Center on Budget and Policy Priorities

1275 First Street NE, Suite 1200
Washington, DC 20002

Tel: 202-408-1080
Fax: 202-408-1056

center@cbpp.org
www.cbpp.org

June 11, 2019

Reducing Cost-of-Living Adjustment Would Make Poverty Line a Less Accurate Measure of Basic Needs

By Arloc Sherman and Paul N. Van de Water[1]

The Trump Administration is publicly weighing plans to gradually lower the official poverty line by applying a smaller cost-of-living adjustment each year.[2] Doing so would be unjustified for several reasons:

- **An alternative inflation index may be less accurate for those with low incomes.** Recent evidence casts doubt on claims that the current method for adjusting the poverty line for inflation each year — which is based on the consumer price index for all urban consumers (CPI-U) — overstates inflation for the poor. Prices have been rising *faster* than the CPI-U does for the broad categories of goods and services that dominate poorer households' spending. The poorest fifth of households devote twice as large a share of spending to rent as the typical household, for example, and the cost of rent rose 31 percent from 2008 to 2018, compared to 17 percent for the overall CPI-U. In addition, recent studies find that low-income households may face more rapidly rising prices than high-income households even for the same types of goods, possibly because low-income households have fewer choices about where and how to shop.
- **The official poverty line is already too low.** The high rates of hardship and financial insecurity among both poor and near-poor families suggest that hardships are likely common among families whom the Administration's plan would define as *no longer poor* — namely, those who now are just below the poverty line. In addition, official estimates of minimum living costs consistently exceed the poverty line by a wide margin; just two parts of a family's budget — rent for a modest two-bedroom apartment in a medium-cost metropolitan area as determined by the U.S. Department of Housing and Urban Development (HUD), and the cost of a minimum nutritionally adequate diet as estimated by the U.S. Department of Agriculture (USDA) — would cost $21,000 in 2018, or 83 percent of the poverty threshold for a two-adult family. Surveys also show that most Americans would set the poverty line higher than the official poverty line.

---

[1] The authors thank Jennifer Beltrán for excellent research assistance.

[2] "Request for Comment on the Consumer Inflation Measures Produced by Federal Statistical Agencies," *Federal Register,* May 7, 2019, https://www.federalregister.gov/documents/2019/05/07/2019-09106/request-for-comment-on-the-consumer-inflation-measures-produced-by-federal-statistical-agencies.

- **Annual updates of the official poverty line should fully reflect changes in the costs of meeting basic needs.** Price indexes are designed to capture price growth but not the cost of "new necessities" for families, such as the growing need for child care as more women enter the paid work force. The poverty line should also capture rising living standards, as items that were once unavailable — such as a computer and internet service — become minimum requirements of acceptable living (and increasingly important for finding and retaining a job). The Administration's plan arbitrarily focuses on one questionable technical change that would lower the poverty line while ignoring the ample evidence that incomes at the poverty line are generally too low to make ends meet and have failed to keep up with basic needs.

Alternative Inflation Index May Be Less Accurate for Those with Low Incomes

The Administration appears to believe that the CPI-U, which the Census Bureau now uses to update the federal poverty line each year, is not as accurate a measure of inflation as alternative (and slower-rising) indices such as the "chained CPI." Using the chained CPI instead of the CPI-U to adjust the poverty threshold would slow its growth by about 0.2 percentage points a year. Many analysts may agree that the chained CPI is a more accurate gauge of price changes *across the whole economy*. But it is not at all clear that it would be more accurate *for low-income households*.

There are two reasons why a slower-rising index may understate price increases for the poor. First, prices have been rising faster than the CPI-U for the broad categories of goods and services that dominate poorer households' spending and constitute a larger share of *low-income* households' budgets than of the *average* household's budget.

- Low-income households spend a larger share of their income on housing — especially rent, which has been rising faster than the overall CPI-U in recent years. The cost of rent rose 31 percent from 2008 to 2018, much faster than the overall CPI-U (17 percent). The poorest fifth of households dedicate 40 percent of their spending to housing (including shelter, fuel, utilities, furnishings, and operations), compared with 33 percent for all households. Spending on rent is even more concentrated among the poor: the poorest fifth dedicate 16 percent of their spending to rent, compared with 7 percent for all households, according to Bureau of Labor Statistics (BLS) data for 2017. [3]
- BLS has created experimental price indices that are focused on "basic necessities." These indices show that the price of a market basket consisting only of shelter, groceries, clothing, energy, and medical care — items that together make up a disproportionately large share of poor households' spending — rose at an average rate of 2.99 percent per year from 1982 to 2014, or 0.21 percentage points faster than a market basket reflecting all households' consumer purchases (2.78 percent).[4]
- The Federal Reserve Bank of Chicago compiles price indexes designed to calculate how inflation affects specific socio-economic and demographic groups. These indices show that

[3] Price changes for housing made up 42 percent of the overall CPI-U in December 2018; rent of one's primary residence made up 8 percent.

[4] Jonathan Church, "The cost of 'basic necessities' has risen slightly more than inflation over the last 30 years," *Beyond the Numbers: Prices and Spending*, Vol. 4, No. 10, June 2015, https://www.bls.gov/opub/btn/volume-4/the-cost-of-basic-necessities-has-risen-slightly-more-than-inflation-over-the-last-30-years.htm.

prices for the average bundle of goods and services purchased by *households in poverty* rose 0.18 percentage points a year faster from December 2003 to December 2013 than prices for the average bundle of items purchased by *all income groups*.[5]

Second, other recent studies find that low-income households may face more rapidly rising prices than average and upper-income households even for the same (or very similar) types of goods. Low-income households may have fewer retail outlets in their neighborhood, lack access to convenient transportation, be less able to buy cheaper items in bulk, or lack internet service at home that would let them take shop cheaply online, for example. Or, in other ways, they may be less able to change their consumption patterns when relative prices change.

- Researchers at the University of Chicago and the Federal Reserve Bank of Chicago, using detailed product bar-code data matched from stores and shoppers' homes, find "striking" differences in inflation rates across income groups for the subset of food and other retail goods in their sample. From 2004 to 2013, prices rose by 33 percent for the goods and services bought by households making less than $20,000, but by 25 percent for households with incomes over $100,000.[6]
- Researchers at the Federal Reserve Bank of Minneapolis and the University of California San Diego have developed income-specific price indexes using similar detailed data on household retail purchases. They find that, from 2004 to 2010, retail prices rose 0.6 percentage points faster each year for the purchases made by the poorest fourth of the population than for the purchases of the richest fourth. "[H]igh-income households are better able to pay lower prices for the same category of goods by shifting their expenditures to less expensive brands" during economic downturns, the researchers noted. This strategy is less available to low-income households if they have been using less expensive brands all along.[7]
- Economists at the University of California Berkeley identify another reason low-income households may experience higher inflation: larger, more productive firms have responded to rising income inequality by catering to wealthier households, offering them lower costs on innovative high-end goods to gain their business.[8]
- London School of Economics economist Xavier Jaravel draws a similar conclusion. Using detailed product-level data on retail purchases, he finds that annual inflation for these goods

---

[5] Federal Reserve Bank of Chicago, "IBEX Inflation," June 23, 2015, https://www.chicagofed.org/research/data/ibex/ibex-inflation, and CBPP calculations. Calculations reflect households ranked by size-adjusted income and inflation rates compounded over time.

[6] Greg Kaplan and Sam Schulhofer-Wohl, "Inflation at the Household Level," *Journal of Monetary Economics*, 2017, https://gregkaplan.uchicago.edu/sites/gregkaplan.uchicago.edu/files/uploads/kaplan_schulhoferwohl_jme_2017.pdf. Figures are for the third quarter of each year. The differences between lower- and higher-income groups in other quarters are similar or even larger.

[7] David Argente and Munseob Lee, "Cost of Living Inequality during the Great Recession," Kilts Center for Marketing at University of Chicago Booth School of Business, Nielsen datasets Joint Paper Series, March 1, 2017, https://ssrn.com/abstraSchct=2567357.

[8] Benjamin Faber and Thibault Fally, "Firm Heterogeneity in Consumption Baskets: Evidence from Home and Store Scanner Data," National Bureau of Economic Research Working Paper No. 23101, August 2017, https://www.nber.org/papers/w23101.

from 2004 to 2013 was 0.65 percentage points higher for households earning below $30,000 than for those making $100,000 or more. He finds evidence that this occurred in large part because "(i) the relative demand for products consumed by high-income households increased because of growth and rising inequality; (ii) in response, firms introduced more new products catering to such households; (iii) as a result, the prices of continuing [i.e., older] products in these market segments fell due to increased competitive pressure."[9]

- Recent preliminary work at BLS examining price changes from 2014 to 2017 finds some evidence that, within a given product category, prices rose faster for lower-cost items than for higher-cost items, a difference that could raise inflation for low-income households by as much as 0.7 percentage points a year. Moreover, the general link between low income and inflation rates is "consistent with prior BLS research suggesting the poor tend to face higher inflation rates compared to the rich," the BLS analysts noted.[10]
- The chained CPI, which the Administration is considering as an alternative to the CPI-U, rises more slowly than the CPI-U because it accounts for consumers' ability to partly offset the effect of changes in relative prices by switching between types of products. Yet in one of the only studies to directly ask whether this holds *for low-income households,* BLS economists in 1996 found evidence that poorer households may be less — perhaps much less — able to change their consumption patterns, which casts further doubt on the validity of using the chained CPI to track the living costs of the poor.[11]

Although not definitive, these two types of studies — those comparing inflation rates across different types of goods and those comparing inflation rates for similar types of goods across different income groups — suggest that low-income households experience higher inflation than average or high-income households.[12] If so, indexing the poverty threshold by an inflation measure that grows less rapidly, such as the chained CPI, could make the poverty threshold *less* accurate, not more so. At the very least, more data collection and research are needed before any change is made.

[9] Xavier Jaravel, "The Unequal Gains from Product Innovations: Evidence from the US Retail Sector," *The Quarterly Journal of Economics*, Vol. 134, Issue 2, May 2019, pp. 715–783, https://academic.oup.com/qje/article-abstract/134/2/715/5230867. An earlier version of this paper is available at https://equitablegrowth.org/working-papers/unequal-gains-from-product-innovations/.

[10] Robert Cage, Joshua Klick, and William Johnson, "Population Subgroup Price Indexes: Evidence of Heterogeneity or Measurement Error?" working draft, Bureau of Labor Statistics Office of Prices and Living Conditions, https://www.unece.org/fileadmin/DAM/stats/documents/ece/ces/ge.22/2018/United_States.pdf.

[11] The study examined the extent to which the CPI-U might overstate inflation due to "substitution bias" — that is, to the index not taking account of consumers' changes in their spending patterns in response to relative changes in prices. Over the years 1984-1994, the study estimated that substitution bias caused a price index like the CPI-U to overstate inflation by a cumulative total of 1.99 percent for consumers overall. For poor consumers, substitution bias was quite similar (2.01 percent), slightly less (1.75 percent), or considerably less (0.25 percent), depending on how poor households were defined, although it was not possible to determine if these differences were statistically significant. Thesia I. Garner, David S. Johnson, and Mary F. Kokosi, "An Experimental Consumer Price Index for the Poor," *Monthly Labor Review,* September 1996, https://www.bls.gov/opub/mlr/1996/09/art5full.pdf.

[12] For similar reasons, a 1995 National Academy of Sciences expert panel cautioned that, over the long run, the CPI-U could be a misleading guide to price changes for low-income families: "if the relative prices of necessities and luxuries change over time, as has happened in some periods in the past, the use of the CPI will not give an accurate picture of real adjustments for poor people."

Official Poverty Line Is Already Too Low

Adopting an inflation index that may be less accurate for low-income households would be especially unwise given that evidence suggests, and many experts and the public tend to agree, that the poverty line is already too low.

One sign of how modest a living standard the poverty line sets is that hardship and insecurity are widespread among families modestly above the poverty line, as well as those in poverty. This suggests that hardships likely are common among the families whom the Administration's plan would define as no longer poor, namely, those who now are just below the poverty line.

- Over 60 percent of non-elderly adults with income between 100 and 200 percent of the poverty line reported one or more material hardships such as food insecurity, missed payments for utility bills or rent or mortgage, or problems paying family medical bills, a 2017 Urban Institute survey found — not significantly different than for those in poverty.[13]
- In the same survey, 51 percent of these near-poor adults experienced one or more forms of financial insecurity, such as lacking $400 to pay an unexpected expense — almost as many as among those in poverty (about 58 percent). Some indicators of financial insecurity, such as being contacted by a bill collector, were at least as common among near-poor adults as poor adults.[14]
- Some 29 percent of households with children with income between 100 percent and 130 percent of the poverty line couldn't consistently afford adequate food in 2017, not far below the 40 percent figure for those below the poverty line, Agriculture Department data show.[15]

The difficulty of making ends meet on income near the poverty line becomes clear when one adds up the cost of basic needs. Various experts have estimated minimum living costs (leaving no room for eating out, retirement saving, entertainment, or other "discretionary" items such as children's school trips or birthday parties), and the results consistently exceed the poverty line by a wide margin. For example:

- Just two parts of a family's budget — rent for a modest two-bedroom apartment in a medium-cost metropolitan area as estimated by HUD (known as the "fair market rent")[16] and the cost

---

[13] Michael Karpman, Stephen Zuckerman, and Dulce Gonzalez, "Material Hardship among Nonelderly Adults and Their Families in 2017," Urban Institute, 2018, https://www.urban.org/sites/default/files/publication/98918/material_hardship_among_nonelderly_adults_and_their_families_in_2017.pdf.

[14] Steven Brown and Breno Braga, "Financial Distress among American Families: Evidence from the Well-Being and Basic Needs Survey," Urban Institute, February 19, 2019, https://www.urban.org/research/publication/financial-distress-among-american-families-evidence-well-being-and-basic-needs-survey/view/full_report.

[15] Alisha Coleman-Jensen *et al.,* "Household Food Security in the United States in 2017," Department of Agriculture, 2018, and CBPP calculations.

[16] $1,109 a month, which is HUD's "fair market rent" for 2018. CBPP analysis of HUD Fair Market Rent data at https://www.huduser.gov/portal/datasets/fmr.html#2018.

of a minimum nutritionally adequate diet as estimated by USDA[17] — would cost over $21,000 annually, or 83 percent of the poverty threshold for a two-adult family ($25,465 in 2018). This would leave little room for child care, commuting costs, clothing, diapers, laundry, or other necessities.

- Even in low-cost areas, estimates of the cost of necessities exceed the poverty line. A 2005 report commissioned by the West Virginia Governor's Workforce Investment Division concluded that "the official poverty line is only 67 percent of the minimum amount necessary to meet family needs" without government assistance for a parent with two children in that state's least expensive county.[18]
- Nationwide, the income that an average single parent with two children required to meet basic needs in 2018 without government assistance was three times the official poverty line for such a family, according to the Living Wage Calculator developed by an economic geographer at the Massachusetts Institute of Technology ($61,482 versus $20,231).[19]

Other experts have concluded that the official poverty line is too low. A 1995 expert panel of the National Academy of Sciences (NAS) concluded that the official poverty line — designed in the 1960s based on 1955 spending patterns, as explained below — was out of date. The panel proposed raising the poverty thresholds[20] and making other changes to the poverty measure. After years of careful study, the federal government created a measure of poverty known as the Supplemental Poverty Measure (SPM) that largely reflects the NAS recommendations. The SPM poverty line is higher than the official poverty threshold for most household types and most people,[21] and the overall SPM poverty rate is slightly higher than the official poverty rate.

Moreover, public opinion surveys indicate that most Americans would set the poverty threshold higher than the official poverty line.

- The median American considers the poverty line to be $30,000 for a family of two adults and two children, according to a 2016 survey by the American Enterprise Institute and *Los Angeles*

---

[17] $642 a month, which is the cost of USDA's Thrifty Food Plan for a married couple with children ages 6-8 and 9-11 in June 2018. Thrifty Food Plan, https://fns-prod.azureedge.net/sites/default/files/CostofFoodJun2018.pdf.

[18] Governor's Workforce Investment Division and Center for Women's Welfare, *The Self-Sufficiency Standard for West Virginia*, 2005, http://selfsufficiencystandard.org/sites/default/files/selfsuff/docs/WV2005.pdf.

[19] Carey Anne Nadeau and Amy Glassmeier, "Calculation of the Living Wage," January 24, 2019, http://livingwage.mit.edu/articles/37-new-data-up-calculation-of-the-living-wage.

[20] *Measuring Poverty: A New Approach*, Washington, DC: The National Academies Press, 1995. The panel recommended raising the poverty line between 14 percent and 33 percent compared with the "comparable current level."

[21] The SPM poverty threshold averages 12 percent higher than the official poverty line (not counting the relatively small number of cases where the SPM defines the family differently than the official poverty measure) and is above the official poverty-line threshold for two-thirds of people. Source: unpublished CBPP analysis of the Census Bureau's public use files for the March 2018 Current Population Survey and 2017 SPM.

Times.[22] This is 24 percent higher than the official poverty threshold for such a family ($24,339 in 2016).

- Poor and non-poor Americans largely agree on minimum living requirements. They had similar responses ($29,000 and $30,000, respectively) to the 2016 survey, which asked, "What do you think is the highest annual income [a] family of four can have and still be considered poor by the federal government?"
- A 1989 poll asked, "What amount of weekly income would you use as a poverty line for a family of four (husband, wife and two children) in this community?" This appears to be the only national poll to ask the question in this way, with a focus on what the poverty line *should* be. The public's average response was nearly one-fourth higher than the official poverty line.[23]

An even higher poverty line would result if the methods used to create the official poverty measure in the 1960s were repeated today. As the 1995 NAS expert panel on the poverty measure noted, "If the original approach were used to develop the poverty thresholds today, their value would be significantly higher."

Analysts at BLS and the Census Bureau conducted such a calculation in 2008. The original poverty threshold was calculated by multiplying the cost of a minimum diet by three to reflect the fact that the average family spent roughly one-third of its income on food, according to the 1955 Household Food Consumption Survey. The BLS and Census analysts found that the average ratio of food spending to total income had since risen from 1:3 to between 1:6.2 and 1:9.8, depending on the approach used. The least generous of the poverty thresholds they calculated using these updated ratios was more than one and one-half times the current poverty threshold.[24]

Updates of Official Poverty Line Should Fully Reflect the Costs of Meeting Basic Needs

Price indexes are not intended to fully capture all changes in families' needs.[25] They aim to capture price growth, but not the cost of adding "new necessities" to a family's budget in the first place. For example, rising employment rates for women at all income levels have resulted not only in new child care costs for many families but also in higher spending for prepared foods or meals outside the home by reducing working families' time to prepare meals. By design, price indexes do not fully

---

[22] Robert Doar, Karlyn Bowman, and Eleanor O'Neil, "2016 Poverty Survey: Attitudes Toward the Poor, Poverty, and Welfare in the United States," American Enterprise Institute and *Los Angeles Times,* August 18, 2016, http://www.aei.org/publication/2016-poverty-survey/.

[23] The weekly response, multiplied by 52 weeks and inflated to 1989 dollars, was $15,646 a year, or 23 percent above the comparable poverty line ($12,675). More frequently, pollsters have asked Americans a related question about the minimum income needed to "get along" in their communities; the response to this question in 1989 was even higher: $21,788 annualized. See Denton R. Vaughan, "Exploring the Views of the Public to Set Income Poverty Thresholds and Adjust Them Over Time," updated February 2004, https://www.census.gov/content/dam/Census/library/working-papers/2004/demo/wkppov20-cen.pdf.

[24] Thesia I. Garner and Kathleen S. Short, "Creating a Consistent Poverty Measure Over Time Using NAS Procedures: 1996-2005," BLS Working Paper 417, April 2008, https://www.bls.gov/osmr/pdf/ec080030.pdf.

[25] "Consumer Price Index Frequently Asked Questions," Bureau of Labor Statistics, question 9, https://www.bls.gov/cpi/questions-and-answers.htm#Question_9 .

respond to the need to purchase more child care or prepared food, but these "new necessities" impose a cost on the growing number of two-earner and single-working-parent families and thus are appropriate to consider when updating or rethinking a poverty line.[26] This casts further doubt on the contention that the poverty line, as adjusted by the CPI-U, has risen too much.

In the long run, a poverty line should also capture rising living standards. Items such as plumbing or electricity that were once unavailable have become minimum requirements of acceptable living. More recently, access to a computer and internet service have rapidly become necessities for finding a job, completing schoolwork, or shopping less expensively online**.**

Those responsible for developing the official poverty measure recognized that family needs and living standards would likely rise slightly faster than inflation over time and assumed that the official poverty line would rise faster, too. Economist Mollie Orshansky, who in the 1960s developed what became the official poverty measure, wrote in 1963 that "the standard of adequacy changes with time." Orshansky's supervisor at the Social Security Administration, Ida Merriam, commented in 1967, "obviously today's [official poverty] measure, even if corrected year by year for changes in the price level — the purchasing power of money — should not be acceptable twenty, ten or perhaps even five years hence."

In a similar vein, Republican members of the Joint Economic Committee, commenting on the new poverty line in 1964, wrote, "In America, as our standard of living rises, so does our idea of what is substandard."[27]

Most Americans apparently agree. Over time, public opinion about the smallest amount of money needed to get along in their community has risen about as fast or faster than the official CPI, according to Gallup polling data from 1967 to 2007. [28] These poll-based levels thus have risen faster than the slower-growing inflation measures the Administration has cited as candidates for adjusting the poverty line each year, such as the chained-CPI and the Personal Consumption Expenditures (PCE) deflator.

Other governmental measures of living standards have long tended to rise slightly faster than the CPI-U. For example, family budgets developed from 1947 to 1959 by the Labor Department and designed to capture a "modest but adequate" living standard rose 37 percent more than the CPI-U over that period.[29]

---

[26] Price indices will capture rising prices for each hour of child care or each package of prepared food, but not the rising impact on the family's needs if they must purchase a greater *quantity* of child care or prepared food whether or not the price per unit rises.

[27] Gordon M. Fisher, "Is There Such a Thing as an Absolute Poverty Line Over Time? Evidence from the United States, Britain, Canada, and Australia on the Income Elasticity of the Poverty Line," August 1995, https://www.census.gov/content/dam/Census/library/working-papers/1995/demo/fisher3.pdf.

[28] From 1967 to 1987, the "get along" level rose about as much as the CPI-U (it rose 0.9 percent more). From 1987 to 2007, it rose about 3.9 percent faster. Jeffrey M. Jones, "Public: Family of Four Needs to Earn Average of $52,000 to Get By," Gallup News Service, February 9, 2007, https://news.gallup.com/poll/26467/public-family-four-needs-earn-average-52000-get.aspx; and CBPP calculations.

[29] David S. Johnson, John M. Rogers, and Lucilla Tan, "A Century of Family Budgets in the United States," *Monthly Labor Review,* May 2001, https://www.bls.gov/opub/mlr/2001/05/art3full.pdf.

Similarly, the 1995 National Academy of Sciences panel on redesigning the poverty measure expressly designed its poverty line to rise slightly faster than the CPI-U to reflect increases in typical households' consumption of necessities. The panel observed that families' child care needs had risen due to women's rising employment and added that it expected its proposed poverty threshold would evolve further as technology and society evolved. For example, the threshold would likely incorporate items such as computing technology once these became viewed as necessities and were incorporated into government data on household housing and utility expenses.

The Trump Administration's approach of making only one, narrow technical change to lower the official poverty line, while ignoring the very strong evidence that the poverty line is rising too slowly to keep up with changing basic needs, is one-sided.

Conclusion

Efforts to lower the poverty threshold over time by adopting a slower-growing inflation measure are not justified by the evidence. Indeed, the lower inflation measures that the Trump Administration has floated may track the prices that poor households pay *less* accurately than the current measure does, not more accurately. They also would likely make an already low poverty line increasingly inadequate to raise a family.

At the very least, no change should be made to the indexing of the poverty threshold without collecting better price data for low-income households and undertaking much more careful and balanced study of the analytical issues involved, preferably by an external group such as the National Academy of Sciences.