

Monthly Cash Payments Reduce Spells of Poverty Across the Year

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Annual poverty measures by definition obscure month-to-month fluctuations in families' resources. Taking the expanded Child Tax Credit under the American Rescue Plan and the existing Earned Income Tax Credit as examples, this brief shows how monthly benefit delivery has the power to smooth within-year volatility in incomes and reduce child poverty year-round.

Key Findings

- Many families experiencing poverty experience income fluctuations during the year. The Child Tax Credit and Earned Income Tax Credit, traditionally delivered once per year, are important anti-poverty policies, but many families spend these annual credits catching up on debt incurred in months when less cash was coming in.
- Compared to one-time annual payments, monthly distribution of tax credits can meaningfully reduce child poverty and keep it low year-round. By reducing income volatility, monthly payments not only reduce the risk of children being persistently poor, but also reduce the risk of children ever becoming poor throughout the year.
- With an annual lump sum Earned Income Tax Credit and lump sum expanded Child Tax Credit, the monthly child poverty rate falls from roughly 23% in February to 11% in March, and then rises back to 23% by May, staying above 22% for the remainder of the year.
- Child poverty rates with monthly Child Tax Credit payments are consistently lower by 6.8 percentage points each month, on average, throughout the year than child poverty rates when the Child Tax Credit is delivered in one lump sum at tax time. Put another way, outside of tax filing season, a Child Tax Credit delivered monthly would cut child poverty by about one-third in each month.
- Monthly Child Tax Credit payments could keep about 1 in 10 children in the United States from experiencing a spell of poverty at any point during the year, as opposed to payments delivered in a lump sum at tax time.



Introduction

Poverty in the United States is typically measured over the calendar year. Resources (i.e., incomes) are aggregated across January to December and then compared to a poverty line (or threshold) for the same year. This aggregation is reasonable, as many families may be able to cope with fluctuations in their incomes across the year. But other families may not, such that fluctuations they experience month-to-month mean the difference between being able to maintain a minimum standard of living or experiencing significant deprivation.

Income volatility can have negative impacts on family and child well-being. Families unable to cope with volatility in their income are more likely to rely on credit cards and other alternative financial services such as payday loans to pay bills and cover other living expenses,¹ which in turn increases their debt burden. Monthly income volatility also increases the likelihood of food insecurity and material hardship, as well as hinders families' ability to save or access the social safety net.² Children growing up in income volatile families are also found to have lower educational attainment in adulthood.³ Annual poverty measures, by definition, obscure the role of monthly income volatility in driving the experience of poverty in the United States.

The U.S. safety net leaves some families without access to regular cash they can rely on to meet their and their children's needs.⁴ In March 2021, the American Rescue Plan (ARP) made substantial changes to the Child Tax Credit—a partially-refundable tax credit that has been delivering lump sum cash assistance to many families with children since 1997. Under the American Rescue Plan, the Child Tax Credit was temporarily reformed and expanded. The American Rescue Plan: (1) raised the maximum annual credit amount from \$2,000 for children under the age of 17 to \$3,600 for children under age 6 and \$3,000 for children ages 6–17; (2) made the credit available to almost all children, including those whose families had little or no earnings; and (3) delivered the credit in monthly installments from July through December 2021, with the other half of the annual credit to be disbursed in a lump sum when families filed their taxes in 2022. The delivery of monthly payments instead of annual lump sum refunds is the subject of this brief.

Some may argue that families can save lump sum payments to be used throughout the year as needs arise. Research based on the Earned Income Tax Credit, however, finds that many families experiencing poverty and low-income wind up using their annual credit to catch up on back bills while also spending on immediate needs—only a minority are able to save substantial amounts for the coming year.⁵ In the context of the expanded Child Tax Credit, one recent qualitative study found that while some parents initially preferred to have the expanded Child Tax Credits delivered in a lump sum, they were happy once the monthly payments began because it allowed them to save while also meeting the changing needs of their family.⁶ Some parents indicated the lump sum allowed them to plan for big purchases, but having the monthly payments allowed them to focus on the monthly needs of their children and the family.

¹ Roll, Mitchell, Holub, Bufo, and Grinstein-Weiss, [Income volatility in low-and moderate-income households](#).

² Smith-Ramani, Mitchell, and Lucas Mckay, [Income volatility: Why it destabilizes families](#)

³ Hardy, [Childhood income volatility and adult outcomes](#).

⁴ Edin and Shaefer, *\$2.00 a day*; Pac, Nam, Waldfogel, and Wimer, [Young child poverty in the United States](#).

⁵ Halpern-Meehin, Edin, Tach, and Sykes, *It's not like I'm poor: How working families make ends meet in a post-welfare world*.

⁶ Lens, Arriaga, Pisciotto, Bushman-Copp, Spencer, and Kronenfeld, [Spotlight on Child Tax Credit](#).

In this brief, we present analyses from a simulation of the Child Tax Credit and Earned Income Tax Credit in either monthly or lump sum form to understand the implications for experiences of poverty across a given year. The American Rescue Plan also made changes to the Earned Income Tax Credit—particularly for childless earners—but given our focus on child poverty in this brief, we focus on the pre-ARP version of the Earned Income Tax Credit in these analyses. We utilize data from a nationally representative household survey where incomes and benefits are tabulated at the monthly level, allowing us to directly examine the likely impacts of tax credits delivered either once a year at tax time or delivered month-to-month consistently across the year.

Methods

For our analysis, we used data from the 2019 Survey of Income and Program Participation (SIPP). The SIPP is a nationally representative panel survey that provides comprehensive data on economic well-being, government program participation, and demographic characteristics of the U.S. civilian non-institutionalized population.⁷ The 2019 SIPP asked respondents to recall information for each month in 2018, providing detailed monthly information on household composition, income sources, and expenditures. We limited our sample to children under the age of 18 who were either present in the SIPP for the full year or born in 2018.

Our analysis uses the Supplemental Poverty Measure (SPM), which extends the official poverty measure by accounting for cash and noncash benefits received by individuals from various government programs. Appendix A provides a detailed description of the cash and noncash benefits included and how we determined a family's poverty status. Because the SIPP does not include information on respondents' tax liabilities and credit amounts, we estimated respondents' (pre-ARP) Earned Income Tax Credit amount and tax liabilities using the National Bureau of Economic Research TAXSIM 32.⁸

The Child Tax Credit amount received by families in our analysis is based on the expanded Child Tax Credit under the 2021 American Rescue Plan. Using data on annual gross income and number of dependents each month, we calculated the credit amount an individual would have received under the American Rescue Plan. Benefit values vary based on the number and age of dependents of the tax filer. The lump sum amount is allocated in the months that families are likely to have received their tax credits,⁹ whereas the monthly amount is divided evenly across all months of the calendar year.¹⁰ To be reflective of coverage similar to that observed under the American Rescue Plan, we adjusted the coverage rate based on the number of children who received expanded Child Tax Credit payments in July 2021 (59.3 million children) as reported by the Internal Revenue Service. In Appendix B, we provide poverty estimates from models using unadjusted Child Tax Credit coverage rates, which implicitly assume full take-up.

⁷ United States Census Bureau, *Survey of income and program participation (SIPP)*

⁸ Feenberg and Coutts, Introduction to TAXSIM model; Feenberg, *Internet TAXSIM*

⁹ We allocate 65.6% of payments in March and the remainder in April. We assume that the eligible SPM units with the lowest market incomes are more likely to file their taxes first. These assumptions and distributions follow data from Farrell, Greig, and Hamoudi, *Filing taxes early, getting healthcare late* and Aladangady et al., *High-frequency spending responses to the earned income tax credit*.

¹⁰ For newborns, we assume that monthly Child Tax Credit payments begin in the birth month. Similarly, for children who turn 18 during the year, we assume that monthly payments end in the last month before they turn 18. For children who turn age six during the year, we assume that monthly Child Tax Credit values decrease in the month when they turn age six to reflect the difference in Child Tax Credit amount by age. In all cases, lump sum Child Tax Credit values are the sum of the payment amounts that families would be eligible for across the year.

Results

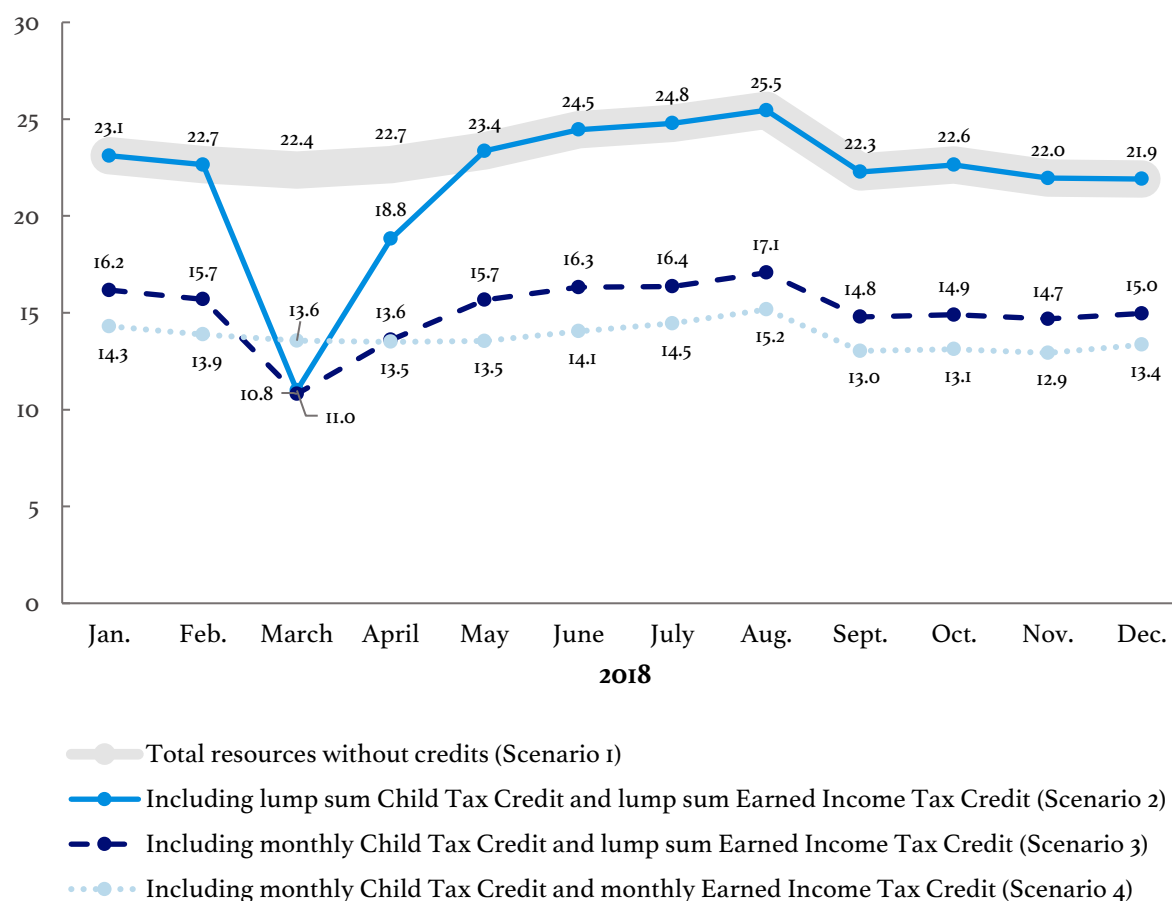
Monthly distribution of tax credits meaningfully reduces child poverty and keeps it low throughout the year

We used four scenarios of how tax credits might be delivered to understand the impact on the monthly poverty rate for children as well as the number of months children are in poverty throughout the year.

- **Scenario 1** excludes both the Child Tax Credit and Earned Income Tax Credit from SPM total resources.
- **Scenario 2** includes lump sum Child Tax Credit and lump sum Earned Income Tax Credit payments in SPM total resources.
- **Scenario 3** includes monthly Child Tax Credit and lump sum Earned Income Tax Credit payments in SPM total resources.
- **Scenario 4** includes monthly Child Tax Credit and monthly Earned Income Tax Credit payments in SPM total resources.

Figure 1 shows the monthly poverty rate of children under 18 years for each month in 2018 based on the four scenarios. The results reveal that monthly payments are more effective at consistently reducing poverty among children across the year than lump sum payments.

Figure 1: Monthly distribution of tax credits are more effective at consistently reducing child poverty rates than lump sum distributions



Notes: Authors' analysis using the data from the 2019 SIPP, which provides reference data for 2018. Sample includes all children observed for the full year and children born in 2018. Figure shows the monthly poverty rates of children under 18 years in 2018 based on the four scenarios as described above. Appendix A provides detailed information on the expenses and cash and noncash benefits used to calculate Unit's total resources. All models show the impact of the Child Tax Credit constrained to the takeup observed in July 2021 under the American Rescue Plan.

Without tax credits added to SPM total resources (scenario 1), the poverty rate among children is between 22–23% for most months in the year, increasing during the summer months to a high of 25.5% in August.¹¹ When lump sum Child Tax Credit and Earned Income Tax Credit payments are added to SPM total resources (scenario 2), the poverty rate substantially declines from 22.4% to 11% in March and 22.7% to 18.8% in April. From May to December, the poverty rate reverts to approximately 22–23%. We find that maintaining the Earned Income Tax Credit as a lump sum but distributing Child Tax Credit payments monthly (scenario 3) results in child poverty rates being consistently lower across the year. Under scenario 3, the child poverty rate in March and April are 10.8% and 13.6% respectively, lower than child poverty rates with scenario 2.¹² In the rest of the year, child poverty rates with monthly Child Tax Credit and lump sum Earned Income Tax Credit distributions remain consistently lower, averaging about 15.1%, compared to an average of 21.9% under scenario 2.

Similar to scenario 3, we find that scenario 4 results in child poverty rates being consistently lower across the year, with rates being the lowest of the four scenarios. When both tax credits are distributed monthly, monthly poverty rates average 13.7%—about 8 percentage points lower, on average, each month outside of tax season (i.e., outside of March and April in a given year) than when both credits are delivered as a lump sum.

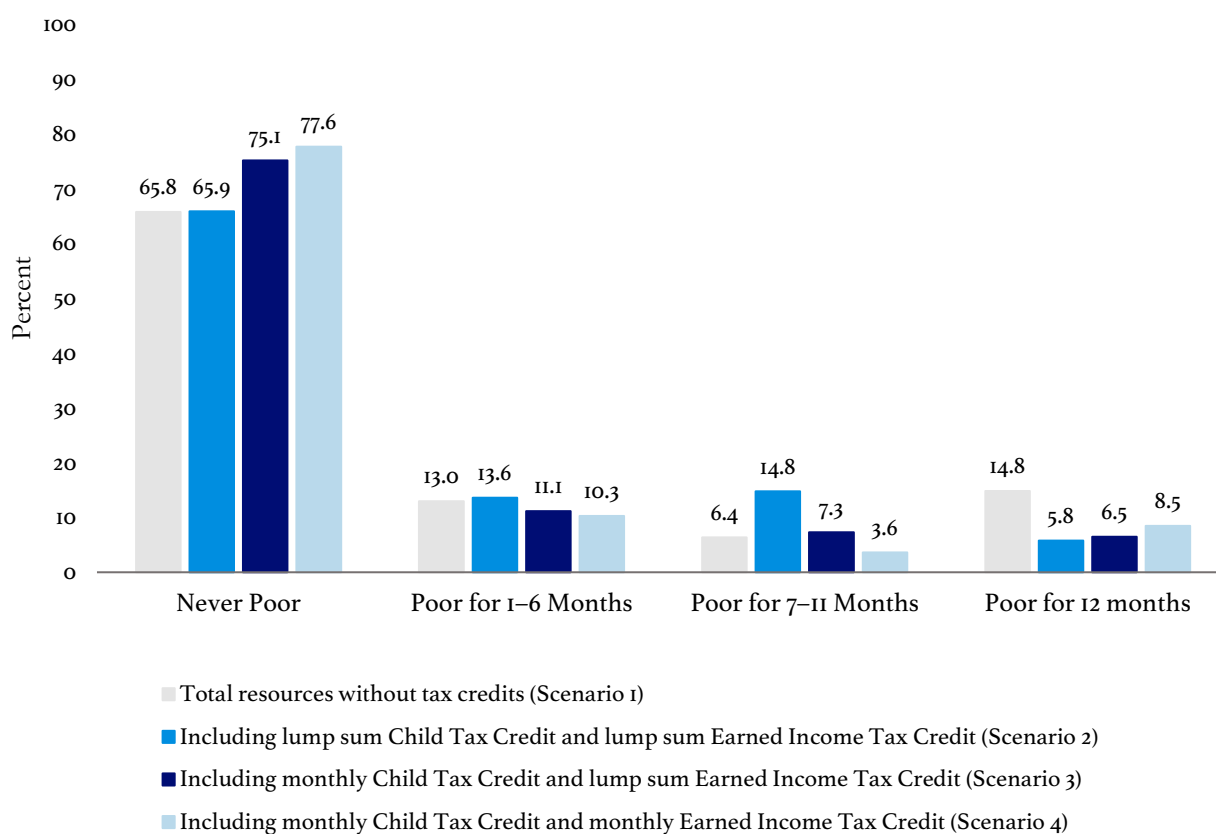
¹¹ This increased poverty rate in the summer months could be due to the loss of benefits from the school lunch and breakfast programs, as children are not in school at this time.

¹² The child poverty rate in March with scenario 3 is virtually identical to the poverty rate in March with scenario 2. This is because during the tax-time period of March and April in any given year the Earned Income Tax Credit is still distributed as a lump sum in one of those months (depending on when a family files their return), but families with children would receive a monthly Child Tax Credit payment in both months (each monthly payment worth 1/12 of the annual credit value). Our model assumes that two-thirds of families receive their Earned Income Tax Credit in March and one-third of families receive their Earned Income Tax Credit in April.

Monthly distribution of tax credits helps protect children from ever experiencing poverty

In Figure 2, we present the number of months children are in poverty across the year under the four scenarios. Figure 2 reveals that providing lump sum tax credit payments does not change the proportion of children who are “never poor” during the year.

Figure 2: Monthly tax credit distributions protect more children from being poor throughout the year than lump sum distributions poverty



Notes: Authors’ analysis using the data from the 2019 SIPP, which provides reference data for 2018. Sample includes all children observed for the full year and children born in 2018. Figure shows the proportion of children who never experience poverty during the calendar year (Never poor), or who are poor for 1-6 months, 7-11 months, and 12 months when poverty status is measured using SPM units’ total resources without credit, and when lump sum or monthly tax credits payments are included in total resources.

Conversely, distributing tax credit payments monthly increases the proportion of children who never experience poverty in any month during the year by 9-12 percentage points, thereby reducing the proportion of children in persistent and intermittent poverty. These estimates suggest that while providing a lump sum payment helps protect many children from being persistently poor—by allowing them to be out of poverty for one month in the year—distributing credit payments on a monthly basis is more effective in protecting children from ever experiencing poverty anytime throughout the year.

Conclusion

The U.S. safety net has in recent decades turned away from providing families with regular cash assistance, instead delivering benefits to families using a combination of lump sum (i.e., once per year) tax credits and in-kind or near-cash benefits like food and housing assistance that are delivered throughout the year. Under the American Rescue Plan of 2021, however, the Child Tax Credit was temporarily expanded to be fully refundable, and the maximum annual credit amount was raised to \$3,600 for children under age six and \$3,000 for children ages 6–17. The American Rescue Plan also delivered the first half of the credit in monthly installments from July through December 2021, with the other half to be disbursed in a lump sum when families filed their taxes in 2022. This change in credit distribution raised the policy question of whether delivering benefits monthly is more beneficial to families than providing benefits once a year at tax time.

The findings presented from our analyses suggest that providing monthly tax benefits to families is more effective at meaningfully and consistently reducing child poverty than lump sum provision of benefits. While the lump sum payments help reduce poverty in the months of receipt, monthly tax benefit payments are effective at ensuring that, on average, about 3 out of 4 children are never poor during the year. By providing consistent additional income to parents, monthly tax credit payments can help buffer families—particularly low-income families—from the consequences of income volatility and improve child and family wellbeing. Nevertheless, even with monthly tax credit payments, child poverty remains too high. Thus, in addition to distributing Child Tax Credit benefits monthly, policymakers should also consider what other policies can be implemented to reduce child poverty rates.

Suggested Citation

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Appendix A: Methodological Appendix

Data and Sample

Data

This study used data from the 2019 Survey of Income and Program Participation (SIPP). The SIPP is a nationally representative panel survey that collects information on the dynamics of household composition, employment, income, and public program participation from the noninstitutionalized US population. Starting with the 2018 panel, data are collected as yearly overlapping panels with new panels beginning each year (United States Census Bureau, 2022). The 2019 SIPP includes Wave 2 of the 2018 SIPP panel and Wave 1 of the 2019 panel and provides data for 2018.

Sample

The SIPP collects information on all persons who are resident within the household at the time of interview, as well as anytime during the reference year. In some cases, respondents are not present in the household for the entire reference year and information for their new location is not provided in the survey. As a result, we limited our sample to children under the age of 18 who were either present in the SIPP for the full year or who were born in 2018 and observed in every month since their birth.

Measuring the Supplemental Poverty Measure in the SIPP

Our analysis applied the Supplemental Poverty Measure (SPM) to identify the poverty status of children in our sample. The SPM extends the official poverty measure by accounting for cash and noncash benefits received by individuals from various government programs, as well as taxes and other household expenses. The SPM also has a broader measurement of the family unit—or resource sharing unit—that includes the official family definition plus any coresident unrelated children, foster children, and unmarried partners and their children, and other related individuals (who are not otherwise included in the family definition).¹³ Further, the SPM thresholds are based on expenditures on food, clothing, shelter, and utilities, and are adjusted for family size, family composition, and geographical location.

To determine the poverty status of people within an SPM Unit, we first identified income and expenses amounts for each individual in the SIPP. We then calculated the SPM Unit value for each income and expense component by summing the values for all individuals in the SPM Unit. To determine an SPM Unit's total resources, we subtracted the SPM Unit's total expenses (medical expenses, child support paid, work-related expenses, and taxes paid) from the Unit's total income (monthly income and non-cash benefits). SPM Units with total resources less than the SPM Unit's threshold were classified as poor, while Units with total resources greater than or equal to the Unit's SPM threshold were classified as non-poor. Below, we provide details on how we measured the various concepts related to the supplemental poverty measure in the SIPP to identify respondents' poverty status.

Poverty Thresholds

The SPM thresholds are based on out-of-pocket spending on a basic set of goods and services that includes food, clothing, shelter, and utilities (FCSU), and a small additional amount to allow for other needs (e.g., household supplies, personal care, nonwork-related transportation). We identified three types of households: owned with mortgage, owned with no mortgage, and rented. The threshold for each SPM unit type is based on the 2018 supplemental poverty thresholds for two-adult-two-child

¹³ Fox, supplemental poverty measure: 2016.

households from the Bureau of Labor Statistics¹⁴, which are adjusted for geographical location and for the number of adults and children in the SPM unit using the equivalence scale.

Equivalence Scale

We use a three-parameter equivalence scale to adjust the SPM thresholds for the number of adults and children in an SPM unit each month. The scale is calculated as follows:

One or two adults and no children: scale = (number of adults)^{0.5}

Single parents: scale = (number of adults + 0.8 + (0.5 * (number of children - 1)))^{0.7}

All other families: scale = (number of adults + (0.5 * number of children))^{0.7}

This scale is then divided by 3^{0.7} to account for four-person households.

Geographical Adjustments

We used the American Community Survey (ACS) to adjust the FCSU thresholds for differences in prices across geographic areas. The geographic adjustments are based on the 2018 5-year ACS estimates of median gross rents and owner costs for two-bedroom units with complete kitchen and plumbing facilities. For each state, we separately estimated the median for gross rent and owner costs in - metropolitan and nonmetropolitan areas. The geographic adjustment for each area is the median rent of the area divided by the national median rent. The adjustment to the SPM thresholds was conducted using the following equation:

$$(((SPM \text{ Threshold} * \text{proportion of household expenditures towards housing}) * \text{geographic adjustment}) + (SPM \text{ Threshold} * (1 - \text{proportion of household expenditures towards housing})))$$

SPM Resource Unit

The official SPM Resource Unit includes all related individuals who live at the same address, any coresident unrelated children who are cared for by the family (such as foster children), and any cohabitators and their children. The SIPP groups individuals related to the family reference person by birth, marriage, or adoption. If a second group of people is in the household who are related to each other, but not to the first family, then they will form the second family unit. People who are unrelated to anyone else in the household will have a unique value for family number. We adjusted the SIPP family variable to include unmarried partners and their relations in the SPM unit, as well as foster children and other unrelated children present in the household.

SPM Income Sources

Total Personal Income

The total person income measure in the SIPP includes the sum of reported monthly earnings and income derived from monthly total personal earnings, investment/property income, means-based transfer income (income received from TANF, SSI, General Assistance, and monthly veterans' pension), social insurance payments (includes social security benefit payments, workers' compensation, and unemployment compensation) and other income (including child support received) by an individual during the reference year. For income sources reported annually, reported income is allocated evenly across the months of the reference year by dividing by 12. To avoid double counting, the SIPP only places transfer payment amounts that are family based on the record of the family member identified as the owner of the benefit.

¹⁴ U.S. Bureau of Labor Statistics, 2021

Child Support Received

The SPM classifies child support received as household income. SIPP respondents who are biological or adoptive parents of children under 21, or the guardian of children under 18 are asked whether they received child support at any time during the reference year. Respondents indicating that they had received child support are then asked to provide the amount of child support payments received for each month of the reference year. The total personal income measure accounts for the monthly amount of child support received by SIPP parent respondents.

SPM Non-Cash Benefits

Supplemental Nutrition Assistance Program (SNAP)

SIPP records whether respondents received SNAP benefits in each month of the reference year and the amount of SNAP benefits received. To avoid double counting, however, the total SNAP benefit amount received by all members of a family is placed on the record of the family member SIPP identifies as the owner of the benefit. To determine the per person SNAP benefit amount received by each SNAP recipient in the family, we divided the total SNAP benefit amount received by the family across the total number of SNAP recipients. As with other income components, values are then summed across the SPM unit.

Supplementary Nutrition Program for Women Infant and Children (WIC)

SIPP also records whether respondents received WIC benefits in each month of the reference year and the amount of WIC benefits received. Again, the total WIC benefit amount received by all family members is placed on the record of the family member identified as the benefit owner. To determine the monthly amount of WIC benefit received by WIC recipients, we divided the total amount of WIC benefits received by the family by the total number of WIC recipients in the family, and then again summed across the SPM unit when calculating poverty status.

National School Lunch and School Breakfast Program

The Census SPM includes income received from the national school lunch program. Under this program, children in families with incomes below 130 percent of federal poverty level receive free lunches, child in families with income between 130 and 185 percent of the federal poverty level receive reduced-price school meals, and all other children are provided with a subsidized meal.¹⁵ While the official Census SPM only accounts for school lunch, for this analysis we included the value of free and reduced meals from both the national school lunch and school breakfast programs. The SIPP asks parents whether a child (between ages 5 to 18 who have not yet graduated from high school) usually got free, reduced, or full priced lunch or breakfast that their school provided, or whether the child received no meals from their school. To value the benefits received, we obtained information on national average meal costs for the 2018–2019 academic year from the U.S. Department of Agriculture Food and Nutrition Service.¹⁶ For children receiving free lunch, the monthly value of the meals is the average costs of free lunch for the contiguous US states among school food authorities which served less than 60 percent free and reduced-price lunches (\$3.31) multiplied by twenty, while the monthly value for reduced-price lunch was \$2.91 multiplied by twenty. For children receiving free school breakfast, the monthly value is the average costs of free breakfast for the contiguous US states among schools not in severe need (\$1.58) multiplied by twenty. For children receiving reduced-price breakfast this amount is \$1.28 multiplied by twenty. The value of school meals was assigned based on the assumption that the children received meals every school day during the school year, excluding summer months—June through August.

¹⁵ Fox, supplemental poverty measure: 2019

¹⁶ U.S. Department of Agriculture, estimated annual reporting burden for the FY 2021 questionnaire.

Housing Subsidies

Households can receive housing assistance from numerous local, state, and federal agencies. SIPP asks respondents the amount the household paid for rent or mortgage in December of the reference year and whether the household pays a lower rent because of a federal, state, or local government housing program. For households receiving a housing subsidy, the value of the housing subsidy per household member was the difference in the fair market rent of the housing unit and the rent paid by the household divided by the number of persons in the household. The fair market rent for households is estimated using 2019 fiscal year data from the Department of Housing and Urban Development.¹⁷ The fair market rent value used was the average fair market value of rents in metropolitan and non-metropolitan areas of each state, based on number of bedrooms in a housing unit.

Low Income Home Energy Assistance Program (LIHEAP)

While the SIPP collects data on whether households received any energy assistance from the government at any time during the reference year, it does not collect data on the value of the benefit. We used data from the 2019 Current Population Survey (CPS) Annual Social and Economic Supplement (ASEC) to determine the median value of LIHEAP benefits received by households in 2018. To value the amount of energy assistance received by each person within a household receiving energy assistance, we divided the monthly value of the median energy benefits received (median value/12=\$33) by the number of persons in the household. The household average energy assistance amount is then allocated to each household member, and then subsequently aggregated to the SPM-unit level.

Tax Credits

This analysis includes income received from the Earned Income Tax Credit (EITC) and the expanded Child Tax Credit under the American Rescue Plan. Because the SIPP does not collect data on the amount of tax credits received, we estimate individuals' EITC values using the National Bureau of Economic Research (NBER) TAXSIM. TAXSIM is a microsimulation program that estimates both US federal and states income taxes.¹⁸ The program uses information on tax year, state, age, age of spouse, tax filing status, number of dependents, wage and salary income, dividend income, interests received, long and short-term capital gains, other property income, pension, gross Social Security income, unemployment compensation, rent paid, child care expenses, and property taxes paid to estimate tax liabilities. We calculated respondents' total annual earnings, spouse earnings, dividends, rent paid, social security income, pensions, child care expenses, and number of dependents (total, under 19, under 17, and under 13). To assign a respondent's tax filing status, we used their marital status in the December of the reference year (2018). Respondents who were single, widowed, divorced, or separated are assigned a tax filing status of single/head of household. Children (18 years and younger) who had earnings during the tax year were assigned as dependent taxpayers. We assigned married respondents with spouses present in the household as joint filers, as well as married persons with absent spouses who did not file their previous tax return separately from their spouses. Married respondents with absent spouses who filed separately in the previous tax year were assigned as married filing separately in TAXSIM. For cohabitating couples, we allocated dependents only to the parent identified as parent one.

Using the EITC value received from TAXSIM, we created a lump sum EITC measure by allocating EITC value in the month taxpayers would have likely received their tax return payments. Around 66 percent of the sample are allocated to receive their tax credit in March and about 34 percent in April. We then

¹⁷ U.S. Department of Housing and Urban Development, [Fair market rents: county level data](#).

¹⁸ Feenberg and Coutts, introduction to the TAXSIM model

estimated the amount individuals would have received under the American Rescue Plan using information on respondents' earnings, number of dependents, tax filing status (as used for TAXSIM), and amounts received from the refundable portion of the Child Tax Credit, as estimated by TAXSIM. We first calculated the taxpayers' monthly Child Tax Credit amount based on their number of dependents and age of dependents. We then created a lump sum measure Child Tax Credit value, which was the sum of monthly expanded Child Tax Credit payments received for the year. As with the EITC lump sum value, the Child Tax Credit lump sum value was allocated in the month taxpayers would have likely received their tax return payments.

SPM Expenses

Taxes

The SPM subtracts the amount of taxes paid by households from SPM unit resources. For this analysis, we subtract federal, state and Federal Insurance Contributions Act (FICA) taxes from resources. While the SIPP collects information on whether a respondent filed a tax return during the reference year, their filing status (single, married filing jointly, married filing separately, or head of household), whether anyone claimed the respondent as a dependent for the tax year prior to the reference year, as well as whether the individual received EITC during the reference year, it does not collect the amount of taxes paid or the amount in tax credits received. To obtain this information, we relied on estimated tax liabilities from the NBER TAXSIM program.

For federal tax liability, we used an individual's federal tax liability before tax credits deductions. We use half the FICA tax estimates from TAXSIM to account for the employers' contributions. We first identified if a respondent worked in a given month and the number of months worked during the reference year using information on respondents' receipt of earnings and profits/losses from any job for each month. For single tax filers, we calculated the average monthly tax paid for each tax liability, which is the total amount of taxes paid divided by the number of months worked for the year. The average monthly taxes paid was then allocated to each month that the taxpayer worked. Among joint filers with only one working spouse, the average monthly taxes paid for each tax liability was the total amount of taxes paid by the couple divided by the number of months worked by the employed spouse. The average monthly taxes paid was then allocated to each month that the employed spouse worked. Among married couples filing jointly who were both employed during the year, the average monthly tax liability is the total annual amount of taxes paid by the couple divided by the total number of months worked by the couple. The average monthly tax amount was then allocated to each partner in each month they worked. For tax filers who did not work but had tax liabilities, their total tax liability is divided by 12 and spread evenly across the year.

Child Support Paid

Because the supplemental poverty measure includes child support received as income for receiving household, child support payments are included as expenses for paying individuals. The SIPP asks respondents with at least one child living elsewhere whether they made any child support payments during the reference year and the amount paid for the reference year. The amount of child support paid for the year was divided by 12 to get an average monthly value of child support payments.

Medical Expenses

Medical expenses include the amount paid for health insurance premiums, non-premium medical out-of-pocket expenditures on medical care, and non-premium medical out-of-pocket expenditures for over-the-counter health-related products. In the SIPP, respondents are asked to provide the total amount paid for each type of medical expenses during the reference year. The annual expense amount for each type of medical expense was divided by 12 to obtain a monthly average expense amount during the reference year.

Work-Related Expenses and Child Care Expenses

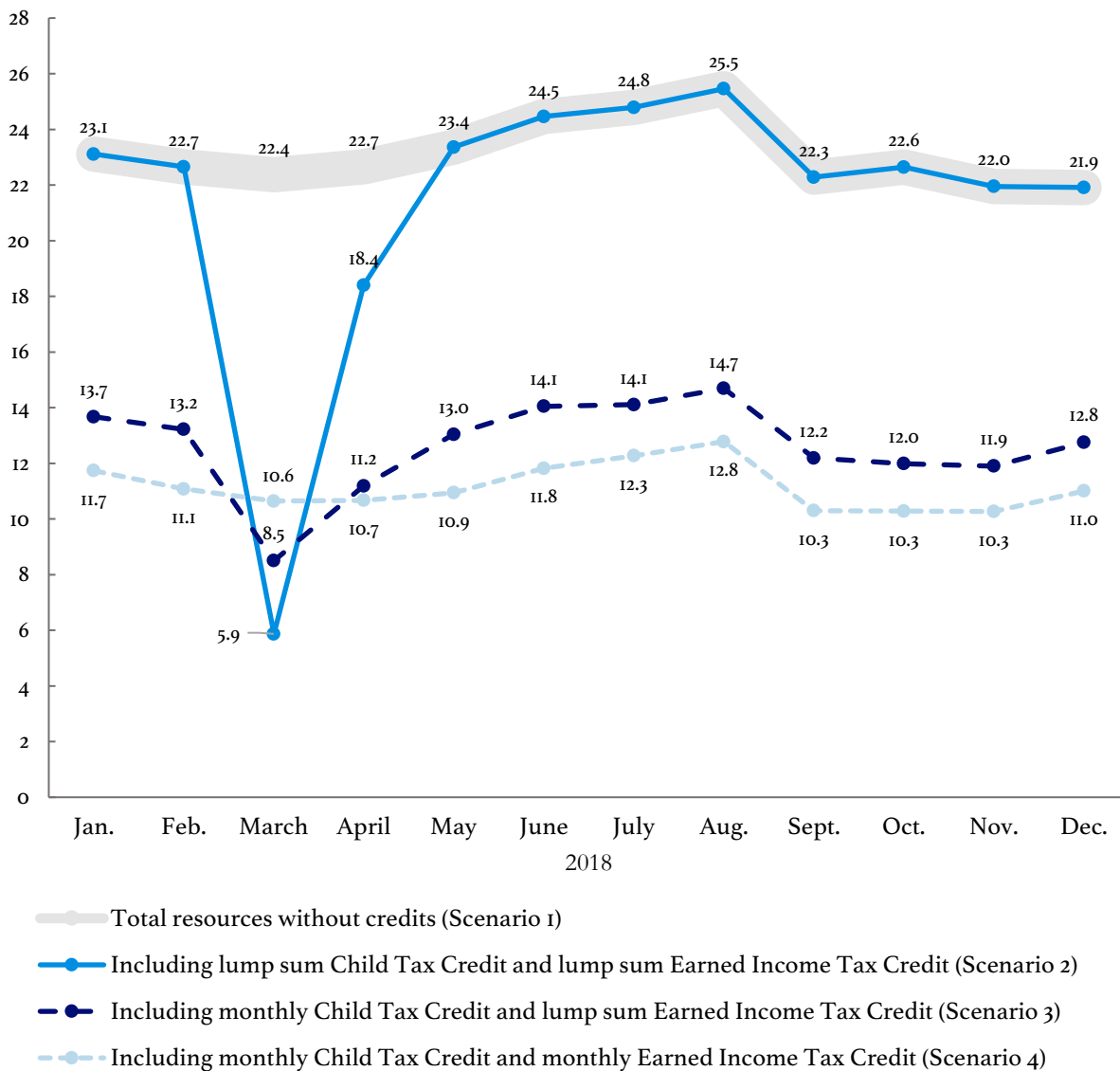
Work-related expenses include the total amount spent on commuting to work, parking and tolls, and other work-related expenses. SIPP respondents provide data on the first and last week, the number of days worked per week, the number of days worked only at home per week, the number of miles driven each way, the number of miles reimbursed, commuting expenses, the amount spent on parking and tolls, and the annual amount of other job-related expenses for each job held in the reference period, as well as the number of weeks with a job during the month. We calculated the value of weekly mileage expenses, which was the total number of uncompensated miles driven to work per week for each job multiplied by Internal Revenue Service (IRS) mileage reimbursement rate for 2018.¹⁹ Commuting expenses is the amount of work commuting expenses for each job spell divided by number of weeks at each job. Parking and toll expenses is the amount spent on parking and tolls for each job spell divided by number of weeks at each job. Other work-related expenses is the amount spent on other work-related expenses divided by number of weeks at each related job. The four types of work expenses—mileage, commuting, parking and tolls, other work-related—were summed to get the total weekly work expenses. The number of weeks with a job during the month is multiplied by 85 percent of median total weekly work-related expenses to arrive at total monthly work-related expenses.

Parents in the SIPP are asked to state how much they paid for child care in a typical week in December of the reference year. This amount was multiplied by 4.35 to attain a monthly value of child care expenses. The monthly value of work-related expenses and child care expenses were summed and capped so that the total amount did not exceed the total reported earnings of the lowest earning reference person or spouse/partner of the reference person in the family.

¹⁹ Internal Revenue Service, Standard mileage rates.

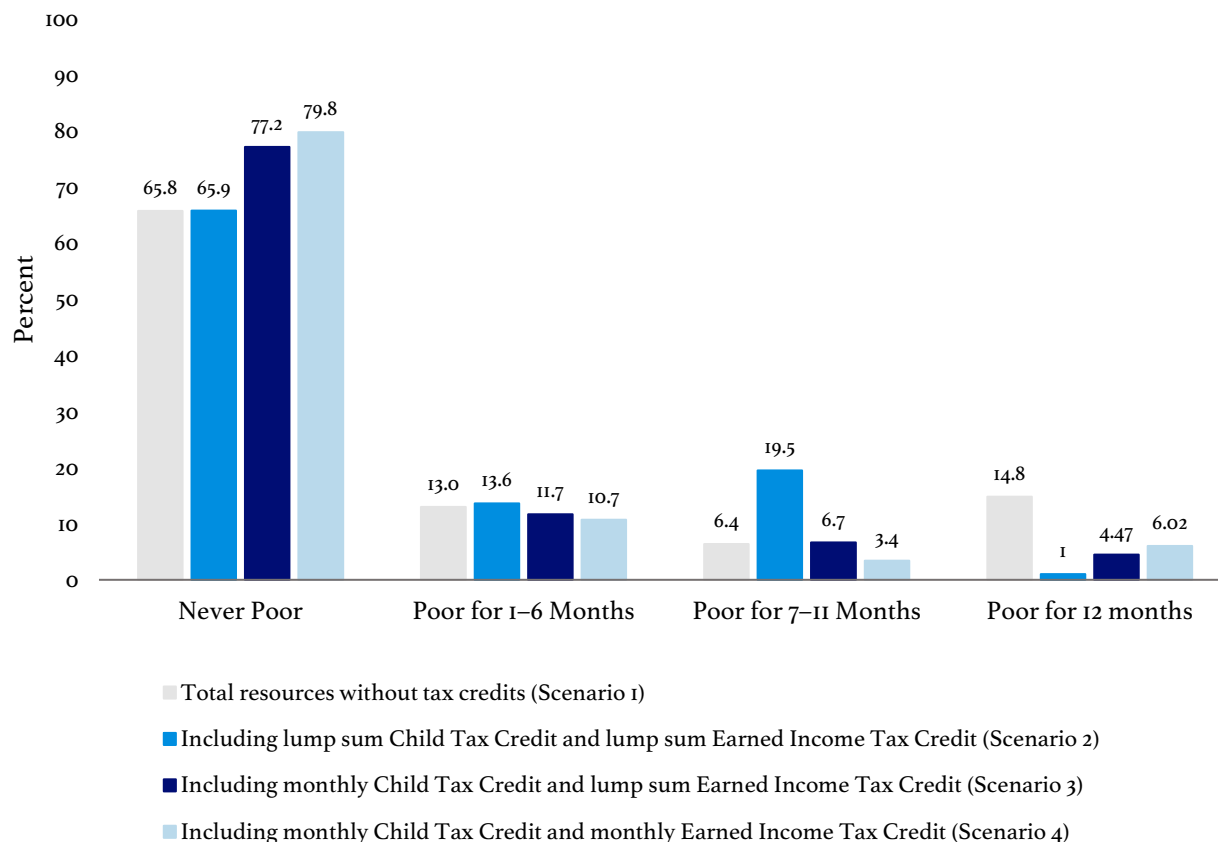
Appendix B: Child poverty estimates using unadjusted Child Tax Credit coverage rate

Figure B1: Poverty rates among children under 18 years



Notes: Authors' analysis using the data from the 2019 SIPP, which provides reference data for 2018. Sample includes all children observed for the full year and children born in 2018. Figure shows the monthly poverty rates of children under 18 years in 2018 based on the four scenarios as described in this brief. Appendix A provides detailed information on the expenses and cash and noncash benefits used to calculate Unit's total resources. All models show the impact of the full Child Tax Credit for all eligible children, and not just the take-up based on the American Rescue Plan.

Figure B2: Number of months in poverty among children under age 18



Notes: Authors’ analysis using the data from the 2019 SIPP, which provides reference data for 2018. Sample includes all children observed for the full year and children born in 2018. Figure shows the proportion of children who never experience poverty during the calendar year (Never poor), or who are poor for 1–6 months, 7–11 months, and 12 months when poverty status is measured using SPM units’ total resources without credit, and when lump sum or monthly tax credits payments are included in total resources. All models show the impact of the full Child Tax Credit with participation unconstrained to participation levels observed under the American Rescue Plan.

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