CBO Comprehensive Income Data: Higher Inequality and Weaker Earnings Any Way You Cut It

By Jared Bernstein and Ben Spielberg

The Congressional Budget Office (CBO) recently updated their series on the distribution of household income and federal taxes, providing important new information about the evolution of income inequality, comprehensively measured. We find:

--The increase in income inequality since the late 1970s has occurred both before and after taxes and transfers. Thus, according to these data, claims that adding taxes and transfers erase the trend toward higher inequality are incorrect.

--The income of the poorest fifth of households grows much more quickly in the CBO data than in other data sets but this is largely due to assigning the market value of health benefits to their income. We argue that based on unique inefficiencies that raise costs in the US health care system in ways that do not increase the living standards of the poor, this method creates an upward bias. A more realistic valuation of health benefits, one that still captures their important value to recipient households, cuts the income growth of the bottom fifth by half.

--The CBO data now run through 2011 and thus provide two years of comprehensive income data over the recovery that began in 2009. These data show just how unequal the recovery has been, with income gains even after taxes and transfers largely eluding the poor and middle class, while disproportionately accruing to the top 1%.

--Since the late 1970s, earnings growth has been slow and unequal. Remarkably, for middle-income households with children, the increase in transfer income has been larger than the increase in earnings.

Details follow:

Like any data set, the CBO series, which now runs from 1979 to 2011, has strengths and weaknesses. It is among the most comprehensive in terms of including a wide variety of income sources, including market income, government transfers and taxes (but only at the federal level; state taxes are left out), the value of realized capital gains, and more.

On the downside, as it starts in 1979, it has far less historical scope than the well-known series on market inequality developed by Piketty and colleagues. Saez and Zucman also capture more comprehensive wealth data in their recent work. Finally, some of CBO's measurement choices, most notably their decision to value health care benefits at market value, lead to a significant upward bias in real income values, particularly among the lowest income households.

The following are some of the key takeaways from the report:

--No matter which income measure you choose, income inequality has increased significantly since 1979. While some critics of the inequality debate argue that adding the effects of taxes and

transfers significantly alters inequality's trajectory over time, the CBO data reveal similar rates of increase using both before- and after-tax income measures.

The figure below shows the increase in the Gini coefficient, a measure of income inequality. Based on market incomes alone, i.e., before including the impact of taxes and transfers, the Gini rose 24% in the CBO data between 1979 and 2011. Including taxes and transfers, this inequality measure is up a similar amount: 22%.

Percent Increase in Gini, 1979-2011

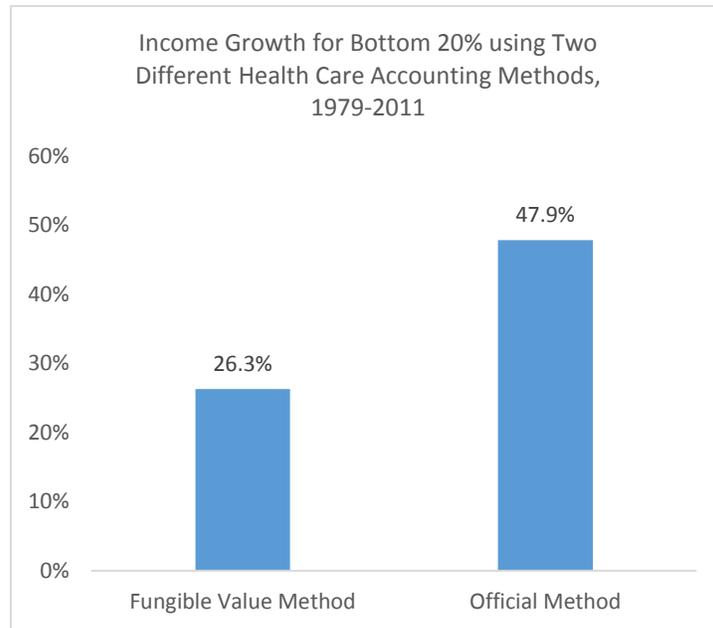|	Market Income	After-Tax Income
	23.7%	21.8%
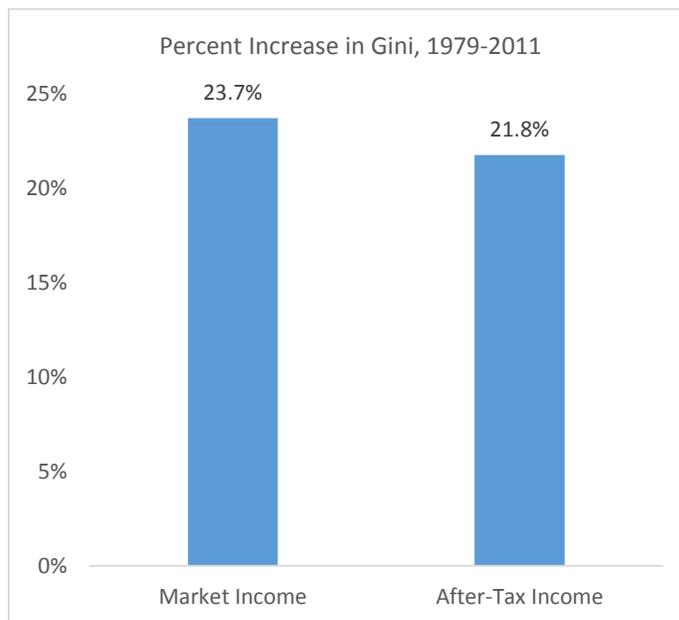
To be clear, our tax and transfer system is progressive; in any given year, incomes are distributed more equally after than before taxes. But the trend in inequality is about the same either way, meaning it is wrong to maintain that the inclusion of taxes and transfers significantly changes the trend in American inequality.

-- In some of the featured CBO tables and figures (e.g., see figure 13 in their report), the incomes of the poorest households grow faster than households in the 20th through 80th percentile of the household income scale. The main reason for this surprising outcome is that CBO assigns the market value of Medicaid and Medicare benefits to the income of the poor, which has the misleading impact of making them look a lot more well off than they really are.
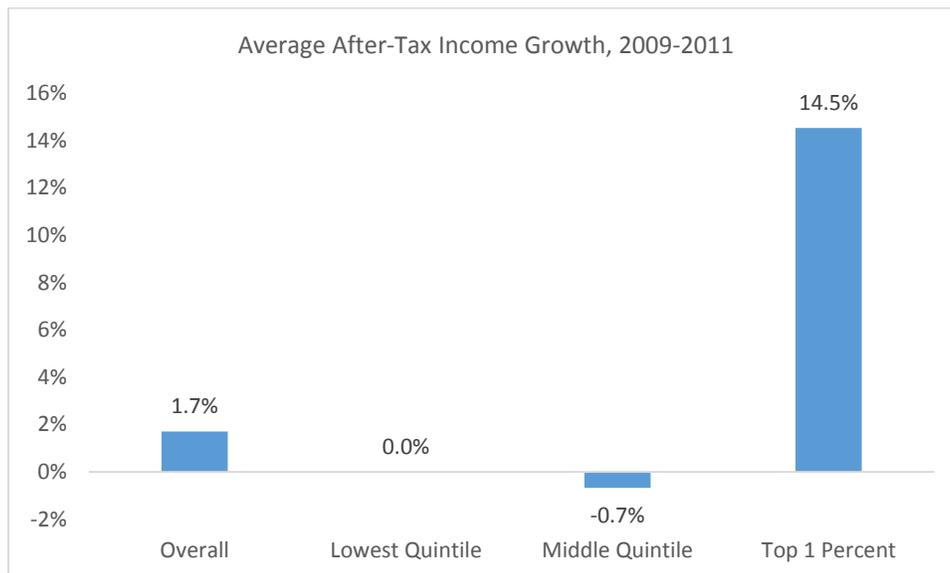
The cost of health care in America is [much higher than](#) that of other countries on a per capita basis. This difference is widely viewed to be a function of unique inefficiencies within our system, such as high insurance premiums, drug pricing, administrative costs, quantity over quality, and physicians' salaries, and as such should not be assumed to impro\ve the living standards of families receiving public health coverage.

At the same time, there's no question that the provision of health care coverage makes the families who receive it better off (just not by as much as CBO's featured tables suggest). Historically, the CBO has used the more realistic "fungible value" approach, as shown in the next figure, to value

benefits.[1] This method, still provided by the budget agency but no longer their preferred method, cuts the real income growth of the bottom 20 percent by almost half over the full period of the study.

Income Growth for Bottom 20% using Two Different Health Care Accounting Methods, 1979-2011

- Fungible Value Method: 26.3%
- Official Method: 47.9%

--Though the CBO data show only a few years of comprehensive income growth in the current recovery, the findings complement those of inequality scholar Emmanuel Saez. Most of the growth has gone to households at the top of the income scale.

Average After-Tax Income Growth, 2009-2011

- Overall: 1.7%
- Lowest Quintile: 0.0%
- Middle Quintile: -0.7%
- Top 1 Percent: 14.5%

[1] As our CBPP colleagues explain, "the fungible value is defined as the amount by which the household's income exceeds what is needed to meet basic food and housing needs; the availability of government medical benefits allows the household to spend this "extra" income on things other than insurance. Fungible value estimates are capped at the government's average cost of providing insurance."

This dynamic is a well-known symptom of income inequality: though GDP and productivity have grown over the economic expansion that began in the second half of 2009, the benefits of that growth have not reached middle and lower-income households.[2]

--While income, measured comprehensively, grows more quickly for middle- and lower-income households in these CBO data than in other, less comprehensive sources, the earnings component has grown slowly for many households. This serious problem is linked to an inequality-induced wedge that channels growth away from the middle class and towards the top of the income scale (the last two years, as shown in the previous figure, provide a compelling microcosm of this dynamic).

The next figure shows the real growth in annual earnings of those in the middle fifth of the income scale among households with children (we exclude elderly households, which are less likely to depend on earnings, and nonelderly households without children, for whom wages exhibit a similar trend). The blue line shows CBO's estimate of this measure, up 13% over the full period, or about 0.4% per year. Note that productivity was up 89% over these years (about 2% per year)[3], underscoring the impact of the inequality wedge between productivity and middle-class wage growth.

Percent Change in Real Earnings Since 1979, Middle Quintile Households with Children
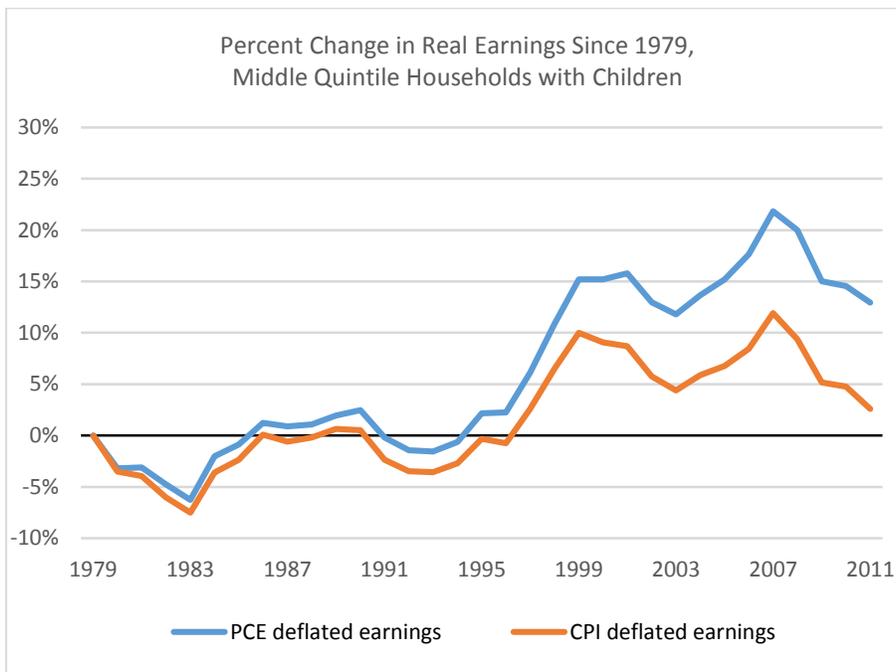
However, even this growth may be overstated. Unique among government agencies when it comes to adjusting incomes to account for the impact of inflation, CBO uses the Personal Consumption Expenditure deflator, or PCE, instead of the CPI-U.[4] Though the PCE is commonly used to deflate

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[2] Bernstein extends some of this analysis using more recent data on the income of median households.
[3] Our calculation using BLS data for nonfarm output per hour.
[4] The Census Bureau typically uses the CPI-U-RS to deflate incomes and earnings, the same deflator we use for the orange line in the figure above. BLS uses the CPI-U or CPI-W for various series. The SSA uses the CPI-W

consumer spending in the GDP accounts, its weighting scheme makes it less appropriate for measuring changes in household living standards over time.

Relative to the CPI, the PCE underweights two core expenditure components: housing and energy costs. In 2007 (the most recent year for which we could find such data), housing had a weight of 42% in the CPI and 23% in the PCE. One reason for the PCE's down-weighting of housing is because, while the CPI includes only prices faced by the household sector, the PCE includes the nonprofit sector, which we view as less relevant when estimating changes in the real incomes of households. In addition, the PCE assigns a slightly larger weight to IT equipment, a component that has fallen very sharply in price in recent decades, e.g., by more than 90% in the past 20 years.[5]

The PCE also has some advantages over the CPI. First, it is "chain-weighted" and economists view chained measures of inflation as more accurately reflecting changes in consumer purchases driven by relative price shifts. Second, and CBO reasonably cites this as a major motivation for the switch, the PCE more accurately accounts for cost changes in government health care programs.

However, Bivens and Wething conclude that because of the significant down-weighting of housing and energy costs, "the CBO cure for the underweighting of health expenditures in its old deflator…is actually a bit worse than the original problem." Though both deflators have their merits—neither choice is definitively "right"—we agree with Bivens and Wething on this point and suggest that at the least, both measures should be shown.

The orange line in the figure above shows the increase in real middle fifth wages when deflated by the CPI (we use the CPI-RS, as does the Census Bureau in their income and earnings reports and the Federal Reserve in their consumer finance survey). It shows a growth rate of only 2.6%, in total, between 1979 and 2011, or 0.1% per year. In other words, middle class earnings of families with children grew relatively slowly, using the PCE deflator, as in the CBO report, or hardly at all using the arguably more representatively-weighted CPI over this full 32 year period.

As a result, taxes and transfers have that much more "work to do" to make up the difference. Incomes of these middle class households with children still grew slowly relative to the overall economy during this time, but they grew much faster than earnings, by 45% using the PCE and by 32% using the CPI. Using the CBO's preferred deflator (the PCE), increased transfers from Social Security, Medicare, Medicaid, and other sources actually added more to middle-class incomes of these households than earnings, though part of the reason may be the inflated value of health care benefits.[6]

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to adjust benefits for inflation. The Federal Reserve uses the CPI-U-RS in its Survey of Consumer Finances. We are not aware of any cases in which these agencies use the PCE for household or family incomes or for wages.

[5] Our calculation using NIPA data.

[6] However, other data in the CBO report suggest that the problem of assigning the market value of health benefits is not what's driving this sharp increase in transfers to the middle class. When we compare the growth in the middle-fifth incomes of all households using the market value versus the fungible method, the difference in real growth rates over the full period is relatively small: 35% versus 33%. Unfortunately, CBO does not provide this comparison for families with children.

CBO data thus show that transfer programs, despite their inability to reverse inequality trends, make large and positive differences to the living standards of those who receive them. Even though the value of Medicare and Medicaid is biased up for low-income households, the CBO data demonstrate that transfer programs and key provisions of tax credits like the EITC and the CTC are important sources of income growth.

That said, absent a stronger connection between overall economic growth and earnings, increasing the living standards of many working-age households will depend on continuously ratcheting up transfers and/or cutting taxes, a policy agenda that is neither desirable nor sustainable.