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Inequality in the Great Recession: The Case of the United States

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The Great Recession and the Distribution of Household Income

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8. Country case study – USA

Jeffrey Thompson and Timothy Smeeding

The Great Recession (GR) is the most dramatic economic downturn the USA has experienced in more than six decades. Tumbling stock and housing markets erased more than $15 trillion in national wealth in 2008, or nearly 10 per cent of real total national financial assets, the largest drop on record since 1945. As financial markets and the rest of the economy slowed to a halt, real Gross Domestic Product did not grow in 2008 and fell by 2.6 per cent in 2009, the largest decline in six decades. In addition house prices have dropped 30 per cent since their 2005 peak (Kowalski 2011). Overall, the GR has resulted in over $7,300 in foregone consumption per person, or about $175 per person per month by 2011 (Lansing 2011).

With the nation's economic growth abruptly halted, millions of workers lost their jobs. Between July of 2008 and 2009 the US economy shed 6.8 million jobs. Total nonfarm employment fell by 5 per cent, more than any point since the nation returned to a peace-time economy following World War II. The employment population ratio (number of adults 16 and over with jobs relative to same population) fell to its lowest level since 1990, 58.2 per cent, even as older workers increased their employment. A full 20 per cent of 25-54 prime age male workers were not in work in April 2011, the lowest fraction since 1948 and a full 5 points below the trough of any previous recession (Leonhardt 2011, US Department of Labor 2011). And the unemployment rate climbed to over 10 per cent at its highest, but at the time of writing remains at 9.2 per cent 24 months after the 'recession' was declared ended in summer 2009 (US Department of Labor 2011).

All of these powerful economic shocks have also resulted in stagnant wages and declining incomes for most households (Levy and Kochan 2011). In this chapter we explore the distributional impacts of those changes. Inequality had steadily risen in the decades leading up to the Great Recession. This chapter addresses the question: 'Has the impact of the GR halted or hastened those trends, or not had any impact whatsoever?'

This chapter covers the impacts of the GR on inequality, for both wages and family incomes, and poverty, comparing these impacts to those in the previous three recessions primarily using data from the Current Population Survey and secondarily from the Congressional Budget Office after tax income series (CBO 2010). We also explore the degree

to which the tax and transfer system mitigated these impacts in the GR and several other recent recessions.

The main findings are as follows. Inequality growth has been mixed during the GR. Some measures of inequality have risen, others remained flat, and others declined. The choice of measure matters, as does the inclusion of taxes and transfer programmes and the age groups analyzed. Most measures of inequality, however, remain at or near historic high levels, and inequality has increased for everyone but the elderly.

Flat and falling real hourly wages at the bottom and the middle of the distribution, alongside marked growth at the top of the distribution, have produced a surge in wage inequality in the U.S., with the Gini index and the P90/P10 and P90/P50 ratios reaching 30-year highs. After adjusting for taxes, transfers, and household size, the P90/P10 ratio for net, equivalized income for all households declined between 2007 and 2009, while the Gini Index and P90/P50 ratio were flat. But among non-elderly households each of these inequality measures climbed sharply. Inequality measures using 'top incomes' data sources indicate that, at least through 2008 and 2009, the long-term trends toward rising top income shares were halted. The income share of the top one per cent of households, though, has fallen only slightly below modern peak levels reached in 2007. But history and recent evidence suggests that the rich recover incomes and shares much more rapidly than does the middle class. Indeed the very best US data source, unfortunately running only through 2007, suggests that the income share of the entire bottom 80 per cent of Americans is lower now than in 2002, and far less than the peak value in 1993.

Poverty increased during the Great Recession, but the official poverty rate for all households remains below levels reached during the economic downturns of the early 1980s and early 1990s. For households with younger heads (under 34), and childless households (with heads under 55), though, the official poverty rate has reached a 30-year high.

Public transfers have risen, and taxes have declined, as a share of income across the distribution since 2007, indicating that public sector policy action has softened the impact of the GR on household well-being.

Average household size has increased across the income distribution since 2007, but particularly among the lowest-income groups, suggesting households are opting to live together – or stay together – as a coping mechanism. Even with this movement, poverty and inequality rose amongst the non-elderly during and now just after the GR.

With income data only available through to 2009 and labour markets still a long way from fully recovering, the final chapter of the story about the distributional and poverty

impacts of the Great Recession is yet to come. Events unfolding between 2009 and 2011 suggest the full picture will likely be even worse than what we have described in this chapter. Unemployment remains high and the value of the primary assets of middle-income households – their homes – will take years to recover the value lost since 2007. Stock markets, though, have rebounded. Indeed, the share of post-recession income growth since the trough that is accruing to capital (businesses, corporation, stockholders) has been over 85 per cent. And, the public sector actions – both increased transfers and decreased taxes – that softened the impact on poverty and even more than offset trends in some inequality measures, are phasing out. Temporary transfer increases in the federal stimulus package phased out in mid-2011. Further reductions in transfer programmes are a likely outcome as policy makers in the US have turned their attention away from the recession and toward the deficit.

8.1. Methods

Household income and poverty

In the analysis we use the Annual Social and Economic (ASEC) Supplement to the Current Population Survey (CPS). The ASEC, or 'March CPS' as it is conducted in March of each year, is a survey of approximately 50,000 households that has been conducted annually in the United States for more than 50 years. The ASEC asks respondents to provide detailed income, family, and demographic detail for the previous calendar year.

Our analysis uses data from the surveys conducted between 1980 and 2010, covering household income for the calendar years between 1979 and 2009. Our baseline figures use the Census Bureau's 'money income.' Money income is a broad income concept, and includes earnings, social insurance benefits, public assistance transfers, pensions and other retirement income, capital income, and other forms of income. Money income does not include capital gains income or reflect personal income taxes, social security taxes, union dues, or Medicare deductions. Money income also does not include noncash benefits, such as food stamps, employer subsidized health benefits, rent-free housing, and goods produced and consumed on the farm. In addition, money income does not reflect the fact that noncash benefits are also received by some nonfarm residents which often take the form of the use of business transportation and facilities, full or partial payments by business for retirement programmes, medical and educational expenses, etc. In order to capture these elements of income as well as all taxes and benefits, we also use the Congressional Budget Office (CBO)

income data, the most complete source in the United States, but with the proviso that it does not include data beyond 2007.

In addition to calculating measures of inequality using money income, we also calculate equivalised disposable income by netting out taxes, adding some transfer payments that are not included in 'money income' and dividing by a standard equivalence scale to account for household economies of scale (the square root of household size.) Taxes are estimated using the National Bureau of Economic Research TAXSIM model (Feenberg and Coutts 1993). Using the household income and demographic data from the March CPS, TAXSIM produces state and federal income taxes, including the Earned Income Tax Credit (EITC), as well as FICA social insurance taxes. We further supplement the baseline Census 'money income' definition by adding estimated food stamp benefits, now referred to as the Supplemental Nutrition Assistance Programme (SNAP). This estimate combines the CPS variables for food stamps receipt status, number of beneficiaries, and months of receipt with average monthly benefit amounts from the USDA. When considering long-term trends in any income measure, we include adjustments for top-coding in the March CPS, using the consistent cell mean series made available by Larrimore et al. (2008), and also account for the 1994 (Survey Year) series break by smoothing the relevant series at the break-point, similar to approach used by Atkinson, Piketty, and Saez (2011).

We calculate several measures of inequality, including the Gini Index and ratios of key income per centiles, such as the P90/P50 and P90/P10 ratios, and also describe the composition of income (earnings, transfers, and capital income) and how those have changed in the GR. We calculate poverty rates, based on both the official poverty thresholds determined by the US Census Bureau, and also the relative measure of poverty (60 per cent of median household income) used by the European Union. We calculate measures of poverty and inequality for the overall population, and also for different age groups and educational attainment levels.

Top incomes

One important limitation of the March CPS is that it does not adequately capture income received by those at the very top of the distribution. The CPS income data are not only 'top-coded,' but the survey itself does not include sufficient numbers of high-income households to make reliable estimates of incomes at the very top of the distribution, the top one per cent or the top one-tenth of one per cent, for example. For a thorough discussion of top-coding in

the CPS and how it impacts measuring inequality at the top of the distribution, see Burkhauser et al. (2008).

A number of data sources do exist that can be used to assess inequality levels at the top of the distribution, including the CBO's 'comprehensive household income,' Internal Revenue Service (IRS) income tax records and the Survey of Consumer Finances. We supplement the findings from our analysis of data from the March CPS by reporting some key findings from research that has analyzed inequality trends using these top-incomes data sources (Atkinson, Piketty, and Saez 2011, Smeeding and Thompson 2011). Each of the income sources we use are more fully described in the Appendix on income definitions.

Wages, unemployment and labour force participation

We use the Outgoing Rotation Group files of the Current Population Survey (CPS ORG), with data covering the period from 1979 to 2010, to examine how the Great Recession and other recent recessions have impacted worker's wages and the extent of inequality in wages. As with income inequality, we calculate the Gini Index, and ratios of key wage percentiles.

We also calculate unemployment rates across the total workforce, and labour force participation rates for the total working-age population. We look at wage inequality measures for the all employed workers, as well as for different age groups and educational attainment levels.

8.2. Labour market impacts of the Great Recession

The labour market fallout from the Great Recession has proven to be both dramatic and persistent. With output shrinking throughout 2008, unemployment accelerated, with millions of workers losing their jobs. Overall unemployment averaged 9.6 per cent in 2010, which is slightly lower than the 9.7 per cent unemployment from 1982. In mid-2011, it is still over 9 per cent. Compared to that earlier downturn, long-term unemployment is considerably greater, and the general rate of unemployment among most labour market groups is actually higher than in the early 1980s.

Rising unemployment and falling labour force participation

In 2010 the unemployment rates for all major educational-attainment and age groups hit 30-year highs. Among college graduates, the unemployment rate jumped from 2.4 per cent in 2006 to 5.6 per cent in 2010, and among those with advanced degrees it rose from 1.5 per cent to 3.5 per cent in the same period (Figure 8.1, Table 8A.1). But the largest increases – in absolute terms – were felt by younger workers with the lowest levels of education. Unemployment among workers with only a high school degree jumped from 5.3 per cent to 12.2 per cent between 2006 and 2010, and among those lacking a diploma it climbed from 8.6 per cent to 17.4 per cent. Highly educated workers continue to have lower unemployment rates, but the increases experienced since 2006 are proportionally as large as for less educated workers. All age groups also saw dramatic increases in their unemployment rates, with rates roughly doubling between 2007 and 2010. Workers aged 35–64 saw their unemployment rates go from around 3 per cent to nearly 8 per cent. The youngest workers (aged 18–24) saw their unemployment rate quickly shoot up from 9 per cent to 17 per cent, and the unemployment rate for somewhat more experienced workers (those aged 25–35) went from 4.3 per cent to 9.7 per cent.

<Figure 8.1 near here>

The official unemployment rate excludes 'discouraged' workers who have ceased looking for work. In fact, 35 per cent of men aged 25–54 without a high school diploma are out of the labour force (and they are clearly also not in school), compared with less than 10 per cent of those with a college degree (U.S. Bureau of Labor Statistics 2011). Labour force participation also declined for most age and education groups, although less dramatically than the rise in unemployment. The decline in labour force participation has been most prominent among younger and less educated workers. Participation fell by 0.7 per cent among college graduates and 0.2 per cent among those with advanced degrees, but it dropped by roughly 2 per cent for all workers with education below the BA-level (Table 8.A2). For workers with less than a high school degree, the rate of labour force participation slid from 61.6 per cent in 2007 to just 59.4 per cent in 2010.

Most age groups also decreased their participation in the labour force. Among more experienced workers, including those aged 36–45 and 46–54, the declines were relatively minor, dipping by 0.4 per cent and 0.9 per cent, respectively, between 2006 and 2009. Among workers aged 18–24, however, the labour force drop off has been sizeable, falling nearly 4.5 per cent from 69.5 per cent in 2006 to 65 per cent in 2010. This recent labour force

decline among young workers continues a trend present since the early 1990s. In each of the last three recessions, labour force participation has declined among young workers, and not recovered in the ensuing recovery, with the decline in the GR being the greatest. Between 1979 and 2009, the labour force participation rate of 18–24 year olds declined 10 per cent, while the share enrolled full-time in post-secondary education rose by 10 per cent (Snyder and Dillow 2011). The opposite trend has held for older workers, who have steadily raised their participation rates since the late 1980s, through good and bad economic times. The participation rate in the 55–64 year old population climbed from 63.7 per cent to 65.1 per cent between 2006 and 2010, continuing a trend where participation rose in 21 of the last 24 years. And the over-65 group has also increased both its labour force participation and employment (US Department of Labor 2011).

In sum, the picture is one of continuing mass labour market devastation as of mid-2011. Both Farber (2011) and Sum et al. (2011*b*, *c*) suggest that the numbers of displaced workers – those losing their jobs – and the numbers of long term unemployed were at an all-time high in 2010. Howell and Azizoglu (2011) show that new hires and job openings were at a decade long low in 2010, while permanent job losers were at an all-time high over this same period. And the full effect of the GR on employment is not known with certainty. According to one popular estimate (Greenstone and Looney 2011) it might take 8–10 years to get back to the number of jobs there were before the GR. Both of the main routes to the middle class for those with only a high school education, manufacturing and construction are closed (Smeeding et al. 2011, Glaeser 2010). In fact, the two major forces driving job opportunity polarization are technological change, with workers being replaced by machines, creating demand for fewer, more-skilled workers to run and repair the machines (Goldin and Katz 2008). The second is trade, the staggering magnitude of growth in imports from China of goods that had been produced in the United States by US workers. While Autor et al. (2011) refute the assertion that his findings suggest a need for trade restrictions, this trend deserves more analysis and suggests a need for more-skilled U.S. workers in non-manufacturing jobs.

While many argue that job losses are cyclical, there are therefore good reasons to note they are secular as well. But even a cyclical job loss that extends for 3-5 years becomes a secular issue almost by definition. Long term joblessness is very damaging to the career and life chances of all workers, especially younger workers and also negatively impacts family stability and the future of children in these households (Von Wachter 2010). These issues are especially damaging to young men with a high school degree or less, 72 per cent of whom are

fathers by age 30, and only 38 per cent of whom earned more than $20,000 in 2002 when the economy was in far better shape than it is today (Smeeding, Garfinkel, and Mincy 2011).

Record high levels of wage inequality

In the face of a deep and sustained labour market downturn, real hourly wages can be expected to decline. Because so many workers have lost their jobs, however, the accompanying composition shifts in the employed workforce may potentially obscure falling wages. Trends in average real hourly wages, in fact, suggest modest wage growth in the Great Recession. Between 2007 and 2010, mean hourly wages rose from $20.26 to $20.57, although they did fall back 0.6 per cent after 2009 (Table 8.A2, panel A). These wage trends, however, were not shared across the distribution; between 2007 and 2010 real hourly wages fell roughly 1.5 per cent at the 10th percentile (P10) and at the median (P50), but rose by nearly five per cent at the 90th percentile (P90).

These divergent wage trends – rising at the top and falling in the middle and at the bottom of the distribution – drove several measures of wage inequality to 30-year highs in 2010 (Figure 8.2). The graph indicates that over the 15 years preceding the GR, there were only relatively modest changes in these measures. (The impact of the series break, which is the result of a general redesign in the CPS, including a move to computer-assisted interviewing and expanded use of internal censoring for top-coded values, on measures of wage inequality in the CPS ORG is discussed by Mishel, Bernstein, and Schmitt 1998). The P90/P50 ratio fluctuated from year-to-year, but by 2006 remained at the same levels as in the late 1980s. After falling during most of the 1990s, the P90/P10 ratio exhibited modest increases starting in 2001, so that it had returned to 1994 levels by 2006. Starting in 2008, though, each of these inequality measures increased sharply. The P90/P10 ratio of real hourly wages, however, rose in each year since 2007, climbing from 4.4 to 4.8 (Table 8.A2, panel B).

<Figure 8.2 near here>

Downward wage pressures over this period have been most evident among younger and less educated workers, while older and more highly educated workers have registered wage increases (Table 8.A2, panel C). Obtaining a bachelor's degree, however, did not make workers immune from wage pressures in the GR. Young workers (25–34 years old) with a BA saw their wages fall 0.5 per cent per year between 2007 and 2010 (Table 8.1). Even older workers (55–64 years old) with a bachelor's degree experienced falling wages of a similar

magnitude. The only workers to experience rising wages during this period were workers with post-graduate degrees and training (limited to those under age 55) and 45–54 year old experienced workers with a bachelor's degree.

<Table 8.1 near here>

8.3. Income impacts of the Great Recession

Because workers are typically part of a household unit that shares resources across several members, oftentimes including multiple earners, and because households are able to draw upon non-labour sources of income, it is important to go beyond wages or earnings and explore the impacts of the Great Recession on household income. Inflation-adjusted average household income (Census 'money income') fell in both 2008 and 2009, the most recent years of data in the March CPS. (Inflation adjustments are made using the US CPI-U, and in all cases years are referred to according to the year in which the income was received, not the survey year.) In 2009 average real household income was 2.9 per cent lower than it had been in 2007, hitting the lowest level in twelve years (Figure 8.3, panel A). While average money income fell for all households, and for non-elderly households, it actually rose somewhat for households headed by someone age 65 and older, reflecting a long term trend in elder incomes. Median income for all households fell 3.7 per cent over the same period, and increases in the Gini index and the P90/P10 and P90/P50 ratios all indicate modest increases in income inequality during the GR using this income definition (Table 8.A3, panel A).

<Figure 8.3 near here>

Adjusting for taxes, transfers, and household size: net equivalised income (NEI)

In addition to the market factors driving employment losses and depressing wages, a host of actions by the public sector and households as well, combined to influence household well-being during the GR. Automatic 'stabilizers' (including Unemployment Insurance (UI), SNAP, and the Temporary Assistance to Needy Families programme (TANF)) and discretionary fiscal policy all injected hundreds of billions of dollars into household incomes between 2008 and 2010. Total SNAP benefits rose from $37 billion in 2008 to $54 billion 2009, with 2.5 million new households getting 'food stamps'. Although it was only signed into law in February, 2009, hundreds of billions of the tax cuts and increased benefits in the

Obama Administration's 'American Recovery and Reinvestment Act' (ARRA) impacted on household incomes during that year (CBO 2009).

The baseline Census 'money income' definition does include some sources of transfer income (UI, TANF, and Social Security), but it does not include others (such as the Earned Income Tax Credit (EITC) and SNAP, and it also excludes taxes. To reflect the influence of these transfers and taxes, we calculate a measure of net income which subtracts taxes (including federal and state income taxes and the employee share of social insurance FICA taxes) and additional transfer payments (including the EITC and SNAP benefits) from money income. To reflect household economies of scale, we then divide real net household income by the square root of the household size. The resulting measure, 'net equivalised income' (NEI) is a superior measure of household well-being, since an equivalent amount of gross money income results in a lower standard of living if family size is larger or applicable taxes are higher.

Accounting for taxes, transfers, and household size, average household income declined by only two-thirds as much – falling just 2 per cent between 2007 and 2009, and actually rising slightly after 2008 (Figure 8.3, panel B). Non-elderly households follow a similar trend, except income is flat after 2008, but elderly households saw their incomes rise over this period. The rise in inequality is also muted once these factors are included (Table 8.A3, panel B). Instead of rising, the P90/P10 ratio is shown to decline modestly between 2007 and 2009 once taxes, transfers, and household size are incorporated into the measure (Figure 8.4, panel A). Figure 8.4 suggests, as Burkhauser and Larrimore (2011) have argued, that taxes and transfers have an impact on the income distribution in a different way than during previous recessions. In the 1980s, policy changes exacerbated inequality trends measured by the P90/P10 ratio for all households, but during the GR, taxes and transfers have reduced this measure of inequality.

<Figure 8.4 near here>

The difference between the two series using the P90/P50 ratio is less pronounced, as inequality continues to rise, however faintly, using NEI (Figure 8.4, panel B). The longer-term trends in both the P90/P10 and P90/P50 ratios, however, indicate that inequality is indeed different in the Great Recession than in previous downturns. In the deep recession of the early 1980s, and during and immediately following the mild recession of the 2001, inequality increased sharply. Inequality also appears to have increased somewhat during the early 1990s recession, although the pattern is more difficult to discern given the 1993 series break in the March CPS – the result of a general redesign of the survey, including switching

to automated coding and expanded use of top-code censoring of income values (Ryscavage 1995). Trends in the Gini index, a measure that is calculated from incomes throughout the income range, also suggest that any change in inequality between 2007 and 2009 was very slight, rising just one-half of one per cent, owing most likely to the rising real incomes of the elderly as we see below (Table 8.A3, panel B.)

When we restrict the focus to include only non-elderly households, a very different pattern emerges for inequality measures in the Great Recession. Among non-elderly households, the Gini index and the P90/P50 and P90/P10 ratios all increased substantially between 2007 and 2009, and more generally since 2000: see Figure 8.5. Figure 8.5 is limited to the most recent decade, a period with consistent treatment of top-coded incomes, including assignment of cell means by income source to top-coded observations. For non-elderly households, net equivalised incomes fell less at the top of the distribution than for the non-rich, causing the P90/P10 ratio to climb 3 per cent, and the P90/P50 ratio and the Gini index to rise approximately 2 per cent (Table 8.A3, panel C). See also Smeeding et al. (2011).

<Figure 8.5 near here>

These comparisons suggest that households headed by the elderly and non–elderly have experienced different income paths though the great recession. Why did the elderly do better than the non-elderly? The elderly depend much more on income transfers (Social Security) and sources of investment income and far less on the labour market than do the non-elderly. The elderly who were already retired in 2008 lost some home value along with most other owners, but were generally invested in relatively safe portfolios, which protected their assets and income flows (Gustman, Steinmeier, and Tabatabai 2010). Older worker take up Social Security benefits at high rates once they pass age 62. The 46 per cent of elders who take up benefits between ages 52 and 65 are subject to an earnings test which discourages work in these age ranges (Smeeding et al. 2011). But those who wait until they are at least 65 not only receive higher benefits than at age 62, but are allowed to receive these social pensions without any penalty for earnings. Amongst the higher skilled elderly, employment has increased throughout the recession, owing in part to reluctance to retire (in terms of not working) and increased work after retirement (likely reflecting falling home prices). The success of the tax and transfer system in sustaining the incomes of, and mitigating inequality among, older households, and its failure to do so for non-elderly households is consistent with Ben-Shalom et al.'s (2011) assessment of US anti-poverty programmes increasingly directed toward the elderly (and the disabled) and away from the young.

Growth in top incomes

Because of income top-coding and the presence of few extremely high income households in the sample, it is not possible to use the March CPS to estimate inequality at the very top of the income distribution. In recent years a number of studies have demonstrated that much of the growth in inequality since the 1970s has been isolated to the top few percentiles of the distribution. To the extent that the top few percentiles are driving inequality, the P90/P10 ratios, and Gini indices calculated with the March CPS understate the level of inequality at any point in time and possibly the trends toward greater inequality over time. Because of differences in the income composition, it is possible that the Great Recession is having different impacts of inequality at the very top of the distribution.

The Congressional Budget Office's 'comprehensive income' measure, while only available up through 2007, demonstrates the impotence of accounting for trends at the very top of the distribution (CBO 2010). CBO 'comprehensive income' is much more expansive than Census 'money income,' and by statistically matching the Census data to IRS tax return data, it includes much more in realized property income. Moreover, comprehensive income shows an even larger rise in inequality up to 2007, especially driven by changes in incomes at the very top of the distribution (Figure 8.6). These data show that inequality contracted in the 1990 to 1993 and 2001 to 2002 recessions, but rose dramatically after 2002. The top quintile group's share is 52.5 per cent of after-tax net income in 2007 according to the CBO series compared to 48.5 per cent in the Census money income inequality series (DeNavas-Walt et al. 2010: Table A.5). The trend toward inequality is driven here by the top 1 per cent share (which rises by 228 per cent, from 7.5 per cent in 1979 to 17.1 per cent in 2007), but also by a 15.2 per cent increase in the share of the next 4 per cent of household units, with no change in the share of the next 10 per cent to 15 per cent. Hence, inequality in the CBO data since 1993 and through 2007 is driven almost exclusively by gains in the income of the 95th percentile and higher percentiles of households. We also note that the CBO share of net income in the bottom quintile group is 4.9 per cent by their measure in 2007, compared to 3.7 per cent in the 2007 Census income data (DeNavas-Walt et al. 2010). But the trends in both series are the same, with the CBO showing declining shares for all of the bottom four quintile groups since 2002, though especially for the bottom two quintile groups. We now turn to the high income group.

While comprehensive income is only available through 2007, several other top income data sources can be used to estimate inequality trends during the GR. These include

income tax records from the IRS (analyzed by Piketty and Saez 2007, and Atkinson et al. 2011) and the Federal Reserve Board's Survey of Consumer Finances (SCF). (See the Appendix for more about income definitions.) Analysis using these data sources suggests that income inequality has risen dramatically at the very top of the distribution (Figure 8.7). The analysis by Saez (2010) of the IRS data finds that share of federal Adjusted Gross Income held by the richest 1 per cent of households more than doubled between 1979 and 2007, rising from 10 per cent to 23.5 per cent (including capital gains).

<Figure 8.6 near here>

<Figure 8.7 near here>

The CBO 'comprehensive income' measure (not adjusted for taxes) shows that the top 1 per cent share of total income rose from 9.3 per cent to 19.4 per cent over the same period (Figure 8.7). However, even these enriched CBO data exclude the vast majority of capital income that is not realized in a given year, including imputed rent on owner-occupied homes as well as accumulated financial and business wealth and changes in such incomes over the 2007 to 2009 recession and earlier recessions. Smeeding and Thompson (2011) use the SCF data to calculate a 'more comprehensive income (MCI)' measure which combines standard income flows with imputed income to assets. They show that the top 1 per cent share of MCI rose from 18 per cent in 1989 to 22 per cent in 2007.

The data sources for top incomes experience an even longer lag-time than the standard household surveys, but we do have some preliminary evidence on the impact of the GR on inequality at the very top of the distribution. Saez (2010) finds that between 2007 and 2008 the income share of the top 1 per cent, including capital gains, dropped from 23.5 per cent to 21 per cent, and excluding capital gains income it dropped from 18.3 per cent to 17.7 per cent. Projecting the SCF data forward to 2009, Smeeding and Thompson (2011) estimate that the top 1 per cent share of MCI fell from 22.3 per cent to 21.9 per cent. Both sets of results suggest that there have been small declines in top income shares during in the Great Recession, but that levels are now only slightly lower than the previous peak levels from 2007.

Finally we must mention the most recent evidence on incomes from capital compared to labour over the recession. Sum et al. (2011*a*) show that since the beginning of the recovery in June 2009, 88 per cent of the growth in US national incomes (through to March 2011) accrued to owners of capital (mainly business owners and corporations, but also pensions, rental property owners and stockholders) and less than 12 per cent to workers in the form of wages or benefits, with wage declines almost the same as employer benefit increases. The

drop in aggregate wages and salaries is almost surely because of the lack of job growth over this period. The failure of real wages and salaries to grow over the first 7 quarters of recovery is unprecedented in any post World War II recovery. These data suggest than the working class and prime age employees are not gaining from the recovery at this point, and that any increases in aggregate personal incomes since the trough of the recession are accruing to the owners of capital other than owned homes – the top percentiles of the income distribution, stockholders and retirees.

8.4. Poverty impacts of the Great Recession

As income has declined, dramatically so for young and less educated families, poverty has risen. According to the official U.S. Government definition of poverty, 13.4 per cent of households (using the Census 'money income' definition) were poor in 2009 (Table 8.A3, panel D). Poverty rose sharply in 2008 and 2009, but overall household poverty rates remain below levels reached during the economic downturns in the early 1980s and early 1990s (Figure 8.8). The broader definition of poverty adopted by the European Union – set at 60 per cent of median household income – is considerably higher than the official US definition and fluctuates less over time. Over most of the last 30 years this poverty measure hovered at 30 per cent in good and bad economic times. Between 2007 and 2009, this measure of poverty rose from 30.2 per cent to 30.5 per cent.

<Figure 8.8 near here>

These figures suggest that despite large-scale job losses, the Great Recession's impact on poverty is unremarkable relative to previous recessions. The impact on poverty, though, differs markedly for different demographic groups. Amongst younger households, including those headed by individuals under age 35, poverty rates hit 30-year highs in 2009 (Figure 8.9). Between 2007 and 2009, the official poverty rate rose from 28.1 per cent to 33.7 per cent for households headed by individuals under age 25, and for households with heads between 25 and 34, poverty rose from 14.3 per cent to 16.9 per cent. Indeed poverty rates ticked up for all types of units, except for those headed by a person 65 or over. Consistent with the other data reviewed above, poverty among elderly households fell during the GR, from 11.6 per cent in 2007 to 10.3 per cent in 2009, hitting a new 30-year low.

<Figure 8.9 near here>

The rate of official poverty among households with children is typically several percentage points higher than it is among households without children. This remains true during the GR,

but over the last decade the gap has narrowed (Figure 8.10). Poverty rates fell dramatically for households (with heads aged less than 55) with children during the 1990s, while they declined only slightly among those without children. For those households with children, the poverty rate rose 2.5 points between 2007 and 2009, returning to levels near, but still below, previous high-points from the early 1980s and early 1990s. Among households without children, poverty rose by similar levels, but now exceeds high-points from those previous recessions by more than 25 per cent.

<Figure 8.10 near here>

8.5. Shifting income composition

The dramatic changes in labour market conditions, as well as government tax and transfer policies have resulted in substantial shifts in the sources of total household income. For most households, earnings share of total gross household income ('money income' plus SNAP benefits and the refundable portions of federal and state EITC benefits) declined between 2007 and 2009 (Table 8.2, panel A). For the middle quintile group of all households and the bottom quintile group of non-elderly households, the drop was approximately five percentage points. In the top fifth, though (for both elderly and non-elderly households) the wage share of total income increased between 2007 and 2009, partially offsetting a declining capital income share experienced by both groups.

<Table 8.2 near here>

The impact of public policy was relatively broad-based, with the transfer share of income rising and the tax share declining for nearly every quintile group (Table 8.2, panels B and D). The distribution of transfer income beneficiaries is very different for elderly and non-elderly households. (Transfer income here includes Social Security, Supplemental Security Income, Survivor's Benefits, Disability Payments, Public Assistance, Workers Compensation, Veteran Payments, Child Support, Alimony, Unemployment Compensation, SNAP benefits and the refundable portions of the federal and state EITC benefits and the child tax credit.) The transfer share of income rose 4.7 per cent for non-elderly households in the bottom quintile group and 3.4 per cent of those in the middle quintile group, but less than one per cent for those in the top quintile group. Among elderly households in the bottom quintile group, though, there was no change in the transfer share of income. The transfer share of elderly households in the middle fifth rose more than 6 per cent, but it also rose more than 3 per cent among elderly households in the top fifth.

The capital income share of household income also declined in the GR across most of the distribution, for elderly and non-elderly households (Table 8.2, panel C). Capital income in the Census Bureau's Money Income definition includes only interest, rental income, dividends, rent, trust, and retirement savings income. It does not include capital gains income. The decline in the capital income share was most notable for the top quintile group, where the capital share fell from 7.1 to 6.2 per cent for non-elderly households and from 38.3 to 32.6 per cent for elderly households.

8.6. Increasing household size as a coping mechanism

Measures of net equivalised income divide by (a function of) household size to reflect the economies of scale associated with sharing a household. Because of these economies of scale, some people opt to combine households as a coping mechanism during difficult economic times. In fact, the economic stresses from the Great Recession seem to have inspired an increase of 'doubling up' or other forms of shared housing and sharp decline in household formation (Painter 2010, Mykyta and Macartney 2011). Figure 8.11 traces the trends in average household size (indexed to 1979=100) by income quintile group, and suggests that the long trend toward falling household size has been reversed, or at least halted during the Great Recession. The average household size of the bottom quintile group rose by nearly five per cent between 2007 and 2009, climbing from 1.8 to 1.9 persons per household. Average household size in the highest income quintile group rose a little more than one per cent, going from 3.09 to 3.13 people per household.

<Figure 8.11 near here>

The extent to which young adults delay home-leaving, join households, or families combine into households in response to economic stress suggest that younger adults and those who were not in the labour force were more likely to be doubled-up in 2010 than in 2008. Moreover, doubled-up householders and adults were more disadvantaged and experienced a larger increase in poverty rates during the recession than their counterparts who were not doubled-up (Mykyta and Macartney 2011).

But this is only part of the story. The official poverty increases noted above took place despite the fact that there was an increase of 8.4 per cent in young adults (aged 24–35) living with their parents; as well as an 11.6 per cent increase in families who moved in with relatives in large part to avoid poverty. If these two groups instead lived alone, their poverty rates based on their own income would be 43 per cent (Sherman 2011). And so, while

doubled-up households had poverty rates higher than those who did not experience this change, the situation would have been far worse had the units who were forced to double up not been able to do so.

8.6. Conclusions and discussion

This chapter suggests that income inequality and poverty in the US has risen with high and continuing joblessness, but primarily among non-elderly households. When all households are included, we can see that some of the increases in poverty are not as severe past recessions and standard measures of inequality are unchanged or have even declined (in the case of the P90/P10 ratio) during the Great Recession. And, the public transfer and tax policy during the GR has played an important role in limiting the rise in inequality. When we focus on non-elderly households, however, the Great Recession is shown to have a dramatic effect on inequality and poverty, producing 30-year record high levels of wage inequality, and household poverty, despite the lower poverty rates experienced by doubling up.

The elderly, owners of capital, and most high income households are also doing quite well as we recover from the recession, and as capital markets and executive pay have recovered faster than wages or jobs. Middle and lower-income households – those relying on earning to provide essentially all of their income, those whose primary asset is their home, and those with something less than an advanced degree – are faring much worse. The very steep decline in housing values (about 30 per cent from 2005 to early 2011) has reduced mobility, led to higher rates of default and foreclosure and negatively affected aggregate consumption (Leonhardt 2011*a*, Smeeding and Thompson 2011). Discretionary service spending (including non-housing, energy, food, transportation, education, entertainment, restaurant meals and insurance spending) fell by 6.9 per cent in the current recession, after never falling below 2.9 per cent in any previous post-war recession. Without a revival in consumer spending, employment growth will remain weak, and the incomes of those relying on earnings will continue to suffer. The large overhang of household debt from before the GR, though, continues to put considerable pressure on households. Indeed Greenspan and Kennedy (2007, updated to 2011), suggest that at the peak of the housing bubble in 2004–6 US households were annually withdrawing about 9 per cent of home equity for spending. By the end of the first quarter of 2011, that fraction had fallen to negative 4 per cent.

An extended period of high unemployment also threatens to have long-term consequences. Rising poverty, especially among young jobless adults and families, is

permanently scarring the futures of millions of unemployed younger (under age 30) unskilled adults. Unless short-term action is taken to improve employment prospects for these particular workers, and to support the incomes of their children as we come out of the recession, poverty will remain high among this group. Over the longer term, traditional upward routes to the middle class, in manufacturing and construction jobs, will continue to disappear as high school and below wages and employment drop. It is estimated that it will take 8 years or longer for employment to rise to levels where low-skill workers can find good jobs. These individuals need more-productive skills than they have at this time, given their current levels of education and human capital.

Two other forces deserve mention, one short term and the other longer term. The first is the political push to right the deficit in the USA by reducing outlays, not by raising taxes, while at the same time attempting to protect the elderly from income loss. Based on our findings, the elderly are the one demographic group that has fared relatively well during the GR and the feeble expansion that preceded it, and should not be singled-out for protection in policies to close long-term deficits. Tax increases on upper and middle income families are not being seriously considered at this writing. If outlays are cut, they will be reduced most for non-elderly discretionary programmes and entitlements such as SNAP, UI and the EITC. Making these changes at this time would surely increase poverty and inequality over the coming years.

The other longer term force involves the weakness of labour as a political force in the US. Labour parties are a force in Europe and have shown their ability to more equally share the burden of the recession: see e.g. OECD (2011) and, for Germany, Burda and Hunt (2011). But organized labour is a relatively weak political and economic actor in the political economy of the United States. Unionization is at all-time low levels, and even the public sector, among the most heavily unionized sectors in the US, has lost 600,000 jobs since the beginning of the recession. The reasons for the long-term decline of labour are complex (Levy and Temin 2009, Levy and Kochan 2011), but any reckoning of the US labour market and the GR's effects on employment, wages and incomes must recognize this reality.

Policy pundits and applied economists of all ilk and background recommend that the US increases its stock of human capital (as suggested by Goldin and Katz 2008). But the country has not yet been very effective at reaching this goal (consistent with the polarization in wages seen above). Graduation rates from high school are now below 1980s rates, unless GED degrees are included and then they become flat since 1980. College completion rates by males, especially those from the most disadvantaged backgrounds, are abysmally low and

may in fact be falling (Haveman and Smeeding 2006). The 2010 education bill will help increase U.S. postsecondary enrolment and completion (including two-year technical colleges) but not for a few years if then. Larger future increases in human capital are therefore anticipated and will be necessary to increase employment and incomes for more Americans. Income transfers can alleviate poverty, but the solution to permanent poverty reduction is a steady well-paying job for otherwise poor people. Unfortunately these jobs are not currently on the horizon for low-skilled workers, and especially not for low-skilled men

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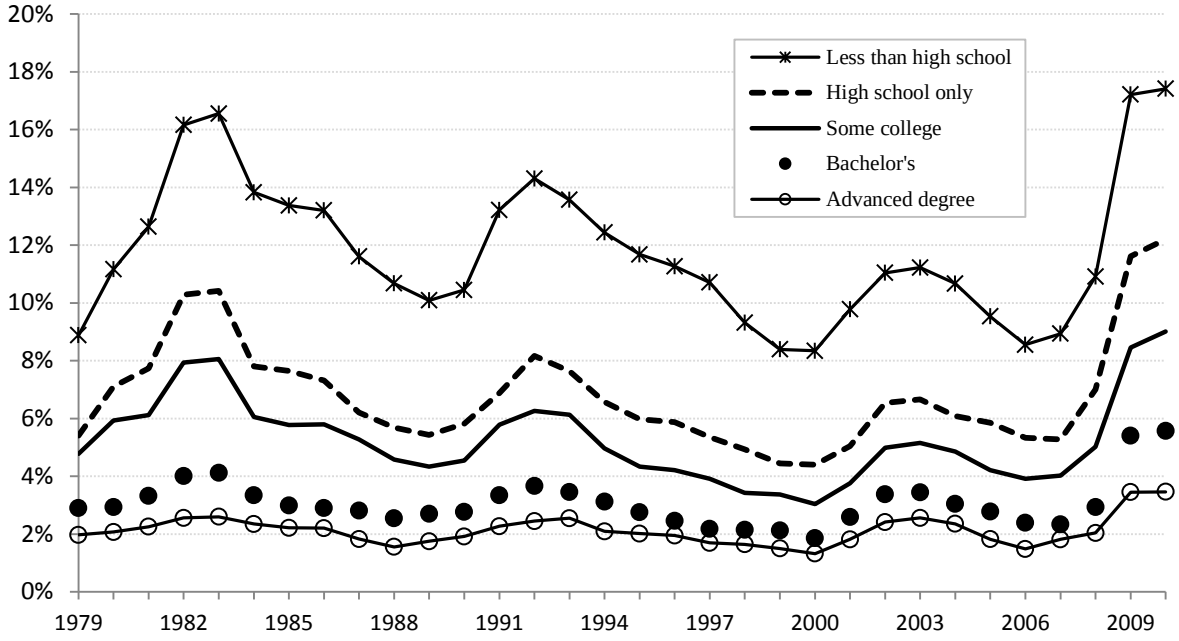
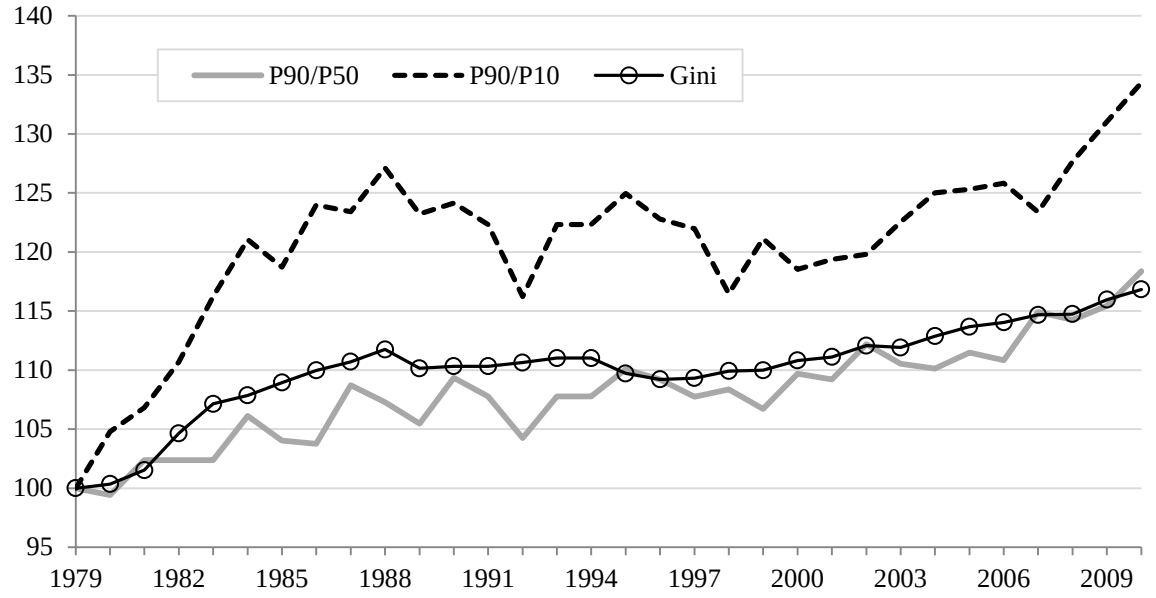
Figure 8.1. Unemployment rate (%), by educational attainment, 1979–2010



Source. Authors' analysis of CPS ORG Files (various years), CEPR extracts.

Figure 8.2. Hourly wage inequality, percentile ratios and Gini, 1979–2010 (indexed 1979 = 100)

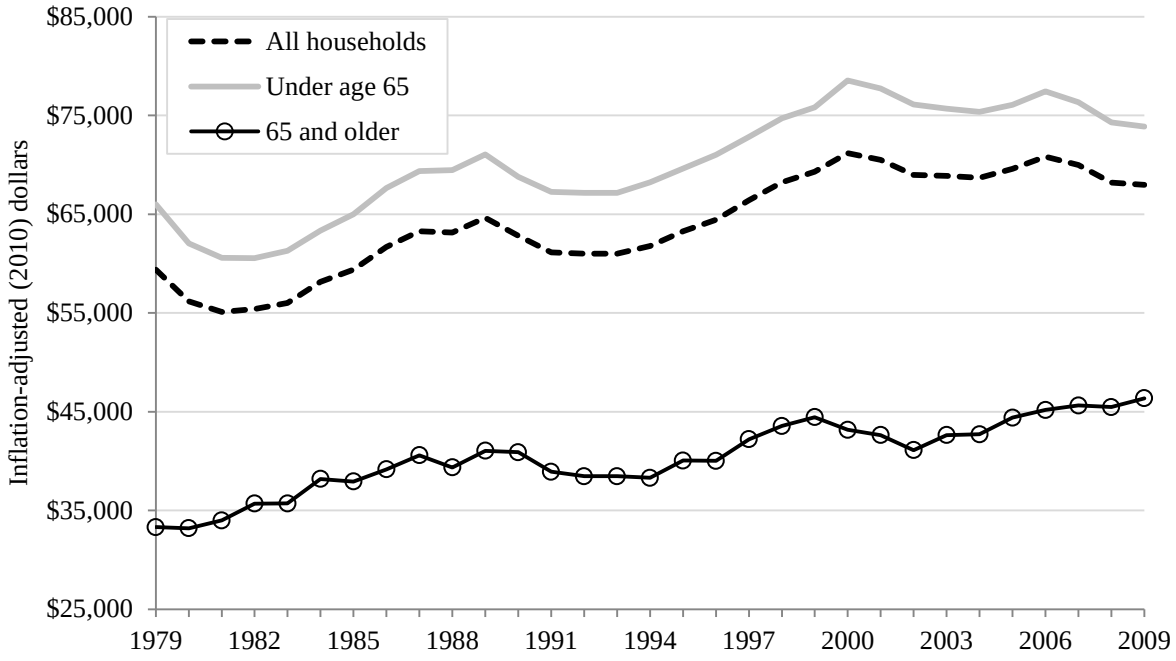


Notes. Estimates adjusted to smooth over the effects of the 1993 change in CPS data collection methods.

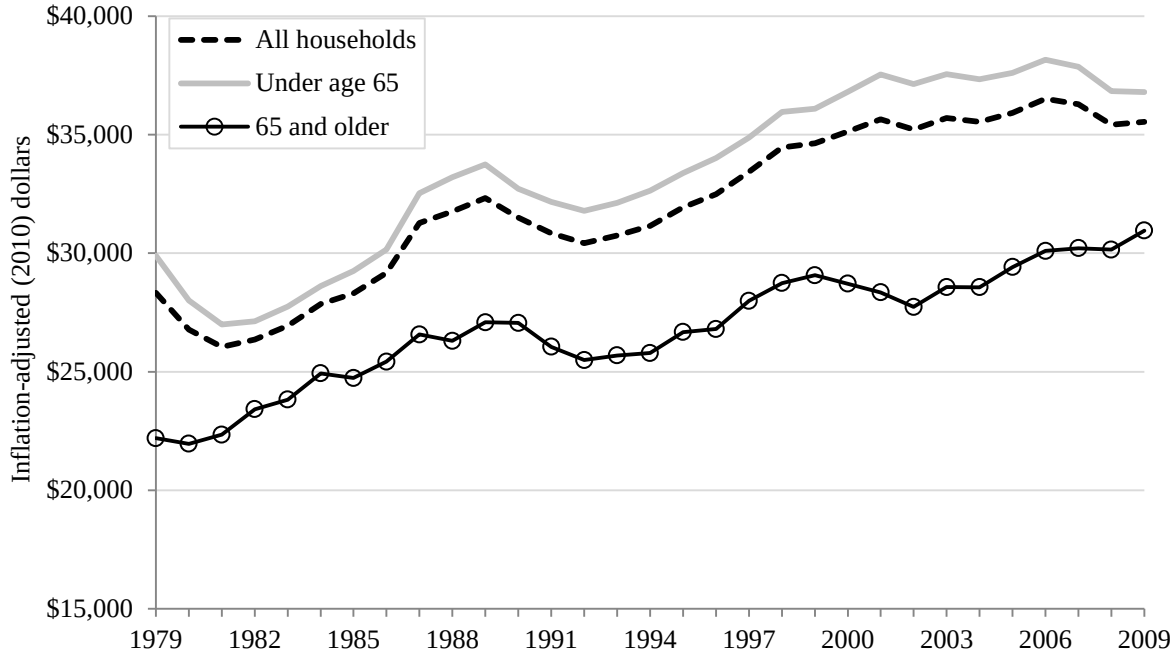
Source: Authors' analysis of CPS ORG Files (various years), CEPR extracts.

Figure 8.3. Mean inflation-adjusted household income, by age and income definition, 1979–2009

A. Census 'money income'



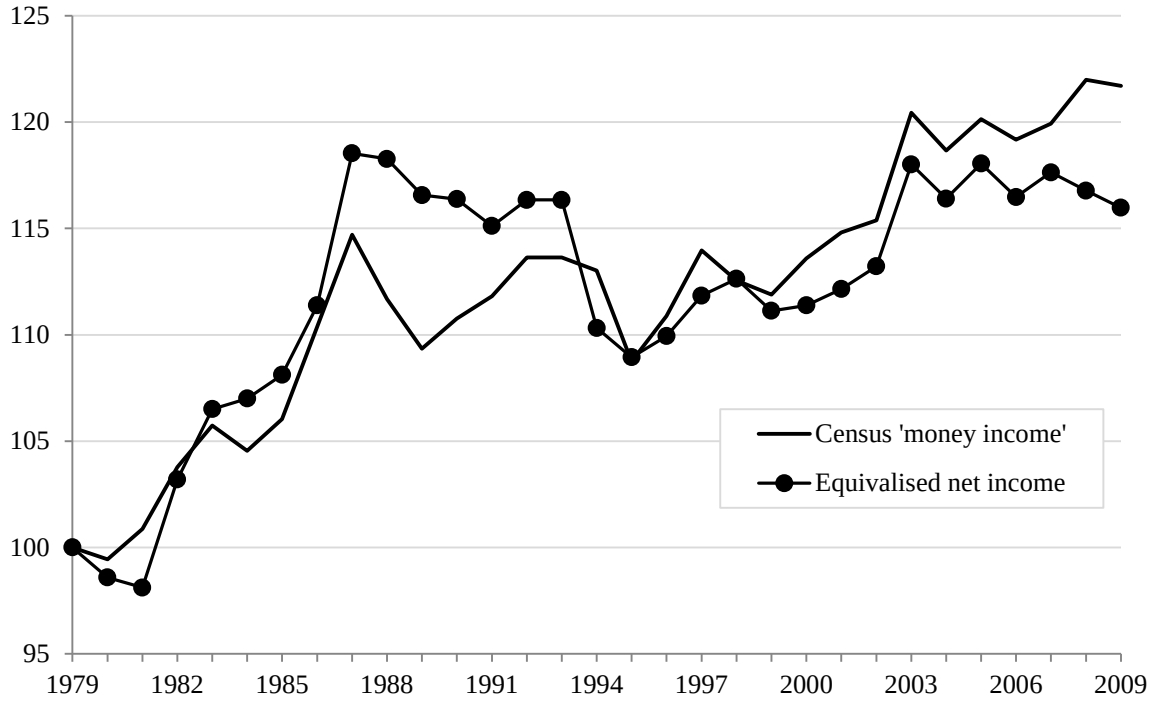
B. Equivalised net income



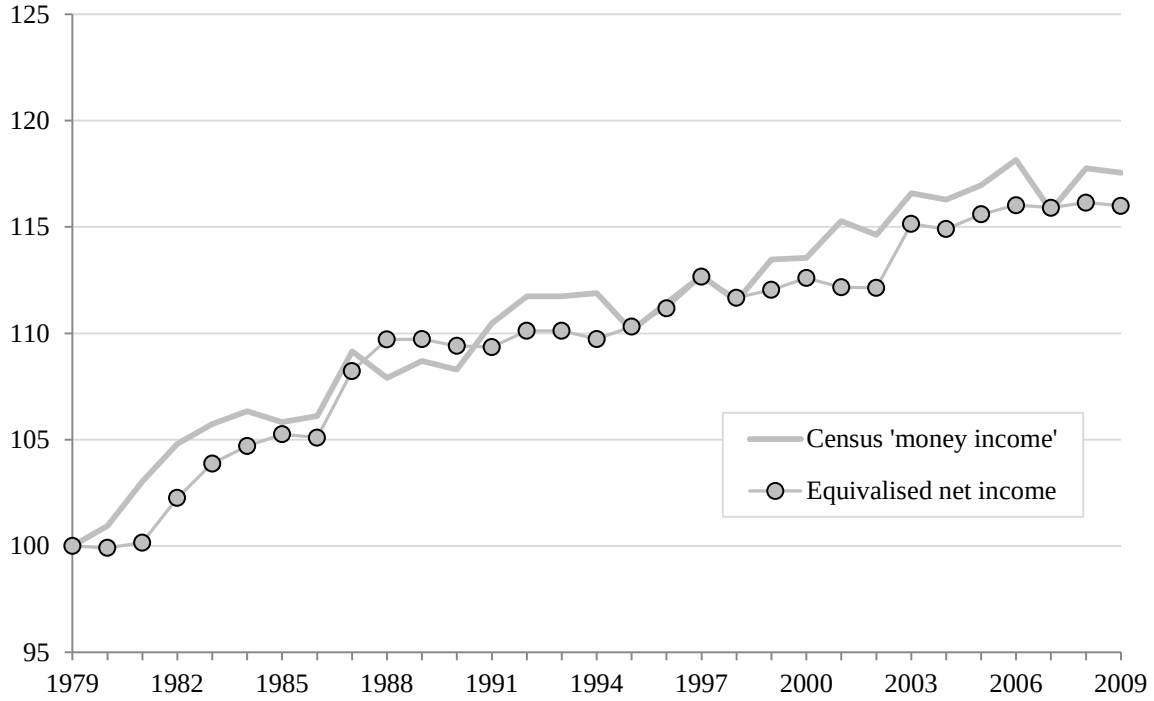
Note. Top-coded income values adjusted using consistent cell means (Larrimore et al. 2008), and series adjusted to smooth over the effects of the 1993 change in CPS data collection methods.
Source. Authors' analysis of March CPS (various years), CEPR extracts. Adjusted for inflation using US CPI-U.

Figure 8.4. Selected household income inequality indices, Census 'money income' and equivalised household net income 1979–2009 (indexed 1979=100)

A. P90/P10



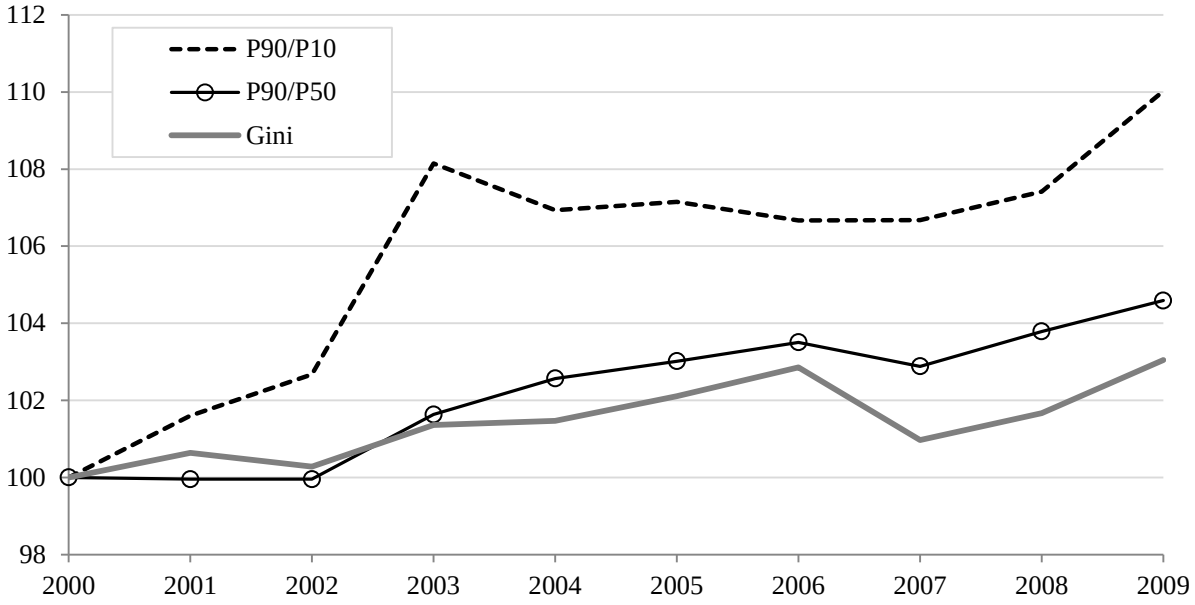
B. P90/P50



Note. Top-coded income values adjusted using consistent cell means (Larrimore et al. 2008), and series adjusted to smooth over the effects of the 1993 change in CPS data collection methods.

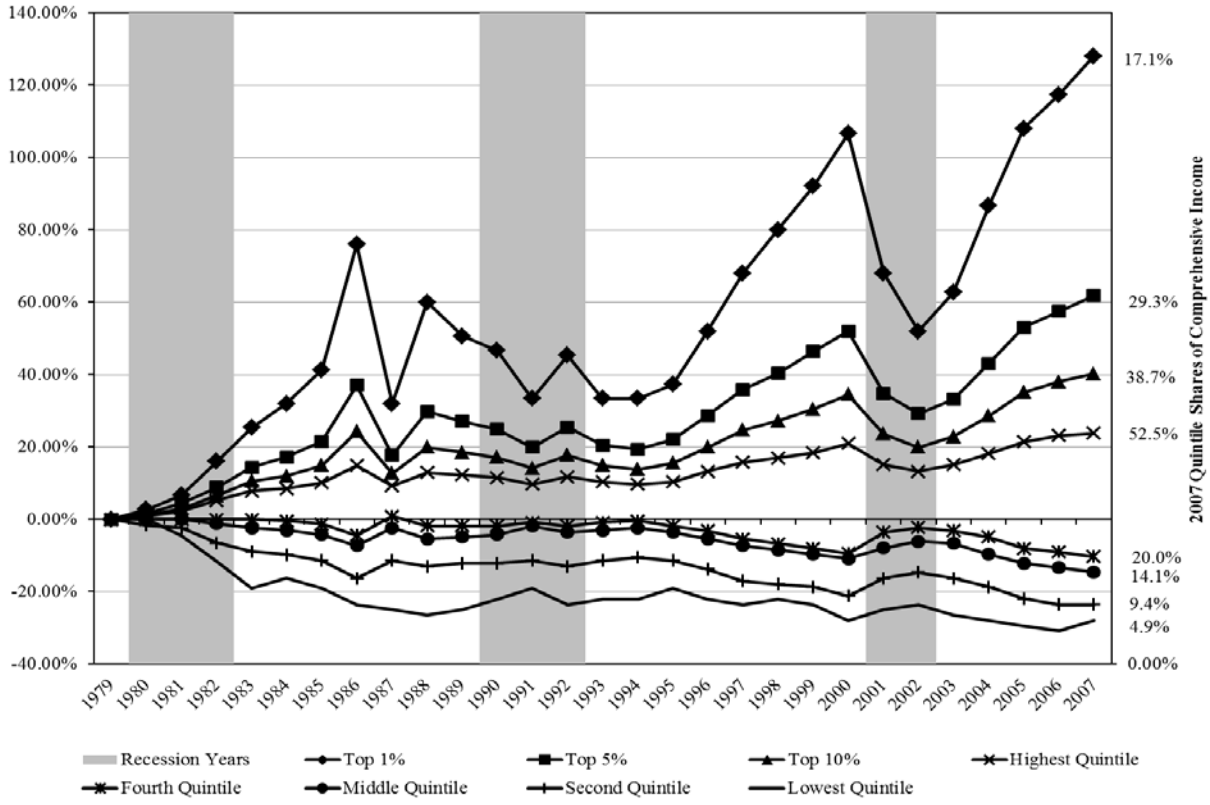
Source. Authors' analysis of March CPS (various years), CEPR extracts, and NBER Taxsim.

Figure 8.5. Inequality of equivalised household net income, non-elderly households, 2000–2009 (indexed 2000 = 100)



Source. Authors' analysis of March CPS (various years), CEPR extracts, and NBER Taxsim.

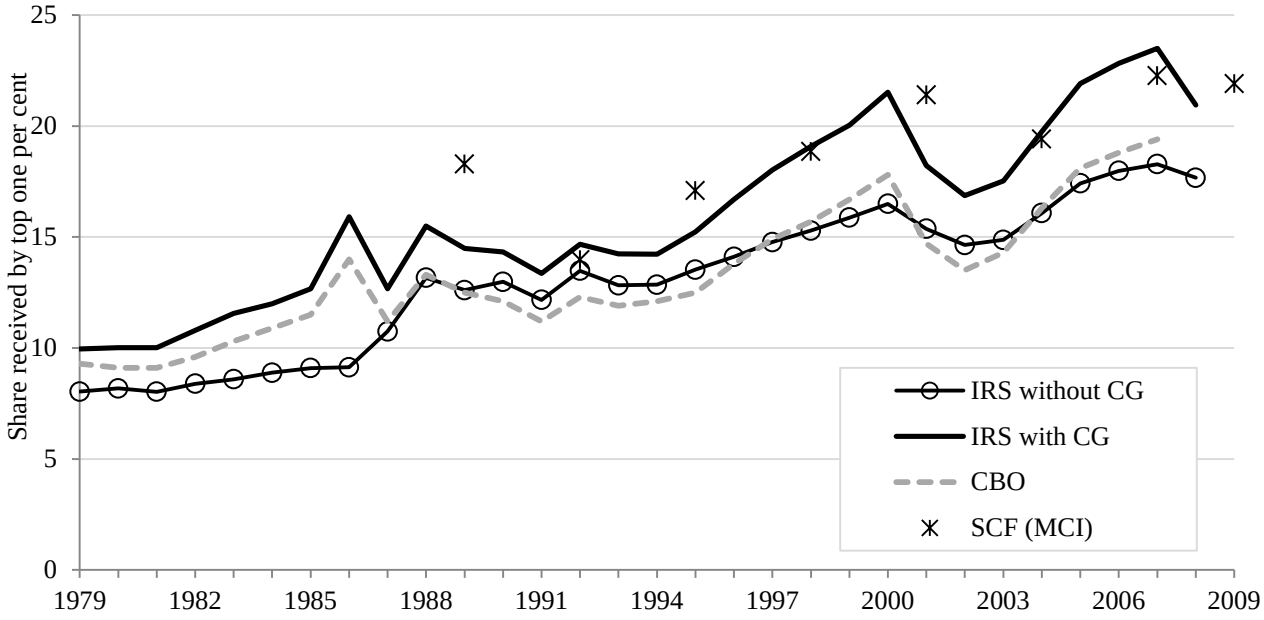
Figure 8.6. Shares of CBO household after-tax 'comprehensive income', quintile and top income groups, 1979–2007 (indexed 1979=0)



Note. The CBO's household 'comprehensive income' equals pre-tax cash income plus income from other sources. Pre-tax cash income is the sum of wages, salaries, self-employment income, rents, taxable and non-taxable interest, dividends, realized capital gains, cash transfer payments, and retirement benefits plus taxes paid by businesses (corporate income taxes and the employer's share of Social Security, Medicare, and federal unemployment insurance payroll taxes) and employees' contributions to 401(k) retirement plans. Other sources of income include all in-kind benefits (Medicare, Medicaid, employer-paid health insurance premiums, food stamps, school lunches and breakfasts, housing assistance, and energy assistance).

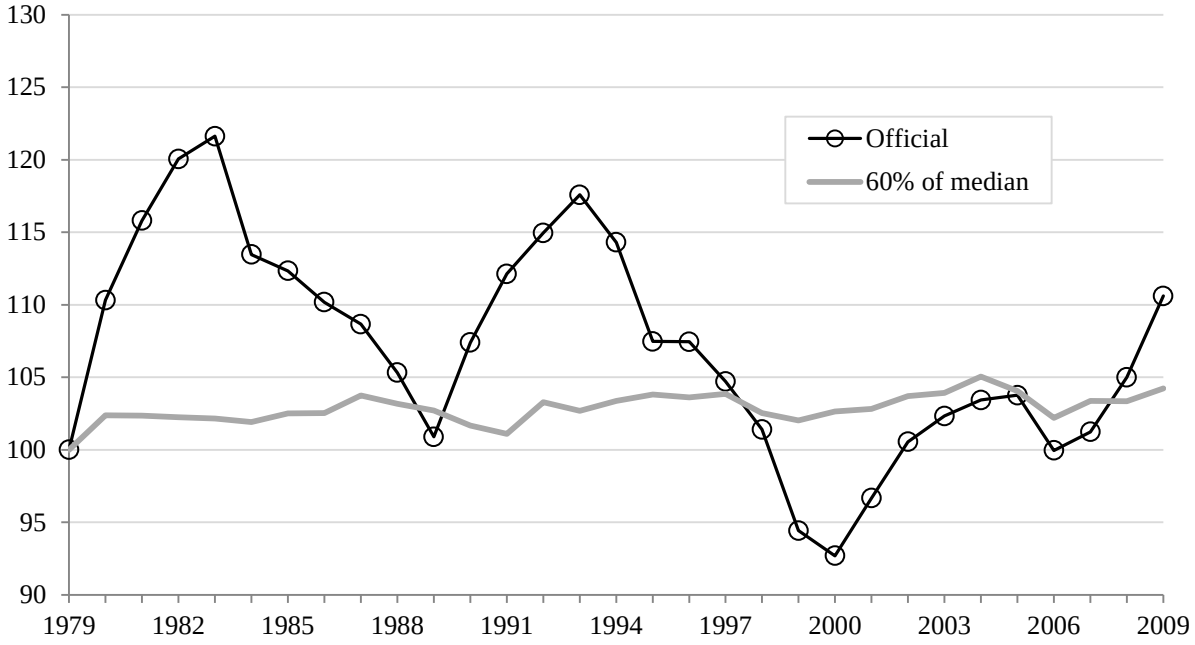
Source. CBO (2010), 'Average Federal Tax Rates and Income, by Income Category (1979–2007): Shares of After-Tax Income'. http://www.cbo.gov/publications/collections/collections.cfm?collect=13

Figure 8.7. Income share of top one per cent, by data source, 1979–2009



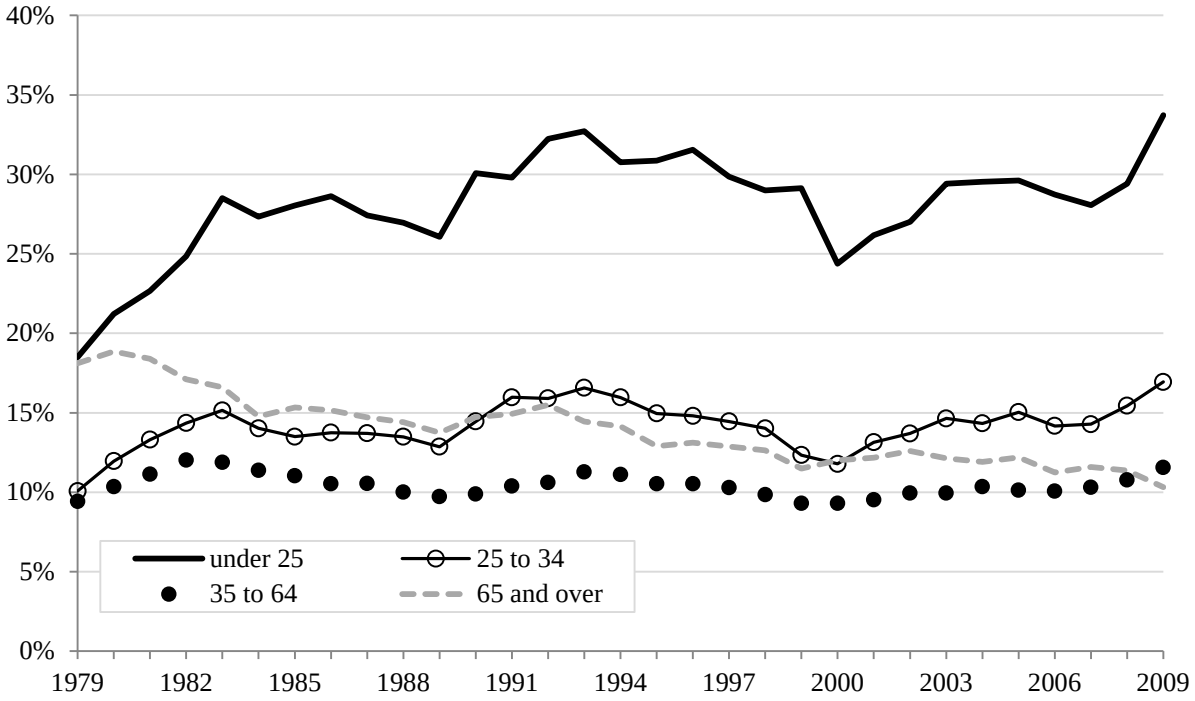
Source. Smeeding and Thompson (2011).

Figure 8.8. Household poverty rates, US Official and 60% of median, Census 'money income', 1979–2009 (indexed 1979 = 100)



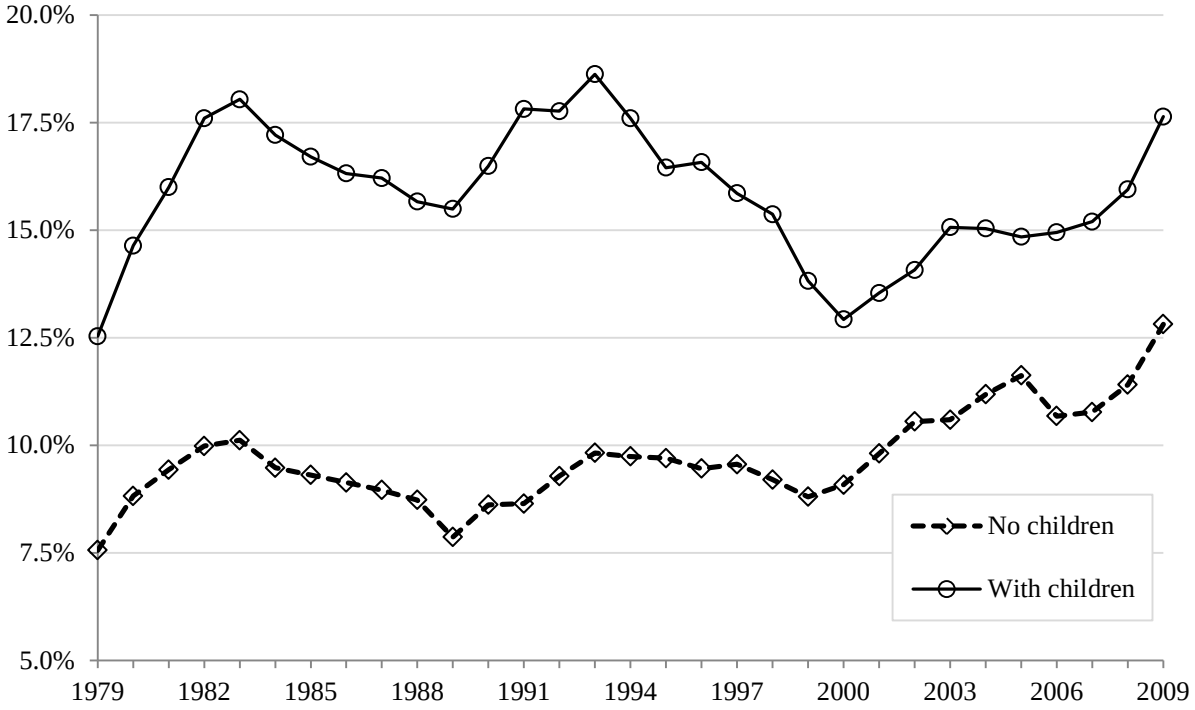
Source. Authors' analysis of March CPS (various years).

Figure 8.9. Official poverty rate (%), by age of household head



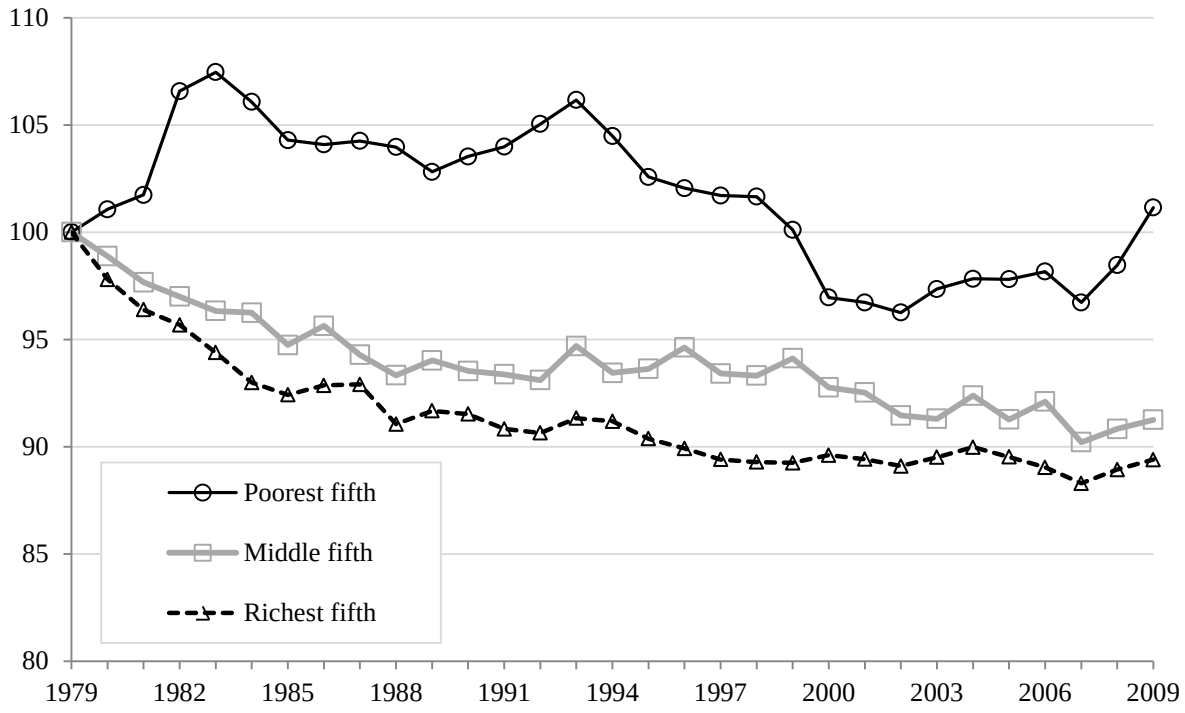
Source. Authors' analysis of March CPS (various years).

Figure 8.10. Official poverty rate (%), by presence of children, households with head aged less than 55



Source. Authors' analysis of March CPS (various years).

Figure 8.11. Average household size by income quintile group, 1979–2009 (indexed 1979 = 100)



Source. Authors' analysis of March CPS (various years).

Table 8.1. Annual real wage growth (%), by age and education group, 2007–10

Education	Age (years)			
	25–34	35–44	45–54	55–64
High school degree only	–0.6	–0.7	–0.2	0.1
Bachelor's degree only	–0.5	0.1	1.2	–0.6
Postgraduate education or degree	0.5	1.3	1.4	–0.1

Note. Average annual percentage change in inflation (2010$) adjusted hourly wages, adjusted for inflation using US CPI-U. Hourly wages for non-union workers.

Source. Authors' analysis of CPS ORG files, CEPR extracts.

Table 8.2. Shares of income components in total household income (%), by quintile group and age, 2007–9

	All households			Non-elderly households			Elderly households		
	Bottom fifth	Middle fifth	Top fifth	Bottom fifth	Middle fifth	Top fifth	Bottom fifth	Middle fifth	Top fifth
A. Earnings									
2007	27.9	79.8	86.6	43.5	89.9	91.0	2.7	27.7	46.1
2009	26.8	74.5	87.1	39.3	87.0	91.4	3.3	23.0	48.6
Change	–1.1	–5.2	0.5	–4.2	–2.9	0.4	0.6	–4.8	2.5
B. Transfers									
2007	66.5	12.2	3.2	52.5	6.3	1.8	89.3	42.4	15.6
2009	68.2	17.2	4.1	57.2	9.6	2.4	89.0	48.6	18.8
Change	1.7	5.1	0.9	4.7	3.4	0.6	–0.3	6.2	3.1
C. Capital income									
2007	5.5	8.1	10.2	4.0	3.9	7.1	8.0	29.8	38.3
2009	5.0	8.3	8.8	3.5	3.4	6.2	7.7	28.4	32.6
Change	–0.6	0.2	–1.4	–0.5	–0.5	–1.0	–0.3	–1.4	–5.7
D. Taxes									
2007	2.1	13.2	24.9	3.4	14.5	25.2	0.0	6.2	21.8
2009	2.0	11.9	24.5	3.0	13.6	24.9	0.1	5.1	21.1
Change	–0.2	–1.3	–0.3	–0.5	–1.0	–0.3	0.0	–1.1	–0.7

Note. Total household income is equal to Census ‘money income’ plus the refundable portion of federal and state EITC and child tax credit benefits and estimated SNAP benefits. Transfer share includes estimated SNAP benefits and refundable portion of state and federal EITC and child tax credit benefits, as well as the transfer income included in Census ‘money income’. Tax share excludes the state and federal EITC as well as the refundable child tax credit. Quintile groups refer to the distribution of total household income for all households.

Source. Authors’ analysis of March CPS (various years), NBER TAXSIM.

Appendix. Income definitions

Census 'money income' is defined as income received on a regular basis (exclusive of certain money receipts such as capital gains) before payments for personal income taxes, social security, union dues, Medicare deductions, and other items.

We calculated '*Net, Equivalized Income*' by starting with 'money income' and then, 1) adding transfer income not included in 'money income' (food stamps benefits, and refundable tax credits, including the EITC and the child tax credit, 2) subtracting taxes (state and federal income taxes the employee share of social insurance (FICA) taxes (with taxes and refundable credits estimated using the NBER TAXSIM programme), and 3) adjusting for differences in household size using an equivalence scale, dividing net income by the square root of household size.

SCF Income is defined by the Federal Reserve Board as household income for previous calendar year as the following: wages, self-employment and business income, taxable and tax-exempt interest, dividends, realized capital gains, food stamps and other support programmes provided by the government, pension income and withdrawals from retirement accounts, Social Security income, alimony and other support payments, and miscellaneous sources of income. See Smeeding and Thompson (2011) for more on this measure.

MCI Income: is SCF income as defined above less income from wealth (interest, dividends, rent, royalties, and income from trusts and non-taxable investments, including bonds, as well as some self-employment income) + imputed flows to stocks, bonds, annuities, and trusts + imputed flows to quasi-liquid retirement accounts (401(k), IRA, etc.) + imputed flow to primary residence + imputed flow to other residences and investment real estate, transaction accounts, CDs and whole life insurance + imputed flow to other assets and businesses + imputed flow to vehicle wealth - imputed interest flow for remaining debt (after adjusting for negative incomes). See Smeeding and Thompson (2011) for more on this measure.

CBO '*Comprehensive Household Income*' equals pretax cash income plus income from other sources. Pretax cash income is the sum of wages, salaries, self-employment income, rents, taxable and nontaxable interest, dividends, realized capital gains, cash transfer payments, and retirement benefits plus taxes paid by businesses (corporate income taxes and the employer's share of Social Security, Medicare, and federal unemployment insurance payroll taxes) and employees' contributions to 401(k) retirement plans. Other sources of income include all in-kind benefits (Medicare, Medicaid, employer-paid health insurance premiums, food stamps, school lunches and breakfasts, housing assistance, and energy assistance).

Individual Income Taxes are attributed directly to households paying those taxes. Social insurance, or payroll, taxes are attributed to households paying those taxes directly or paying them indirectly through their employers. Corporate income taxes are attributed to households according to their share of capital income. Federal excise taxes are attributed to them according to their consumption of the taxed good or service. For more information on CBO comprehensive income,
see www.cbo.gov/publications/collections/collections.cfm?collect=13

Table 8.A1. Unemployment and labour force participation rates (%), 18–64 year olds

	1979	1983	1989	1992	2000	2003	2006	2007	2008	2009	2010
A. Unemployment rate											
Total labour force	5.5	9.5	5.1	7.2	3.6	5.6	4.2	4.3	5.4	9.0	9.3
By educational attainment:											
Less than high school	8.9	16.6	10.1	14.3	8.3	11.2	8.6	8.9	10.9	17.2	17.4
High school only	5.4	10.4	5.4	8.2	4.4	6.7	5.3	5.3	7.0	11.6	12.2
Some college, no degree	4.8	8.1	4.3	6.3	3.0	5.2	3.9	4.0	5.0	8.5	9.0
Bachelor's	2.9	4.1	2.7	3.7	1.9	3.4	2.4	2.3	2.9	5.4	5.6
Advanced degree	2.0	2.6	1.8	2.4	1.3	2.6	1.5	1.8	2.0	3.4	3.5
By age group:											
18–24	10.7	16.5	10.0	12.7	8.0	11.2	9.1	9.0	11.4	16.1	17.0
25–35	5.1	9.6	5.1	7.4	3.5	5.8	4.3	4.3	5.6	9.6	9.7
36–45	3.5	6.9	3.6	5.6	3.0	4.6	3.4	3.3	4.4	7.7	8.0
46–54	3.2	6.3	3.4	5.4	2.4	4.0	3.0	3.1	3.9	7.2	7.4
55–64	3.0	5.8	3.2	5.2	2.4	4.2	2.8	3.2	3.6	6.5	7.2
B.Labour force participation rate											
All 18–64 year olds	73.9	75.0	78.1	78.4	78.8	77.7	77.5	77.5	77.5	76.9	76.2
By educational attainment:											
Less than high school	63.0	61.2	62.5	60.0	62.4	61.4	61.6	61.6	60.7	60.3	59.4
High school only	75.3	76.1	78.7	78.0	77.3	76.1	75.3	75.2	75.1	74.2	73.5
Some college, no degree	75.6	77.2	80.3	80.9	80.8	79.3	78.6	78.3	78.3	77.5	76.4
Bachelor's	83.9	85.7	87.4	87.3	85.9	84.9	85.1	84.8	84.8	84.9	84.4
Advanced degree	90.2	90.0	90.5	91.2	88.7	87.3	87.1	87.4	87.5	87.2	86.9
By age group:											
18–24	74.9	74.0	75.1	73.1	73.2	70.3	69.5	68.9	68.4	66.7	65.1
25–35	79.3	81.5	83.9	84.0	84.4	82.7	83.0	83.1	83.0	82.5	81.9
36–45	79.1	81.7	85.3	85.3	84.8	83.9	83.7	84.0	84.0	83.9	83.2
46–54	74.1	75.7	80.1	81.0	82.3	81.7	81.7	81.7	81.7	81.2	80.7
55–64	56.9	54.7	55.7	56.4	59.1	62.5	63.7	63.9	64.6	64.9	65.1

Source: authors' analysis of CPS ORG (various years), CEPR Extracts

Table 8.A2. The distribution of real hourly wages (2010$), by education and age

	1979	1983	1989	1992	2000	2003	2006	2007	2008	2009	2010
A. Mean, median and selected percentiles											
Mean	17.51	17.07	17.57	17.63	19.47	20.18	20.06	20.26	20.24	20.70	20.57
P10	8.40	7.28	7.21	7.61	8.17	8.30	8.11	8.34	8.10	8.13	8.00
P50	14.79	14.56	14.85	14.95	15.55	16.21	16.22	15.77	15.95	16.26	16.00
P90	28.90	29.12	30.60	30.45	34.62	36.38	36.50	36.80	37.00	38.12	38.45
P95	34.98	36.41	37.94	38.06	44.12	45.59	46.77	47.79	47.71	48.87	48.56
B. Inequality indices											
P90/P50	1.95	2.00	2.06	2.04	2.23	2.24	2.25	2.33	2.32	2.34	2.40
P90/P10	3.44	4.00	4.24	4.00	4.24	4.38	4.50	4.41	4.57	4.69	4.81
Gini	0.289	0.309	0.318	0.319	0.333	0.337	0.343	0.345	0.345	0.349	0.351
C. Mean by education and age groups											
By education:											
Less than high school	14.45	13.12	12.36	11.73	11.52	11.90	11.58	11.77	11.69	11.85	11.49
High school only	16.16	15.23	15.00	14.67	15.44	15.94	15.69	15.65	15.52	15.87	15.54
Some college, no degree	17.28	16.54	16.81	16.63	17.63	18.00	17.62	17.70	17.44	17.72	17.46
Bachelor's	22.68	22.57	23.63	23.81	26.93	27.48	27.22	27.40	27.19	27.29	27.33
Advanced degree	26.69	26.82	29.40	30.12	33.75	34.31	34.27	34.29	34.22	35.29	35.07
By age group:											
18–24	12.46	11.00	10.75	10.31	11.40	11.34	11.16	11.34	11.21	11.29	11.04
25–35	18.07	17.25	17.14	16.92	18.67	18.96	18.56	18.59	18.63	18.86	18.74
36–45	19.75	19.75	20.37	20.13	21.65	22.57	22.48	22.74	22.81	23.24	23.18
46–54	19.93	19.83	20.59	20.96	22.83	23.17	23.14	23.18	23.15	23.69	23.56
55–64	18.85	19.06	19.35	19.28	21.29	22.99	22.93	23.40	23.02	23.66	23.47
By selected age-education groups:											
Aged 25– 34											
High school only	16.39	15.24	14.68	14.17	14.84	15.22	14.78	14.62	14.45	14.55	14.36
Bachelor's only	20.95	20.55	21.90	21.99	24.72	24.52	23.95	23.87	23.59	23.82	23.53
Advanced	23.68	23.31	25.41	25.99	29.20	29.15	28.77	28.92	29.32	29.19	29.38
Aged 35–44											
High school only	17.71	16.90	16.40	15.97	16.94	17.34	17.08	17.16	16.87	17.23	16.80
Bachelor's only	26.15	25.99	26.07	26.12	29.63	30.75	30.28	30.46	30.58	30.48	30.59
Advanced	29.70	29.26	30.86	31.06	35.21	36.54	36.12	36.16	36.25	37.56	37.52
Aged 45–54											
High school only	18.07	17.57	17.26	16.98	17.20	17.82	17.78	17.59	17.55	17.93	17.51
Bachelor's only	28.63	27.94	27.81	28.13	29.91	30.09	30.49	30.61	30.83	31.02	31.69
Advanced	30.01	31.14	32.45	33.18	35.64	35.81	36.65	36.86	36.66	38.58	38.46
Aged 55–64											
High school only	17.99	17.31	16.74	16.50	16.69	17.46	17.14	17.25	17.02	17.58	17.30
Bachelor's only	27.55	28.47	28.23	27.87	28.77	30.85	29.81	30.38	29.32	29.38	29.86
Advanced	29.95	30.09	33.29	32.16	35.64	36.20	36.25	36.16	35.49	36.82	36.07

Source: authors' analysis of CPS ORG (various years), CEPR Extracts

Table 8.A3. Income and Poverty

	1979	1983	1989	1992	2000	2003	2006	2007	2008	2009
A. Inflation-adjusted household income										
mean	57,923	54,640	63,055	59,502	71,186	68,888	70,840	69,985	68,183	67,964
P10	12,181	11,201	12,457	11,484	13,181	12,285	12,770	12,584	12,118	12,120
P50	48,617	44,728	50,042	46,638	52,326	50,370	51,125	51,735	49,822	49,806
P90	111,332	108,238	124,490	119,272	140,060	138,421	142,382	141,189	138,300	138,000
P90/P10	9.14	9.66	9.99	10.39	10.63	11.27	11.15	11.22	11.41	11.39
P90/P50	2.29	2.42	2.49	2.56	2.68	2.75	2.78	2.73	2.78	2.77
Gini	0.399	0.409	0.427	0.429	0.456	0.457	0.462	0.455	0.458	0.459
B. Inflation-adjusted equivalised household net income (all households)										
Mean	28,032	26,657	31,984	30,420	35,500	35,692	36,507	36,280	35,430	35,539
P10	9,596	8,766	9,694	9,288	11,049	10,666	11,012	10,944	10,735	10,790
P50	25,518	23,903	27,381	26,122	29,193	29,215	29,525	29,681	28,831	28,824
P90	48,288	47,228	57,093	54,593	63,714	65,193	66,393	66,666	64,950	64,858
P90/P10	5.03	5.39	5.89	5.88	5.77	6.11	6.03	6.09	6.05	6.01
P90/P50	1.89	1.98	2.09	2.09	2.18	2.23	2.25	2.25	2.25	2.25
Gini	0.315	0.331	0.359	0.355	0.369	0.374	0.378	0.373	0.373	0.375
C. Inflation-adjusted, equivalised household net income (non-elderly households)										
Mean	29,573	27,454	33,388	31,785	37,336	37,538	38,156	37,861	36,851	36,797
P10	10,824	8,904	10,205	9,759	12,082	11,402	11,774	11,765	11,400	11,114
P50	27,406	24,991	29,087	27,886	31,189	31,321	31,321	31,491	30,455	30,181
P90	49,361	47,879	58,403	56,029	65,545	66,896	68,133	68,088	66,429	66,337
P90/P10	4.56	5.38	5.72	5.74	5.43	5.87	5.79	5.79	5.83	5.97
P90/P50	1.80	1.92	2.01	2.01	2.10	2.14	2.18	2.16	2.18	2.20
Gini	0.296	0.322	0.348	0.345	0.361	0.366	0.371	0.364	0.367	0.372
D. Household poverty rates (%, using Census 'money income')										
Official	12.1	14.7	12.2	13.9	11.2	12.4	12.1	12.2	12.7	13.4
60% of median	29.3	29.9	30.1	30.2	30.0	30.4	29.9	30.2	30.2	30.5
By age:										
Under 25	18.5	28.5	26.1	32.2	24.4	29.4	28.7	28.1	29.4	33.7
25–34	10.1	15.1	12.9	15.9	11.8	14.6	14.2	14.3	15.4	16.9
35–64	9.4	11.9	9.7	10.6	9.3	10.0	10.1	10.3	10.8	11.6
65+	18.1	16.6	13.8	15.5	12.0	12.1	11.3	11.6	11.4	10.3
By child status (head under 55):										
No child	7.6	10.1	7.9	9.3	9.1	10.6	10.7	10.8	11.4	12.8
Any child	12.5	18.0	15.5	17.8	12.9	15.1	15.0	15.2	15.9	17.6

Source: authors' analysis of CPS ORG (various years), CEPR Extracts