How did inequality change in the US from 1967 to 2012:
Putting the Gini back in the bottle

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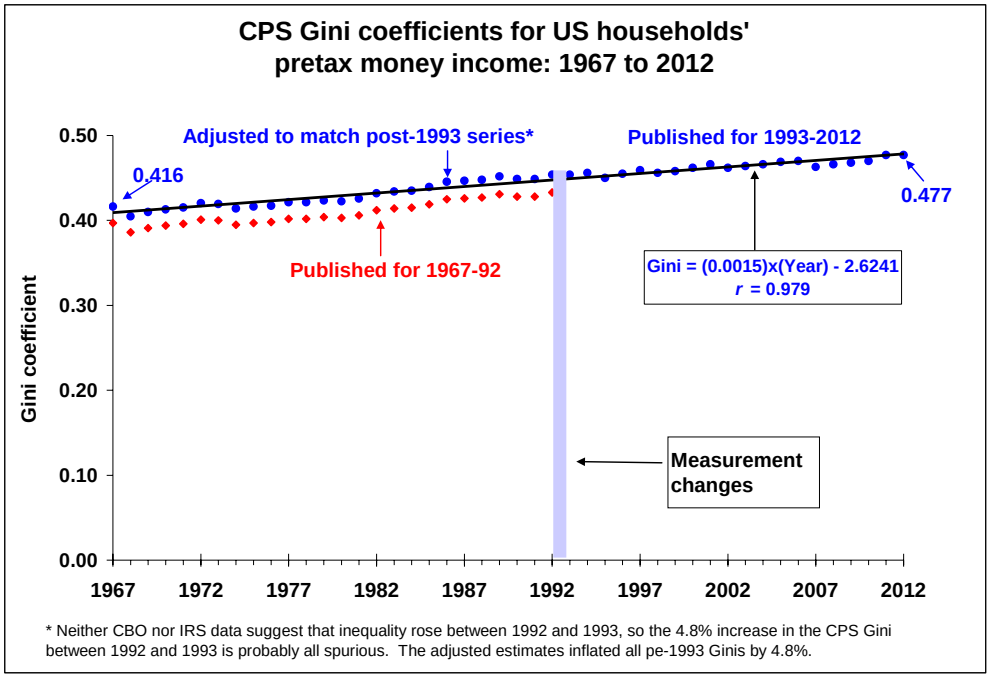
What follows is from a short talk presented on October 11, 2013, at a conference on "New Directions for Research on the Effects of Rising Economic Inequality." It lays out the basic facts about changes in the US since the 1960s, and suggests some hypotheses about how we might explain them. The main idea is that rising inequality since the late 1960s is not a single phenomenon but has taken at least three distinct forms. Different kinds of inequality rose at different times and presumably had different consequences.

Figure 1 (on page 2) shows trends in the most widely used measure of economic inequality, namely the Gini coefficient.[1] The estimates, which come from the US Census Bureau (2013) and cover the pretax money incomes of all households living in the US, are shown in Figure 1. The only sharp break in the series is between 1992 and 1993, when the Bureau changed its survey methods and income measures in ways that raised the estimated incomes of households in the top part of the distribution more than those of less affluent households. As a result, for Gini for 1993 was 4.8 percent higher than that for 1992. Since neither CBO nor IRS estimates show such a break between 1992 and 1993, the most likely explanation is that pre-1993 CPS Ginis were underestimated. Figure 1 therefore includes a series (shown in blue) that inflates all the published Ginis for 1967 through 1992 by 4.8 percent, eliminating the 1992-93 break. Once that is done, the Gini rises 14.7 percent between 1967 and 2012. This increase is very close to linear (r=0.98).

[1] The Gini coefficient is equal to $\overline{D}_{ij}/2\overline{Y}_{i}$, where $\overline{D}_{ij}$ is mean absolute income *difference* between every possible pair of households and $\overline{Y}_{I}$ is the mean income of all households.

Figure 1



The slow but steady increase in the Gini shown in Figure 1 is consistent with the views of labor economists who attribute rising inequality to "skill-biased technological change." Skill-biased change refers not to a sudden technological shift but to the gradual diffusion of many different technologies, often made possible by cheap high-speed computing. These changes are thought to have raised the potential value-added of skilled workers more than that of unskilled workers. This account of what drove the rise in inequality has led to the widespread assumption that more and better education is the key to limiting or reversing the rise of inequality. Globalization is another commonly cited explanation which also implies a slow but steady rise in inequality.

I would argue, however, that Figure 1 is misleading, because it combines the effects of three different sources of change in overall inequality, only one of which was "slow but steady." Specifically:

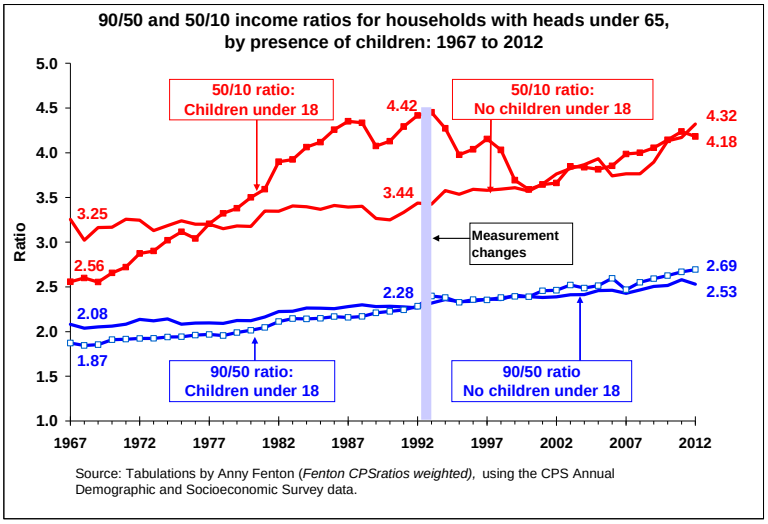
1. The ratio of incomes at the 90th percentile to incomes at the 50th percentile of the household distribution (the 90/50 ratio) does exhibit a slow but steady rise from 1967 to 2012, analogous to that of the Gini coefficient, but
2. The rise in the ratio of incomes at the 50th percentile to incomes at the 10th percentile (the 50/10 ratio), was neither slow nor steady, and
3. The share of pretax personal income going to the richest one percent of American households, which changed very little between 1967 and 1986, then doubled between 1986 and 2012.

Figure 2 (on page 3) shows trends since 1967 in the 90/50 and 50/10 ratios, separately for households with and without children under the age of 18. Households that include children are weighted by the number of children in the household. Households that do not children are weighted by the number of adults in the household. In order to make the potential income sources of households with and without children more comparable, the estimates all exclude households with heads over the age of 64.

The 90/50 ratios, shown in blue in Figure 2, display a "slow but steady" increase analogous to the Gini coefficients in Figure 1, and they also fit a linear model even better than the adjusted Ginis in Figure 1. This pattern is what we might expect if the rises in the 90/50 ratio were driven by skill-biased technological change, globalization, or both. The trends in the 90/50 household income ratios also match fairly well with trends in the 90/50 wage ratios, to which we return below.

In contrast to the 90/50 ratios, the increases in the 50/10 ratio for households (shown in red) are not at all linear. Among households with children, the entire rise is concentrated between 1969 and 1992, when the 50/10 ratios rose 73 percent. After that,

Figure 2



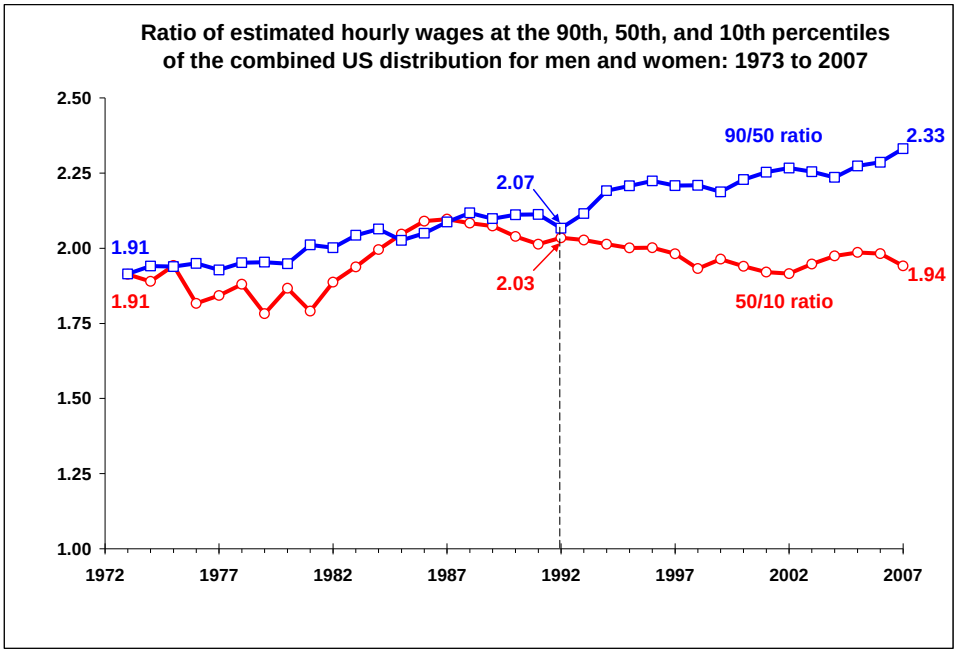
the 50/10 fell 19 percent from 1993 to 2000. It then rose 16 percent between 2000 and 2012, leaving it slightly lower than in 1993 but far higher than in 1967.

Among households *without* childen, this pattern is reversed. Th increase between 1969 and 1992 is only 20 percent, but it accelerates after 1993 and especially after 2007, totaling 38 percent rise between 1993 and 2012. This contrast in the timing of the increases suggests that different forces were probably driving the trends for households with and without children.

To see if these trends were driven by wage trends, it is useful to compare trends in the household income ratios at the 90th, 50th, and 10th percentiles to analogous trends for hourly wages. Figure 3 (on page 4) shows 90/50 ratios for hourly wages from 1973 to 2007. The 90/50 wage ratio rose 20 percent during those years. If we track households for the same period, the 90/50 ratio rose 29 percent among households with children and 16 percent among those without children, or about 22 percent overall, which matches the increase for hourly wages quite well. Like the 90/10 households income ratios, the trend for the 90/50 wage ratios also looks quite linear.

Trends in the 50/10 household income ratios and hourly wage ratios do not match anything like as well as the 90/50 trends do. For households with children the 50/10 ratios rose 53 percent from 1973 to 1992, while the 50/10 wage ratio rose only 6 percent. After that 1993 the 50/10 wage ratios tend to decline, while the 50/10 household income ratios are more volatile.

Figure 3

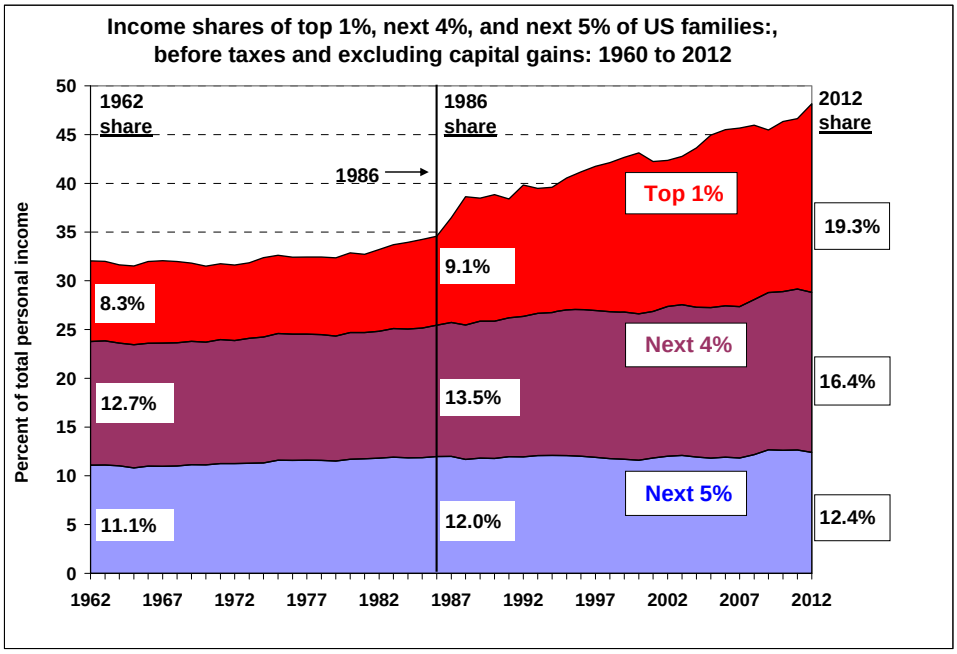


The ups and downs in the 50/10 ratio for household income partly reflect the interaction between the rapid spread of single-parent families with children and the political responses to that change. During the Carter and Reagan years most states let the real value of AFDC lag behind inflation, hoping to push more single mothers into the labor market. That effort had limited success. During the Clinton years, the expansion of the Earned Income Tax Credit from 1992 to 1996, the time limits imposed on welfare receipt in 1996, and an unusually tight labor market of the late 1990s did move more single mothers into the formal labor market. The rise in the 50/10 ratio for households

with children after 2000 reflects a decline in real income at the 10th percentile of the household distribution, a weaker labor market that made jobs harder to find and keep, and states' refusal to fill the gap by expanding TANF eligibility.

Figure 4 (on page 6) shows changes in the share of personal income going to the richest one percent of households. These estimates exclude taxes, because it is unclear how much of the burden of corporate taxes and property taxes is born by owners and how much is born by consumers. The estimates also exclude capital gains, because including them makes membership in the top one percent change a lot from one year to the next.

Figure 4



The income share of the top 1 percent was almost flat from 1967 to 1986. The Reagan Administration reduced top tax rates from 70 percent to 50 percent in 1982 and from 50 to 28 percent in 1987, although the top rate was raised slightly in 1988. The 1982 cut had little immediate impact on top income shares, but after the Tax Reform Act of 1986 the income share of the top 1% rose steadily, reaching 19.3% in 2012. It is hard

to argue that these post-1986 changes were due to a sudden acceleration in either skill-biased technological change or globalization. They probably owe more to changes in the organization and pay levels of the financial sector, the collapse of the labor movement (which freed corporate boards raise top executives' pay increases without worrying that such increases would precipitate strikes demanding comparable increases for blue-collar workers.

Bottom line: Efforts to trace the impact of rising inequality need to specify how changes among different kinds of families in different parts of the income distribution might plausibly have influenced the various outcomes of interest. Researchers also need to use measures of inequality that match these causal hypotheses. And hardest of all, they need to model lagged effects. Such strategies will not guarantee more consensus about the impact of rising inequality. But they should at least make studies that fail to confirm hypotheses about the effects of inequality somewhat more convincing.