Real-Time Poverty, Material Well-Being, and the Child Tax Credit

Data are key when making policy, and they are especially important when policymakers must respond to changing conditions in real time. This was made clear during the COVID-19 pandemic, when many households suddenly lost their source of income and policymakers rushed to fill the gap. Unfortunately, official statistics like the poverty rate are only updated on an annual basis, a time lag that renders them nearly useless for making quick policy decisions. Other, more direct measures of economic well-being, such as consumption statistics, are likewise only available after a considerable lag.

Contrary to conventional wisdom regarding the impact of temporary changes to Child Tax Credit payments, poverty was likely relatively stable in 2021 and the first half of 2022.

These data limitations have jumpstarted research on how to compute income-based poverty measures in near real-time. In particular, the authors of this paper (Han, Meyer, and Sullivan) constructed a measure of income poverty in 2020 that can be updated monthly using data on reported income over the past 12 months from the Monthly Current Population Survey (CPS). Researchers at the Columbia University Center on Poverty and Social Policy (CPSP) have taken a very different approach. They define a monthly poverty indicator based on imputed monthly income constructed from annual income from a prior year of the CPS Annual Social and Economic Supplement (CPS-ASEC), and then use this indicator to impute the poverty status out-of-sample for observations in the Monthly CPS.

Notes: In this figure, the authors superimpose the Center on Poverty and Social Policy (CPSP) poverty measures (starting in January of 2020) on those of Han et al., to show how the patterns compare. Unsurprisingly, given the one-month reference period for resources, the CPSP monthly poverty rate swings dramatically from month to month. Consider how the CPSP poverty rate fluctuated in the early months of the pandemic. The poverty rate for all individuals fell sharply by 3.4 percentage points (22 percent) in March of 2020, and then rose by 4 percentage points (34 percent) over the next three months. The fluctuations in child poverty were even larger; poverty for children fell by 7.5 percentage points (40 percent) in March of 2020 and then rose by 8.7 percentage points (78 percent) over the next three months. Please see working paper for description of how poverty status was determined and a link to source data.

1This paper has been extended with updated results reported each month at povertymeasurement.org.
2Updated estimates for the CPSP are provided monthly at povertycenter.columbia.edu/forecasting-monthly-poverty-data.
A key distinction between these two indicators, in addition to the methodological differences, is that the Han et al. measure defines poverty using an annual measure of resources, while the CPSP indicator defines poverty based on a prediction of resources for a single month. This new work by Han et al. analyzes these two approaches vis a vis changes to the Child Tax Credit (CTC) in 2021. In doing so, this paper provides a rich discussion of how to measure poverty in real time and why it matters, including careful caveats and methodological limitations (readers of this Economic Finding are encouraged to examine the full paper).

Readers may recall that CTC changes in 2021 eliminated work incentives and replaced them with a child allowance, regardless of parental work. Part of this allowance was paid out monthly during the second half of 2021 under what was called the Advance Child Tax Credit. The main finding of this new research reveals that the two different approaches to measuring real-time poverty described above suggest sharply different short-run effects of the policy change on child poverty. On one hand, in one oft-cited study, researchers concluded that child poverty decreased 25 percent in July 2021 because of CTC expansion, and CPSP researchers subsequently claimed that poverty rose by over 40 percent in January after the expiration of the monthly payments. These findings widely circulated among policymakers and the press.

On the other hand, the Han et al. measure described in this paper reveals only a small decline in poverty during the period of monthly CTC payments and no rise after the elimination of the payments. Also, the Han et al. measure registers other pandemic tax credits, specifically Economic Impact Payments, but shows little effect of the Advance CTC. In addition, the authors show that the differences in reference periods across measures cannot fully explain the different patterns, and that other evidence tying changes in well-being to the tax credit changes is also weak.

What explains these different interpretations? Briefly, the claims of poverty changes in the range of 40 percent are based on simulations that do not rely on income data from the period in question. Instead, they simulate income relying on income data from prior years rather than actual reports of current income. The simulations also assume that behavioral responses to cash transfers are absent. The estimates in this paper are based on reported survey income data from the Monthly CPS, which indicate that child poverty rates changed little during and after the period of a temporary child allowance. Further, some of the differences are likely due to monthly vs. annual income simulations by the CPSP, as well as to behavioral responses, and to underreporting of government transfers.

The bottom line: Conclusions that poverty decreased significantly while a child allowance was in place in 2021, followed by a large increase in 2022 when it lapsed, merit greater qualification. Indeed, evidence presented in this paper, which is based on reported rather than imputed income, and for an annual rather than a monthly reference period, suggests that changes in poverty were much more modest.