are much more important for individual households than overall economic growth.

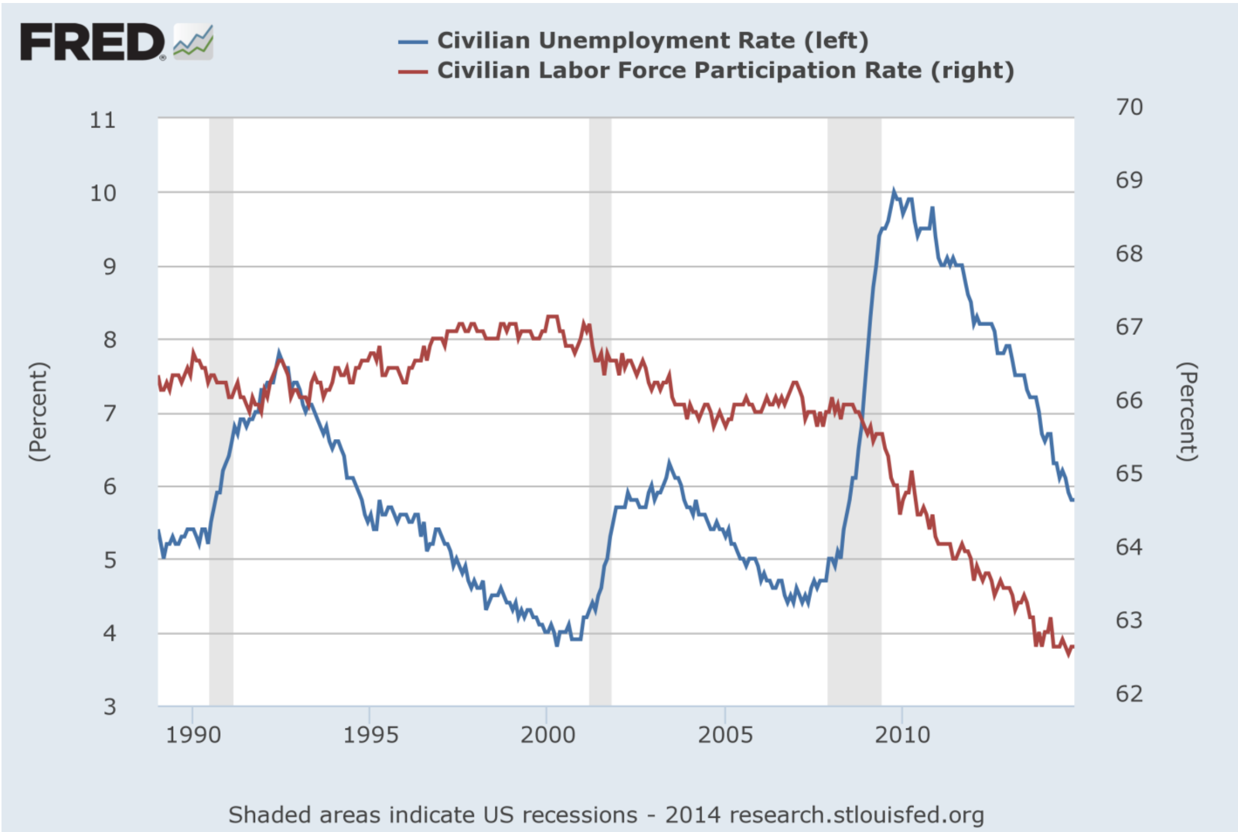
Figure 1 Real GDP per capita, 1989 - 2014



Source: US. Bureau of Economic Analysis, Real gross domestic product per capita [A939RX0Q048SBEA], retrieved from FRED, Federal Reserve Bank of St. Louis https://research.stlouisfed.org/fred2/series/A939RX0Q048SBEA/, December 17, 2014.

As we can see in Figure 2, below, the headline unemployment rate has still not recovered to its pre-recession level. In May of 2005, U.S. unemployment stood at 4.4 percent. It peaked in October of 2009 at 10 percent and has since dropped to 5.8 percent by November of 2014. However, there has also been a drastic reduction in labor force participation, which had been 66 percent in May of 2007 and in November 2014 was 62.8 percent. Recent analysis suggests that much of this decline may be structural, with much of that coming from the aging of the population (Aaronson et al. 2014). Whatever the reason for the decline in participation, the U.S. employment rate, which had been 63 percent in the summer of 2007, is now just over 59 percent. To the extent that labor income is an important determinant of household economic well-being, this decline in employment will have a negative impact.

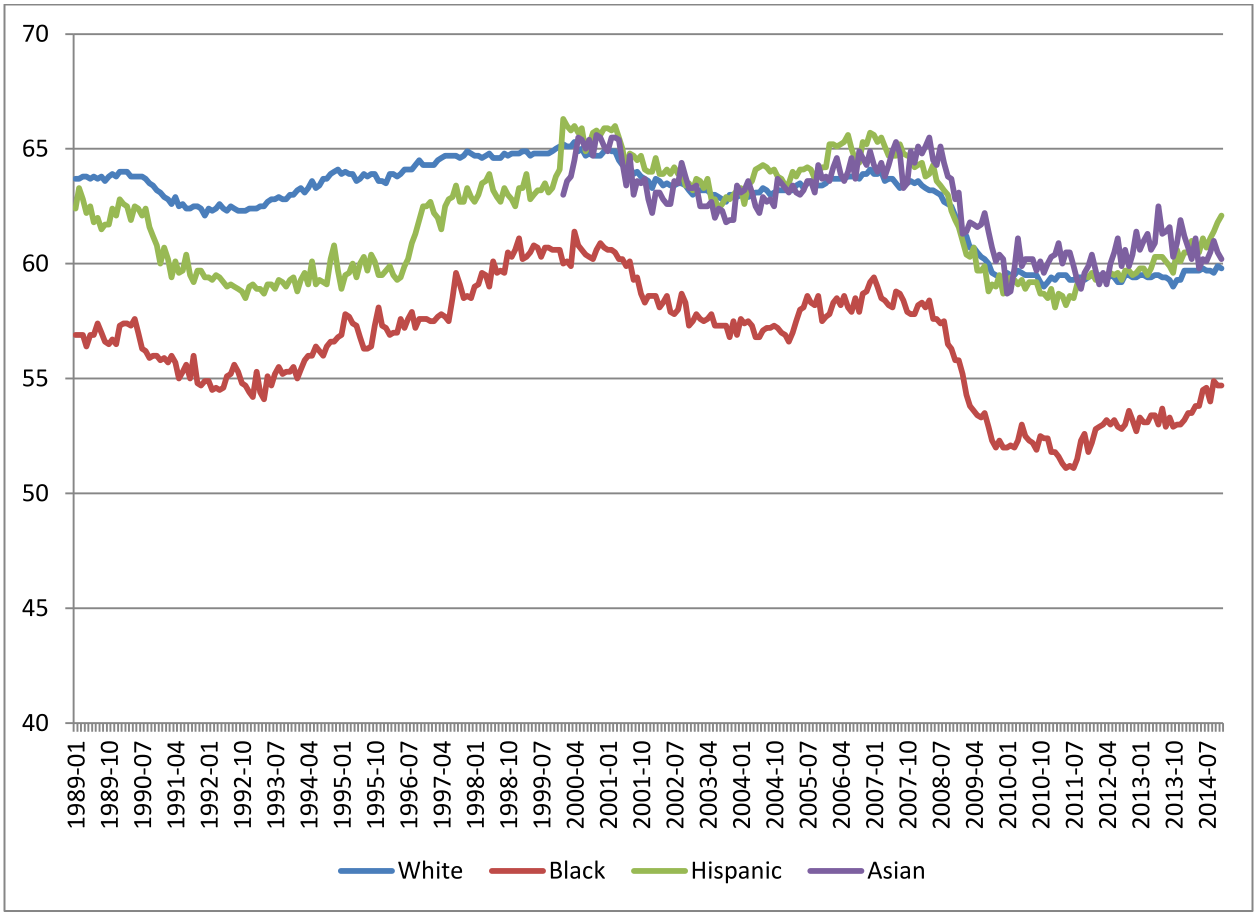
Figure 2 U.S. Unemployment and Labor Force Participation Rate, 1989 - 2014



Source: US. Bureau of Labor Statistics, Civilian Unemployment Rate [UNRATE], retrieved from FRED, Federal Reserve Bank of St. Louis https://research.stlouisfed.org/fred2/series/UNRATE/, December 17, 2014. US. Bureau of Labor Statistics, Civilian Labor Force Participation Rate [CIVPART], retrieved from FRED, Federal Reserve Bank of St. Louis https://research.stlouisfed.org/fred2/series/CIVPART/, December 17, 2014.

Of course if we include race the employment picture becomes more complicated. Figure 3, below, presents the employment population rates for individuals over 16 by race over the last two decades. There is a consistent gap between White, Hispanic and Asian individuals and Black individuals. The size of the gap is cyclical, rising during and shortly after recessions and eventually falling again. The gap never disappears entirely, remaining at or above 5 percent for most of the last two decades.

Figure 3 Employment-Population Ratio by Race, 1989 - 2014[1]



Source: US. Bureau of Labor Statistics, Employment Population Ratio [LNS12300003, LNS12300006, LNS14000009 and LNU02332183], retrieved from Bureau of Labor Statistics http://www.bls.gov/data/#employment, December 17, 2014.

Despite the dismal gap in employment experience, income gaps between white and non-white households have diminished over time. As we will see below, wealth gaps remain almost unchanged. Government policy, both direct transfers and spending on other items such as education, has had an important hand in ameliorating racial disparities. Thus, the measure of economic well-being used is critical in attempting to assess changes in racial disparities, as well as the impact of public policy changes over time. Gross money income (MI) is the official measure of household economic well-being in the United States. But because it omits non-cash transfers (which have become increasingly important over time) and because it is a pre-tax income measure (thus ignoring the distributional impact of tax policy), MI does not adequately

---

[1] Seasonally-adjusted, except for Asian.

reflect households' command over, or access to, the products produced in a market economy over a given period of time. A broader measure is needed.

The Levy Institute Measure of Economic Well-Being (LIMEW) is just such a measure (see Table 1 for a comparison between the LIMEW and MI). In addition to including taxes and non-cash transfers, LIMEW treats wealth as an economic resource, rather than using property income, by annuitizing a household's non-home net worth and including imputed rent on home equity. We refer to the former as income from non-home wealth and the latter as income from home wealth. LIMEW also includes the provision of public goods and the value of household production. Thus, LIMEW is a much more comprehensive measure of household economic well-being than the official measures.

Table 1 Comparison of MI and LIMEW

LIMEW
Money income (MI)
Less: Property income and Government cash transfers
Equals: Base money income
Plus: Income from wealth
Annuity from nonhome wealth
Imputed rent on owner-occupied housing
Less: Taxes
Income taxes [1]
Payroll taxes [1]
Property taxes [1]
Plus: Cash transfers [1]
Plus: Noncash transfers [1, 2]
Plus: Public consumption
Plus: Household production
Equals: LIMEW

Note: (1) Aligned with the NIPA estimates. (2) The government-cost approach is used.

Racial economic inequality has generated a wide range of research in economics, sociology and other social sciences. Much of the literature on racial economic inequality focuses on disparities in labor market outcomes (Altonji and Blank 1999). The bulk of the early literature studying economic disparities between races focused on earnings and income and took a critical stand on the question of human capital differences as the primary source for racial disparity (Wright 1978; Smith and Welch 1979; Darity Jr. 1982; Kaufman 1983). This thread in the study of racial economic inequality ultimately addresses inequalities in household income. While money income is important, the LIMEW, as a more comprehensive measure of household economic well-being, is better-suited to examining the relative impact of money income, wealth, government policy and household production on racial economic inequality, as well as the impact of changes in these components over time.

Some early attention was paid to wealth inequality (Parcel 1982; Brimmer 1988; Blau and Graham 1990; Wolff 1992). *Black Wealth/White Wealth* (Oliver and Shapiro 1995) focused on wealth disparities, while outlining the root causes of wealth inequality in racist policies and institutions. A more recent edition (Oliver and Shapiro 2005) makes the case that wealth inequality had not diminished in the previous decades' flowering of financial wealth. However clear it may be that this wealth disparity is a disadvantage, the magnitude of this disadvantage in comparison to that deriving from disparities in money income and other sources of household economic wellbeing remains unclear. Thus a measure of economic well-being that incorporates wealth directly, such as the LIMEW, gives us a better picture of the impact of racial wealth inequality on overall economic inequality. In terms of measuring wealth disparity by race category, the SCF does have limitations, including the over-sampling of white households implicit in the over-sampling of wealthy households and consequent under-sampling of non-white households, as well as only collecting race information for the reference person (Leigh 2006). This is an important caveat for the analysis here of racial wealth inequality and its contribution to the inequality of well-being.

Less effort has been expended in examining the impact of public policy on racial inequality in household economic welfare. The largest components of government transfers are Social Security, Medicare and Medicaid, most of which affect the elderly. As far as Social Security is concerned, as originally created in the 1930s, it did not cover agricultural workers or domestic servants, which left out many African American and Latino workers until reforms included all workers other than agricultural workers. In addition, greater rates of working 'under the table' for African-American and Latino/a workers means that earnings inequalities translate to even greater inequalities in Social Security income in retirement (Hogan, Kim, and Perrucci 1997). Although Medicare is universally available for the elderly, this does not necessarily imply inequality reduction. The quantity of care for non-whites appears to be lower than for whites (Gornick, et al. 1996). The quality of care for non-whites under Medicare Managed Care programs is worse than that for whites, according to a study in the Journal of the American Medical Association (Schneider, Zaslavsky, and Epstein 2002). Medicaid is no worse than private insurance in terms of racial equity, but this is faint praise: racial inequality in access to health care is endemic (Hall 1998; Lillie-Blanton et al. 2009). In terms of income support programs for low-income households, the impact of the Earned Income Tax Credit has been studied, and although it has been shown to reduce poverty at least for African-American women (Ajilore 2008), its impact on racial inequality is less clear. The largest component of public consumption is education. Spending on education is thought to be unequal along racial lines. For example, in urban areas, segregation leads to unequal spending on education (La Ferrara and Mele 2006).

While all of these studies are important in illuminating pieces of the racial inequality puzzle, LIMEW brings all of these components together into one measure that we can then use to determine their differential impacts on racial inequality at several points over the last fifty years, as well as on the change in racial inequality over time.

In previous work (Wolff, Zacharias, and Masterson 2012), we outlined broad trends in economic well-being between 1959 and 2007. In this paper, we examine trends in differences in economic well-being in the United States by race and focus on the last two decades, especially changes during the Great Recession, incorporating our newest estimates for LIMEW for the year 2010. Due to data limitations, only comparisons of white and non-white are possible for the LIMEW for many years in the series of estimates. The method of statistical matching (Kum and Masterson 2008) used to assemble the LIMEW data set is sensitive to the representativeness of the source data sets. So, for example, the 1989 LIMEW data set comprises information from the 1990 March supplement to the Current Population Survey (CPS) and the 1989 Survey of Consumer Finances (SCF). Neither data set contains sufficient numbers of records to use detailed race and ethnicity in the matching process, so that only white and non-white racial categorizations were used. As a result, the LIMEW data set for 1989 can only claim to accurately represent the distribution of economic well-being among whites and non-whites. While we report trends over the whole period by more detailed racial groupings, the most confidence in these trends is reserved for the estimates from 2004 and onwards. Some of the components of LIMEW (for example, government cash transfers) are amenable to comparison between whites, blacks, Hispanics and others for all years, since they are contained in a single data set that is nationally representative of these racial groups.

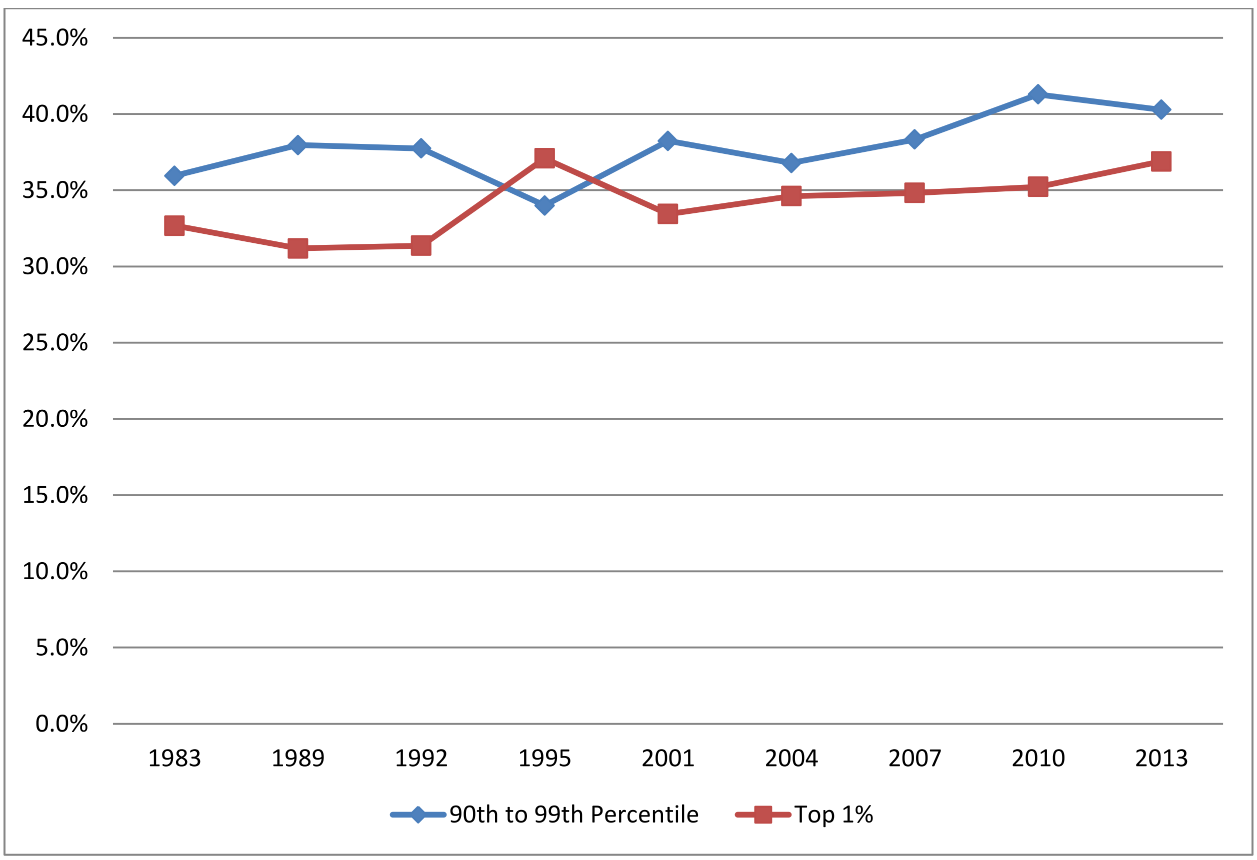
The remainder of the paper is organized as follows. The next section details trends in the distribution of wealth overall and by race between 1983 and 2013, using SCF data. The following section traces trends in economic well-being and its components using LIMEW and household income. The fourth section analyzes trends in inequality by source of income/well-being and by racial categories. A final section summarizes findings.

Wealth

Although most of the paper will focus on the impact of the Great Recession on racial inequality using broader measures of economic wellbeing, wealth is worth talking about first for two reasons. First, the last two economic downturns in the United States have been the direct result of the bursting of asset bubbles, first in 2000 with the bursting of the high tech stock market bubble and second in 2007 with the bursting of the housing bubble and the ensuing financial collapse. These recessions thus had important implications for the distribution of wealth. Secondly, the distribution of wealth has been more on the minds of many economists since the publication of Thomas Piketty's *Capital in the 21st Century* earlier this year. The discussion of the book even made the mainstream media for a short while. As Piketty documents, the distribution of wealth has grown more concentrated everywhere since the 1970s and nowhere more so than in the United States (Piketty 2014). Therefore we begin with an examination of overall trends in the distribution of wealth over the last three decades and then move on to examine the changes in the racial distribution of wealth.

To begin with the evolution of the concentration of wealth in the United States, Figure 4 below traces the evolution of the share of the top decile of households by wealth since 1983 using data from the Survey of Consumer Finances.[2] As we can see, there has been a slow increase of both the top 1 percent share of total household net worth, as well as that of the rest of the top decile's share. By 2013, the share of the total household net worth held by the top decile of households was above 77 percent, the highest directly measured concentration. This figure was 69 percent in the 1980s and began increasing in the mid-1990s. It stood at 73 percent in 2007 and jumped to 77 percent in the aftermath of the Great Recession.

Figure 4 Shares of Net Worth of the Top 1 percent and the 90th to the 99th Percentile of Households



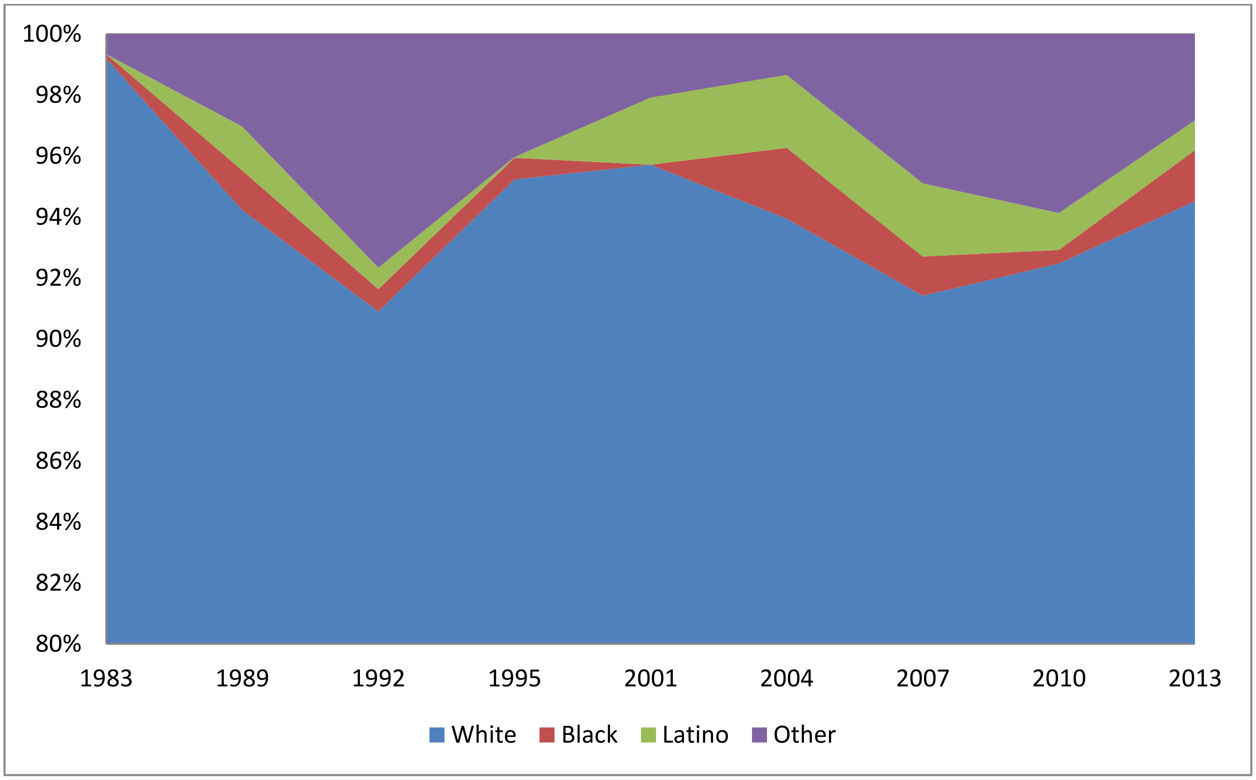
[2] The 1983 survey did not over-sample the wealthiest one percent of households, as later years' surveys did.

The shares of the bottom 90 percent of households have borne the brunt of the increased concentration of wealth in the United States. The share of the bottom 50 percent of households was between one and three percent of the total up until 2007. After the Great Recession, their share is zero (in fact, in 2013, it is slightly negative). The 50^{th} to the 90^{th} percentile, Piketty's "Middle Class", had decreased from 29 percent in the 1980s to about 25 percent in 2007. The Great Recession reduced their share to just under 23 percent by 2013. So the increase in the share of the top decile had come mostly from the middle up to the Great Recession, but afterwards it was drawn from both the middle and the bottom.

To tie this analysis to the question of racial inequality we can first observe that the top 1 percent of households is almost exclusively white. Figure 5 shows the distribution of households in the top 1 percent of households by race.[3] We have had to confine ourselves to a fifth of the households, since white-headed households make up no less than 91 percent of the top 1 percent in any of the survey years. As we can see, Black and Latino households make up very small portions of the top 1 percent, between 1 percent and 4 percent, while the share of others, primarily Asian-headed households has been as high as 8 percent. Over the same period, the share of households headed by whites dropped from 82 percent to 70 percent. If we look at the top 10 percent the picture does not get significantly more equal in terms of representation. Of course, this pattern is also reflected in the pattern of racial inequality in terms of net worth as well.

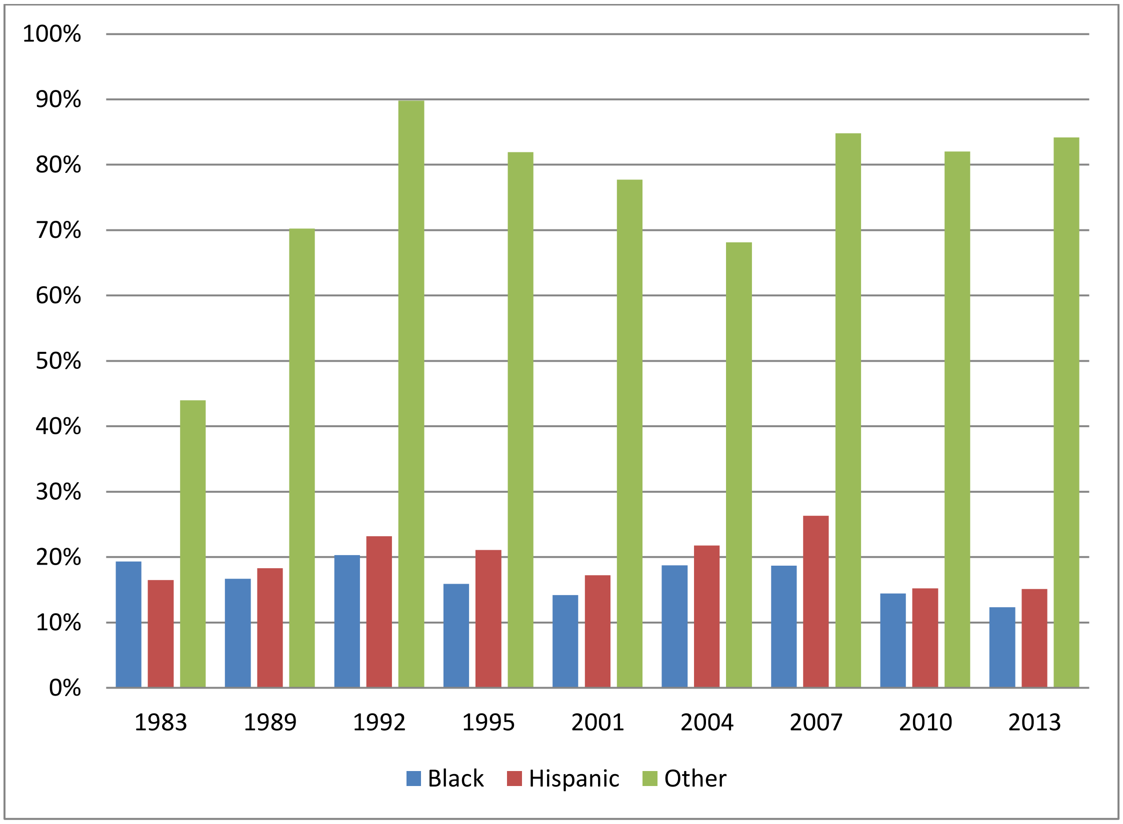
[3] The racial categories employed here and throughout the paper refer to the race of the household reference person. The reference person is identified differently in the Federal Reserve's Survey of Consumer Finances used for the analysis of wealth in this section and the Bureau of Labor Statistics' Annual Social and Economic Supplement used as the basis for the LIMEW estimates in the later sections of the paper. In the process of matching the two surveys for the creation of the LIMEW data set, we take these differences into account.

Figure 5 Shares of Top 1 percent of Households by Wealth, by Race 1983-2013



Looking at mean household net worth by race over the last three decades, we see no improvement in the relative position of Black and Latino households compared to White households (Figure 6). If anything, we see a slight deterioration. While Latino households had improved their net worth relative to White households from 16 percent in 1989 to 26 percent in 2007, in the aftermath of the Great Recession, mean Latino net worth has dropped to 15 percent that of Whites. For Black households, 1992 was the peak year for relative mean household net worth, at least in terms of this survey, at 20 percent that of the White household mean. The ratio fell steadily throughout the 1990s reaching 14 percent in 2001. Tell me why Black people love Clinton again? By 2007, the ratio had recovered to nearly 19 percent, but the Great Recession pushed it back down to 12.4 percent by 2013. So in 2013 the average White household has $8 in net worth for every dollar the average Black household has. The picture for other households has been more encouraging. Their ratio of average net worth to White households grew to 90 percent by the end of the 1980s, decreased steadily to under 70 percent by 2004 and then has varied between 82 percent and 85 percent. Of course, there is a great deal of diversity within the 'Other' category.

Figure 6 Ratio of Mean Net Worth to White Households 1983-2013



Overall, racial wealth inequality since the 1980s has increased, when Black and Hispanic households are compared to White households (or to Other households, for that matter). We will see the importance of this in terms of its impact on overall household economic well-being when we analyze trends in racial inequality with the LIMEW in the following sections.

LIMEW and Household Income

Turning now to the impacts of the Great Recession on racial inequality in household economic wellbeing, we first look at the overall trends in household economic well-being for the two decades between 1989 and 2010.[4] Table 2 provides median values for LIMEW and household income (MI), equivalence-scale adjusted LIMEW and MI, and median household values for housework, market work and total work hours. Of course, by construction, LIMEW is larger than MI. LIMEW also has a different trajectory than MI over this period (and earlier periods as well). While both LIMEW and MI grew during the 1990s, LIMEW grew during the 2000s as well, while

[4] Benchmark estimates of LIMEW for the United States have been prepared for the years 1959, 1972, 91982, 1989, 1992, 1995, 2000, 2004, 2007 and 2010. Estimates for 2013 are currently in process. We use the years 1989, 2000, 2004, 2007 and 2010 to give a sense of the recent historical context for the Great Recession.

MI declined to below its 1989 level. These trends are evident in the equivalence-scale adjusted measures as well. During the 1990s median LIMEW grew twice as fast as MI, while in the 2000s, median LIMEW stagnated during the recoveries and grew during the recession periods and median MI has done the opposite. For household income, the explanation is simple: the bulk of MI is earned income and earned income tends to fall during recessions. In addition, real wages have been stagnant, reducing the growth during recoveries. To see the reasons for the different trend in LIMEW, we decompose the changes by components of LIMEW below.

Table 2 Median Economic Well-Being and Work, 1989 to 2010 (2013 US$)

	1989	2000	2004	2007	2010
Measures					
LIMEW	83,343	92,173	96,102	96,380	98,078
MI	54,340	56,820	54,527	56,178	52,632
Equivalence Scale Adjusted Measures					
Equiv. LIMEW	109,826	122,027	126,476	127,798	128,754
Equiv. MI	72,586	77,241	74,027	76,436	71,685

In Table 3, the changes in the mean value of LIMEW for the middle quintile are broken down into the contributions of each component. We use the mean of the middle quintile since the median cannot be decomposed in this way. The mean LIMEW of the middle quintile is within one third of one percent of the median in each of our benchmark years. Comparing the changes in the 1990s to those in the 2000s (the first and fifth columns, respectively), we see that the contribution of base income tracks the trend in MI. The growth in base income in the 1990s accounts for over two thirds of the growth in LIMEW, while the growth in net government transfers in the 2000s more than offsets the overall drop in base income. The same pattern holds true for the Great Recession: base income reduces LIMEW by 2.9 percent, while net government transfers, especially direct transfers more than offsets this drop. In fact net government transfers is the only component of LIMEW that contributes substantially to the LIMEW growth of the middle of the distribution, and most of this growth comes from direct transfers. A similar analysis of changes in the overall mean produces strikingly different results, with income from wealth dominating growth in LIMEW in the 1990s. But we will now move on to examine patterns of change in economic wellbeing by race.

Table 3 Contribution of Components to Percentage Change in Mean LIMEW of the Middle Quintile

	1989-2000	2000-2004	2004-2007	2007-2010	2000-2010	1989-2010
Base Income	7.0	-3.0	1.4	-2.9	-4.6	1.9
Income from Wealth	1.3	-0.9	0.2	-0.3	-1.0	0.2
From Home Wealth	-0.6	-0.7	-0.1	0.7	-0.1	-0.7
From Non-home Wealth	1.9	-0.3	0.3	-0.9	-0.9	0.9
Net Government Transfers	0.6	6.1	-0.5	5.8	11.6	13.4
Transfers	2.0	2.7	1.2	3.2	7.3	10.1
Public Consumption	1.6	0.6	0.7	1.1	2.6	4.4
Taxes	-3.0	2.7	-2.4	1.4	1.7	-1.1
Value of Household Production	1.8	2.2	-1.0	-0.7	0.4	2.2
LIMEW	10.6	4.3	0.1	1.9	6.4	17.8

First, we show trends in median LIMEW and MI in Table 4, below. By both measures, the racial ranking of median values is the same in every year, Other, White, Hispanic and Black, from highest to lowest. But by LIMEW, Hispanic households move closer to White and Other households by the end of the period. Looking at the changes in median MI for the whole period, we see that only Black households are better off in 2010 than in 1989, though only by a small amount. In terms of LIMEW, however, while every group is better off in 2010 than in 1989, Black households made the least progress, with only a 13.6 percent increase. White households saw the next slowest growth in LIMEW, with 18.1 percent, while Other households gained 21.4 percent and Hispanic households saw their median LIMEW increase by 25.9 percent, nearly double the relative increase of Black households. Looking at the Great Recession, while all groups lost ground in terms of MI, Black households suffered the worst decline (over 10 percent) while the other three groups lost around 6 percent each. Only Black households lost ground in terms of LIMEW, though the drop was small. But White, Hispanic and Other households all gained some ground (2 percent, 3.5 percent and 2.5 percent respectively).

Table 4 Median LIMEW and MI by Race, 1989 - 2010 ($US 2013)

	White		Black		Hispanic		Other	
	LIMEW	MI	LIMEW	MI	LIMEW	MI	LIMEW	MI
1989	86,641	58,240	66,879	33,755	75,219	41,226	90,895	60,081
2000	96,068	61,427	73,088	40,089	86,485	44,644	103,298	67,642
2004	100,876	60,429	73,912	36,997	88,248	41,933	107,417	63,759
2007	100,342	61,796	76,106	38,100	91,510	43,215	107,623	64,043
2010	102,318	58,224	75,944	34,187	94,683	40,529	110,319	59,859

Similar patterns emerge when looking at the ratios of median LIMEW and MI by race (see Figure 7, below). The ratios of median MI for all groups of households to White households increased during the 1990s but have fallen since 2000. But for median LIMEW, Hispanic and Other households gained ground on White households in the 1990s, fell slightly further behind (in the case of Hispanic households) or saw their advantage shrink (in the case of Other households) during the 2001 recession and since then have slowly recovered, with the median Hispanic household exceeding its relative position in 2000 despite the Great Recession. If anything, the Great Recession was remarkable for the *severity* of the impact it had on Black households especially. It was not exceptional in the overall pattern of trends in well-being. We move on next to examine these trends in more detail by unpacking the components of LIMEW and their changes over time by race categories.

Figure 7 Ratio of Median LIMEW and MI to White Households, 1989 - 2010

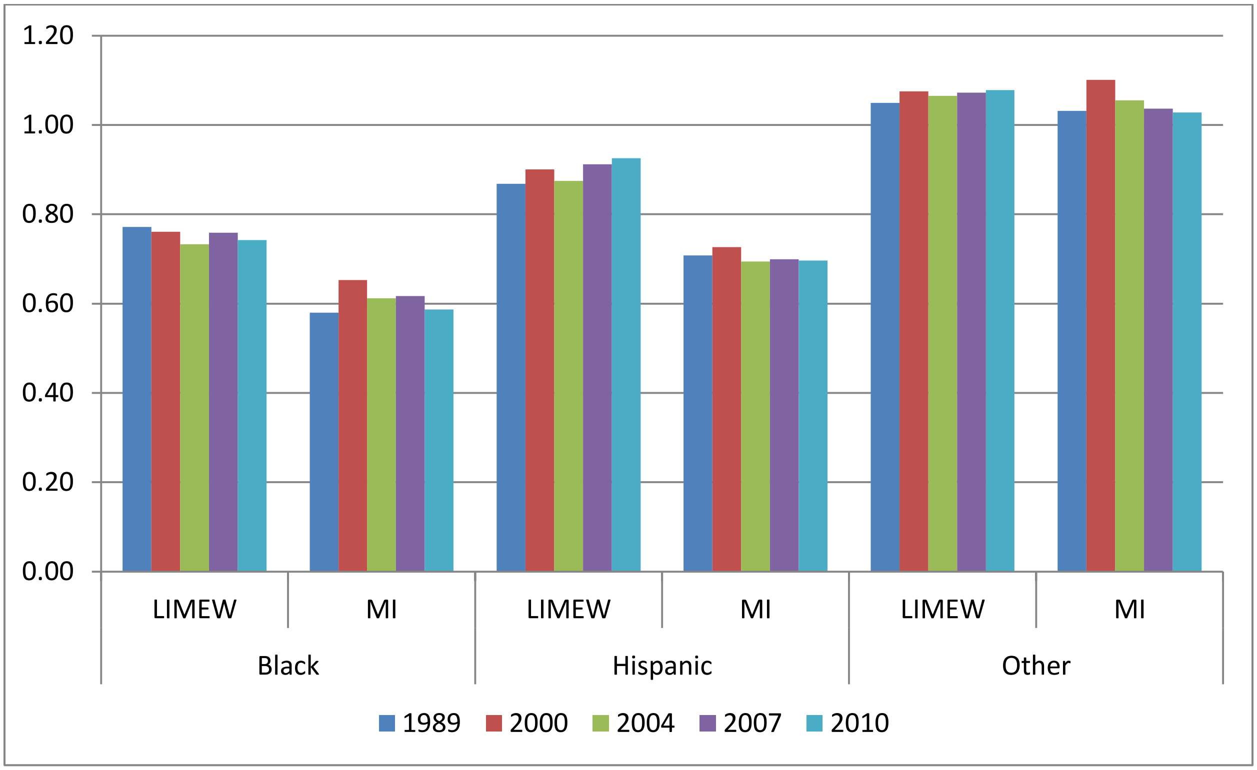


Table 5 gives the mean values of the components of LIMEW for White, Black, Hispanic and Other households. Again, base income consists mostly of earned income. We can see that all groups lost substantially in terms of base income during the Great Recession, although Black households lost the greatest amount, both in absolute (almost $6,000 compared to between $3,000 and $3,700) and relative (12.6 percent, compared to between 4.7 and 5.8 percent) terms. Over the whole period from 1989 to 2010, Black households had the smallest absolute gain ($1,700), while Other households had the greatest ($7,400). Every group was worse off in terms of base income in 2010 than in 2000: White households lost $4,200; Hispanic households, $4,800; Black households lost $6,000; and Other households lost $7,700. Income from home wealth is the smallest component of LIMEW for all groups in all years. The changes over time are relatively small as well. Over the 1990s, most groups lost income from home wealth. White households were the exception, gaining about $100 over the decade. Other households lost $1,200, while Black and Hispanic households lost $700 and $400, respectively. In the 2000s, Other households more than made up their losses: their income from home wealth increased by $1,600. White and Hispanic households were up $600 and $300, respectively, while Black households lost another $300. During the Great Recession, all groups gained ground. For White and Black households this was the only period in the 2000s during which they gained income from home wealth ($1,400 and $800, respectively). For Hispanic households, half of their gains in the 2000s came during the Great Recession ($200), while for Other households most of their gains did ($1,500). So again, we see that the housing crisis did not have a dominant impact on households' economic wellbeing during the Great Recession. Income from non-home wealth has played a large part in the growth of racial inequality and inequality over all, as we have already seen. It doubled in the 1990s for White households, while hardly increasing at all for non-White households. Although it decreased for each group in the Great Recession, White households lost the least ($400), while the other groups lost three to four and more times as much ($1,200, $1,300 and $1,700 for Other, Black and Hispanic households, respectively).

The public sector, mostly absent from MI, was by far the most important factor in stabilizing LIMEW for each group during the Great Recession, though the ranking was different for each component. Hispanic households saw their transfers increase the most ($4,100), followed by Black ($3,400), White ($3,200) and Other ($3,000) households. Other households gained most from public consumption ($1,500), followed by Hispanic ($1,400), Black ($700) and White ($600) households. Taxes helped Black households most ($1,700), followed by White ($1,200), Other ($1,100) and Hispanic ($600) households. Of course, lower taxes paid is mostly an indication of lower income gained. On net, the public sector was the only thing between most households and LIMEW decreases during the Great Recession. For Black households, the second highest net increase ($5,700) was not enough to overcome the losses elsewhere. For all groups but Black households, the increase in net government transfers more than offset their losses in base income during the Great Recession (by $1,400, $1,900 and $3,000 for White, Other and Hispanic households, respectively). For Black households the increase in transfers was $200 lower than the loss in base income. During the 1990s net transfers decreased substantially for all groups but Hispanic households. During the early 2000s, net transfers increased across the board, a result of the Bush tax cuts and the addition of drug coverage to Medicare. But the increase in transfers during the Great Recession was comparable in scale to the early 1990s. Finally, the value of household production increased significantly during the 1990s, but was flat during the 2000s other than for Other households. This is due partly to some wage growth at the lower end of the income scale in the 1990s and stagnation in the 2000s, and partly to the reduction in hours in the 2000s.

Table 5 Components of Mean LIMEW by Race, 1989 - 2010

	Base Income	Home Wealth	Non-home Wealth	Transfers	Public Consumption	Taxes	Value of Household Production	LIMEW
1989								
White	60,088	5,442	13,256	9,046	8,868	(17,227)	24,675	104,148
Black	39,025	2,324	3,884	11,824	12,471	(8,450)	17,653	78,732
Hispanic	46,610	2,602	2,639	9,256	14,655	(9,961)	19,471	85,271
Other	66,793	4,012	8,422	8,407	13,216	(19,032)	28,935	110,754
2000								
White	71,219	5,523	28,563	11,276	10,005	(22,577)	27,234	131,243
Black	46,959	1,906	4,395	12,973	13,082	(12,056)	20,377	87,635
Hispanic	54,518	1,913	3,276	11,287	16,672	(12,801)	24,591	99,457
Other	81,863	2,843	8,116	9,355	13,647	(25,755)	35,557	125,626
2004								
White	69,938	4,842	25,650	13,673	10,533	(18,671)	28,093	134,059
Black	44,419	1,236	3,707	14,720	13,557	(9,931)	21,521	89,229
Hispanic	52,164	1,798	4,768	12,079	17,421	(10,484)	25,387	103,134
Other	77,703	3,608	9,759	11,309	13,940	(20,299)	33,047	129,068
2007								
White	70,649	4,676	29,219	14,388	11,075	(22,004)	28,058	136,061
Black	46,830	890	3,822	16,151	14,374	(12,261)	21,219	91,026
Hispanic	52,812	2,003	4,533	13,406	19,002	(12,035)	23,847	103,567
Other	77,806	2,945	17,533	12,204	14,652	(23,104)	32,683	134,720
2010								
White	67,014	6,082	28,823	17,561	11,690	(20,796)	27,142	137,515
Black	40,912	1,647	2,496	19,526	15,066	(10,580)	20,817	89,884
Hispanic	49,732	2,172	2,804	17,502	20,405	(11,426)	25,098	106,288
Other	74,147	4,462	16,341	15,162	16,163	(22,048)	33,997	138,225

The breakdown presented in Figure 8, below, shows that the 1990s were characterized by fairly even growth in base income among households differentiated by race. The contribution of base income to overall mean LIMEW growth was highest for Other households at 13.6 percent, while its contribution to LIMEW growth for White, Black, and Hispanic households was 10.7, 10.1 and 9.3 percent, respectively. Of course the most glaring difference by race category in the 1990s is the 16.7 percent contribution of income from non-home wealth to the growth in the LIMEW of White households. This component added almost nothing to the growth of LIMEW for non-White households in the 1990s. The contribution of home wealth was negligible for White households, and slightly negative for non-White households. Transfers also contributed somewhat to the growth in LIMEW for all racial categories: 2.1 percent for White households, 1.5 for Black households, 2.4 for Hispanic households and 0.9 for Other households. Taxes' contribution to reducing LIMEW in the 1990s, ranged from -3.3 percent for Hispanic households to -6.1 percent for Other households. Public consumption had a modest positive impact on LIMEW growth of one percent or less for most households but more so for Hispanic households at 2.4 percent. The value of household production was the second largest positive contributor to LIMEW growth for non-White households but was third largest for White households. Overall, then, the increase in racial inequality of economic well-being during the 1990s was due almost entirely to the growth of non-home wealth among White households.

The Great Recession presents a different picture altogether. The overall change in mean LIMEW between 2007 and 2010 for White households was 1.1 percent, while for Black households it was -1.3 percent. Both Hispanic and Other households experienced 2.6 percent growth in average LIMEW. Base income had a negative impact on all groups, as would be expected for such a deep and long-lasting employment recession. There is once again a pattern of black households faring much worse than all other categories: the loss of base income reduced mean LIMEW for Black households by 6.5 percent, while it cost the other groups around 3 percent. For all households, income from home wealth actually increased. While this seems counter-intuitive, the explanation is straightforward. Although the values of homes decreased, the total amount of imputed rent actually increased by 2.5 percent in real terms between 2007 and 2010. This increase together with the 3 percent decline in average mortgage debt among homeowners over the period results in an increased estimate of income from home wealth for all but Hispanic households (see Table 6, below). The contribution of income from home wealth to LIMEW growth was generally small, ranging from 0.2 percent for Hispanic households to 1.1 percent for Other households. Income from non-home wealth, on the other hand, contributed to decreases in LIMEW for all groups. White households were least affected with a 0.3 percent decrease in LIMEW as a result of income from non-home wealth, while Other households lost 0.9 percent, Black households lost 1.5 percent and Hispanic households lost 1.7 percent. So despite the headline-grabbing nature of the financial crisis, its direct impact on household economic well-being was fairly modest.

Turning to the government sector, we see that the largest contribution to average LIMEW growth comes from transfers. For White and Other households the contribution was about two and a quarter percent, while for Black and Hispanic households the contribution was 3.7 and 4 percent, respectively. Given the larger employment impacts on the latter two groups, this is unsurprising. However, while for White and Other households, transfers nearly cancelled out the reduction in base income during the great recession, for Black households transfers fell almost 3 percentage points short. For Hispanic households however, the positive contribution of transfers exceeded their losses from base income by one percentage point. Public consumption and taxes added between another 1.4 (for White households) and 2.6 (for Black households) percent increase in overall LIMEW growth. The net impact of government taxes and spending and base income on changes in household economic well-being during the Great Recession was around one percent to the good for White and Other households and an addition of 3 percent for Hispanic households. For Black households, however, there was a net loss from these two components of 0.2 percent. The value of household production had mixed influences on the trajectory of average LIMEW by race during the Great Recession. White and Black saw reductions in LIMEW as a result of value of household production decreasing, while Hispanic and Other households enjoyed increases. For the latter two groups, household production accounted for 40 to 45 percent of their LIMEW growth. To sum up then, while for all groups of households base income fell and net government transfers offset that to a greater or lesser degree, White and Hispanic households needed increases in income from wealth and the value of household production, respectively to see their LIMEW increase while Other households saw increases in both components. Black households, on the other hand, saw additional losses in both income from wealth and the value of household production resulting in an overall decrease in average LIMEW.

Figure 8 Contributions to Growth in LIMEW by Race, 1989 – 2010 (Percentage Points)

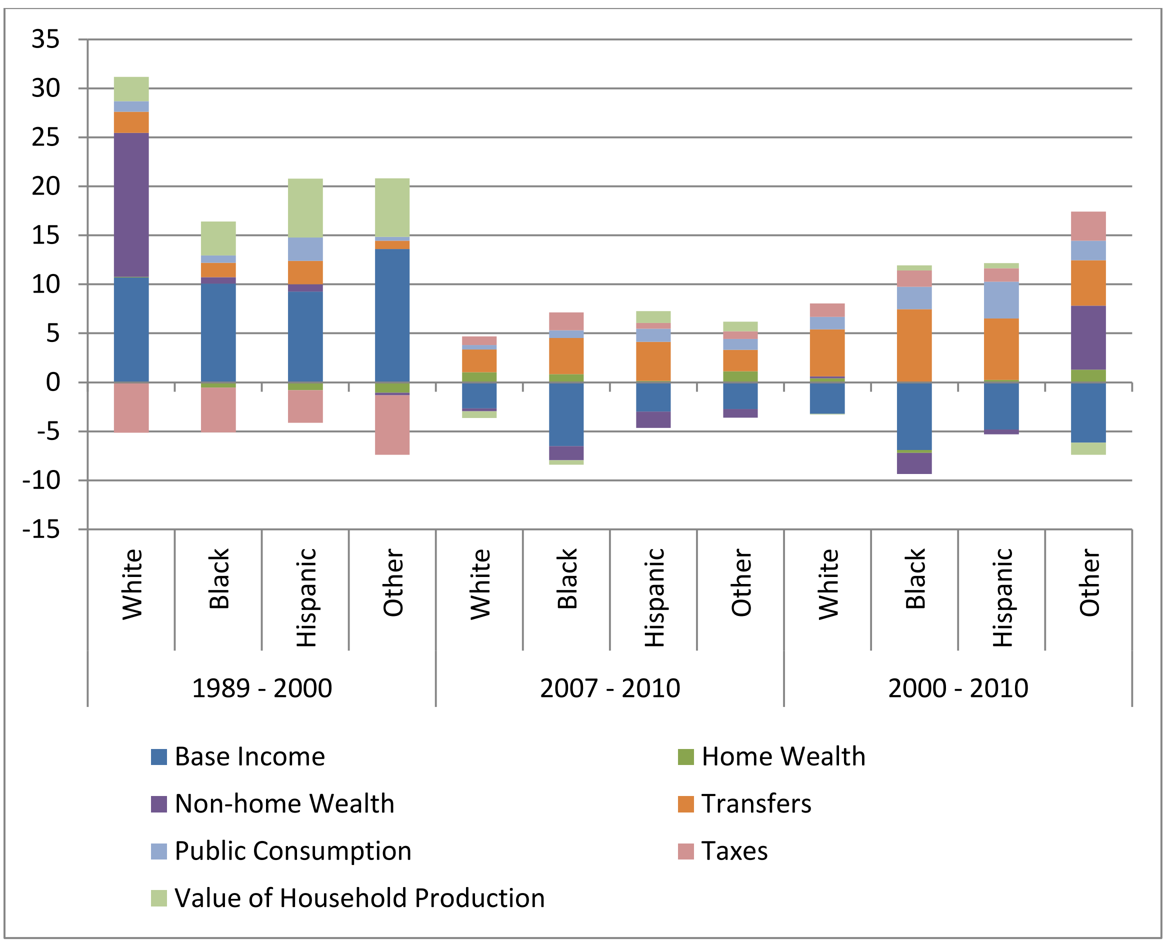


Table 6 Real Changes in the Mean Value of Homes and Mortgage Debt by Race, 2007 - 2010

	Home Value	Mortgage Debt
White	-15.3%	3.3%
Black	-31.4%	-36.4%
Hispanic	-34.9%	-20.2%
Other	-13.0%	-6.9%
Total	-17.9%	-3.0%

The changes in average income from home wealth discussed above mask the impact of the housing bubble on households. As we have seen, average home value has dropped considerably for all homeowners but especially for Black and Hispanic homeowners. The same is true of homeownership rates. While there was substantial growth in homeownership for all groups between 1989 and 2007, this was clearly a period of some convergence in rates of homeownership by race (see Table 7, below). The gap in homeownership rates between White and Black households shrank from 28 percent to 26 percent while that between White and Hispanic households narrowed from 28.5 percent to 25.5 percent. Other households enjoyed the greatest increase in homeownership, adding nearly ten percentage points over the period. The Great Recession's impact on homeownership appears to be still unfolding however. For most groups, the drop in homeownership between 2007 and 2010 was modest. However, by 2013, all groups had seen considerable losses. White households' drop was notably the smallest, while Black and Hispanic households' homeownership rates dropped quite a bit (4.6 and 5.3 percentage points, respectively). Only Other households experienced an increase in homeownership rates between 2010 and 2013, though this still left them down by 3.4 percentage points from 2007.

Table 7 Homeownership Rates by Race, 1989 - 2013

	1989	2007	2010	2013
White	70.5	74.8	74.6	73.1
Black	42.4	48.6	47.7	44.0
Hispanic	41.9	49.2	47.3	43.9
Other	53.9	63.4	58.5	60.0

Source: Authors' calculations based on 1989, 2007, 2010 and 2013 Survey of Consumer Finances

Inequality

Overall income inequality has increased over the last two decades, especially during the 1990s. However, at least part of the measured inequality increase during the 1990s is due to a change in the method the BLS uses to topcode incomes in the Current Population Survey (Burkhauser et al. 2011). While this change accounts for about three quarters of the increase in MI between 1989 and 2000 (see Table 8, below), it only caused 40 percent of the measured increase in LIMEW inequality.[5] So, despite the relative underestimation of inequality prior to 1994, there is still evidence of a trend of increasing inequality since the 1980s. Comparison of changes in overall inequality based on MI and LIMEW over the last two business cycles reveals diametrically opposite cyclical behavior, as with the changes in mean and median measures described above. Inequality measured with LIMEW declines in the downturn and rises during the expansion, while inequality measured with MI does the opposite. In prior work, we showed that this was not the case before 2000. Inequality measured with LIMEW is smaller, due to the additional components included (transfers, public consumption, taxes and the value of household production all tend to decrease measured inequality), despite the treatment of wealth, which is much more unequally distributed than property income, which is included in MI. The difference is fairly consistent over the period under study here, varying between 4 and 5 Gini points.

Table 8 Gini Coefficients for LIMEW and MI, 1989 - 2010

	LIMEW	MI
1989	36.1	41.8
2000	41.9	46.0
2004	41.0	46.5
2007	41.7	46.2
2010	41.2	46.9

Decomposition of the Gini coefficient for LIMEW by source of income reveals the cause of the pro-cyclical behavior of LIMEW inequality(see Table 9, below). To begin with, we see that the contribution of base income to LIMEW inequality has declined steadily over the 2000s, as opposed to the 1990s when it rose slightly (Panel A).[6] Base income's concentration coefficient followed the same counter-cyclical pattern as MI, but this influence was overwhelmed by its falling share of mean LIMEW: in 2000, base income represented 54.7 percent and by 2010 it had fallen to 48.6 percent. The second striking pattern is that of income from nonhome wealth, which ballooned during the 1990s and has fluctuated pro-cyclically since then. The large rise in the 1990s was due both to an increase in the concentration of income from nonhome wealth, but also to its increased share of LIMEW. Income from nonhome wealth's concentration

[5] LIMEW and MI Gini coefficients for 1995 are 38.4 and 45.0, respectively.

[6] The contribution of each component is based on decomposition by source (Lerman and Yitzhaki 1985). Each component's contribution is equal to the product of its concentration coefficient and its share of LIMEW. The contributions to changes in overall inequality are simply the difference in the contributions between two years for a given source of income.

coefficient was unaffected by the bursting of the Tech bubble, but increased during the Great Recession, while its share of LIMEW dropped 2 percentage points during the recession of the early 2000s but less than 1 percentage point during the Great Recession. The Great Recession reduced overall inequality but less so than the recession of the early 2000s. The more salient differences in contributions to changes in inequality in the two periods (Panel B) are in the contributions of income from both home and non-home wealth, taxes, and the value of household production. Income from home wealth slightly reduced inequality during the earlier recession, but was responsible for increasing inequality during the Great Recession. This latter point is an intuitive result of the decrease in homeownership. Income from non-home wealth decreased inequality by almost two Gini points in the early 2000s recession, mostly due to the deflation of the Tech stock bubble, but had one third of the impact during the Great Recession. While taxes greatly increased inequality during the early 2000s, a result of the Bush tax cuts, they contributed to a decline in inequality during the Great Recession. The value of household production slightly increased inequality in the early 200s and slightly decreased it during the Great Recession. Overall, the change in inequality during the two downturns was similar 0.7 Gini points between 2000 and 2004 and 0.9 between 2007 and 2010. Because different components of LIMEW are characterized by different levels and trends in racial inequality, the contributions of each component will have differential impacts on overall racial inequality.

Table 9 Decomposition of LIMEW Inequality by Source of Income, 1989 - 2010

A. Contribution to Inequality	**1989**	**2000**	**2004**	**2007**	**2010**
Base Income	20.6	21.2	20.7	19.5	18.6
Income from Home Wealth	2.1	1.8	1.7	1.6	2.0
Income from Non-Home Wealth	8.5	14.6	12.7	14.3	14.0
Government Transfers	0.2	1.0	1.4	1.4	2.1
Public Consumption	2.4	2.4	2.6	2.8	2.9
Taxes	-6.4	-7.4	-6.0	-5.9	-6.5
Value of Household Production	8.6	8.3	7.9	8.1	8.2
Total	36.1	41.9	41.0	41.7	41.2

B. Contribution to Change in Inequality	**1989 - 2000**	**2000 - 2004**	**2004 - 2007**	**2007 - 2010**	**2000 - 2010**	**1989 - 2010**
Base Income	0.5	-0.5	-1.1	-0.9	-2.5	-2.0
Income from Home Wealth	-0.4	-0.1	-0.1	0.4	0.2	-0.1
Income from Non-Home Wealth	6.1	-1.9	1.5	-0.3	-0.6	5.5
Government Transfers	0.8	0.4	0.0	0.6	1.1	1.8
Public Consumption	0.1	0.1	0.2	0.1	0.4	0.5
Taxes	-1.0	1.4	0.1	-0.6	0.8	-0.1
Value of Household Production	-0.2	-0.4	0.1	0.1	-0.1	-0.3
Total	5.9	-0.9	0.7	-0.5	-0.7	5.2

At the end of the 1980s, LIMEW inequality ranged between 32.1 (among Hispanic households) and 36.1 (among White households; see Table 10, below). Inequality increased among all groups during the 1990s, but the increase was small for non-White households, ranging from a 0.8 Gini point increase for Hispanic households to a 1.5 Gini point increase for Black households. Among White households, there was a 7 Gini point increase. This difference is as we would expect, given the combination of the concentration of non-home wealth in White households and its contribution to overall LIMEW inequality growth during the 1990s. Since 2000, LIMEW inequality among White households fell during the two recessions (more during the earlier period) and increased during the intervening recovery. Inequality among Other households fell during the early 2000s recession, but increased dramatically in the middle of the decade. The Great Recession seems only to have slowed the rate of increase in inequality. Among Black and Hispanic households, inequality increased during the early 2000s recession and then decreased in the recovery. Among Black households, inequality was unchanged during the Great Recession, while it fell among Hispanic households. The source of these differing patterns is in the differential importance of different components of LIMEW for each group.

Table 10 LIMEW Inequality by Race, 1989 - 2010 (Gini)

	White	Black	Hispanic	Other
1989	36.1	34.3	32.1	36.9
2000	43.1	35.8	32.9	38.0
2004	42.1	36.4	33.2	37.2
2007	43.1	35.6	33.1	39.5
2010	42.5	35.6	32.4	39.8

The differences in the 1990s are stark yet unsurprising (Table 11). Among White households, income from non-home wealth was the driver of the increase in LIMEW inequality, with base income and transfers contributing somewhat, offset by taxes, household production, income from home wealth and public consumption, in decreasing order of importance. Among Other households, the increase in LIMEW inequality was driven mostly by base income, with household production and transfers also contributing, and offset by taxes, income from non-home wealth, income from wealth and public consumption. Black and Hispanic households shared similar experiences in terms of changes in LIMEW inequality. Changes in transfers and household production dominated the increase, taxes and wealth, the decrease. But overall, the biggest part of the story in racial inequality increases in the 1990s was the increased concentration of wealth among White households.

During the Great Recession, inequality among White and Hispanic households decreased, while among Black households, inequality was unchanged and among Other households, it was up slightly. Increasing inequality among White households was driven by income from home wealth and transfers, but base income and taxes more than counteracted these changes. Among Hispanic households transfers and household production tended to increase inequality but these trends were more than compensated by the equalizing impact of income from home wealth and taxes. For Black households the drop in base income inequality as well as that of income from non-home wealth and taxes was balanced by the increased inequality of transfers, household production, public consumption and income from home wealth. Interestingly, the concentration coefficient of income from non-home wealth among Black households increased dramatically (20 percent). However, income from non-home wealth is a very small share of Black households' LIMEW and it decreased during the Great Recession (from 4.2 percent to 2.8 percent), resulting in an overall decrease in LIMEW inequality among Black households. For Other households, the increases in inequality of household production and income from home wealth were offset by decreases in income from non-home wealth and taxes. Thus, while for the 1990s, the standout fact is the increase of non-home wealth inequality among White households, no such dramatic impact is evident during the Great Recession.

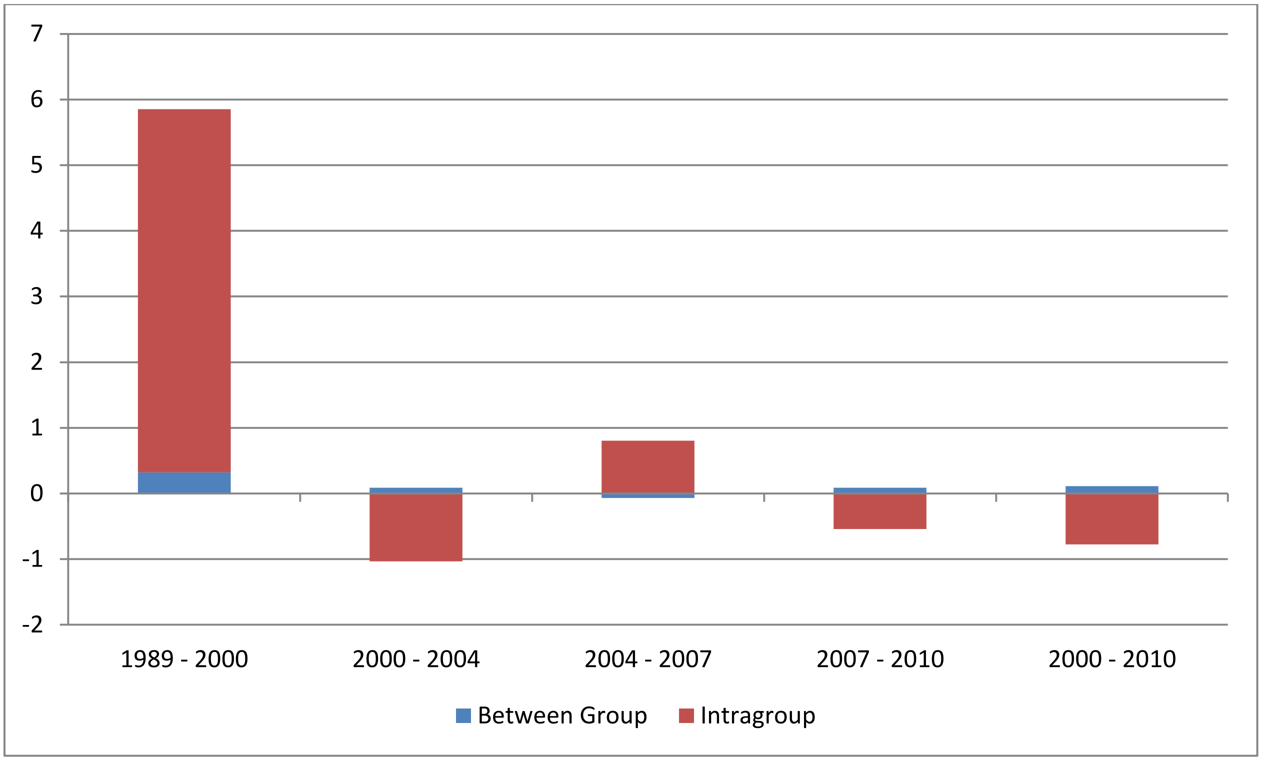
Table 11 Decomposition of Changes in LIMEW Inequality by Race and Source, 1989 - 2010

1989 - 2000	White	Black	Hispanic	Other
Base Income	0.4	0.4	0.2	3.9
Income from Home Wealth	-0.3	-0.3	-0.7	-0.4
Income from Non-Home Wealth	7.9	-0.2	-0.1	-1.6
Government Transfers	0.7	1.2	0.6	0.4
Public Consumption	-0.1	0.4	0.4	-0.4
Taxes	-0.9	-1.1	-0.8	-2.6
Value of Household Production	-0.6	1.2	1.2	1.9
Total	**7.0**	**1.5**	**0.8**	**1.1**
2007 - 2010				
Base Income	-0.9	-1.6	-0.9	-0.3
Income from Home Wealth	0.5	0.3	-0.1	0.6
Income from Non-Home Wealth	0.0	-0.6	-1.2	-0.7
Government Transfers	0.6	1.4	1.0	0.1
Public Consumption	0.1	0.4	0.2	-0.1
Taxes	-0.7	-0.4	-0.5	-0.6
Value of Household Production	-0.1	0.6	0.9	1.1
Total	**-0.6**	**0.0**	**-0.7**	**0.2**

We use the analysis of Gini technique proposed by Frick, et al. (2006) to decompose changes in racial LIMEW inequality (Figure 9). Between-group inequality is a small component of overall

LIMEW inequality.[7] And it is a small component of recent changes in inequality as well. In the 1990s, the large increase in overall inequality was mostly due to an increase in intragroup inequality, although there was also a smaller between-group inequality increase. The 2000s saw a net reduction in LIMEW inequality, but there was a gain a very slight increase in between-group inequality. The changes during the Great Recession look very much like the changes for the decade overall.

Figure 9 Changes in the Racial Decomposition of LIMEW Inequality, 1989 - 2010



Between-group inequality is similarly small for all of the components of LIMEW, with one notable exception. The between group component of inequality of income from non-home wealth was 8.3 percent in 2010. Figure 10A tracks the changes in the contribution of base income, income from home wealth and income from non-home wealth. The 1990s saw an increase in within group inequality for base income, but no change in between group inequality. For income from home wealth, both within and between group inequality increased. For income from non-home wealth, between group inequality actually decreased, while within group inequality increased. The overall changes were less than 5 Gini points for all three components. The 2000s were quite different. Between group inequalities were slightly higher for base income and income from non-home wealth, while there was a reduction in terms of

[7] In 2010, the between group component of the Gini coefficient accounted for 2.7 percent of total LIMEW inequality.

income from home wealth. The intragroup inequality for base income and income from non-home wealth increased slightly, but the within-group inequality of income from home wealth increased dramatically. The Great Recession actually reduced the overall trend in inequality of income from home wealth. Prior to the Great Recession the increase in intragroup inequality of income from home wealth was over 26 Gini points, afterwards the increase was 16. While the housing bubble clearly inflated inequality overall without appreciably increasing racial inequality, the bursting of the bubble did not undo half of the damage, at least by 2010.[8]

The other important story in terms of inequality in the past two decades is the impact of net government transfers. Figure 10B repeats the exercise analyzed above for transfers, public consumption and taxes. With few exceptions these components of LIMEW have reduced intragroup inequality over time, if on a smaller scale than that of income from home wealth. During the 1990s, however, both transfers and public consumption experienced increases in their intragroup inequality while taxes had a significant reduction in the intragroup inequality component. Between group inequality changed very little for any of the three parts of net government transfers. Once again, the 2000s are a different story. All three components experienced decreases in their within-group component, especially transfers. Between-group inequality increased for public consumption but decreased for transfers and taxes. The magnitude is much larger for public consumption and taxes, as well. Most of this impact occurred during the Great Recession. The intragroup component of inequality of transfers also shrank during the early 2000s recession, but increased again during the recovery.

Racial inequality and overall inequality were slightly reduced by the Great Recession. It remains to be seen what the impact of the turn towards fiscal austerity after the 2010 midterm elections has been. Given the importance of transfers in increasing measured inequality and of taxes in reducing it, the story may be more complicated than we might have predicted.

---

[8] Given the continued declining trend in homeownership rates through 2013, it is hard to imagine additional decreases in inequality of income from home wealth.

Figure 10A Decomposition of Changes in Inequality of Components by Race Groups, 1989 - 2010

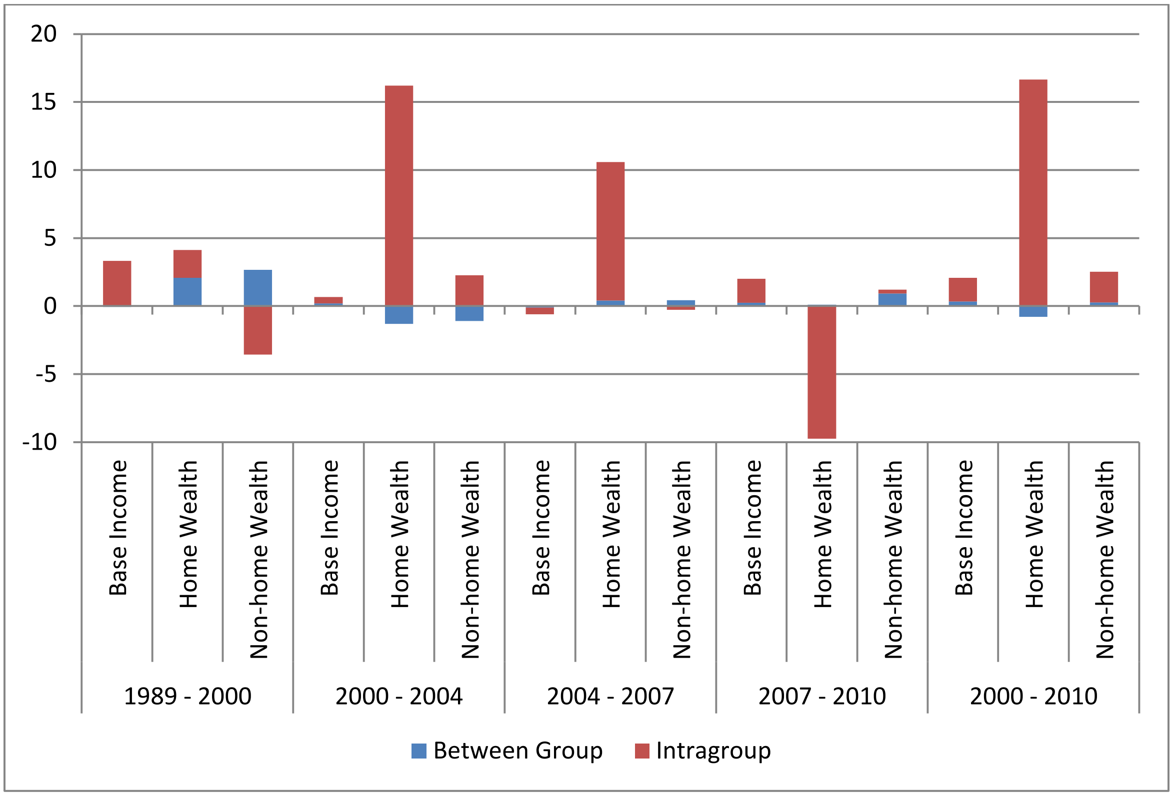
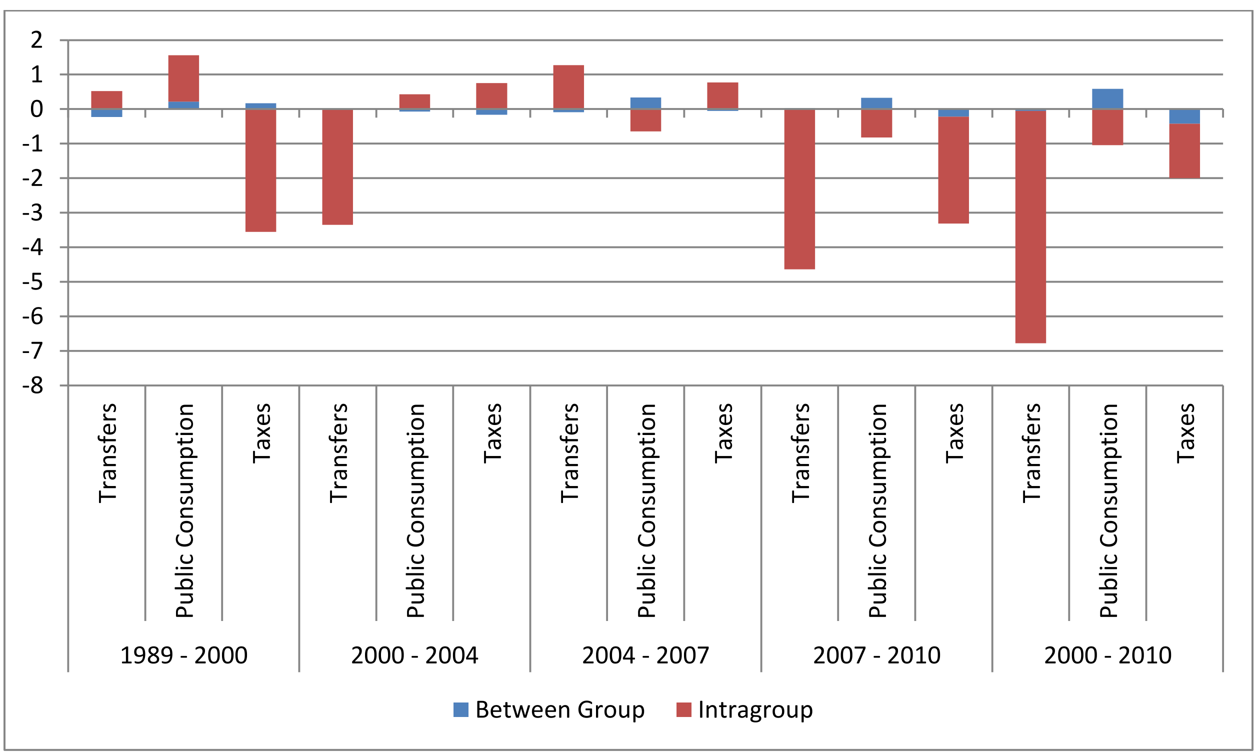


Figure 11B Decomposition of Changes in Inequality of Components by Race Groups, 1989 - 2010



Conclusions

The Great Recession, though officially lasting a year and a half, in many ways is still very much with us. Employment rates have not fully recovered to their pre-recession levels, though much of this may be due to demographics. Earnings have certainly not recovered, remaining at below their 2000 level. Home ownership rates have dropped off even more sharply after 2010. As we have demonstrated, all of these trends have been experienced quite differently by different racial sub-groups in the United States.

In terms of wealth, Black and Hispanic households remain far behind White households, worth on average 12 and 15 percent of the average White household in 2013. The ratio of median Black and Hispanic household net worth to White households is just below 2 percent. This is down from 6.6 and 5.2 percent in 2007, respectively. Black households' mean home equity is a quarter that of White households' and Hispanic households' is one third. Black and Hispanic households' median home equity is zero. In terms of employment, Black adults remain far behind every other group. These trends have their implications for household economic well-being, measured either by MI or LIMEW.

While all groups lost ground during the Great Recession in terms of Money Income (MI), only Black households lost in terms of LIMEW, while each of the other groups gained two to three thousand. Unfortunately, this is not an aberration caused by the Great Recession but a continuation of a decades-long trend. In the 1990s, it was mainly the result of the increase in White households' income from non-home wealth. In the 2000s, and certainly during the Great Recession the increased gap between White and Black households has been due to the greater loss of base income for Black households than for any other group. Only slightly greater increases in transfers for Black households have kept the gap from increasing even further by 2010. This fact makes the prospects for the period since 2010 even gloomier, given the turn towards fiscal austerity, especially in terms of cuts in spending.

Measured racial inequality remains very much a function of intragroup inequality, as opposed to between group inequality. Inequality remains highest among White households, driven by the increase in the concentration of wealth since the 1980s among the top White households. The between-group component of inequality in income from wealth has increased by 3 Gini points or 62 percent since 1989 and it features the largest between-group inequality of any component of LIMEW, but in 2010 the overall Gini coefficient for income from non-home wealth stood at 93.2. The implication is that racial economic inequality remains very much a function of the intersection of race and class in the United States.

References

Aaronson, Stephanie, Tomaz Cajner, Bruce Fallick, Felix Galbis-Reig, Christopher L. Smith, and William Wascher. 2014. “Labor Force Participation: Recent Developments and Future Prospects.” *Federal Reserve Board Finance and Economics Discussion Series* 2014-64 (September).

Ajilore, Olugbenga. 2008. “The Impact of the Earned Income Tax Credit on Poverty: Analyzing the Dimensions by Race and Immigration.” *The Review of Black Political Economy* 35 (4): 117–27. doi:10.1007/s12114-008-9030-2.

Altonji, Joseph G., and Rebecca M. Blank. 1999. “Race and Gender in the Labor Market.” In *Handbook of Labor Economics*, edited by Orley Ashenfelter and David Card, 3C:3143–3259. Amsterdam: Elsevier Science.

Blau, Francine D., and John W. Graham. 1990. “Black-White Differences in Wealth and Asset Composition.” *The Quarterly Journal of Economics* 105 (2): 321–39. doi:10.2307/2937789.

Brimmer, Andrew F. 1988. “Income, Wealth, and Investment Behavior in the Black Community.” *The American Economic Review* 78 (2): 151–55. doi:10.2307/1818114.

Burkhauser, Richard V., Shuaizhang Feng, Stephen P. Jenkins, and Jeff Larrimore. 2011. “Estimating Trends in US Income Inequality Using the Current Population Survey: The Importance of Controlling for Censoring.” *Journal of Economic Inequality* 9 (3): 393–415.

Darity Jr., William A. Darity. 1982. “The Human Capital Approach to Black-White Earnings Inequality: Some Unsettled Questions.” *The Journal of Human Resources* 17 (1): 72–93.

Frick, Joachim R, Jan Goebel, Edna Schechtman, Gert G Wagner, and Shlomo Yitzhaki. 2006. “Using Analysis of Gini (ANOGI) for Detecting Whether Two Subsamples Represent the Same Universe: The German Socio-Economic Panel Study (SOEP) Experience.” *Sociological Methods & Research* 34 (4): 427–68.

Gornick, M.S., Marian E., Paul W. Eggers, Ph.D., Thomas W. Reilly, Ph.D., Renee M. Mentnech, M.S., Leslye K. Fitterman, Ph.D., Lawrence E. Kucken, M.P.A., and Bruce C. Vladeck, Ph.D. 1996. “Effects of Race and Income on Mortality and Use of Services among Medicare Beneficiaries.” *New England Journal of Medicine* 335 (September): 791–99.

Hall, Allyson G. 1998. “Medicaid’s Impact on Access to and Utilization of Health Care Services among Racial and Ethnic Minority Children.” *Journal of Urban Health* 75 (4): 677–92. doi:10.1007/BF02344498.

Hogan, Richard, Meesook Kim, and Carolyn C. Perrucci. 1997. “Racial Inequality in Men’s Employment and Retirement Earnings.” *The Sociological Quarterly* 38 (3): 431–38. doi:10.1111/j.1533-8525.1997.tb00486.x.

Kaufman, Robert L. 1983. “A Structural Decomposition of Black-White Earnings Differentials.” *The American Journal of Sociology* 89 (3): 585–611.

La Ferrara, Eliana, and Angelo Mele. 2006. “Racial Segregation and Public School Expenditure.” *CEPR Discussion Paper* 5750 (July). http://ideas.repec.org/p/cpr/ceprdp/5750.html.

Lerman, Robert I., and Shlomo Yitzhaki. 1985. “Income Inequality Effects by Income Source: A New Approach and Applications to the United States.” *The Review of Economics and Statistics* 67 (1): 151–56.

Lillie-Blanton, Marsha, Julia Paradise, Megan Thomas, Paul Jacobs, and Bianca DiJulio. 2009. *Racial/Ethnic Disparities in Access to Care Among Children: How Does Medicaid Do in Closing the Gaps?*. The Henry J. Kaiser Family Foundation.

Oliver, Melvin L., and Thomas Shapiro. 1995. *Black Wealth/ White Wealth: A New Perspective on Racial Inequality*. 1st ed. Routledge.

———. 2005. *Black Wealth/ White Wealth: A New Perspective on Racial Inequality*. 2nd ed. Routledge.

Parcel, Toby L. 1982. "Wealth Accumulation of Black and White Men: The Case of Housing Equity." *Social Problems* 30 (2): 199–211.

Piketty, Thomas. 2014. *Capital in the Twenty-First Century*. Cambridge, MA: Harvard University Press. http://www.hup.harvard.edu/catalog.php?isbn=9780674430006.

Schneider, Eric C., Alan M. Zaslavsky, and Arnold M. Epstein. 2002. "Racial Disparities in the Quality of Care for Enrollees in Medicare Managed Care." *JAMA: The Journal of the American Medical Association* 287 (10): 1288–94. doi:10.1001/jama.287.10.1288.

Smith, James P., and Finis Welch. 1979. "Inequality: Race Differences in the Distribution of Earnings." *International Economic Review* 20 (2): 515–26. doi:10.2307/2526497.

Wilhelmina A. Leigh. 2006. "Wealth Measurement: Issues for People of Color in the United States." In *Wealth Accumulation and Communities of Color in the United States: Current Issues*, edited by Jessica Gordon Nembhard and Ngina Chiteji, 23–66. Ann Arbor: The University of Michigan Press. http://search.ebscohost.com/login.aspx?direct=true&db=ecn&AN=0972251&site=ehost-live.

Wolff, Edward N. 1992. "Changing Inequality of Wealth." *The American Economic Review* 82 (2): 552–58. doi:10.2307/2117460.

Wolff, Edward N., Ajit Zacharias, and Thomas Masterson. 2012. "Trends in American Living Standards and Inequality, 1959–2007." *Review of Income and Wealth* 58 (2): 197–232. doi:10.1111/j.1475-4991.2012.00503.x.

Wright, Erik Olin. 1978. "Race, Class, and Income Inequality." *The American Journal of Sociology* 83 (6): 1368–97.