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Social Security Interactions with Child Tax Credit Expansion

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Abstract

The American Rescue Plan Act of 2021 (ARPA; P.L. 117-2) temporarily expanded the Child Tax Credit (CTC), increasing the number of eligible children and payment amount with advance monthly payments from July to December 2021. Many Social Security program participants were newly CTC eligible and tax filers with eligible children receiving a maximum CTC amount of $3600 per child per year. Using Current Population Survey and Survey of Income and Program Participation data, this study simulates CTC eligibility and effects on income and poverty among SSI child beneficiaries and OASDI or SSI adult beneficiaries with children (hereafter "beneficiaries") following the CTC expansion. The project identifies which program rules are most influential in increasing eligibility and how CTC program effects differ by demographic subgroups and geography. The findings from this study offer evidence on the interactions between CTC and Social Security Administration (SSA) administered programs.

Keywords: Child Tax Credit; Social Security; Safety Net; Retirement; Disability; Family Complexity
JEL Classification: H23, H31, H55, I32, J10

1 Introduction

The American Rescue Plan Act of 2021 (ARPA; P.L. 117-2) temporarily expanded the Child Tax Credit (CTC), including delivering the same credit to children in low-income families as in higher-income ones. In addition, for some households, the ARPA introduced such monthly payments for the first time. Prior to the ARPA about 27 million children received less than full credit or no credit because their families earned too little. The program began paying monthly benefits in July 2021, covering half the year, with the remainder being paid as a tax refund on 2021 taxes in spring 2022. The amounts were substantial, up to $3,600 per child under the age of six and $3,000 per year for kids ages 6-17. The program was administered via the Internal Revenue Service (IRS), meaning that most regular taxpayers with stable family composition and eligible children were easily enrolled and immediately began to receive benefits (L'Esperance and Smeeding, 2021). However, families with multigenerational structures, complex structures, or large fractions of eligible caretakers who did not pay taxes were slower to benefit (L'Esperance et al., 2021). The expansion ended in 2021 and was not renewed, meaning that the CTC reverted to its 2020 values of at most $2,000 per eligible child. Nevertheless, 27 percent of children, mostly in low-income families, no longer received a benefit, including 15 percent of all children who lived with units with no countable income and another 12 percent who had low enough earnings to not fully qualify for the benefit (Parolin et al., 2021).

In 2021, about 10 percent of children lived with relatives who were Social Security or SSI beneficiaries, or they were beneficiaries themselves (authors calculations). Most of these children were in units with retired (OASI) or disabled (SSI/DI) guardians whose incomes were below the national average. A related study finds that 44 percent of children in Social Security beneficiary households had an annual income of less than $35,000 (L'Esperance et al., 2021). CTC benefits were not counted against any means-tested income, like SSI, or other social insurance income, like OASDI. However, some DI beneficiaries likely did not apply for the program due to fear of losing benefits (Rampell, 2021; Waxman et al., 2021). We describe this economically vulnerable group of children and examine the effects of the CTC expansion in this study.

The Social Security Administration (SSA) has roughly 12,000 offices across the United States, but these offices were closed in 2021 with limited exceptions due to the Coronavirus disease 2019 (COVID-19). Online SSA services referred potentially eligible units to go to the IRS official websites, one for filers and one for non-filers, to try to access eligibility. An artifact of COVID-19 was that it inherently created barriers for individuals with internet connectivity issues and limited familiarity with online processes.[1] SSA was unable to offer direct assistance, and recent work with Census PULSE data suggests that our target population participated at only half the rate of the general population (L'Esperance et al., 2021). We examine the difference that CTC would have made if eligible children living with SSA

[1]By November, the IRS had handed the website over to a non-profit organization, Code for America, which now runs a website called Get CTC (getctc.org) which has been more effective but only at the very end of the monthly eligibility period.

beneficiaries had fully participated in this process.

The purpose of this paper is to utilize Current Population Survey (CPS) and Survey of Income and Program Participation (SIPP) data, to simulate CTC eligibility under the ARPA and its effects on income and poverty amongst this key SSA beneficiary group. The following background section reviews some of the characteristics and effects of the CTC and our target population. It is followed by a section that describes the data, then the results section details the comparison of the simulations from the two datasets and discusses the results. Results suggest how the SSA might have played a role, and may even play a more prominent future role, in ensuring that eligible SSA families received the CTC. Although the expansion of CTC under the ARPA was not extended, it is imperative to understand glitches in the flow of the anti-poverty measure to help ensure the economic stability of vulnerable households with children in future efforts.

2 Child Tax Credit Background, Effects, and Our Contribution

The Child Tax Credit was included in the American Rescue Plan Act and cut child poverty by nearly 30 percent (compared to no expansion) by December 2021. Estimates predicted it would have grown to 40 percent or higher if extended in 2022 and if additional eligible families like SSA beneficiary families had fully participated. When the expansion expired in December, monthly payments were taken away from millions of low-income families who had benefited from the expansion (Parolin et al., 2022b). There is now ample evidence that households used the monthly credit to meet their children's basic needs, leading to significant reductions in household food insecurity and material hardship (Karpman et al., 2022; RAPID, 2021). Recently we witnessed even greater poverty reduction in spring 2022 when families received their tax refunds. However, in months since then, the most recent data shows child poverty bouncing back to January 2021 pre-CTC expansion levels by May 2022 (Parolin et al., 2022a).

Opponents of the CTC expansion often cite the likelihood of poor personal financial behaviors, which are counterproductive to reducing child poverty, yet substantial evidence points to the contrary. Karpman et al. (2022) have shown that, unlike its detractors claimed, the CTC expansion did not reduce work effort in beneficiary families. Additionally, the National Academy of Sciences (NAS) report on halving child poverty suggests that coupling the expanded CTC with child care supplements and a slightly expanded EITC can substantially reduce child poverty with added work effort by recipient families (National Academies of Sciences, Engineering, and Medicine and others, 2019; Duncan et al., 2020). Finally, related experiments from the Baby's First Year project found that beneficiaries child-related income support, similar to the CTC, did not lead parents to spend extra money on alcohol, cigarettes, or other substances (Troller-Renfree et al., 2022).

In addition to the fundamental merits of this poverty reduction program, there is the acknowledgment of a particularly vulnerable population within the targeted population.

That is, children who reside in multigenerational and SSA beneficiary households. A full 10 percent of children under age 18 lived in multigenerational households in 2019, up from 5 percent in 1980 (Cohn et al., 2022; Harvey et al., 2021; Anderson et al., 2022).[2] Separately, we have determined that 12 percent of children under age 18 live with someone receiving an SSA benefit, and that number is also on the rise (Fomby and Johnson, 2022; Pilkauskas and Michelmore, 2021). Almost 45 percent of the children living in SSA beneficiary families have incomes of $35,000 or less per year, and economic barriers are the leading reason for multigenerational living arrangements (Cohn et al., 2022; L'Esperance et al., 2021).

Amongst these SSA beneficiaries with eligible children, many of these households dubbed grandfamilies wherein the oldest generation provides the primary source of support for their grandchildren (Sy and Estes, 2021; Pilkauskas and Michelmore, 2022; Rampell, 2021). In addition, more than half of children not living with a parent live with a grandparent. This statistic jumps to 70 percent when looking at children living with a grandparent(s) only and receiving Social Security benefits (Anderson et al., 2022) (author calculations). This evidence suggests that significant targeted income support benefits beyond SS programs may often be available to SS beneficiary families, depending on a child's living arrangements. Child income support for SS beneficiary families has become an important, growing, and largely under-explored research area.[3]

The example we focus on in this paper is the expanded CTC. The American Relief Plan (ARP) expanded the CTC in 2021 to $3,000-$3,600 per child, made it fully refundable for families with low or zero earnings, and began to pay these benefits monthly in July 2021 (Marr et al., 2021). Our earlier work suggests that perhaps as many as half of the Social Security program participants newly eligible to receive the expanded CTC in 2021 did not benefit from the CTC, based on their inability to contact SSA or lack of accurate information on benefits eligibility and IRS sign-up rules.

These CTC benefits have the possibility to significantly increase income for many additional SS beneficiary families who have tax dependents, but who do not live in multigenerational units. For example, CTC benefit reductions in 2022 have negatively affected children living with Social Security Disability Insurance (SSDI) and Supplemental Security Income (SSI) adult participants who received a fully refundable credit in 2021 (Rampell, 2021). In addition, interviews with SSDI and SSI families with eligible children who did not receive the expanded CTC suggest that many of these families did not participate because they feared losing SS benefits, despite the fact that the CTC is exempt from countable income by law and its receipt would not affect SSDI, SNAP or SSI benefits (Waxman et al., 2021; Rampell, 2021).

Now with the expiration of the ARPA, the CTC has returned to its pre-expansion value with $2,000 annual benefits, no benefits to units without earnings, and a benefit phase-in based on earned income. Many of these SSA beneficiary families with children, especially those in units with incomes below $35,000 per year, are now ineligible for the full $2,000

[2]Most of this data was collected prior to the COVID-19 pandemic which led to the deaths of 200,000 parents whose children are also now being cared for by grandparents or other relatives (Span, 2022).

[3]But see for instance Wisconsin study by Berger et al. (2021).

CTC and possibly other child-related benefits. As of this writing, congressional Democrats are pushing to extend the full $2,000 credit to all low-income units, including SS beneficiaries with low or zero earnings. Such a change would likely have a large impact on poverty for the 45 percent of children in these units with incomes under $35,000 (Rubin and Lew, 2022; L'Esperance et al., 2021; Klein, 2022; Duncan et al., 2020). Further we need to know how many SSA beneficiaries with children who report not filing taxes in 2019 did not receive the expanded CTC as this has implications for SSA assessing and improving multiple program take up (Quart, 2022).

3 Data

This study examines CTC eligibility as well as income and poverty among beneficiaries using two nationally representative datasets, the March 2020 Current Population Survey (CPS) Annual Social and Economic Supplement (ASEC) and the 2019 Survey of Income and Program Participation (SIPP). The datasets include rich information on both household and individual characteristics which are used to determine which children are eligible based on expanded CTC program rules. We identify CTC eligible child beneficiaries and adult beneficiaries with children and simulate effects of CTC payments on income and poverty using detailed information on Social Security program participation. Additionally, we explore effects by demographic subgroup, including race and ethnicity, earnings, sex, household composition, and geography.

The ASEC dataset includes 39,786 children, among which 5,004 children receive Social Security benefits themselves or live with an adult or another child who receives Social Security benefits or live with an adult or another child who receives Social Security benefits. The overall sample derived from the SIPP in survey year 2019 include 9,896 children under age 18, including 1,666 children who receive Social Security benefits themselves or live with an adult or another child who receives Social Security benefits.

A snapshot of the datasets is presented in Table 1. The table includes child demographic characteristics as well as some household demographics. On average the two datasets closely match with each other. Children who reside in Social Security beneficiary households tend to be slightly older, more impoverished, more likely to live in a single parent household, and three to five times more likely to live in a household with only their grandparent(s). Children in households with a Social Security beneficiary are more likely to identify as Black and less likely to identify as White relative to the average child in both datasets. Additionally, we observe households with a Social Security program beneficiary and child(ren) are more likely to be multi-family households compared to all children, 37 percent and 16 percent respectively. On average, Social Security beneficiary households with a child in residence have a lower household income across both data sets. The income difference holds when examining median household income as well, yet the difference is less pronounced. Using the income to poverty ratio, both supplemental poverty measure (SPM)[4] and official poverty line, calculated at the household-level observation in ASEC and SIPP

[4]Discussed more in depth in the results section.

data respectively, Social Security beneficiary households have ratios about 25 percent lower than children overall.

While Table 1 presents some demographics on the sample utilized in our simulation, each dataset varies slightly and more in-depth summary statistics can be found in the Appendix in Tables 15 and 16. Additional summary statistics on race and ethnicity, Social Security beneficiary status, Social Security income broken out by source, household income classified by source, EITC receipt, and tax filing status are detailed in the Appendix. The tables also include variables to indicate or proxy whether the taxpayer claiming a child passes eligibility tests required for CTC receipt.

Given that a much larger share of children in Social Security beneficiary households live with grandparents or multiple families, we delve into the living arrangements of children overall as well as by Social Security program participation. In Table 2 we compare SIPP data children who reside in a household in which a person is receiving a Social Security are more likely to live in a multi-generational household compared to all households with children without a Social Security receipt (37 percent v 10 percent). ASEC data identifies that 16 percent of children in Social Security households compared to 4 percent of children in all households live in a multi-generational household in which a grandparent is the householder (that is, they are the reference person in the survey). More than a third of children who live in a household where they or someone else is receiving Social Security live in less "traditional" household settings, that is, they live in a multi-generational household, or a household headed by a grandparent or other relative without their parents living in the same household. Given the complex living arrangements of Social Security households, this project aims to better understand the role CTC plays in helping some of these financially vulnerable households mitigate poverty, especially those headed by grandparents.

While there are slight variations in summary statistics across the SIPP and ASEC data, among both datasets we observe children who reside in a home in which someone is receiving a Social Security benefit are 35 percent to 40 percent less likely to live with two parents and three to four times more likely to live with their grandparents. This project aims to better understand the role CTC plays for these vulnerable households.

3.1 Annual Social and Economic Supplement (ASEC)

The 2020 Current Population Survey (CPS) Annual Social and Economic Supplement (ASEC) data captures 91,500 households. Among them 23 percent (21,090) house at least one child under the age of 18[5]. Additionally, 23 percent (21,386) of households are home to at least one member receiving äny social benefit." Given ASEC is survey data performed at the household, family and persons-level, and with all survey data there is a risk of human error, thus we compliment the analysis with the 2019 Survey of Income and Program Participation (SIPP) data and we rely on the ASEC Tax Model, which has been verified and endorsed by several researchers, to consistently predict filer behavior.

[5]For purposes of our analysis, children under the age of 18 will always refer to children under 18 who have never been married and have been claimed by their parent or primary caretaker.

For the purposed of this project, we characterize *social benefit* to include three concrete categories and one proxy: Did anyone in the household receive (1) any Social Security payment; (2) any Supplemental Security Income payment; and (3) any survivors benefit. Additionally we use the question, "does any person(s) in the household have a disability preventing them from working" to proxy for disability. In our analysis, we conduct simulations including and excluding this subset from the *social benefit* category. *Social Security beneficiary households* are any households which report someone in the household receiving one of the previously mentioned *social benefits*.

After restricting the data to familial households with at least one child and one member receiving a *social benefit*, our analytical sample comprises of 2,881 households. that is, 13.7 percent of primary households with children at least one household member is a social beneficiary. Among the households with a beneficiary, 87 percent report receiving social security or supplemental security income and 12.8 percent receive disability. While households report receiving *social benefit* from more than one source, more than half only report social security payments. A breakdown of social benefit receipt for households with at least one child can be found in Table 17.

Of the 157,959 persons captured in the 2020 CPS ASEC data, there are 40,092 persons under the age if 18 who have never been married, of which 30 percent (11,948) are under the age of 6. While 83 percent of children report their reference person to be a parent, 6 percent (2,493) children identify their reference person as their grandparent. After matching household to persons level data, less then 1 percent (306) of children are not matched.[6] Of the remaining matched 39,786 children under 18 years old, 12.6 percent reside in a home in which at least one person in the home receives a Social Security benefit. The remaining 5,004 children reside in 2,881 homes.

3.2 2019 Survey of Income and Program Participation (SIPP)

In addition to ASEC, we employ data from 2019 SIPP to examine the effects of CTC expansion on income and poverty among Social Security program beneficiaries. While SIPP sample of children is significantly smaller than ASEC, SIPP includes detailed information on child residency, living arrangement, parent/guardian tax filing status, income, and other information that allow us to simulate CTC receipt and estimate income and poverty effects. A key improvement of our analysis of CTC eligibility derives from the SIPP monthly interview that captures child living arrangements which we map to CTC residency test. Previous work simulating CTC eligibility did not account for this test (Goldin and Jurow Kleiman, 2021). Another benefit of SIPP for our analysis is that it includes detailed information on Social Security program benefit receipt at a monthly frequency for both children and adults. Finally, the SIPP includes several questions related to filing taxes including self-report on whether respondent files taxes, tax filing status, and dependent status. Our analytical sample includes 9896 children including 1573 children who live with a Social Security beneficiary

[6]Roughly 75 percent of the children are living in a household with relatives but where the householder (or reference person) is not a family member. The remainder live with non-relatives, in a foster home, or with a roommate.

or are beneficiary themselves. Table 15 details summary statistics for children by Social Security beneficiary status.

4 Methods

This project describes the effects of CTC expansion under ARPA 2021 on CTC eligibility, income, and poverty among beneficiaries. We simulate CTC eligibility under new program rules and identify previously eligible, newly eligible, and ineligible children. Our simulations compare eligibility before and after program expansion effective for 2021 building on prior work that estimated CTC eligibility under 2019 tax rules and several hypothetical program eligibility rule changes (Goldin and Michelmore, 2022).

Eligible children must have a Social Security Number (SSN) and must not provide more than half of their own support (Goldin and Jurow Kleiman, 2021). Our data does not allow us to verify these two requirements directly, however, we would be able to verify by collaborating with an SSA researcher (Johnson et al., 2015; sip, 2020). We will use the following CTC requirements to identify the tax filers claiming the credit for an eligible child: (a) the filer must pass the relationship test by living in the same household as the child they are claiming and being the child's parent, grandparent, sibling, or close relative; (b) they must pass the residency test which requires the claiming adult to live with the child for six months or more, using the SIPP monthly residency measure which will allow us to more accurately validate this requirement than with the CPS measured annually; and (c) the claimant must be the child's parent or the highest income taxpayer who is eligible to claim the child (Goldin and Jurow Kleiman, 2021; Harvey et al., 2021).

Because most multiple generation households are fully related by blood, marriage, or adoption, the Census bureau treats them as one extended family unit for poverty determination purposes. Hence, as long as the extended family is below the upper end income cutoff for the expanded CTC, there is no difference for poverty status or income position if the child's parents or the child's grandparents claimed the CTC.

For newly eligible children, we simulate the extent that program rule changes, like eliminating the minimum income requirement, increasing child age limit, and implementing full refundability, contribute to the increase in CTC eligible children and CTC payment amount. We measure the prevalence of different barriers to eligibility for those who remain ineligible for CTC after the expansion among beneficiaries, like tax filing ambiguity in complex families (Pilkauskas and Michelmore, 2022).

To identify program rules most salient for eligibility among beneficiaries, we compare differences in eligibility between beneficiaries and non-beneficiaries as well as between beneficiaries in each Social Security program, including SSI, SSDI, and OASI. To assess distributional effects, we will simulate eligibility and income gains by demographics of the child, adult claiming the credit, and family structure. Finally, we will map eligibility, income, and poverty following the CTC expansion at the region, state, county, and metropolitan statistical area levels, to understand differential impacts of the CTC expansion across the US. The

findings will improve the understanding of interactions between CTC and SSA programs (Kearney et al., 1994; Anderson et al., 2022; Rupp et al., 2005; Tamborini et al., 2011).

4.1 ASEC Limitation

CPS ASEC data is utilized as our primary data set but present several limitations which motivated our use of SIPP as a secondary dataset. After the person-household level dataset is compiled and cleaned we next identify the variables which most closely map to the CTC requirements for the; relationship test, residency test, and support test previously mentioned. The mapping of the variables are outlined in Table 3 in some instances we used multiple variables to verify. Once imposing the (a) relationship test, we retained 39,354 children in total and 4,901 children who receive Social Security benefits themselves or live with an adult or another child who receives Social Security benefits. Given a data constraint, we only know a child's residence at the time of the survey, thus we relax the residency test (b) for our analysis. Lastly, we use several variables to proxy for the tax claimant (c) and use the ASEC Tax Model to verify results. In scenarios when a child resides with a grandparent or other relative and and are not in a subfamily we relax the residency test and assume the relative is the claimant.

5 Results

Tables 4 and 11 displays child eligibility by household Social Security receipt. While there are slight variations in reported estimates across the SIPP and ASEC datasets, as illustrated below overall they paint a rather similar picture. Among all children under age 18, 96 percent in the SIPP data and 99 percent in the ASEC data are eligible to receive CTC, that is, the child is eligible and taxpayer that claims the child passes all eligibility criteria. Among all children under age 18, 75 percent and 73 percent are eligible to receive the full credit, and 17 percent and 23 percent are eligible to receive a partial credit in the SIPP and ASEC data respectively. In both datasets, almost all children under age 18 pass the relationship test, that is they are the child, grandchild/great grandchild, sibling, niece/nephew, or foster child of the taxpayer. In the SIPP data 3 percent of all children fail to pass the residency test, that is a child does not live with a related taxpayer for more than half of the year. Unfortunately we are not able to observe residency in the ASEC data thus our eligibility estimates may be slightly higher.

Almost all children pass the support test, that is, a child does not provide more than half of their own financial support. Across both data sets, roughly 2 percent of all children live with a taxpayer who earns less than $2,500; these taxpayers were newly eligible for CTC under the expansion. Next, we look at CTC eligibility among households who have an adult and/or child that receives Social Security benefits. Between 93-97 percent of children under 18 living in households with a Social Security beneficiary are eligible for the CTC with 73-79 percent eligible to receive the full credit, and 9-18 percent eligible to receive a partial credit. About 2-3 percent fail to pass the relationship test which is slightly higher than for children under 18 overall. Notably about 5 percent of children under 18 living with a Social Security

beneficiary fail the residency test relative to only 3 percent who fail this test among all children. About 1-3 percent of children under 18 living with Social Security beneficiary fail the support test. Finally, as many as 3 percent of these children living with beneficiaries reside with taxpayer who earns less than $2,500.

Table 5 examines CTC receipts and eligibility for households by a grandparent(s) without the presences of a subfamily. In our data set this represents 2.3 percent of all households with children and 10.5 percent of households with children and at least one household member receiving Social Security. On average these households report household total earnings which is 75 percent that of non-beneficiaries' grandfamily households with children. Compared to all households with children as reported in Table 4, *Grandfamilies* are roughly 18 percent less likely to pass the CTC eligibility tests, most notably the support tests. Grandparent-led households without a subfamily also report substantially lower household income.

5.1 ASEC

The second panel of Table 4 details household income, CTC simulation amount, and supplemental poverty measure (SPM) poverty threshold ratio before and after the CTC. The SPM poverty ratio presented in the table uses total household resources which includes income of all members of the household as well as several other cash transfers and non-cash benefits. Using household-level data variable constructed using ASEC data during the simulation differ some. Total household income prior to the CTC simulation is $118,829 and $96,456 on average for all families and families with Social Security beneficiary respectively. that is, Social Security beneficiary households which are CTC eligible report a household income at about 81 percent of all households which are CTC eligible in the ASEC data. This is comparable to what was found using SIPP data and reported in Table 11, where Social Security beneficiary households which are CTC eligible report a household income at about 82.6 percent of all households that are eligible. It is worth noting that while the median is smaller than the mean for both households, the distribution of income seems to be similar. While the ratio of the mean income of Social Security beneficiary households to all household was noted to be 81 percent the ratio of the median household income is 80 percent. A similar observation will be illustrated for most of the subgroups analyzed in the paper. We will further explore the role the CTC may play in mitigating the effects of poverty for children who reside in households on the lower portion in the income spectrum.

Household income includes earnings, government transfers, social insurance payments, investment/property income, and all other income from all members of the household, which can include subfamilies. While taxes are filed at the family level, capturing the income of the full household is also useful in understanding the role CTC plays in not just impacting the disposable income of the immediate family, but all members of a given household which for Social Security households is more likely to include multiple family units.

The CTC amount is calculated using IRS CTC formula inputting child age and household income from ASEC. CTC amount is calculated for all eligible children. Total family CTC annual benefit amount is $6,407 and $5,652 for all children and beneficiary children.

Family poverty ratio prior to the new estimated CTC is 2.8 and 2.35 for all children and children in beneficiary households respectively. When we simulate universal receipt of CTC for eligible children, household poverty threshold ratio increases to 3.1 and 2.52 respectively. Both groups experience a significant decline in poverty, that a 31 percent and 26 percent decrease in poverty is observed for all household and beneficiary families that were below the federal poverty line prior to the CTC simulation. Put another way, using the ASEC data we observe 1,382 (3.5 percent) households whose household income was no long below the FPL as a direct result of the ARPA CTC.

When narrowing the sample to take a closer look at grandfamilies, we observe a similar result but for a much more resource-constrained population. In Table 5, on average, households lead by grandparent(s) with no subfamily report lower household incomes, are more impoverished, and less likely to be eligible for the CTC. Similarly to all other eligible households, the CTC reduces poverty. The fraction of grandfamilies living at or below the poverty line dropped by a quarter for all children and nearly half for children in beneficiary households.

CTC simulation was also calculated by region, program type, and race and ethnicity. In Table 4 it is observed that on average social benefit households with children poverty threshold ratio increased by 17 percent of a threshold level, whereas Table 7 illustrates the range of the effect varied substantially. The SPM poverty threshold of SSI beneficiary households with children was 1.65 prior to the CTC simulation and rose to 1.83 post-CTC, compared to 3.79 to 3.97 for survivors benefit households. The largest beneficiary group is Social Security households, but in our analysis Supplemental Security Income households with children are the more financially vulnerable.

In our analysis, variation by region alone does not produce substantially different in the impact of CTC on poverty. Households with children in the Northeast, Midwest, South, and West appear to all financially benefit from the expanded CTC. As reported in Table 6, the percent of households below the federal poverty line dropped by 30 percent or more for each region. The poverty threshold ratio increased by nearly one-fifth of a threshold for all regions. The simulated effect of CTC on poverty by region is much more pronounced when interacted with race or social security beneficiary independently which will be discussed shortly.

Table 8 presents simulation and poverty results by gender, race and ethnicity. In our data, prior to CTC simulations, 19 percent of Black and Hispanic children lived below the federal poverty line, compared to 12 percent once incorporating the CTC simulation. While the sample size for Native America Alaskan Native (AIAN), and Hawaiian Pacific Islander children are considerably small, we estimate our CTC simulation to have a similar impact; children living below the federal poverty line dropped by 6 and 7 percentage points.The aforementioned racial/ethnic groups also report considerably lower median and mean household incomes compared to white and Asian households with children.

To further investigate the association between the race of a child and poverty, the effects of the CTC simulation for Black and white children by region and beneficiary type are reported in Tables 9 and 10. In the Midwest CTC reduces Black child poverty by 7

percent and white child poverty by 1 percent; in the South there is 8 percent reduction in Black child poverty compared to 3 percent for white child poverty. that is, given that Black southern children reside in households whose income is only 57 percent that of their white counterparts, CTC has a more substantial impact on alleviating poverty. A similar result is observed in Table 13 for Black and white households reporting a Social Security receipt. The only subgroup in which race seems to play little to no role is among children in households in which there is someone who receives Supplemental Security Income. These children seem to benefit equally from the expansion of CTC.

5.2 SIPP

Table 11 details household income, income to poverty ratio, and poverty rate before and after CTC receipt. We include each outcome absent CTC receipt, assuming universal receipt for all eligible, and assuming only self-reported tax filers receive CTC. Total household income absent CTC receipt is $97,401 and $82,805 on average for all families and families with Social Security beneficiary, respectively. Household income includes earnings, government transfers, social insurance payments, investment/property income, and all other income. CTC amount is calculated using IRS CTC formula inputting child age and taxpayer earnings from SIPP. CTC amount is calculated for all eligible children. The average annual CTC amount is $2988 and $3046 per child for all children and children living with beneficiaries respectively. Total household CTC annual benefit amount is $6,481 and $6,199 for all children and beneficiary children. Household income to poverty ratio absent CTC is 3.61 and 2.7 for all children and children in beneficiary families respectively. About 19 percent of all children are in poverty and 21 percent of children in beneficiary families. When we simulate universal receipt of CTC for eligible children, we find that household income to poverty ratio increases to 3.81 and 2.88 respectively. Both groups experience a significant decline in poverty to 13 percent and 14 percent, about a 30 percent decline. When we simulate CTC receipt for only children in households that report filing taxes in prior year, we find a slightly smaller decline in poverty. About Between 11 percent and 13 percent of children live in households who do not report filing taxes. Household income to poverty ratio increases to 3.79 and 2.87 while poverty rate declines to 14 percent for both groups. Finally, we simulate CTC receipt at a 50 percent take up rate, which we consider to be a lower bound relative to other simulations. We find that the poverty reduction is smaller about half the size of the simulated reduction under universal take up. These results emphasize the importance of ensuring complete coverage for CTC to be effective, especially among vulnerable children.

Next, we examine CTC eligibility and effects on income and poverty by Social Security program, that is, broken out by child SSI, OASDI, OA, DI, and Adult SSI in Table 13. CTC eligibility varies by Social Security program. Children living with an adult who receives disability benefits from DI and SSI have the lowest CTC eligibility rate at 88 percent and 89 percent, respectively. Full and partial CTC eligibility are lower for children living with disabled adults. While most children pass the relationship test and the support test across SSA programs, there are differences in passing rate for the residency test across programs. Children living with disabled adults are less likely to pass the residency test; about 7 percent fail this test relative to 5 percent of all children living with SSA beneficiaries. Tax filing

status also differs substantially by SSA program. Families with an adult SSI beneficiary are less likely to file taxes, more than a quarter do not report filing taxes. About one-fifth of families with DI beneficiaries do not file taxes. OA beneficiaries are most likely to file among SSA program beneficiaries. Children living with disabled adults experience lowest income to poverty ratios and highest rates of poverty. Children living with adult SSI beneficiaries have a poverty rate of 41 percent, more than twice the rate for SSA beneficiaries overall. CTC has similar increases on average income to poverty ratio across SSA program groups. Effects of CTC expansion on poverty range from 15 percent to 40 percent across programs. Children living with disabled adults experience the smallest improvements in poverty from 15 percent to 19.5 percent reduction in poverty. Child SSI beneficiaries experience the largest improvement in poverty, a 40 percent decline.

Table 14 details CTC eligibility and effects of CTC on income to poverty ratio and poverty by child's sex and race and ethnicity. Columns (1) and (2) show that CTC eligibility and effects on poverty do not differ based on child's sex. We find notable differences in child poverty prevalence by race, with Black, Hispanic, and American Indian/Alaska Native children especially likely to be in poverty. When we simulate effects of the CTC for each race and ethnicity, we find that all groups experience substantial declines in child poverty. However, the preexisting disparities in child poverty by race and ethnicity do not disappear.

Table 12 details CTC eligibility and effects of CTC on income to poverty ratio and poverty by region. CTC eligibility does not vary substantially across regions with 96 percent to 97 percent of children eligible to receive CTC. Full CTC eligibility is lowest in Northeast at 69 percent followed by Midwest at 73 percent, West at 73 percent, and finally South at 76 percent. About one-fifth of children in the Northeast, Midwest, and West are eligible for partial CTC relative to only 13 percent of children in the South. Passing rate for relationship test, residency test, and support test do not vary substantially by region– children in Northeast are slightly more likely to pass residency test. Tax filing rate varies by region with lowest rates in South at 86 percent with West at 86 percent, Northeast at 91 percent, and Midwest at 94 percent filing rate. Household income to poverty ratio differs based on where a child lives. Children in the South have the lowest income to poverty ratio at 3.22 and poverty rate at 23 percent. The Midwest has lowest poverty rate at 13 percent. Next, we look at whether effects of CTC on household income to poverty ratio and poverty rate differ by region. Assuming full take-up, we find that household income to poverty ratio experiences similar increases regardless of region. However, when we proxy CTC take up with self-reported tax filing status, we find that children in regions with lower tax filing rate experience smaller improvements in household income to poverty ratio and poverty rate. Effects of CTC expansion on poverty range from 22 percent to 37 percent across regions. Despite this variation, the effect of CTC on child poverty is economically large. Children in the South experience the smallest improvement in poverty rate following CTC expansion, about 22 percent to 26 percent decline in child poverty. Children in the West experience the biggest improvements in poverty, a 32 percent to 37 percent decline in poverty.

6 Conclusion

Estimates indicate Social Security lifted 1.2 million children out of poverty in 2018 (Bridges and Gesumaria, 2015; Marr et al., 2021; Romig, 2020). The ARPA expanded the CTC to be the largest anti-poverty program for children, moving an estimated 14 million children above or closer to the poverty line (Marr et al., 2021). The goal of this project was to understand how these programs interact, especially their effects for children of color and those living in impoverished areas (Mitchell et al., 2021).

The expanded CTC benefited close to 90 percent of children with an estimated 27 million children newly eligible and many previously eligible children receiving higher payments (Marr et al., 2021). CTC eligibility depends on Internal Revenue Service (IRS) child tax dependent status and SSA's responsible parent/caretaker determination (Goldin and Michelmore, 2022; Goldin and Jurow Kleiman, 2021; Harvey et al., 2021). Many beneficiaries were eligible to receive the CTC, including up to 14 million children living with grandparents and other relatives, many of them poor without the CTC (Blanton, 2021; Mitchell et al., 2021). The CTC is unique because monthly payments will not reduce Social Security or means-tested program benefits (Deshpande, 2016).

This project simulates expanded CTC eligibility, identifies the program changes that contribute to increased eligibility, and examines the effects of CTC payments on income and poverty among beneficiaries. The CTC expansion changed several program rules that contribute to distributional differences (Goldin and Michelmore, 2022). We assess whether expanded eligibility resulted in a more equitable distribution of benefits. Finally, we analyze differences by geography recognizing that impacts will vary based on where one lives, for example, from poverty rate and means-tested program participation (Rupp et al., 2005; Tamborini et al., 2011).

Unfortunately, these improvements have expired. Despite the hard work of many Congressional champions and anti-poverty advocates, they have yet to be extended, even as 37 Senators and 170 Members of the House have co-sponsored the American Family Act, and proposed legislation that aided in designing the ARPA provisions. As negotiations continue, recently Senators Mitt Romney (R-UT), Steve Daines (R-MT), and Richard Burr (R-NC) released the Family Security Act 2.0, an alternate proposal to reform the Child Tax Credit. This is an updated version of a 2021 proposal from Senator Romney with the same name

In this paper we showed how income and poverty are affected by CTC child-related program eligibility and take-up among children in SSA families, multigenerational units and two generation units. Clearly the next step is to suggest ways in which SSA can encourage and enroll more of the eligible families who are not receiving the CTC (and other benefits to which they may be entitled) (Quart, 2022). This may include undertaking an effort to help beneficiaries in CTC eligible families to file an IRS 1040 short-form tax return to receive the CTC benefit, and for SSA to provide linkages to other important income support programs for children residing with SSA beneficiaries, like SNAP (Code of Federal Regulations, 2022) and the EITC (IRS, 2022).

We expect to find even greater poverty reduction and a narrowing of the racial poverty gap in annual CPS SPM poverty data for 2021 when the report is released in September as additional eligible families receive the rest or all of their Child Tax Credit after filing taxes this year (Curran, 2021).

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Appendix

Table 1: Summary Statistics for Children by Household for ASEC & SIPP Data

	ASEC		**SIPP**	
	All Children	SS Beneficiary Households	All Children	SS Beneficiary Households
Age	8.9	9.45	9.14	10.07
Average Child Per HH	2.42	2.29	2.44	2.32
Child Under Age 6	0.30	0.24	0.28	0.21
Child Age 6 to 17	0.70	0.76	0.72	0.79
White	0.77	0.69	0.75	0.68
Black	0.11	0.17	0.12	0.19
Hispanic	0.23	0.21	0.25	0.24
Female	0.51	0.51	0.49	0.48
Citizenship	0.98	0.99	0.98	0.99
Median Household Income	$88,000	$69,916	$74,901	$64,616
Means Household Income	$118,512	$95,531	$102,098	$87,065
Avg. Poverty Threshold Measure	3.89	2.92	3.72	2.79
Poverty Threshold under 100%	0.13	0.19	0.16	0.17
Poverty Threshold 100-200%	0.21	0.27	0.22	0.28
Poverty Threshold 200-399%	0.33	0.33	0.30	0.34
Poverty Threshold over 400%	0.34	0.21	0.32	0.20
Live with Parent(s)	0.96	0.86	0.93	0.81
Two Parents	0.72	0.47	0.70	0.42
Single Parent	0.24	0.39	0.24	0.39
Reside in a multi-family home	0.16	0.37	-	-
Live with Parent(s) Only	0.89	0.64	-	-
Live with Grandparent(s) Only	0.02	0.11	0.04	0.13
Observations	39,786	5,004	9,896	1,666

Data: ASEC & SIPP. Unit of observation is child.

Column 1 & 3 includes all children. Column 2 & 4 includes children who live in a household where someone receives Social Security.

Table 2: Living Arrangements for Children who Reside in a Household with Primary Family

	ASEC						
	All	Social Benefit Households	Social Security	Supplemental Security Income	Disability	Survivors Benefit	SS + SSI
Two Generations							
Parent(s) – Child	0.90	0.64	0.58	0.72	0.81	0.64	0.59
Grandparent(s) – Grandchild	0.02	0.11	0.13	0.09	0.04	0.08	0.12
Other Relative(s) – Related Child	0.01	0.02	0.02	0.02	0.1	0.01	0.02
Three Generations							
Grandparent(s) – Parent(s) – Child	0.04	0.16	0.20	0.11	0.10	0.15	0.22
Observations	39,786	5,004	3,430	1,228	637	360	323

	SIPP						
	All	Social Benefit Households	Social Security	Supplemental Security Income	Disability	Survivors Benefit	SS + SSI
Two Generations							
Parent(s) - Child	0.83	0.41	0.21	0.55	0.47	0.34	0.31
Grandparent(s) - Grandchild	0.04	0.15	0.19	0.10	0.12	0.17	0.14
Three Generations							
Grandparent - Parent - Child	0.10	0.37	0.54	0.26	0.32	0.37	0.53
Observations	9892	1647	749	596	546	104	72

Note: ASEC living arrangement are calculated at the householder level. that is, the first listed generation is the householder in the data and we do not capture three generation households in which a grandparent is not a householder. Thus we suspect our results to be an underestimate of the true amount.

Table 3: ASEC: Tests to Claim a Child as a Qualifying Child for the Child Tax Credit

	Mapped to ASEC	Description
Relationship	Primary Family	living in the same household as the child; the child's parent, grandparent, sibling, or close relative
Residency		reside in the household at time of survey
Support	Tax Filer	filer status; joint, head of household, single, non-filer
	Dependent Status	if deemed not a dependent we then identify if there is a parent in the house, if not we impose the relative as the claimant*
	Householder	details household & family status in household

Data are 2019 ASEC. Unit of observation is household and/or person level.

**More in depth description of how this is accomplished is discussed in the results section. Results include this assumption and if we relax this assumption.*

Table 4: ASEC: Child Tax Credit Eligibility by Household Simulation

Eligibility & Tests	All Children	SS Beneficiary Households
CTC Eligible	0.99	0.97
Pass Relationship Test	0.99	0.97
Pass Residency Test	–	–
Pass Support Test	0.99	0.97
Grandfamilies	0.02	0.11
Full CTC Eligible	0.73	0.79
HH Earnings Below $2,500	0.02	0.00
Partial CTC Eligible	0.23	0.18
HH Earnings Above Max ($200,000/$400,000)	0.03	0.03
CTC Simulation		
Median Household Income	$88,000	$69,916
Prior Year Mean HH Income	$118,829	$96,456
CTC Simulation Amount Per HH	$6,407	$5,652
SPM Resources/Poverty Ratio Before	2.80	2.35
SPM Resources/Poverty Ratio After	3.10	2.52
SPM Resources/Poverty Ratio After (50% take up)	3.10	2.52
Poverty Before CTC	0.11	0.16
Poverty After CTC	0.07	0.10
Poverty After CTC (50% take up)		
Observations	39,444	4,827

Data: ASEC. Unit of observation is at the child-household level. Column 1 includes all households with children. Column 2 includes all households with children who receives Social Security or themselves receives Social Security. Poverty is calculated at the household level using the Supplemental Poverty Measure (SPM).

Table 5: ASEC: Grandfamilies CTC Eligibility by Household Social Security Receipt

Eligibility & Tests	All Children	SS Beneficiary Households
CTC Eligible	0.80	0.76
Pass Relationship Test	1.00	1.00
Pass Residency Test	–	–
Pass Support Test	0.80	0.76
Average Child Per HH	2.01	2.00
Child Under 6	0.20	0.15
Child 6 to 17	0.80	0.85
Full CTC Eligible	0.88	0.90
HH Earnings Below $2,500	0.04	0.01
Partial CTC Eligible	0.11	0.09
HH Earnings Above Max ($200,000/$400,000)	0.01	0.00
CTC Simulation		
Median Household Income	$54,601	$49,896
Prior Year Total HH Income	$71,909	$63,451
CTC Simulation Amount Per HH	$4,845	$4,573
Estimated New HH Income	$76,755	$68,024
SPM Resources/Poverty Ratio Before	2.06	1.89
SPM Resources/Poverty Ratio After	2.23	2.06
Poverty Before CTC	0.22	0.14
Poverty After CTC	0.16	0.08
Observations	756	398

Data: ASEC. Unit of observation is at the child-household level. Column 1 includes all households with children. Column 2 includes all households with children who receives Social Security or themselves receives Social Security.

Table 6: ASEC: Child Tax Credit Simulation by Region

	All Children	Northeast	Midwest	South	West
Median Household Income	$88,000	$103,500	$92,475	$78,000	$89,013
Prior Year HH Income	$118,829	$139,520	$118,425	$111,065	$118,439
CTC Simulation Amount Per HH	$6,407	$6,417	$6,657	$6,075	$6,616
SPM Resources/Poverty Ratio Before	2.80	3.06	3.07	2.85	2.70
SPM Resources/Poverty Ratio After	3.10	3.25	3.30	3.06	2.90
Poverty Before CTC	0.11	0.10	0.08	0.12	0.12
Poverty After CTC	0.07	0.07	0.05	0.08	0.07
Observations	39,444	5,570	8,265	13,822	11,787

Data are 2019 ASEC. Unit of observation is child.

Table 7: ASEC: Child Tax Credit Simulation by Social Security Program

	SS Beneficiary Households	Social Security	Supplemental Security Income	Disability	Survivors Benefit
Median Household Income	$69,916	$75,946	$36,456	$91,140	$106,526
Prior Year HH Income	$96,456	$100,305	$59,308	$108,005	$162,178
CTC Simulation Amount Per HH	$5,652	$5,629	$5,623	$5,811	$5,645
SPM Resources/Poverty Ratio Before	2.35	2.38	1.65	2.63	3.79
SPM Resources/Poverty Ratio After	2.52	2.55	1.83	2.82	3.97
Poverty Before CTC	0.16	0.14	0.26	0.11	0.07
Poverty After CTC	0.10	0.09	0.15	0.07	0.05
Observations	4,827	2,769	1,093	618	347

Data are 2019 ASEC. Unit of observation is child.

Table 8: ASEC: Child Tax Credit Simulation by Sex and Race and Ethnicity

	Male	Female	White	Black	AIAN	Asian	Hawaiian /PI	Multiracial	Hispanic
Median Household Income	$86,378	$89,178	$91,525	$52,100	$62,000	$125,390	$69,000	$90,098	$60,039
Prior Year HH Income	$118,105	$119,596	$122,815	$76,064	$78,353	$162,149	$79,858	$119,269	$84,439
CTC Simulation Amount Per HH	$6,372	$6,444	$6,475	$5,815	$6,376	$6,639	$6,585	$6,338	$6,033
SPM Resources/Poverty Ratio Before	2.87	2.89	2.99	2.04	2.11	3.41	1.72	2.75	2.07
SPM Resources/Poverty Ratio After	3.08	3.10	3.21	2.23	2.32	3.60	1.90	2.95	2.26
Poverty Before CTC	0.11	0.11	0.10	0.19	0.14	0.09	0.22	0.10	0.19
Poverty After CTC	0.07	0.07	0.06	0.12	0.08	0.06	0.15	0.06	0.12
Observations	20,286	19,158	30,456	4,122	719	2,065	162	1,920	8,904

Data are 2019 ASEC. Unit of observation is child.

Table 9: ASEC: Child Tax Credit Simulation by Region for Black and White Households

	Northeast		**Midwest**		**South**		**West**	
	Black	White	Black	White	Black	White	Black	White
Prior Year HH Income	$92,864	$142,619	$71,525	$125,034	$77,883	$117,143	$73,209	$118,007
CTC Simulation Amount Per HH	$5,657	$6,563	$6,284	$6,687	$5,618	$6,160	$6,465	$6,625
SPM Resources/Poverty Ratio Before	2.14	3.14	2.04	3.22	2.03	3.00	1.91	2.75
SPM Resources/Poverty Ratio After	2.31	3.34	2.25	3.45	2.22	3.21	2.11	2.96
Poverty Before CTC	0.17	0.10	0.19	0.05	0.21	0.10	0.17	0.12
Poverty After CTC	0.11	0.06	0.12	0.04	0.13	0.07	0.09	0.08
Observations	573	4,382	688	6,733	2,471	10,104	390	9,237

Data are 2019 ASEC. Unit of observation is child.

Table 10: ASEC: Child Tax Credit Simulation for Black & White Social Security Beneficiaries

	Black Households		**White Households**	
	Social Security	Supplemental Security Income	Social Security	Supplemental Security Income
Median Household Income	$51,712	$26,400	$78,475	$39,400
Prior Year HH Income	$72,162	$46,110	$103,094	$55,998
CTC Simulation Amount Per HH	$4,823	$5,555	$5,752	$5,497
SPM Resources/Poverty Ratio Before	1.99	1.52	2.46	1.61
SPM Resources/Poverty Ratio After	2.15	1.71	2.64	1.79
Poverty Before CTC	0.20	0.37	0.04	0.17
Poverty After CTC	0.12	0.15	0.03	0.07
Observations	415	293	1,959	641

Data are 2019 ASEC. Unit of observation is child thus the race is determined by the child not necessarily the household.

Figure 1: Household SPM Ratio With and Without Simulated CTC Expansion for Social Security Households

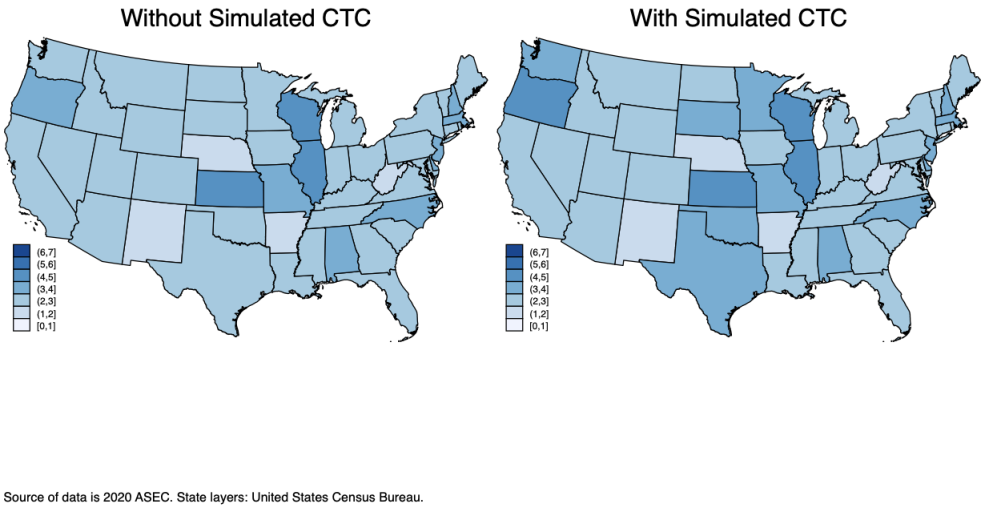

Figure 2: Percentage of Children Living in Social Security Households in Poverty With and Without Simulated CTC Expansion

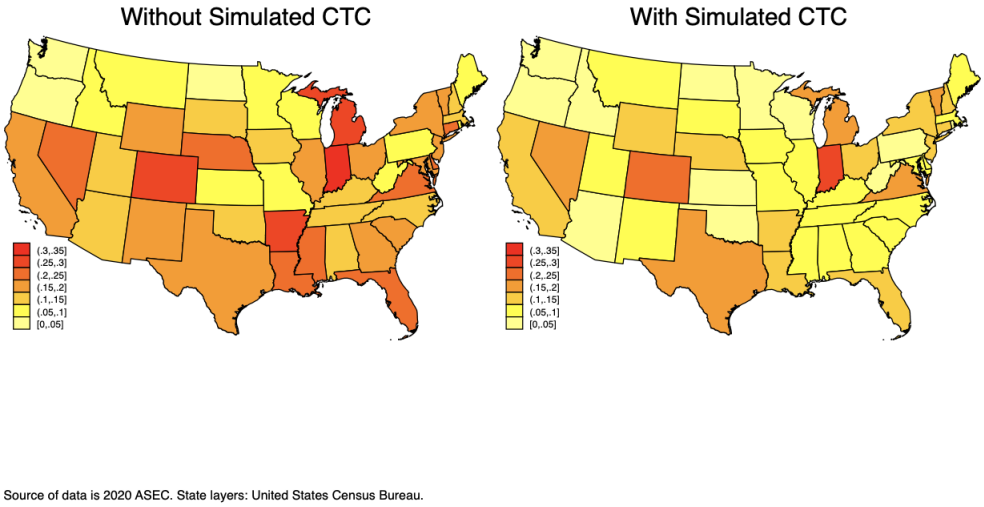

Table 11: SIPP: Child Tax Credit Eligibility by Household Social Security Receipt

	All Children	SS Beneficiary Households
CTC Eligible	0.96	0.92
Full CTC Eligible	0.75	0.74
Partial CTC Eligible	0.17	0.09
Pass Relationship Test	0.99	0.98
Pass Residency Test	0.97	0.94
Reside with Parent ¿6 Months	0.93	0.79
Reside with Grandparent ¿6 Months	0.03	0.12
Reside with Other Relative ¿6 Months	0.01	0.03
Reside with Foster Parent ¿6 Months	0.00	0.00
Pass Support Test	0.99	0.99
Earnings Below $2500	0.02	0.03
Median Total Household Income	74,901.00	64,615.50
Median CTC Amount	3000.00	3000.00
Median Total CTC Amount	6000.00	6000.00
Median Household Income after CTC	79,806.00	67,218.00
Household Income to Poverty Ratio	3.72	2.79
Household Income to Poverty Ratio (After CTC)	3.93	2.97
Household Income to Poverty Ratio (Filers only)	3.92	2.96
Household Income to Poverty Ratio (50% take up)	3.82	2.87
Poverty	0.16	0.17
Poverty after CTC	0.10	0.11
Poverty After CTC (Filers only)	0.11	0.12
Poverty After CTC (50% take up)	0.13	0.12
Observations	9896	1666

Data are 2019 SIPP. Unit of observation is child. Column 1 includes all children. Column 2 includes children living in families with someone who receives Social Security or who themselves receive Social Security.

Table 12: SIPP: Child Tax Credit Eligibility by Region

	Northeast	Midwest	South	West
CTC Eligible	0.97	0.96	0.96	0.97
Full CTC Eligible	0.70	0.74	0.78	0.75
Partial CTC Eligible	0.22	0.20	0.14	0.18
Pass Relationship Test	0.99	0.99	0.99	0.99
Pass Residency Test	0.98	0.97	0.97	0.97
Pass Support Test	0.99	0.99	0.99	0.99
Adult in Household Files Taxes	0.93	0.95	0.88	0.91
Household Income to Poverty Ratio	4.15	4.05	3.34	3.84
Household Income to Poverty Ratio (After CTC)	4.35	4.26	3.54	4.07
Household Income to Poverty Ratio (Filers only)	4.34	4.25	3.52	4.05
Poverty	0.14	0.11	0.19	0.16
Poverty after CTC	0.09	0.06	0.13	0.09
Poverty After CTC (Filers only)	0.10	0.06	0.14	0.10
Observations	1200	2031	3945	2711

Data are 2019 SIPP. Unit of observation is child.

Table 13: SIPP: Child Tax Credit Eligibility by Social Security Program

	Child SSI	OASDI	OA	DI	Adult SSI
CTC Eligible	0.96	0.89	0.91	0.86	0.87
Full CTC Eligible	0.75	0.73	0.74	0.67	0.71
Partial CTC Eligible	0.09	0.08	0.11	0.05	0.05
Pass Relationship Test	0.99	0.97	0.97	0.96	0.97
Pass Residency Test	0.98	0.92	0.93	0.92	0.92
Pass Support Test	0.99	0.99	0.99	0.99	0.99
Adult in Household Files Taxes	0.89	0.87	0.91	0.83	0.79
Household Income to Poverty Ratio	2.60	2.85	3.32	2.22	1.98
Household Income to Poverty Ratio (After CTC)	2.83	3.01	3.47	2.39	2.16
Household Income to Poverty Ratio (Filers only)	2.82	2.99	3.46	2.38	2.14
Poverty	0.17	0.17	0.11	0.24	0.37
Poverty after CTC	0.10	0.12	0.06	0.18	0.26
Poverty After CTC (Filers only)	0.10	0.12	0.07	0.18	0.26
Observations	678	1275	750	547	596

Data are 2019 SIPP. Unit of observation is child.

Table 14: SIPP: Child Tax Credit Eligibility by Sex and Race and Ethnicity

	Male	Female	White	Black	AIAN	Asian	Haw/PI	Multiracial	Hispanic
CTC Eligible	0.96	0.96	0.97	0.94	0.91	0.97	0.93	0.95	0.97
Full CTC Eligible	0.76	0.74	0.75	0.77	0.90	0.69	0.93	0.75	0.84
Partial CTC Eligible	0.17	0.18	0.19	0.09	0.05	0.27	0.03	0.14	0.09
Pass Relationship Test	0.99	0.99	0.99	0.98	0.99	0.99	0.97	0.99	0.99
Pass Residency Test	0.97	0.98	0.98	0.96	0.93	0.98	0.97	0.96	0.98
Pass Support Test	0.99	0.99	0.99	0.99	0.97	1.00	0.97	0.99	0.99
Adult in Household Files Taxes	0.91	0.91	0.92	0.84	0.88	0.94	0.86	0.89	0.86
Household Income to Poverty Ratio	3.68	3.77	3.88	2.37	2.22	5.12	2.06	3.65	2.52
Household Income to Poverty Ratio (After CTC)	3.91	3.97	4.11	2.59	2.50	5.31	2.44	3.77	2.75
Household Income to Poverty Ratio (Filers only)	3.89	3.95	4.09	2.57	2.48	5.30	2.41	3.74	2.72
Poverty	0.16	0.16	0.14	0.30	0.21	0.09	0.04	0.15	0.25
Poverty after CTC	0.10	0.11	0.09	0.21	0.12	0.05	0.03	0.10	0.15
Poverty After CTC (Filers only)	0.10	0.11	0.09	0.22	0.15	0.05	0.03	0.11	0.17
Observations	5095	4801	7425	1220	136	499	29	587	2504

Data are 2019 SIPP. Unit of observation is child.

Table 15: SIPP: Means for Children by Household Social Security Receipt

	All Children	Children in SS Beneficiary Household
	mean	mean
Number of Children in HH	2.44	2.32
Age	9.14	10.07
Child Under Age 6	0.28	0.21
Child Age 6 to 17	0.72	0.79
White	0.75	0.68
Black	0.12	0.19
American Indian or Alaska Native	0.01	0.02
Asian	0.05	0.03
Native Hawaiian or Other Pacific Islander	0.00	0.00
Multiracial	0.06	0.08
Hispanic	0.25	0.24
Female	0.49	0.48
Region Northeast	0.12	0.14
Region Midwest	0.21	0.16
Region South	0.40	0.46
Region West	0.27	0.24
Citizen	0.98	0.99
Born in US	0.96	0.98
Household Income to Poverty Ratio	3.72	2.79
Reside with Parent ¿6 Months	0.93	0.79
Reside with Grandparent ¿6 Months	0.03	0.12
Reside with Other Relative ¿6 Months	0.01	0.03
Reside with Foster Parent ¿6 Months	0.00	0.00
Live with Parent	0.93	0.81
Live with Biological Parent	0.91	0.76
Live with Stepparent	0.09	0.10
Live with Adoptive Parent	0.02	0.05
Live with Two Parents	0.70	0.42
Live with Two Biological Parents	0.60	0.29
Live with Single Parent	0.24	0.39
Live with Single Biological Parent	0.23	0.37
Live with Grandparent	0.14	0.48
Live with Other Relative	0.83	0.81
Live with Nonrelative	0.06	0.10
Live with Grandparent Only	0.04	0.13
Live with Other Relative Only	0.02	0.04
Live with Nonrelative Only	0.01	0.01
Household Receives SS	0.17	1.00
Child in Household Receive SS	0.07	0.41
Child Receives SS	0.05	0.30
Adult in Household Receive SS	0.13	0.77
Adult in Household Receive SS Retired	0.08	0.45
Adult in Household Receive SS Disabled	0.06	0.33
Adult in Household Receive SS Widowed	0.01	0.06
Adult in Household Receive SS Spouse	0.00	0.01
Adult in Household Receive SS Other	0.01	0.04
Adult in Household Receive SSI	0.06	0.17
Adult in Household Received EITC	0.32	0.40
Adult in Household Files Taxes	0.91	0.88
Single Tax Filer	0.11	0.18
Married Joint Tax Filer	0.64	0.47
Married Separate Tax Filer	0.03	0.03
Head of Household Tax Filer	0.21	0.32
Total Household Income	102097.62	87064.78
Total Household Earnings	98142.18	67453.72
Total Household Means Transfer Payments	863.76	2239.05
Total Household Social Insurance Payments	3353.01	17569.83
Total Household Other Income	3359.37	8181.28
Total Household Invest/Property Income	2147.71	2050.23
Poverty ¡ 100%	0.16	0.17
Poverty 100-199%	0.22	0.28
Poverty 200-399%	0.30	0.34
Poverty ¿ 399%	0.32	0.20
Observations	9896	1666

Data are 2019 SIPP. Unit of observation is child. Column 1 includes all children. Column 2 includes children live with someone who receives Social Security or themselves receives Social Security.

Table 16: ASEC: Means for Children by Household Social Security Receipt

	All Children	Children in SS Beneficiary Household
Age	8.9	9.45
Average child per home	1.87	1.74
Child Under Age 6	0.30	0.24
Child Age 6 to 17	0.70	0.76
White	0.77	0.69
Black	0.11	0.17
American Indian or Alaska Native	0.02	0.03
Asian	0.05	0.05
Native Hawaiian or Other Pacific Islander	0.00	0.01
Multiracial	0.05	0.06
Hispanic	0.23	0.21
Female	0.51	0.51
Citizen	0.98	0.99
Born in US	0.96	0.97
Live with Parent(s)	0.96	0.86
Live with Two Parents	0.72	0.47
Live with Single Mother	0.19	0.32
Live with Single Father	0.05	0.07
Live in a multi-family home	0.16	0.37
Live with Parent(s) Only	0.89	0.64
Live with Grandparent(s) Only	0.02	0.11
Live with Other Relative Only	0.01	0.02
Householder is Parent	0.90	0.65
Householder is Grandparent	0.06	0.26
Householder is Other Relative	0.03	0.07
Householder is Nonrelative	0.01	0.08
Single Tax Filer*	0.04	0.08
Joint Tax Filer	0.68	0.46
Head of Household Tax Filer	0.21	0.20
Tax Non-filer	0.07	0.26
Below Poverty Level	0.14	0.21
Between 100 - 150% Level	0.10	0.14
Income	$72,386	$64,605
SPM Poverty Measure		
Observations	39,786	5,004

Data are 2019 ASEC. Unit of observation is child. Column 1 includes all children. Column 2 includes children who live in a household where someone receives Social Security.

**Tax filing data is only at the household level. It reports the tax filing status of the persons identified as the head of the household or the householder.*

Table 17: ASEC: Ratio Children living in Households with Social Benefit Receipt

	Primary Benefit					
Additional Benefit	Social Security	Supplemental Security Income	Disability	Survivors Benefit	SS + SSI	SS + Survivors
Social Security	0.84	0.26	0.17	0.40	-	-
Supplemental Security Income	0.09	0.65	0.12	0.08	-	0.13
Disability	0.03	0.06	0.70	0.03	0.05	0.03
Survivors	0.04	0.02	0.01	0.49	0.06	-
Observations	3,430	1,228	637	360	323	147

Data: 2019 ASEC. Unit of observation is child under 18 years old and never been married.

Table 18: ASEC: CTC Simulation by Household for Various Eligibility

	All Households w/ Children	SS Beneficiary Households
Average Eligible Household		
Prior Year HH Income	$118,829	$96,456
CTC Simulation Amount Per HH	$6,407	$5,652
Estimated New HH Income	$125,236	$102,108
Income/Poverty Ratio Before	3.90	2.93
Income/Poverty Ratio After	4.10	3.11
Observations	39,444	4,827
Fully Eligible		
Prior Year HH Income	$68,365	$59,943
Estimated New HH Income	$73,6891	$65,187
Income/Poverty Ratio Before	2.34	1.94
Income/Poverty Ratio After	2.52	2.11
Observations	29,001	3,824
Newly Eligible		
Prior Year HH Income	$312	$1,234
Estimated New HH Income	$5,909	$5,687
Income/Poverty Ratio Before	0.01	0.06
Income/Poverty Ratio After	0.22	0.25
Observations	584	19

Data: ASEC. Unit of observation is household. Column 1 includes all households with children. Column 2 includes all households with children who receives Social Security or themselves receives Social Security.

Table 19: ASEC: Household CTC Simulation Using Tax Model Inputs

	All	Social Benefit Households	Social Security	Supplemental Security Income	Disability	Survivors Benefit	SS + SSI
Prior Year							
CTC Rate	0.84	0.53	0.44	0.38	0.68	0.63	0.33
CTC Amount	$3,370	$2,835	$2,790	$2,759	$3,073	$2,829	$2,470
Average HH Income	$120,414	$97,468	$99,509	$61,048	$111,341	$158,634	$73,736
Simulated Increases							
Estimated New CTC Amount$^{\alpha}$	$6,407	$5,652	$5,652	$5,599	$5,752	$5,641	$5,236
Observations	21,015	2,869	2,037	644	368	211	191

$^{\alpha}$ *Calculations compiled at the household level. At the household level children are groups in to under 5 years and over 5 years old.*

Table 20: ASEC : Child Tax Credit Simulation for Financially Vulnerable Household

	ASEC	
	All Children	SS Beneficiary Households
Avg. Poverty Threshold Measure	3.89	2.92
Poverty Threshold under 50% (deep poverty)	0.03	0.03
Poverty Threshold above 50 to under 100% (poverty)	0.08	0.12
Poverty Threshold 100% to under 125% (near poverty)	0.08	0.11
CTC Simulation		
Deep Poverty		
SPM Resources/Poverty Ratio Before	0.21	0.33
SPM Resources/Poverty Ratio After	0.40	0.52
Poverty		
SPM Resources/Poverty Ratio Before	0.81	0.80
SPM Resources/Poverty Ratio After	0.99	0.98
Near Poverty		
SPM Resources/Poverty Ratio Before	1.13	1.13
SPM Resources/Poverty Ratio After	1.32	1.30
Observations	39,786	5,004

Data: ASEC. Unit of observation is child.

Column 1 includes all children. Column 2 includes children who live in a household where someone receives Social Security.

Table 21: ASEC: Effects of Simulated CTC on Income and Poverty for Children in Social Security Households (State-Level)

	SPM Ratio		Child Poverty Rate	
	Without CTC	With CTC	Without CTC	With CTC
Overall	2.65	2.83	0.15	0.09
Alabama	3.04	3.20	0.12	0.08
Alaska	2.82	3.01	0.20	0.12
Arizona	2.41	2.60	0.15	0.04
Arkansas	1.68	1.86	0.27	0.14
California	2.34	2.49	0.16	0.10
Colorado	2.11	2.30	0.26	0.23
Connecticut	2.73	2.89	0.20	0.14
Delaware	3.81	3.93	0.21	0.09
District of Columbia	2.31	2.45	0.24	0.16
Florida	2.20	2.36	0.21	0.12
Georgia	2.60	2.76	0.16	0.09
Hawaii	2.04	2.23	0.13	0.06
Idaho	2.40	2.60	0.06	0.01
Illinois	4.33	4.49	0.16	0.09
Indiana	2.19	2.34	0.32	0.26
Iowa	2.71	2.87	0.13	0.07
Kansas	4.02	4.19	0.08	0.02
Kentucky	2.17	2.36	0.13	0.07
Louisiana	2.12	2.32	0.24	0.12
Maine	2.08	2.24	0.08	0.08
Maryland	2.44	2.56	0.16	0.09
Massachusetts	3.28	3.45	0.10	0.09
Michigan	2.48	2.66	0.27	0.17
Minnesota	2.74	3.06	0.08	0.04
Mississippi	2.03	2.23	0.24	0.09
Missouri	3.01	3.23	0.05	0.05
Montana	2.75	2.93	0.09	0.05
Nebraska	1.79	1.95	0.23	0.12
Nevada	2.40	2.56	0.25	0.16
New Hampshire	3.51	3.67	0.14	0.12
New Jersey	3.34	3.47	0.17	0.11
New Mexico	1.36	1.55	0.16	0.07
New York	2.39	2.54	0.17	0.11
North Carolina	3.29	3.49	0.15	0.08
North Dakota	2.76	2.99	0.00	0.00
Ohio	2.72	2.88	0.20	0.15
Oklahoma	2.87	3.11	0.10	0.05
Oregon	3.94	4.13	0.01	0.00
Pennsylvania	2.18	2.35	0.08	0.05
Rhode Island	2.55	2.72	0.07	0.00
South Carolina	2.42	2.62	0.19	0.08
South Dakota	2.92	3.16	0.12	0.07
Tennessee	2.27	2.50	0.11	0.05
Texas	3.00	3.15	0.18	0.15
Utah	2.78	2.96	0.11	0.06
Vermont	2.32	2.45	0.16	0.16
Virginia	2.14	2.32	0.23	0.19
Washington	2.83	3.05	0.01	0.00
West Virginia	1.77	1.99	0.10	0.04
Wisconsin	4.77	4.94	0.06	0.03
Wyoming	2.23	2.41	0.19	0.13

Data: ASEC.

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