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A Narrowing of the Effects of the Expanded Child Tax Credit

Julia Ricciarelli

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A Narrowing of the Effects of the Expanded Child Tax Credit

MA Research Paper Submitted to
Levy Economics Institute
of Bard College

by
Julia Ricciarelli

Annandale-on-Hudson, New York
January 2023

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Name: *Julia Ricciarelli*

Date: *January 23, 2023*

ABSTRACT

In response to the COVID-19 pandemic, President Biden under the American Rescue Plan Act of 2021 expanded the child tax credit. The temporary expansion increased the amount families would receive for each child, made the credit accessible to lower-income families, and paid out the credit in monthly installments. Throughout this paper, a review of the child tax credit's history, former eligibility and impacts will be compared to that of the extended policy in 2021. Most importantly, the paper will delve into various groups that received the child tax credit in 2021. Specifically, the effects will be reviewed in terms of family structure, region, educational attainment, and race. Thus, this paper will provide a comprehensive understanding of the child tax credit prior to the 2021 expansion and will provide a deeper understanding as to what happened with the expansion and its immense impact on families throughout the United States.

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INTRODUCTION

COVID-19 had a profound impact not just on health but on economies across the world. The virus left millions unemployed, shot supply chains, and ensured that everyone got a little bit too much family time. This is not a paper focused on the hardships that COVID-19 brought to the world. Rather, it is digging into the benefits and the lessons we must take away from the isolating time. I suggest that while we do not dismiss the adversities of the pandemic, we shift our focus to the things that got us through that time and how they can continue shaping our future.

One of the biggest concerns during the initial COVID-19 lockdown in March 2020 was children and families. Parents turned into teachers and children were forced to increase their already horrific screen time. However, the scariest reality at this time was what was going to happen to children as their parents lost their jobs, their loved ones got sick, and their education was crumbling under the stresses of Zoom. While the latter two struggles were truly unavoidable at the time, the foremost was not. Unemployment rose during the pandemic, but what is truly concerning was how unemployment and income losses were going to impact families. Prior to the pandemic, in 2019, the U.S. child poverty rate was 14.4% (Statista 2022a). As the pandemic hit, in 2020, the U.S. child poverty rate reached 16% (Burns, Fox, and Wilson 2022). It would be expected that as the pandemic persisted into 2021 that the rate would continue to increase. However, that was not the case. In 2021, the child poverty rate dropped to 15.3% (Statista 2022a). While the 0.7 percentage point difference from 2020 to 2021 may not seem like a lot, the official poverty measure is based on pretax cash income (Burns, Fox, and Wilson 2022). Consequently, it is missing a key factor that impacted child poverty during the pandemic, the expanded child tax credit of 2021. Alternatively, when looking at the supplemental poverty measure (SPM), which takes the child tax credit into account, child poverty fell to its lowest recorded level in 2021. The SPM child poverty rates fell from 12.5% in 2019 to 9.7% in 2020 and down to 5.2% in 2021, according to the U.S. Census Bureau (Fox 2020) (Burns, Fox, and Wilson 2022).

A major contributor to the decrease in child poverty rates was the child tax credit. A child tax credit enables parents with dependent children to reduce their tax liability. The child

tax credit, while not a new introduction in the U.S., has been a rather mundane policy that had a minimal impact on child poverty and families throughout the country. As a matter of fact, the United States has continuously had one of the highest child poverty rates among the OECD countries (OECD 2018).

In 2020 when the COVID-19 pandemic hit, the child tax credit had last been altered by the Tax Cuts and Jobs Act of 2017. At the time, the child tax credit was \$2,000 per child, with only up to \$1,400 being refundable (Thomhave 2022). Simultaneously, an earnings requirement was set in place, meaning that a minimum income of approximately \$12,500 was needed to receive the full refundable credit (Thomhave 2022). Thus, the child tax credit was incapable of reaching the families in the most need. In 2021, however, everything changed.

In response to COVID-19, President Biden expanded the child tax credit under the American Rescue Plan. The American Rescue Plan Act of 2021 expanded not just the amount of the child tax credit, but also the amount of families who were eligible to receive the credit, and began paying the credit out in monthly installments. Specifically, the American Rescue Plan increased the credit to \$3,000 per child aged 6 to 17 and \$3,600 per child under 6 (Curran 2021). As a result, the expanded child tax credit was turned into a program that more closely resembled a national child allowance.

The extended child tax credit of 2021 lowered poverty overall, especially child poverty. Recipients of the child tax credit saw a decrease in poverty of 3.56 percentage points from 8.87% to 5.31%. Child poverty decreased even more, 4.01 percentage points to 5.18%. The impact of the credit is not just limited to poverty rates, it also decreased inequality overall for its recipients. This policy had a profound impact on recipients' lives. Thus, this paper aims to prove how beneficial the 2021 child tax credit was to families throughout the country, while digging deeper into why such an extension should be made permanent.

The rest of this paper is organized as follows. The next section provides a review of the child tax credit's history, former eligibility and compares its impact to that of the extended policy in 2021. This is followed by an examination of how the money from the credit is being spent. Next and most importantly, the paper analyzes the differential impacts on various groups

that received the child tax credit in 2021. Specifically, the effects will be reviewed in terms of family structure, region, educational attainment, and race. Thus, this paper will provide a comprehensive understanding of the child tax credit prior to the 2021 expansion under the American Rescue plan and will provide a deeper understanding as to what happened with the expansion and its immense impact on families throughout the United States.

LITERATURE REVIEW

Historical Overview

The child tax credit was first proposed by the National Commission on Children in 1991 (Wessel 2021). The goal of the National Commission on Children was to ensure that every American child has the “opportunity to develop to his or her full potential” (National Commission on Children 1991, 12). One of many propositions that the commission made was to implement a child tax credit as a means to ensure income security for American families. They proposed the child tax credit as it aligns closely with the child allowances and other family-oriented policies that exist throughout the rest of Western Civilization. The idea behind a child tax credit was to decrease the financial burdens on families with children. The report suggested that such a credit could help offset the effects of slow wage growth, increasing costs of living, and a rising tax burden for the average American family (Crandall-Hollick 2018). Specifically, the commission recommended the creation of a \$1,000 refundable¹ child tax credit for all children through age 18 (National Commission on Children 1991). This original proposition was intended to benefit all families with dependent children, regardless of their income or tax liability, and was suggested to be indexed to grow with inflation. The proposition was nearly identical to that of a child allowance that one would see in countries such as Sweden. The main difference was that it was tied to the tax system and would be paid in one lump sum each year rather than sent out periodically throughout the year. However, implementation of the child tax credit in the U.S. did not pan out as the National Commission on Children had envisioned it in 1991.

¹ “If a tax credit is refundable, it means that you’re refunded, in cash, the amount of credit left over after you no longer owe any taxes. Low-income people often do not owe any federal income taxes, so if a credit is not refundable, it leaves out the poor” (Thomhave 2022, 35).

Following the proposal of the National Commission on Children, the notion of a child tax credit was reintroduced in 1994 in the Republican Contract with America.² Within the contract, the Republican National Committee stated that they planned to implement a \$500 tax credit if they won the majority, only half of the amount the National Commission on Children recommended (Republican National Committee, 1994).

In the following year, 1995, President Clinton displayed his support of a child tax credit, but a far less progressive one. In Clinton's Middle-Class Bill of Rights Tax Relief Act of 1995, he proposed a child tax credit of \$300 per child that is nonrefundable (Crandall-Hollick 2018). He claimed that the \$300 credit would be through the years 1996 and 1998, proposing an increase to \$500 per child after 1998 (Gephardt 1995). Clinton also suggested income phaseouts³ that were to begin at \$60,000 and that an eligible child should be defined as being under 13 years of age (Gephardt 1995). Despite these changes, Clinton still planned to index the credit to inflation. Such a policy would reach significantly fewer families than the original idea for the child tax credit as set forth by the National Commission on Children.

It was not until 1997 that a child tax credit was enacted in the Taxpayer Relief Act. The Act instituted a non-refundable⁴ tax credit of up to \$500 for each qualifying child of a taxpayer, beginning in taxable years starting after December 31, 1997" (105th Congress 1997). For the year 1998, the credit was a maximum of \$400 (105th Congress 1997, 10). The Act was limited in some senses. First and foremost, the credit had income phaseouts based upon adjusted gross income (AGI). The credit was decreased by \$50 for each \$1,000 by which the taxpayer's modified AGI exceeds the threshold amount (105th Congress 1997). Threshold amounts or income phaseouts were based upon the marital status of the tax filings: (a) \$110,000 in the case of a joint return, (b) \$75,000 in the case of an individual who is not married, and (c) \$55,000 in the case of a married individual filing a separate return (105th Congress 1997). Additionally, the taxpayer claiming them must bear a close relationship with the child under 17 years of age (105th Congress 1997). A close relationship means that the taxpayer is a parent, live-in relative, or can prove their guardianship of the child. The last limitation was that taxpayers were required

² The Contract with America was a document released by the Republican party for the 1994 midterm elections that explained what the party would do if it won the majority in Congress.

³ "A phase out refers to the gradual reduction of a tax credit that a taxpayer is eligible for as their income approaches the upper limit to qualify for that credit" (Kagan and Berry-Johnson 2021).

⁴ The credit was made refundable for taxpayers with three or more qualifying children (Crandall-Hollick 2018, 4).

to provide a valid Taxpayer Identification Number (TIN) for each child on their federal income tax return (Crandall-Hollick 2018). In conjunction with these limitations, neither the credit amount nor the phaseout thresholds were indexed for inflation (Crandall-Hollick 2018). These limitations distinguish the Act from the National Commission on Children's proposal.

In 2001 the Economic Growth and Tax Relief Reconciliation Act (EGTRRA) was passed. The EGTRRA made multiple changes to the child tax credit. First, it increased the maximum amount of the credit per child in scheduled increments until it reached \$1,000 per child in 2010 (107th Congress 2001). It also used the earned income formula to make the credit refundable for families irrespective of size (107th Congress 2001). Each of these changes were only set to last until 2010.

The Jobs and Growth Tax Relief Reconciliation Act of 2003 (JGTRRA) temporarily increased the amount of the child tax credit to \$1,000 per child for 2003 and 2004 (Crandall-Hollick 2018). After 2004, the child tax credit would return to the guidelines set out by the EGTRRA. The credit would decrease to \$700 in 2005 (Lee and Greenstein 2003). The JGTRRA also caused the increase in the credit to be sent out prior to refund season to eligible families (based on 2002 taxes) (108th Congress 2003).

The Working Families Tax Relief Act of 2004 (WFTRA) extended the amount of the credit to maintain the \$1,000 credit as set under the JGTRRA until 2009 (Crandall-Hollick 2018). The WFTRA also increased the refundability rate. Under the EGTRRA, the refundability rate would increase to 15% from 2005 to 2010, but the WFTRA set the refundability rate to 15% in 2004 (108th Congress 2004). This increase was scheduled to expire, along with other provisions of EGTRRA, at the end of 2010 (Crandall-Hollick 2018).

In 2008, the American economy and the world entered the worst recession since the Great Depression. In response, the Emergency Economic Stabilization Act (EESA) was passed. The law lowered the refundability threshold for the child tax credit for 2008 from \$12,050 to \$8,500 (105th Congress 2008). Without any further action, the refundability threshold was set to return to the EGTRRA amount adjusted for inflation in 2009. However, as the crisis continued,

the American Recovery and Reinvestment Act of 2009 (ARRA) reduced the refundability threshold to \$3,000 for 2009 and 2010 (111th Congress 2009).

As previously outlined, the child tax credit related provisions of the EGTRRA and ARRA were set to expire in 2010. The maximum amount of the child tax credit was set to return to \$500 per child and the credit would only have been refundable to families with three or more children (Crandall-Hollick 2018). When Congress passed the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (TRUIRJCA), it extended the EGTRRA and ARRA provisions for two years through the end of 2012 (Crandall-Hollick 2018).

With these extensions coming to an end in 2012, Congress passed another Act, The American Taxpayer Relief Act of 2012. This law made the EGTRRA changes permanent and extended the \$3,000 refundability threshold, enacted as part of ARRA, for five years (Crandall-Hollick 2018). A few years later, in 2015, The Protecting Americans from Tax Hikes (PATH) Act was passed. PATH made the ARRA \$3,000 refundability threshold permanent (Crandall-Hollick 2018).

In 2017, Congress made additional adjustments to the child tax credit under the Tax Cuts and Jobs Act (TCJA). TCJA “doubled the maximum amount of the credit from \$1,000 to \$2,000 per qualifying child and increased the maximum amount of the refundable portion of the credit (the additional child tax credit or ACTC) from \$1,000 per qualifying child to \$1,400 per qualifying child” (Crandall-Hollick 2018, 8). The ACTC under this Act is adjusted for inflation annually. Additionally, TCJA decreased the required income level that taxpayers need to receive the ACTC. The decrease was from \$3,000 to \$2,500 a year (Crandall-Hollick 2018). TCJA also increased the income level at which phase-outs begin. For unmarried taxpayers, the amount increased from \$75,000 to \$200,000, and for married taxpayers filing joint returns it increased from \$110,000 to \$400,000 (115th Congress 2017). All of these modifications under the TCJA are currently set to expire at the end of 2025.

Table 1, below specifies all of the changes made to the child tax credit from 1997 until 2017.

Table 1: Changes to the Child Tax Credit Made by Legislation 1997–2017

Table 1: Changes to the Child Tax Credit Made by Legislation 1997-2017											
Parameter	1997	1999	2001	2003	2004	2008	2009	2010	2013	2015	2017
	P.L. 105-34 Taxpayer Relief Act	P.L. 106-170 (OCESAA)	P.L. 107-16 (EGTRRA)	P.L. 108-27 (JGTRRA)	P.L. 108-311 (WFTRA)	P.L. 110-343 (EESA)	P.L. 111-5 (ARRA)	P.L. 111-312 (TRUIRJA)	P.L. 112-240 (ATRA)	P.L. 114-113 (PATH)	P.L. 115-97 (TCJA)
Maximum Credit per Child	\$400 (1998) \$500 (after)	*	\$600 (2001-04) \$700 (2005-08) \$800 (2009) \$1,000 (2010)	\$1,000 (2003-04)	\$1,000 (2005-10)	*	*	\$1,000 (2011-12)	\$1,000 (permanent)	*	\$2,000
Inflation adj.	NO	*	*	*	*	*	*	*	*	*	NO
Refundable	NO	*	YES (2001-10)	*	*	*	*	YES (2011-12)	YES (permanent)	*	*
Max Refundable Credit per Child	na	na	same as max credit per child	*	*	*	*	*	*	*	\$1,400 (2018-2025)
Refundability Threshold	na	*	\$10,000 (2001-10)	*	*	\$8,500 (2008)	\$3,000 (2009-10)	\$3,000 (2011-12)	\$3,000 (permanent)	\$2,500 (2018-2025)	
Inflation Adj.	na	*	Yess (2002-10)	*	*	NO	NO (2009-2010)	NO (2011-12)	NO (2013-2017) Yes thereafter	NO	NO
Refundability Rate	na	*	10% (2001-04) 15% (2005-10)	*	15% (2004-2010)	*	*	15% (2011-12)	15% (permanent)	*	*
Phaseout Threshold	\$55,000 MFS \$75,000 HOH \$110,000 MF	*	*	*	*	*	*	*	*	*	\$200,000 MFS \$200,000 HOH \$400,000 MF
Phaseout Rate	5%	*	*	*	*	*	*	*	*	*	*
Offset AMT	NO	YES (2000-01)	YES (2002-10)	*	*	*	*	YES (2011-12)	Yes (permanent)	*	*
Revenue Effect	-\$183.38 billion (1997-07)	-\$2.89 billion (2000-09)	-\$171.78 billion (2001-11)	-\$32.49 billion (2003-13)	-\$63.77 billion (2005-14)	-\$3.13 billion (2009-19)	-\$14.83 billion (2009-19)	-\$91.44 billion (2011-20)	-\$405.01 billion (2013-2022)	-\$87.84 billion (2016-2025)	-\$573.40 billion (2018-2027)

Source: Crandall-Hollick 2018

In 2020 when the COVID-19 pandemic hit, the child tax credit was following the provisions made under the TCJA. At this time, the child tax credit was \$2,000 per child, with only up to \$1,400 refundable, and with an earnings requirement of approximately \$12,500 to receive the full refundable credit (Thomhave 2022). Additionally, the credit began to phase out at the following income levels: \$200,00 for unmarried taxpayers and \$400,000 for married taxpayers filing joint returns (115th Congress 2017).

With the pandemic impacting employment, health, and the populations overall well-being, debates on how to support the American people commenced. Discourse between republicans and democrats propagated and so came a debate as to what to do with the extended child tax credit.

Republicans tend to argue against the expanded child tax credit. Most of the arguments have been seen before. It will decrease the need for people to work, the money will be spent on drugs, etc. When talking about the child tax credit specifically, “Republican Senator Marco

Rubio of Florida alleged in a statement that the credit ‘scraps incentives for marriage, destroys the child-support enforcement system, and abandons requirements for work’” (Thomhave 2022, 34). However, this does not mean that all republicans are anti-child tax credits. Rather, that the credit must fit into a specific agenda. In doing so, a more conservative (non-refundable, smaller, and non-universal) child tax credit is commonly supported by republicans.

Contrastingly, many democrats support a far more progressive child tax credit. A progressive credit would be fully refundable, universal, permanent, and monthly. A fully refundable credit “means that you’re refunded, in cash, the amount of credit left over after you no longer owe any taxes (Thomhave 2022, 35). It allows low-income families, who do not owe any federal income taxes, to receive the credit. Along with making it fully refundable, a progressive tax credit would be a permanent policy. As was seen in the historical overview, year after year temporary changes have been made to the child tax credit. Such a yo-yoing policy impacts families by not ensuring them that they will be eligible for the credit every year. Another feature of a progressive child tax credit would be making it universal. “A universal child tax credit is available to every child, no matter a parent or guardian’s income or a child’s citizenship” (Thomhave 2022, 35). In doing so, the credit would become much closer aligned with the child allowance policies that are popular throughout the rest of western civilization. Lastly, to be more progressive the child tax credit should be paid out in monthly installments. Monthly payments over a lump sum can help families budget the money, making it easier to spend the money on true necessities.

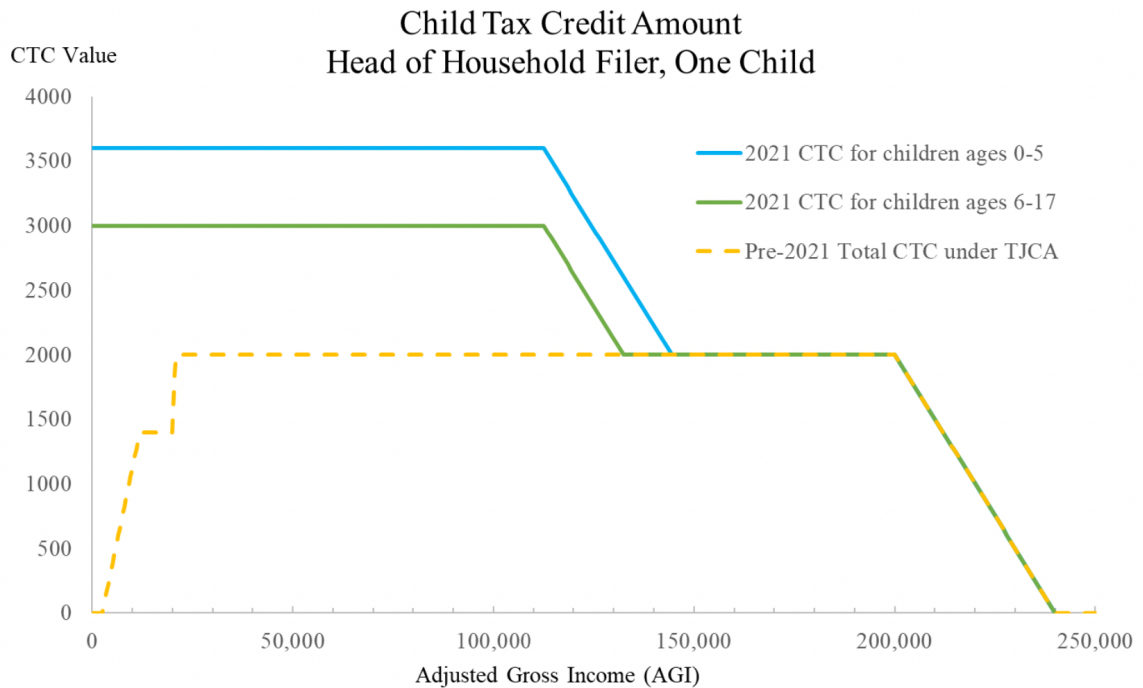
Such a debate between republicans and democrats has persisted for many years, but in 2021 a progressive child tax credit was instituted by President Biden. In response to COVID-19, President Biden formulated the American Rescue Plan Act of 2021 (ARP). The ARP ranged in scope from increased unemployment benefits to renting assistance. Within the plan, Biden opted to extend the child tax credit for the year. The ARP increased the maximum amount of the credit from \$2,000 per child to \$3,600 per child for a young child (0-5 years old) and \$3,000 per child for an older child (6-17 years old) (Crandall-Hollick 2021). Thus, the ARP extended the child tax credit to include children 17 years of age. The ARP also eliminated the ACTC phase-in based on earned income and eliminated the ACTC cap of \$1,400 per child. Hence, the child credit was fully refundable and the entire credit was available to otherwise ineligible taxpayers

with no earned income (Crandall-Hollick 2021). These changes made the child tax credit more accessible to low to moderate-income families.

The ARP also paid half of the credit to families in advance. The ARP directed the Treasury to issue half of the credit in monthly installments beginning in July of 2021, with taxpayers claiming the remaining half of the credit in their 2021 income tax returns (Crandall-Hollick 2021). Thus, for half of the year families were receiving monthly payments based on 2020 income tax data (Crandall-Hollick 2021).

Below is a graph that depicts the amount that various households received from the child tax credit before and after the extension was put into effect based on adjusted gross income.

Figure 1: Child Tax Credit Amount Head of Household Filer, One Child



Source: Bee, Hokayem, and Lin 2022

Eligibility for the Child Tax Credit Before the American Rescue Plan

Prior to the expansion of the child tax credit, there were many eligibility barriers for families. Thus, Goldin and Michelmores (2022) conducted research on the eligibility of children for the child tax credit. Utilizing data from 2018, they uncovered variations in eligibility related to

income, race, and even those living in single- or double-parent households. They discovered that approximately 10% of children are completely ineligible for the child tax credit because their parents' or guardians' income is below the phaseout threshold. Ineligible children are more likely to be Black or Hispanic and are less likely to be White or non-Hispanic. Ineligible children are also “more likely to have both parents absent from the household (22% compared with 4% overall) and are particularly unlikely to have a father present (71% do not have a present father, compared with 26% in the sample of all children)” (Goldin and Michelmore 2022, 131).

Another 25% of children were found to be only partially eligible for the child tax credit (Goldin and Michelmore 2022). These children are not able to receive the total \$2,000 per child. On average, each child in this group received a child tax credit benefit of \$1,200, roughly 60% of the entire credit amount. Children in this group also tend to live in lower-income households, with an average income of \$23,460 and a 25% poverty rate. Similar to those who are completely ineligible, those who are only partially eligible are more likely to be Black or Hispanic. Additionally, those who are only partially eligible are less likely to have a father present (45% compared with 26%), but they are equally as likely as the entire population to live without either parent present (Goldin and Michelmore 2022).

There are then 44 million children in the United State who are eligible to receive the full child tax credit (Goldin and Michelmore 2022). It was found that these children have an average household income of approximately \$112,000 and are more likely to be White and less likely to be Black or Hispanic. It is not surprising either that these children are more likely to live in a married-parent household (82% compared with 67% overall) than in a single-parent household (Goldin and Michelmore 2022).

It is clear from Goldin and Michelmore's study that the restrictions on the child tax credit are in favor of those who are already more privileged in society. The purpose of the child tax credit was to uplift children in the country and help those in poverty to ensure that children have access to basic necessities. Nevertheless, based on the eligibility in 2018, the child tax credit is rather aimed at families who do not necessarily need the extra \$2,000 per child to get by. Thus, it is critical to uncover how the changes in eligibility under the American Rescue Plan Act in 2021 impacted the effects of the tax credit on child poverty.

The Official Poverty Rates of the Past Three Decades

Child Poverty

Before analyzing the poverty impacts of the expanded child tax credit, it is crucial to gain an understanding of poverty rates before 2021. When the child tax credit was enacted in 1997, the child poverty rate was 19.9% (Statista 2022a). According to the OECD, any country with a child poverty rate above 16% is experiencing high child poverty rates, as children are more frequently exposed to poverty than the general population (OECD 2018). In the United States, more than one in five children live in poverty (OECD 2018). Throughout the rest of the OECD countries only one in seven children lives in income poverty (OECD 2018). Thus, children in the U.S. are more likely to experience poverty than those in other OECD countries.

A decline in child poverty was observed immediately following the implementation of the child tax credit. In 2000, it dropped as low as 16.2% (Statista 2022a). Beginning in 1994, however, there had already been a positive trend toward decreasing child poverty (Statista 2022a). Thus, the actual effect of the child tax credit may not be seen by simply looking at the child poverty rate. In addition, child poverty remained high even after the child tax credit was implemented. To reduce the rate of child poverty further, additional or improved measures must be explored. The child poverty rate in the U.S. throughout time can help illustrate how serious the issue is.

Figure 2: Child Poverty Rate in the United States (1990–2021)

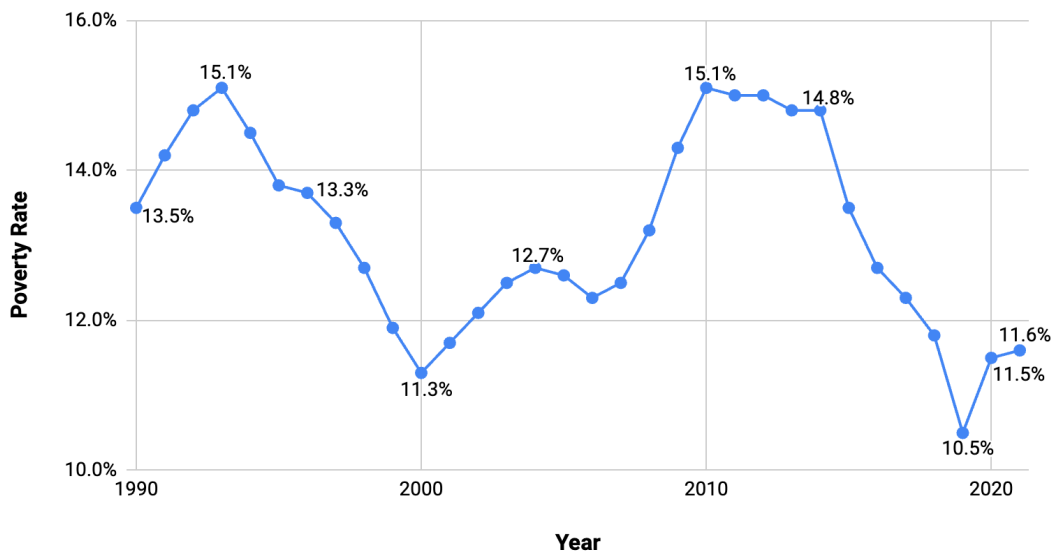


Source: Statista 2022a

According to the graph above, child poverty in the United States has only ever dropped below the 16% threshold of the OECD once prior to the American Rescue Plan Act of 2021. In 2019, child poverty was at a low of 14.4% and it was not until the effects of the expanded child tax credit in 2021 did we see a rate below 16% again (Statista 2022a).

Individual Poverty

Figure 3: Poverty Rate in the United States (1990–2021)

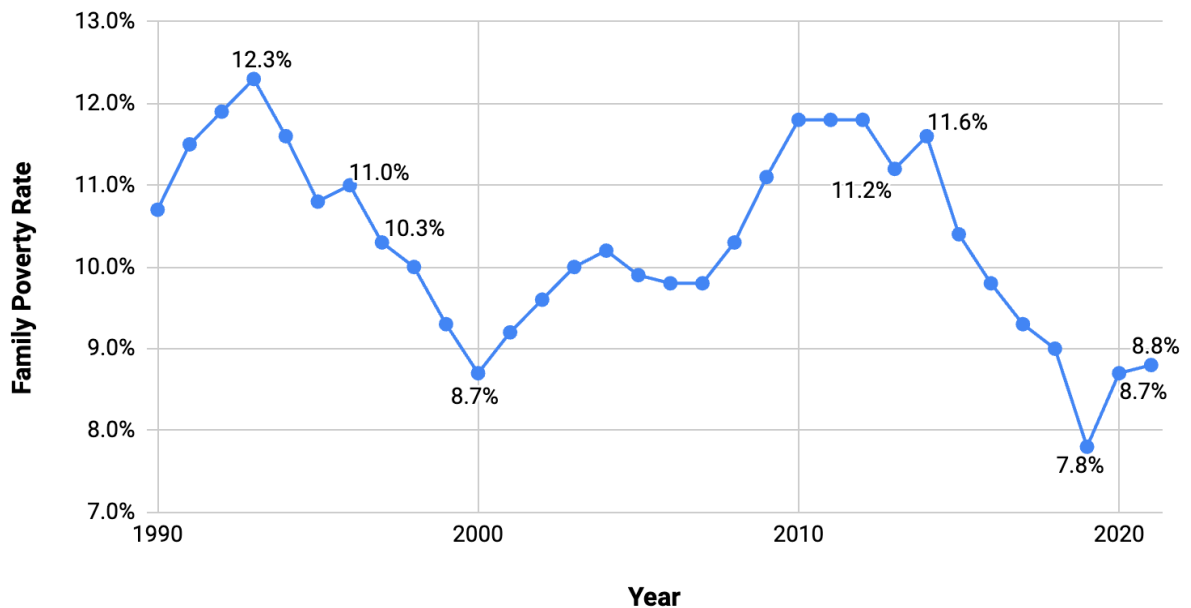


Source: Statista 2022c

The poverty rates of individuals from 1990-2021 follow a similar pattern to the poverty rates of children. In 1997, the poverty rate was 13.3% (Statista 2022c). Consistent with child poverty, individual poverty rates were already following a declining trend when the child tax credit was implemented, and in 2000 poverty reached a low of 11.3% (Statista 2022c). Following 2000, poverty rates were on the rise for 14 years and then experienced sudden drops as the economy recovered from the 2008 recession. In 2019, poverty reached a 30-year low of 10.5% (Statista 2022c). Poverty crept up to 11.5% in 2020 and then 11.6% in 2021 as a result of the pandemic (Statista 2022c). Thus, the expansion of the child tax credit was not enough to reduce individual poverty in the country. These numbers, however, do not accurately reflect the impact of the credit.

Family Poverty

Figure 4: Poverty Rate for Families in the United States (1990–2021)



Source: Statista 2022b

As with child and individual poverty rates, family poverty rates in the United States from 1990-2021 followed similar trends. However, just as individual poverty rates are below child poverty rates, family poverty rates are consistently below individual poverty rates. In 1997, when the child tax credit was passed, the family poverty rate was 10.3% (Statista 2022b). In 2000 during the trough, the family poverty rate dropped to 8.7% (Statista 2022b). The U.S. only

saw a lower rate in 2019 at 7.8% (Statista 2022b). In 2020, the rate jumped to 8.7% and then increased to 8.8% in 2021 (Statista 2022b).

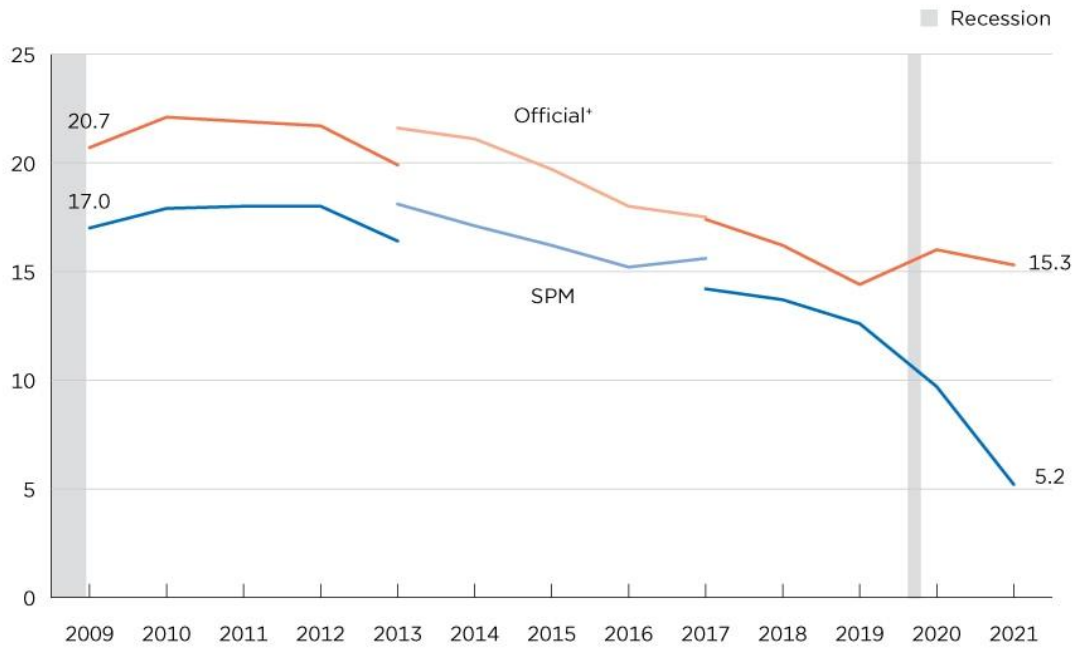
Poverty Rates in 2021

It is beginning to become clear how the expanded child tax credit has affected child poverty rates as data for 2021 is released. Although that is the purpose of this paper, some vague results have been discovered and will be described below. Most importantly, according to the Supplemental Poverty Measure (SPM), child poverty reached its lowest level in 2021 (Gould 2022).

Everything we have looked at regarding poverty rates thus far has been in terms of the official poverty rate. Pretax cash income is the basis for the official poverty measure. (Burns, Fox, and Wilson 2022). It is missing a pivotal factor that impacted child poverty during the pandemic, the expanded child tax credit of 2021. While the “official poverty measure is based on cash resources, the Supplemental Poverty Measure (SPM), includes both cash and noncash benefits and subtracts necessary expenses (such as taxes and medical expenses)” (Burns and Fox 2021). The SPM includes noncash benefits such as the SNAP and housing subsidies, as well as, net income after payroll taxes, tax credits, and other necessary expenses (Burns, Fox, and Wilson 2022). Thus, the child tax credit is accounted for within the SPM. Child poverty calculated by the SPM fell to its lowest recorded level in 2021, declining from 9.7% in 2020 to 5.2% in 2021 (Burns, Fox, and Wilson 2022). The SPM provides a clearer picture of the effects of the expanded child tax credit.

The child tax credit predates the SPM, thus there is only data from the SPM starting in 2009. Below is a clear picture of what happened to child poverty in terms of the SPM.

Figure 5: Child Poverty Rates Using the Official and the Supplemental Poverty Measures: 2009–2021

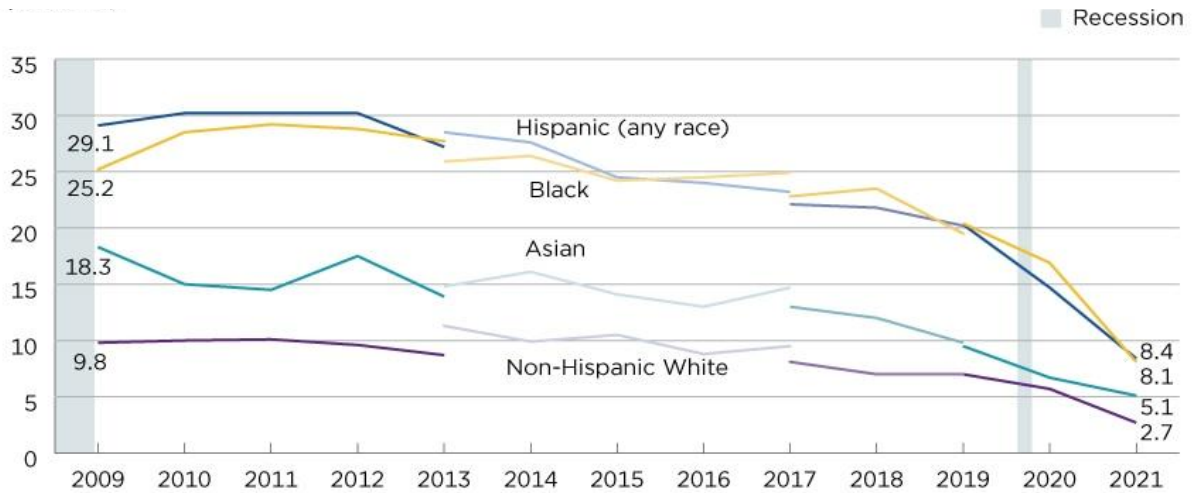


Source: Burns, Fox, and Wilson 2022

In Figure 5, SPM child poverty rates show a much steeper drop with the enactment of the ARP compared to the official poverty rate. Part of this reduction can be attributed to the expanded child tax credit, as it reached many more families in need. According to the Economic Policy Institute, the expanded child tax credit lifted 2.1 million children out of poverty (Gould 2022). On the other hand, the official poverty measure showed that child poverty only declined by 0.7 percentage points from 16% to 15.3% (Burns, Fox, and Wilson 2022).

More specifically, child poverty across races varied with the expanded child tax credit. Black and Hispanic children disproportionately experience poverty in the U.S. (Gould 2022). These races were less likely to have access to the child tax credit before the expansion (Goldin and Michelmore 2022). According to emerging data, the expanded child tax credit had positive effects, lifting children of such races out of poverty. The graph below, from Burns, Fox, and Wilson (2022), shows the child poverty rates by race and ethnicity from 2009 to 2021, according to the SPM, displaying the impact of COVID-19 relief tactics.

Figure 6: Child Supplemental Poverty Rates by Race and Hispanic Origin: 2009–2021



Source: Burns, Fox, and Wilson 2022

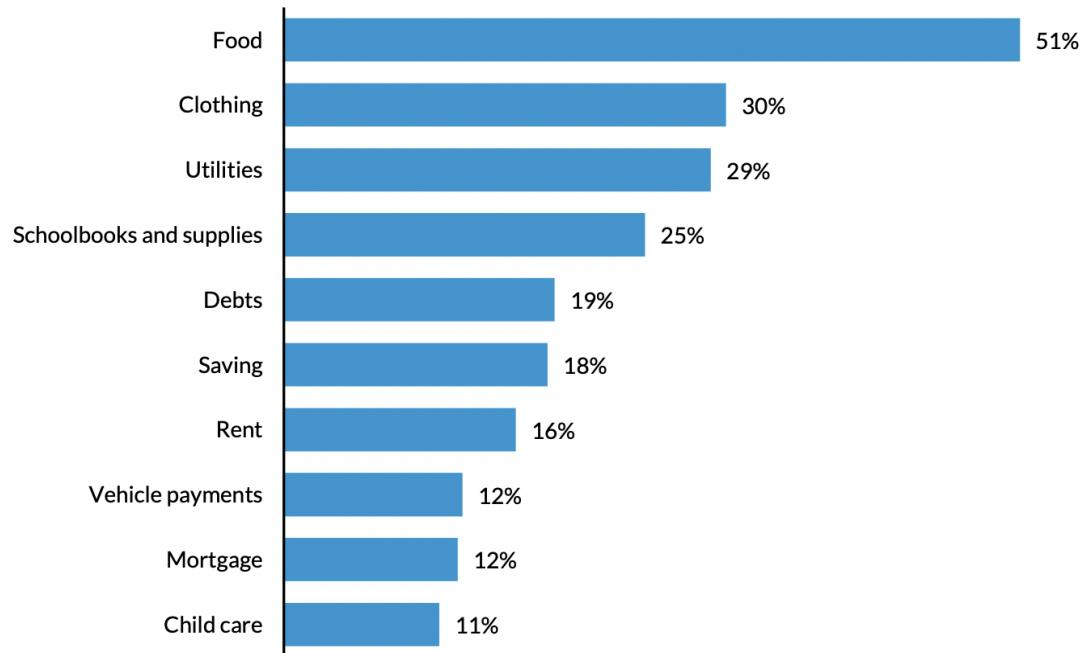
Several programs and stimulus packages were capable of helping to reduce child poverty rates, so these reductions are not entirely attributable to the expanded child tax credit. In Figure 6, the SPM rates for Hispanic children fell from 29.1% in 2009 to 8.4% in 2021. SPM rates for Black children fell by 17.1 percentage points, from 25.2% in 2009 to 8.1% in 2021 (Burns, Fox, and Wilson 2022).

The last data point of interest is that the credit, along with the other stimulus packages and programs in 2021, lifted 5.3 million people out of poverty, including 2.9 million children (Burns, Fox, and Wilson 2022). Of the children lifted out of poverty, 1 million were under the age of six, and 1.9 million were children between the ages of six and seventeen (Burns, Fox, and Wilson 2022).

Beyond Rates

Throughout the year 2021 and into 2022, more research has been conducted on the child tax credit expansion that moves beyond poverty rates. Such research delves into how families are spending the credit. It is crucial to see where the expanded child tax credit of 2021 was being spent to uncover its necessity and to debunk some of the political arguments surrounding the credit.

Figure 7: How Adults Spent the Child Tax Credit, among Those Living in Households with Children under 18 Who Reported Household Receipt of the Credit, July–September 2021

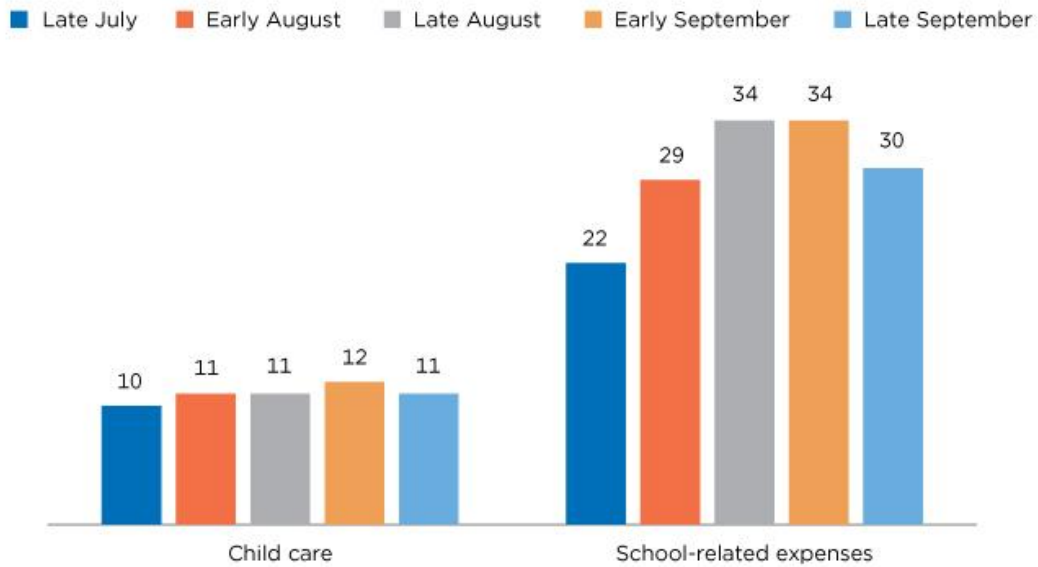


Source: Karpman et al. 2021, 7

The graph above, from Karpman et al. (2021) depicts household spending of the credit from July to September of 2021. Figure 7 shows that the majority, 51%, of the credit was put toward food. Aside from food, the credit was being spent on other necessities like clothes, utilities, and school supplies. With such a large percentage of the credit being spent on food, it is no surprise that there was a decrease in food insecurity throughout the United States. According to the Agriculture Department, food insecurity among households with children reached a record low (DeParle 2022). Specifically, the Social Policy Institute found that “the rate of severe food insecurity among eligible families dropped by almost 30% after the CTC payments went out” (Roll et al. 2021, 1). In addition to spending on food and other necessities, “the J.P. Morgan Chase Institute found the payments increased bank balances, creating a cushion for emergencies” (DeParle 2022).

Aside from basic necessities, the child tax credit was also spent on school-related expenses. The graph below, from Perez-Lopez and Mayol-García (2021) shows the increase in the spending of the child tax credit on school-related expenses during August and September.

Figure 8: As School Began in 2021, Parents Spent CTC on School-Related Expenses (in percent)



Source: Perez-Lopez and Mayol-García 2021

It is not surprising that spending on school would increase during this time period. However, it is interesting that “Black and Hispanic families used the CTC for school expenses in much higher proportions than non-Hispanic White households. By late September, an estimated 4 in 10 Black families (42%) and 3 in 10 Hispanic families (31%) used the CTC for school expenses, compared to about 1 in 4 non-Hispanic White families (26%)” (Perez-Lopez and Mayol-García 2021). Such discrepancies may be due to higher poverty rates among Black and Hispanic families. In other words, being closer to the poverty line, on average, may have steered families from spending more in previous years on school supplies, and with the extra income, it could have made sense to get new supplies while you have the money.

In years prior to the 2021 expansion, it has been shown that those with lower incomes are more likely to use tax credits, such as the earned income tax credit (EITC) and the child tax credit towards school and childhood development. One 2015 report when looking at tax credits states that “for each \$1,000 increase in annual income over two to five years, children’s school performance improves on a variety of measures, including academic test scores. A credit that’s worth about \$3,000 (in 2005 dollars) during a child’s early years may boost his or her

achievement by the equivalent of about two extra months of schooling” (Marr et al. 2015). That report also found that tax credits can increase a child's likelihood of attending college. “For a high-school senior whose family almost or just qualifies for the maximum EITC, a \$1,000 increase in tax refunds received in the spring increases college enrollment rates the next fall by roughly 10 percent” (Marr et al. 2015). Thus, the expanded child tax credit may be utilized to pay for basic necessities and childhood education, which in turn improves childhood development.

METHODOLOGY

The data used in this study comes from the Annual Social and Economic Supplement (ASEC) to the Current Population Survey (CPS), administered by the U.S. Census Bureau during March 2022 to households in the 50 states and the District of Columbia. The ASEC provides monthly labor force data and supplemental data on income, cash and noncash benefits, and migration. Thus, the 2022 ASEC contains crucial data regarding the expanded child tax credit. For this study personal records were matched with household records to be able to review data on both levels. When doing so, households for which there were no individual records were dropped.

Throughout this study, the supplemental poverty measure was used. As previously mentioned, the SPM includes both cash and noncash benefits and subtracts necessary expenses. Thus, the measure incorporates the child tax credit, whereas the official poverty rate does not. In addition, the study will be looking at SPM units rather than households. An SPM unit is more comprehensive than a typical family unit. For instance, an SPM unit includes anyone living in a household and not just blood relatives, such as foster children and non-related individuals. Please note, that throughout the analysis, I use the terms SPM unit and household interchangeably.

This study will review the ASEC data in terms of four categories: family type, region, educational attainment, and race. Family type is classified by sex of the SPM head of household and divided into six options: married with children, married without children, single female head with children, single female head without children, single male head with children, and

single male head without children. However, because I am analyzing the impact of the CTC, households with children are focused on throughout the paper. Thus, an analysis of single versus married parents can take place, along with a comparison between single female and male-headed households. The region is fairly straightforward. It is broken down into northeast, midwest, south, and west. Educational attainment is organized by the highest education level of the SPM head. It is broken down into eight categories: non-high school grad, high school grad, some college, bachelor, master, professional, and doctorate. Lastly, the data will be reviewed in terms of race. Race is dependent on the SPM head and is focused on single-race individuals. Those of mixed races fall into the category of others for simplicity. The races of interest include Black, Asian, Latinx, and White individuals.

Various averages of importance of SPM recipient units by results of the SPM Head are explored. These averages include household SPM resources, the SPM poverty rate, the refundable portion of the child tax credit, the amount of the advance payments of the expanded child tax credit, and the SPM unit's additional child tax credit. First, a household's SPM resources include all of their income along with any tax credits and financial benefits received, it is a more comprehensive data point than income. The SPM poverty rate is fairly straightforward, as it is simply just a supplemental poverty measure. The refundable portion of the child tax credit is the next variable of interest, which in 2021 encompassed the entire tax credit due to Biden's American Rescue Plan. The advance payments of the expanded child tax credit represent the amount of the child tax credit that individuals received in advance, or during the monthly payments. Lastly, there is the SPM unit's additional child tax credit, which encompasses all of the refundable portion of the child tax credit and the non-refundable portion of the child tax credit and credits of other dependents.

The next area of interest concerns poverty thresholds. The SPM poverty threshold is an index that provides a range of income cutoffs adjusted to take into account family size, age of the household, etc. Thus, it is to be reviewed how living in various regions, which impacts income and costs of living, affects a household's SPM poverty threshold.

Various poverty measures in addition to poverty thresholds must be examined as well to gain insight into the effects of the extended child tax credit. Thus, a table has been created for

each category that studies the SPM poverty rates, poverty gaps, and poverty intensity. These measures were formalized in Foster, Greere and Thorbecke (1984). The poverty rate is the ratio of SPM units whose incomes fall below the poverty line. In other words, it is the share of the population in poverty. In this study, the SPM is reviewed over the official poverty rate, meaning that the rate is more expansive as it includes both cash and noncash benefits and subtracts necessary expenses. The poverty gap, on the other hand, measures how much additional resources poor households would need in order to get them up to the poverty threshold. Thus, it measures how far below the poverty threshold are households. In other terms, it is a measure of how much each household would need to redistribute to bring all of the poor households up to the poverty line. Lastly, poverty intensity is the poverty gap squared. Thus, the bigger the poverty gap, the more heavily that observation is weighed. As a result, a given poverty gap could have all of the households at the level or a lower level and the latter would have a higher poverty intensity.

The last area to be reviewed in this study is inequality. To comprehend inequality, four varying percentile ratios are displayed, along with the Gini coefficients. “Percentile ratios indicate the ratio of incomes of two persons who are at different positions in the disposable income distribution” (OECD 2021, 190). The four percentile ratios include the P90/P10, P90/P50, P10/P50, and P75/P25. For reference, the P90/P10 ratio compares the income at the 90th percentile to the one at the tenth percentile. In addition to the percentile ratios, Gini coefficients are examined for each subcategory. “The Gini index is defined between 0 (complete equality between all) and 1 (complete inequality, i.e. one person receives all income)” (OECD 2021, 190). Thus, the lower the Gini coefficient, the less inequality there is.

RESULTS

Table 2: Overall Poverty and Inequality Measures

Overall Poverty and Inequality Measures					
Child Poverty Rate (Overall Population)		SPM Recipient Units Poverty Rate by SPM Head		SPM Recipient Units Gini by SPM Head	
Without CTC	With CTC	Without CTC	With CTC	Without CTC	With CTC
9.19%	5.18%	8.87%	5.31%	0.350	0.327

Source: Author's own calculations

In 2021, the child tax credit had a profound impact on society. When looking at the SPM poverty rate, it is clear that the child tax credit alone decreased the child poverty rate from 9.19% to 5.18%. The credit decreased the SPM poverty rate of SPM recipient units households from 8.87% to 5.31%. Thus, it is clear that the tax credit is an effective means of decreasing poverty throughout the United States. However, it is important to know how the credit affects various groups of individuals as well. Thus, what follows is a review of the child tax credit broken up into various categories to gain a deeper understanding of the overall effect of the credit.

Family Type

Table 3: SPM Unit Breakdown by Family Type of SPM Head

SPM Unit Breakdown by Family Type of SPM Head			
Family Type	Share of SPM Units	Average Number of Children per SPM Unit	Reciency Rate
Married with Children	18.29%	1.93	93.41%
Married without Children	28.31%	0.00	0.00%
Male Head with Children	2.83%	1.43	51.06%
Male Head without Children	20.88%	0.00	0.00%
Female Head with Children	6.87%	1.72	84.72%
Female Head without Children	22.81%	0.00	0.00%
Total	100.00%	0.51	24.36%

Source: Author's own calculations

Above displays the breakdown of SPM units by the family type of the SPM head. The majority of households have heads that are married. Married households have the most children on average, 1.93. Thus, it is not surprising that they also have the highest reciprocity rate of the child tax credit, 93.41%. A greater share of all family types, married and male and female-headed households, do not have children. Of single-parent households with children, female-headed households have more children on average, 1.72, and a higher reciprocity rate, 84.72%. Male-headed households with children, on the other hand, have an average of 1.43 children and a reciprocity rate of 51.06%. The discrepancy in the the reciprocity rate may be due to the income phaseouts, where single-filers with an income above \$200,000 are not eligible for the child tax credit (115th Congress 2017).

The following tables are limited to only families with children.

Table 4: Means of SPM Recipient Unit by Family Type of SPM Head

Means of SPM Recipient Units by Family Type of SPM Head				
Family Type	Household SPM Resources	SPM Poverty Rate	CTC	Advance Payment of Expanded CTC
Married	\$104,747	3.18%	\$5,648	\$1,976
Male Head	\$64,729	7.83%	\$4,925	\$1,391
Female Head	\$56,181	10.97%	\$5,655	\$1,923
Total	\$90,762	5.31%	\$5,607	\$1,929

Source: Author's own calculations

When looking at important averages in regards to SPM recipient units by family type, it becomes clear that married households have many more SPM financial resources, \$104,747 on average, and a lower poverty rate, 3.18%, in comparison to single-parent households. Female-headed households have the lowest resources on average and the highest poverty rate, 10.97%. Given that female-headed households have a high number of children on average and lesser resources, it is not surprising that these households received the most from the child tax credit on average, \$5,655. However, married households received only dollars less, \$5,648 on average, despite having almost double the amount of SPM resources than female-headed households on average. While it may seem surprising that married households received

essentially the same amount as female-headed households that have fewer resources and higher poverty rates, it is likely due to the fact that married households on average have the most children. Thus, since the credit is dependent on the number of children in the household and not income within the phase-out limits, married couples are able to receive as much as a single-parent household with less resources. Male-headed households received the least amount from the child tax credit, \$4,925 on average, likely because they have the least number of children on average.

Table 5: Poverty Measures of SPM Unit by Family Type of SPM Head

Poverty Measures of SPM Units by Family Type of SPM Head									
Family Type	Poverty Rate			Poverty Gap			Poverty Intensity		
	Entire Population	Recipients Only		Entire Population	Recipients Only		Entire Population	Recipients Only	
	With CTC	Without CTC	With CTC	With CTC	Without CTC	With CTC	With CTC	Without CTC	With CTC
Married	5.30%	5.28%	3.18%	3.09%	1.95%	1.25%	6.30%	1.65%	1.13%
Male Head	14.86%	12.11%	7.83%	8.21%	4.96%	3.32%	7.80%	3.38%	1.98%
Female Head	14.90%	18.46%	10.97%	7.15%	6.61%	3.65%	8.11%	4.21%	2.26%
Total	10.42%	8.84%	5.31%	5.51%	3.24%	1.94%	7.19%	2.37%	1.45%

Source: Author's own calculations

The next area of importance to review in terms of family type is poverty. Prior to delving into the analysis, it should be noted that the poverty rate of the overall population with the child tax credit is likely higher than the poverty rate of recipients without the child tax credit due to the number of married couples who received the credit. In other words, since almost half of the SPM units are headed by married couples, who have lower poverty rates and higher reciprocity rates than any other group, they pull down the poverty rate of recipients without the child tax credit to 8.84%.

Table 5 shows that the expanded child tax credit of 2021 had positive effects on poverty. Married households that were recipients had the lowest poverty rate, gap, and intensity prior to the child tax credit. However, as a result, married households also experienced the smallest changes in poverty measures when the child tax credit is accounted for. Prior to the child tax credit married recipient households had a SPM poverty rate of 5.28%, whereas after it only decreased by 2.11 percentage points to 3.18%. When looking at single households, it is clear

that female-headed households saw the most positive effects in terms of poverty from the child tax credit. Female-headed recipient households prior to the child tax had a SPM poverty rate of 18.46%, which decreased by 7.50 percentage points to 10.97% with the credit. Female-headed households also saw the largest differences in terms of poverty gap and intensity when comparing recipients with and without the child tax credit. Lastly, male-headed households experienced a 4.28 percentage point decrease in poverty to 7.83%. Thus, the expanded child tax credit had immense effects on poverty reduction overall, but even greater impacts on poverty rates for single-parent households. Consequently, such a policy proves critical to aiding families, especially single-parent families, who are living around the poverty line in getting out of poverty.

Table 6: Inequality Measures of SPM Recipient Unit by Family Type of SPM Head

Inequality Measures of SPM Recipient Units by Family Type of SPM Head										
Family Type	P90/P10		P90/P50		P10/P50		P75/P25		Gini	
	Without CTC	With CTC	Without CTC	With CTC	Without CTC	With CTC	Without CTC	With CTC	Without CTC	With CTC
Married	4.42	3.93	2.05	1.94	0.46	0.49	2.22	2.06	0.313	0.293
Male Head	4.60	4.17	2.07	1.97	0.45	0.47	2.16	2.02	0.323	0.301
Female Head	4.51	3.91	2.12	1.95	0.47	0.50	2.11	1.98	0.336	0.306
Total	5.38	4.75	2.25	2.13	0.42	0.45	2.47	2.29	0.350	0.327

Source: Author's own calculations

When looking at inequality, it becomes clear that single-parent households face greater levels of inequality than married households. This holds true when looking at the inequality measures of recipients with and without the child tax credit. Specifically, married households have a Gini coefficient of 0.313 without the credit and 0.293 with the credit. Keep in mind that a lower Gini coefficient means that the group is closer to equality. On the other hand, when looking at single-parent households, it is clear that those headed by females experience greater inequality. Female-headed households that received the child tax credit had a Gini coefficient of 0.306 with the credit, whereas without the credit, the Gini was 0.336. Male-headed households without the child tax credit had a Gini coefficient of 0.323, whereas with the credit they had a Gini of 0.301.

With the Gini decreasing with the expanded child tax credit, it shows that the policy is capable of decreasing inequality. The largest impact was made on female-headed households, which given that these households received the most from the credit on average is not surprising. However, it had the next biggest impact on male-headed households. Since male-headed households received the least from the child tax credit, it is surprising that the credit decreased inequality between that group more than married couples. Nevertheless, it shows that the credit effectively decreases inequality at a higher rate for single-parent households than married households.

Region

Table 7: SPM Unit Breakdown by Region of SPM Head

SPM Unit Breakdown by Region of SPM Head			
Region	Share of SPM Units	Average Number of Children per SPM Unit	Reciency Rate
Northeast	17.25%	0.46	22.40%
Midwest	21.09%	0.54	25.10%
South	38.37%	0.52	25.12%
West	23.29%	0.52	23.86%
Total	100%	0.51	24.36%

Source: Author's own calculations

The next category of interest is region. Thus, the SPM units have been broken down by region of the SPM head. In Table 7, it becomes clear that those in the Midwest have the highest number of children on average, 0.54, with the second highest reciency rate, 25.10%. On the other hand, those in the northeast have the least children on average, 0.46, with the lowest reciency rate of 22.40%. The south and west regions though have the same number of children on average, 0.52, but varying reciency rates. Those in the south have the highest reciency rate at 25.12% and households in the west have a reciency rate of 23.86%. The varying reciency rates may be due to income variations, but further digging into these discrepancies will be completed ahead.

Table 8: Means of SPM Recipient Unit by Region of SPM Head

Means of SPM Recipient Units by Region of SPM Head				
Region	Household SPM Resources	SPM Poverty Rate	CTC	Advance Payment of Expanded CTC
Northeast	\$98,351	6.13%	\$5,304	\$1,825
Midwest	\$91,008	2.92%	\$5,848	\$2,157
South	\$83,376	5.89%	\$5,612	\$1,844
West	\$98,062	6.03%	\$5,579	\$1,930
Total	\$90,762	5.31%	\$5,607	\$1,929

Source: Author's own calculations

Table 8 displays the generalized averages of the SPM recipient units as previously seen by the region of the SPM head. Households in the south on average had the lowest household SPM resources, \$83,376. On the other hand, the average number of resources was highest in the northeast, \$98,351 on average, and close behind was the west at \$98,062 on average. With higher SPM resources on average, it becomes clear that these regions likely had lower reciprocity rates due to the income phaseouts that are in place with the child tax credit. However, despite having the greatest amount of financial resources on average, the northeast and the west faced the greatest poverty rates, 6.13% and 6.03%. Whereas the poverty rate was 5.89% in the south. These differences in poverty rates compared to SPM resources is possible because the poverty thresholds for households are dependent on costs of living. The cost of living tends to be higher in the northeast and the west, which drives up the poverty threshold. The region with the lowest poverty rates was the Midwest, with a rate of 2.92% Nevertheless, households in the Midwest received the most from the child tax credit, \$5,848 on average, while those in the northeast received the least on average, \$5,304. The discrepancy is due to the difference in the average number of children per household in each region. Households in the northeast have 0.46 children on average, while those in the midwest have 0.54 children on average. With the greater number of children on average, it would be expected that households in the midwest would receive more from the child tax credit on average.

Table 9: SPM Poverty Threshold of SPM Units by Region of SPM Head

SPM Poverty Threshold of SPM Units by Region of SPM Head		
Region	All	Recipients Only
Northeast	\$23,434	\$33,796
Midwest	\$20,108	\$28,720
South	\$21,262	\$29,655
West	\$25,051	\$35,296
Total	\$22,276	\$31,396

Source: Author's own calculations

Prior to delving deeper into the poverty measures, it is important to see how the SPM poverty thresholds differed throughout the various regions. Poverty thresholds are dependent on the cost of living in the area. It is able to provide a clearer picture into poverty than a singular poverty line by taking variations in housing costs, costs of basic necessities, etc. into account. Thus, Table 9 above displays the different poverty thresholds of households by region of the overall population and recipients of the child tax credit on average. It is clear thresholds are higher for recipients of the child tax credit than for the overall population. Such a difference may in part be caused by the child tax credit. However, it is also likely that those with children, who would also be recipients of the child tax credit, tend to earn more on average than those without children. Also, those with children require more resources, which would also drive up the poverty threshold. Table 9 also shows that households in the northeast have the highest poverty threshold on average, \$23,434 for the entire population and \$33,796 for recipient households only. Hence, why the region had the highest poverty rate despite having the highest SPM resources on average. Contrastingly, households in the Midwest have the lowest threshold on average, \$20,108 for the entire population and \$28,720 for recipient households only. With the lowest threshold, it is easier to earn above the poverty line, which explains the lower poverty rate in the Midwest compared to every other region.

Table 10: Poverty Measures of SPM Units by Region

Poverty Measures of SPM Units by Region of SPM Head									
Region	Poverty Rate			Poverty Gap			Poverty Intensity		
	Entire Population	Recipients Only		Entire Population	Recipients Only		Entire Population	Recipients Only	
	With CTC	Without CTC	With CTC	With CTC	Without CTC	With CTC	With CTC	Without CTC	With CTC
Northeast	10.10%	9.10%	6.13%	5.15%	3.53%	2.39%	5.30%	2.86%	1.98%
Midwest	8.32%	5.48%	2.92%	4.60%	1.84%	0.93%	6.28%	1.15%	0.55%
South	10.85%	10.25%	5.89%	5.46%	3.74%	2.13%	5.01%	2.49%	1.40%
West	11.83%	9.40%	6.03%	6.68%	3.53%	2.28%	13.03%	2.96%	2.02%
Total	10.42%	8.84%	5.31%	5.51%	3.24%	1.94%	7.19%	2.37%	1.45%

Source: Author's own calculations

Poverty measures also differ for households depending on the region which they are located in. At first glance, it can be seen that households in the Midwest experience the lowest poverty rates and gaps regardless of whether you are looking at the entire population or residents with or without the credit. Furthermore, households in the midwest experience the lowest poverty intensity rates when narrowing the results down to recipients of the child tax credit only. Thus, those in the midwest also saw the smallest changes to their poverty rate, gap, and intensity when comparing recipients with and without the child tax credit. This means that the child tax credit had the least impact on poverty in the midwest. Recipient families in the region were less likely to be just below their poverty thresholds than the average child tax credit of \$5,848 would have lifted them out of poverty. On the other hand, households in the south had the lowest poverty rate of the entire population and recipients without the credit. Thus, the poverty rate of recipient households in the south decreased the most by 4.37 percentage points to 6.03%. This denotes that more recipient families were living right below their poverty thresholds, where the child tax credit, which was \$5,612 on average in the south, was enough to lift them out of poverty. Of recipients with the child tax credit, households in the northeast had the highest poverty rate, 6.13%. The same trend can be seen when looking at the poverty gap. Lastly, those in the west had the highest poverty intensity rates.

Table 11: SPM Child Poverty Measures by Region

SPM Child Poverty Measures by Region						
Region	Poverty Rate		Poverty Gap		Poverty Intensity	
	Without CTC	With CTC	Without CTC	With CTC	Without CTC	With CTC
Northeast	8.78%	5.61%	3.85%	2.62%	5.82%	4.87%
Midwest	5.76%	2.84%	1.92%	0.93%	1.19%	0.57%
South	10.88%	5.82%	3.85%	1.94%	2.37%	1.14%
West	9.73%	5.89%	3.50%	2.11%	3.38%	2.43%
Total	9.19%	5.18%	3.36%	1.88%	2.91%	1.92%

Source: Author's own calculations

Another interesting way to look at the impacts of the child tax credit in terms of the region to see how the credit impacted children living in different parts of the country. Table 11 above enables that type of analysis as it delves into child SPM poverty rates with and without the child tax credit in 2021. Children in the midwest in SPM poor SPM units experienced the lowest poverty rates, gaps, and inequality. Contrastingly, children in the south experienced the highest poverty rate without the child tax credit, 10.88%. However, once the credit was implemented, that rate dropped to 5.82%, which ultimately shifted the highest poverty rate to children living in the west. Such a large drop in child poverty in the south aligns with the drop in poverty experienced by SPM units and again represents how many children were living near their poverty thresholds. In terms of poverty gap and intensity, children in the northeast experienced the highest rates overall. When comparing that to SPM units, it becomes clear that the poverty intensity rate for children in the northeast does not decrease nearly as much.

Table 12: Inequality Measures of SPM Recipient Unit by Region of SPM Head

Inequality Measures of SPM Recipient Units by Region of SPM Head										
Region	P90/P10		P90/P50		P10/P50		P75/P25		Gini	
	Without CTC	With CTC	Without CTC	With CTC	Without CTC	With CTC	Without CTC	With CTC	Without CTC	With CTC
Northeast	5.54	4.86	2.22	2.08	0.40	0.43	2.58	2.39	0.350	0.328
Midwest	4.94	4.35	2.17	2.05	0.44	0.47	2.31	2.14	0.340	0.312
South	5.56	4.84	2.31	2.15	0.42	0.45	2.51	2.29	0.360	0.333
West	5.06	4.53	2.14	2.03	0.42	0.45	2.41	2.20	0.340	0.317
Total	5.38	4.75	2.25	2.13	0.42	0.45	2.47	2.29	0.350	0.327

Source: Author's own calculations

Table 12, above, shows inequality measures in terms of SPM recipient units by region. Overall, from looking at the Gini coefficient, it is clear that those in the south experience the greatest levels of inequality with and without the expanded child tax credit of 2021. Without the child tax credit, recipient households in the south had a Gini coefficient of 0.360. With the credit, the Gini decreased to 0.333. On the other hand, recipient households in the midwest and west experienced the same levels of inequality, with a matching Gini coefficient of 0.340. However, the child tax credit had a greater effect on inequality in the Midwest as the Gini decreased with the credit to 0.312. The immense impact the credit had in the Midwest region on inequality is likely due to the size of the credit in the region, \$5,848 on average. Whereas those in the northeast experienced the smallest decrease in inequality, where the credit was the lowest on average, \$5,304, and poverty thresholds were the highest.

Education

Table 13: SPM Unit Breakdown by Education of SPM Head

SPM Unit Breakdown by Education of SPM Head			
Education Level	Share of SPM Units	Average Number of Children per SPM Unit	Recipiency Rate
Non High School Grad	8.19%	0.64	25.36
High School Grad	26.42%	0.48	21.77
Some College	16.64%	0.48	22.77
Associates	10.65%	0.50	24.94
Bachelors	23.68%	0.51	25.82
Masters	10.75%	0.56	28.39
Professional	1.52%	0.51	23.22
Doctorate	2.15%	0.54	26.21
Total	100%	0.51	24.36

Source: Author's own calculations

The third category of interest is the educational attainment of the SPM head in a household. In Table 13 above, households have been broken down by education to display the share of SPM units, the average number of children per household, and the recipiency rates. At first glance, it can be seen that SPM heads whose highest educational attainment is a high

school degree is the greatest share of SPM units. On the other hand, those with a professional degree have the smallest share. When looking at children, SPM heads who did not graduate from the highest school have the most children on average, 0.64%. Contrastingly, those with a high school degree or that attended some college, are the least likely to have children with the average for both being 0.48. Those with a masters degree, however, had the highest reciprocity rate of 28.39% and those with only a high school degree had the lowest reciprocity rate of 21.77% .

Table 14: Means of SPM Recipient Unit by Education of SPM Head

Means of SPM Recipient Units by Education of SPM Head				
Education Level	Household SPM Resources	SPM Poverty Rate	CTC	Advance Payment of Expanded CTC
Non High School Grad	\$58,313	14.79%	\$6,689	\$2,030
High School Grad	\$67,579	7.88%	\$6,028	\$2,084
Some College	\$75,674	5.45%	\$5,877	\$2,118
Associates	\$82,077	4.45%	\$5,622	\$2,000
Bachelors	\$111,358	2.27%	\$5,177	\$1,778
Masters	\$126,300	1.40%	\$4,925	\$1,723
Professional	\$146,374	3.56%	\$4,538	\$1,505
Doctorate	\$138,616	2.75%	\$4,463	\$1,381
Total	\$90,762	5.31%	\$5,607	\$1,929

Source: Author's own calculations

In Table 14 it can be seen that on average, households where the SPM head got a professional degree, have the most SPM financial resources a year, \$146,374, but those with a master's degree are the least likely to be in poverty with an SPM poverty rate of 1.40%. Neither of these groups received the least from the child tax credit in 2021. As a matter of fact, since those with a professional or a masters degree are on the higher end of the spectrum for the average number of children, 0.51 and 0.56 respectively, it makes sense that despite their economic situations they would not receive the least from the credit. Those with a doctorate degree, on the other hand, received the least from the credit, \$4,463 on average. This is surprising given that SPM heads with a doctorate degree had less SPM resources than those with a professional degree and have more children on average. However, there is a pattern with

educational attainment that may be observed. In Table 14, it can be seen that as the educational attainment of the SPM head gets higher, the child tax credit decreases, regardless of SPM resources. Thus, there appears to be a connection between the education of the tax filer claiming the child for the credit and the amount of the credit that they receive. At the other end of the spectrum, households where the SPM head did not graduate high school had the least financial resources on average, \$58,313 a year, experienced the highest SPM poverty rate, 14.79%, and received the most from the credit in 2021, \$6,482 on average.

Table 15: Poverty Measures of SPM Unit by Education of SPM Head

Poverty Measures of SPM Units by Education of SPM Head									
Education Level	Poverty Rate			Poverty Gap			Poverty Intensity		
	Entire Population	Recipients Only		Entire Population	Recipients Only		Entire Population	Recipients Only	
	With CTC	Without CTC	With CTC	With CTC	Without CTC	With CTC	With CTC	Without CTC	With CTC
Non High School Grad	24.44%	23.83%	14.79%	10.58%	7.87%	4.25%	7.29%	4.22%	2.02%
High School Grad	12.99%	13.57%	7.88%	6.30%	4.53%	2.55%	6.48%	2.79%	1.49%
Some College	11.39%	9.43%	5.45%	5.83%	3.44%	2.08%	6.09%	2.78%	1.81%
Associates	8.96%	7.35%	4.45%	4.82%	2.67%	1.55%	6.95%	1.57%	0.80%
Bachelors	6.13%	3.61%	2.27%	4.15%	1.84%	1.32%	7.79%	1.85%	1.35%
Masters	4.79%	2.35%	1.40%	3.77%	1.08%	0.75%	10.54%	1.01%	0.69%
Professional	4.45%	4.90%	3.56%	3.28%	1.93%	1.45%	5.89%	2.85%	2.18%
Doctorate	4.74%	2.75%	2.75%	2.77%	2.18%	1.81%	3.04%	4.82%	4.29%
Total	10.42%	8.84%	5.31%	5.51%	3.24%	1.94%	7.19%	2.37%	1.45%

Source: Author's own calculations

Poverty measures also differ for households based on the education level of the SPM head. Households, where the SPM head did not obtain a high school diploma, have the highest SPM poverty rates and gaps regardless of group. On the other hand, those with a professional degree experience the lowest SPM poverty rates of the entire population after the retrieval of the child tax credit, 4.45%. However, those with a master's degree have the lowest rates of the recipients, 2.35% without the credit and 1.40% with the credit. This is not because the child tax credit decreased poverty for households where the SPM head had a masters degree the most. Such is actually true for those where the SPM head did not receive a high school diploma, as the recipient's poverty rate decreased by 9.04 percentage points. Rather, recipient units where the SPM head has a masters degree experienced the second smallest poverty rate change, 0.95 percentage points. However, the credit just allowed this group to maintain the lowest poverty rate of recipient units. Recipient SPM units where the SPM head obtained a doctorate degree

experienced zero change in poverty rate. No change likely occurred because not many households where the SPM head has a doctorate degree were close to their poverty thresholds. Furthermore, SPM heads with a doctorate degree received the least from the child tax credit, which would make it harder to lift someone out of poverty. Whereas the opposite holds true for households where the SPM heads did not graduate high school. Additionally, recipient units of the credit where the SPM head has a master's degree had the lowest poverty gap and intensity rates. When looking at the entire population, households in which the SPM head has a doctoral degree, have the lowest poverty gap and intensity rate.

Table 16: Inequality Measures of SPM Recipient Unit by Education of SPM Head

Inequality Measures of SPM Recipient Units by Education of SPM Head										
Education Level	P90/P10		P90/P50		P10/P50		P75/P25		Gini	
	Without CTC	With CTC	Without CTC	With CTC	Without CTC	With CTC	Without CTC	With CTC	Without CTC	With CTC
Non High School Grad	4.41	3.75	1.93	1.82	0.44	0.48	2.00	1.92	0.318	0.290
High School Grad	4.57	4.02	2.09	1.96	0.46	0.49	2.19	2.02	0.322	0.297
Some College	4.48	3.94	2.05	1.92	0.46	0.49	2.24	2.07	0.324	0.299
Associates	4.40	4.01	2.05	1.95	0.47	0.49	2.31	2.18	0.323	0.302
Bachelors	4.45	4.02	1.98	1.91	0.45	0.47	2.10	1.98	0.303	0.287
Masters	4.05	3.69	1.87	1.81	0.46	0.49	1.96	1.87	0.276	0.263
Professional	5.60	4.92	2.00	1.95	0.36	0.40	2.65	2.54	0.315	0.303
Doctorate	4.11	3.71	1.87	1.80	0.46	0.49	1.99	1.93	0.280	0.269
Total	5.38	4.75	2.25	2.13	0.42	0.45	2.47	2.29	0.350	0.327

Source: Author's own calculations

When looking at the inequality measures of SPM recipient units in terms of the educational attainment of the SPM head, it becomes clear that inequality is not dependent on educational attainment. Actually, it was found that households where the SPM head only attended some college have the highest inequality levels in terms of the Gini coefficient without the child tax credit, 0.324. Nonetheless, those with a professional degree experience the highest inequality when the child tax credit is accounted for, with a Gini of 0.303. Contrastingly, households where the SPM head has a master's degree experience the least inequality both without, 0.276 and with the child tax credit 0.263. Overall, the households that benefitted the most from the expanded child tax credit in 2021 in terms of inequality were those where the SPM head was not a high school graduate, as that group's Gini decreased with most when the credit was accounted for, 0.028.

A trend is actually occurring with inequality as was seen with the amount of the credit received. The inequality level per educational level is decreasing with the higher levels of education. Thus, it becomes clear that the credit does in fact impact inequality. The greater the amount of the credit, the greater the decrease in inequality.

Race

Table 17: SPM Unit Breakdown by Race of SPM Head

SPM Unit Breakdown by Race of SPM Head			
Race	Share of SPM Units	Average Number of Children per SPM Unit	Reciprocity Rate
White	64.28%	0.44	21.17
Black	12.67%	0.55	25.84
Asian	5.58%	0.55	29.44
Other	2.37%	0.63	28.11
Latinx	15.10%	0.76	34.19
Total	100%	0.51	24.36

Source: Author's own calculations

The last category of interest is race. Above is a breakdown of SPM units by the race of the SPM head. The results display that White households are the majority of the SPM units, have the least children on average, and have the lowest reciprocity rate. Contrastingly, households where the SPM head is of mixed race or a race that does not fit into the other four categories are the smallest share of SPM units. Additionally, Latinx households typically have the most children, 0.76 on average, and the highest reciprocity rate, 34.19%. Thus, a correlation between the average number of children and the reciprocity rate may be made. The higher the average number of children, the higher the reciprocity rate.

When looking at Black and Asian households, it is interesting how they have the same number of children on average, 0.55, but varying reciprocity rates. Black households have a reciprocity rate of 25.84%, while Asian households have a rate of 29.44%. It is likely that less Black households received the child tax credit due to past eligibility over incomes that are beyond the income brackets. In prior years, eligibility requirements for the credit made it

difficult for Black or Hispanic children to receive the credit. Relative to the overall population, children who were ineligible were more likely to be Black (25% versus 14% among all children) or Hispanic (30% versus 26% among all children), and less likely to be white, non-Hispanic (36% versus 50%) (Goldin and Micheltore 2022). These prior experiences may have produced the expectation in Black households that they would not be eligible for the credit. With such expectations, Black households might not have known that they were able to claim the child tax credit in 2021. Thus, expectations could explain why Black families had a lower recipiency rate than Asian households, despite their equal number of average children.

Table 18: Means of SPM Recipient Unit by Race of SPM Head

Means of SPM Recipient Units by Race of SPM Head				
Race	Household SPM Resources	SPM Poverty Rate	CTC	Advance Payment of Expanded CTC
White	\$100,564	3.09%	\$5,453	\$1,947
Black	\$68,175	9.06%	\$5,928	\$2,024
Asian	\$112,562	4.54%	\$4,742	\$1,480
Other	\$82,698	6.54%	\$5,935	\$1,989
Latinx	\$73,367	8.88%	\$6,042	\$1,954
Total	\$90,762	5.31%	\$5,607	\$1,929

Source: Author's own calculations

Table 18 above shows that households where the SPM head is Asian, have the highest SPM financial resources on average, \$112,562 a year. The high income is likely associated with why Asian-headed households received the least from the child tax credit in 2021, \$4,709 on average. However, it is households where the SPM head is White that were the least likely to be in poverty with an SPM rate of 3.09%. At the other end of the spectrum, Black-headed households had the least financial resources, \$68,175 on average, and were the most likely to be in poverty with a rate of 9.06%. Thus, in terms of poverty and income, it is surprising that Latinx-headed households received the most from the credit in 2021, \$5,920 on average. However, Latinx-headed households likely received the most because as was previously stated, they have the highest number of children on average.

As a result, households with the most children did in fact receive the most from credit overall. Nevertheless, SPM resources does impact the amount received from the credit. Black, other, and Latinx households received the most due to their high average number of children and lower levels of SPM resources. However, Asian households, despite having the same number of children on average as Black families, received less from the tax credit because their SPM resources were high enough to decrease the amount they were eligible to receive. Thus, with the extended child tax credit, a higher credit was allotted to families who had more children, but incomes lower than the income phaseouts.

Table 19: Poverty Measures of SPM Unit by Race of SPM Head

Poverty Measures of SPM Units by Race of SPM Head									
Race	Poverty Rate			Poverty Gap			Poverty Intensity		
	Entire Population	Recipients Only		Entire Population	Recipients Only		Entire Population	Recipients Only	
	With CTC	Without CTC	With CTC	With CTC	Without CTC	With CTC	With CTC	Without CTC	With CTC
White	8.19%	5.08%	3.09%	4.64%	2.00%	1.22%	6.91%	1.66%	1.05%
Black	14.21%	15.05%	9.06%	6.46%	5.63%	3.25%	5.26%	3.44%	1.77%
Asian	13.49%	7.04%	4.54%	8.68%	2.62%	1.75%	16.42%	1.93%	1.30%
Other	13.87%	11.16%	6.54%	7.16%	5.02%	3.08%	6.17%	4.87%	3.54%
Latinx	15.05%	15.08%	8.88%	6.97%	4.98%	2.95%	6.77%	3.37%	2.06%
Total	10.42%	8.84%	5.31%	5.51%	3.24%	1.94%	7.19%	2.37%	1.45%

Source: Author's own calculations

Based on the drastic differences found in Table 18, it should be of no surprise that there are remarkably different patterns of poverty based on the race of the SPM unit head. When looking at the poverty rate of the entire population with the child tax credit, Latinx-headed households are the most likely to experience poverty with an SPM rate of 15.05%. They are also most likely to experience poverty when looking at the recipients without the credit, 15.11%. When the credit was received, the recipient Latinx poverty rate dropped 6.21 percentage points to 8.88%. This was the highest percentage point difference that the child tax credit had on recipient poverty, which makes sense given that Latinx households received the most from the credit on average. It is interesting though that recipient households of other races did not have the second largest drop in poverty, despite receiving the second highest amount of the credit on average. As a matter of fact, Black households saw the second highest decrease in poverty, 5.98 percentage points. This means that more Black families were living right below their poverty

thresholds, so that the credit was able to lift them out of poverty. Thus, the extended child tax credit had the highest impacts on poverty rates for Black and Latinx households.

Shifting to the poverty gap and intensity rates, it is clear that when looking at the entire population Asian headed households experience the highest rates. However, when examining recipients only, Black-headed households experience the largest poverty gaps, and households where the SPM head is of a different race than the ones listed have the highest intensity rates. Overall, the extended child tax credit was able to decrease the poverty gaps and intensities across all races, even more so for Black, Latinx, and households of other races. Nevertheless, the credit did not alter the patterns of the poverty gaps or intensities that may be observed across the various races.

Table 20: SPM Child Poverty Measures by Race

SPM Child Poverty Measures by Race						
Race	Poverty Rate		Poverty Gap		Poverty Intensity	
	Without CTC	With CTC	Without CTC	With CTC	Without CTC	With CTC
White	4.98%	2.69%	1.91%	1.11%	1.77%	1.20%
Black	14.30%	8.19%	5.00%	2.52%	2.85%	1.30%
Asian	7.35%	4.62%	2.74%	1.75%	1.89%	1.19%
Other	10.26%	5.71%	5.03%	3.23%	8.90%	7.47%
Latinx	14.65%	8.31%	5.01%	2.72%	3.99%	2.55%
Total	9.19%	5.18%	3.36%	1.88%	2.91%	1.92%

Source: Author's own calculations

It is also important to break down child poverty by race to see how the credit has impacted children of varying races. Table 20 enables that type of analysis as it delves into child SPM poverty rates with and without the child tax credit in 2021. Latinx children experience the highest SPM poverty rates both with and without the child tax credit, 8.31%, and 14.65%. Thus, the extended child tax credit was not enough to decrease the likelihood that a Latinx child would be in poverty below Black children, like it did with Latinx households. However, it did decrease the Latinx child poverty rate by 6.34 percentage points, which is more than the 6.11 percentage points that the credit decreased Black child poverty. At the other end of the spectrum, while children were the least likely to be in poverty with and without the child tax

credit, 4.98% and 2.69% respectively. White child poverty rates also experienced the smaller percentage point difference, 2.29%. Which is surprising given that on average, White households did not receive the least amount from the credit. Asian households actually received the least amount but experienced a 2.72 percentage point decrease in child poverty rates. Thus, more Asian children must have been living closer to their poverty thresholds, which enabled the extended child tax credit to lift them out of poverty.

When looking at poverty gaps and intensities, children of other races than the ones listed experienced the highest poverty gap and intensity rates with and without the credit. On the other hand, White children had the lowest poverty gap with and without the credit and the lowest intensity rate without the credit. However, Asian children had the lowest poverty intensity rate overall once the child tax credit was received.

Table 21: Inequality Measures of SPM Recipient Unit by Race of SPM Head

Inequality Measures of SPM Recipient Units by Race of SPM Head										
Race	P90/P10		P90/P50		P10/P50		P75/P25		Gini	
	Without CTC	With CTC	Without CTC	With CTC	Without CTC	With CTC	Without CTC	With CTC	Without CTC	With CTC
White	5.01	4.45	2.11	2.00	0.42	0.45	2.30	2.15	0.329	0.309
Black	5.60	4.75	2.41	2.23	0.43	0.47	2.48	2.26	0.368	0.337
Asian	5.03	4.52	1.98	1.90	0.39	0.42	2.40	2.27	0.323	0.307
Other	5.29	4.44	2.31	2.17	0.44	0.49	2.57	2.38	0.361	0.335
Latinx	4.65	4.08	2.23	2.06	0.48	0.50	2.16	2.01	0.335	0.309
Total	5.38	4.75	2.25	2.13	0.42	0.45	2.47	2.29	0.350	0.327

Source: Author's own calculations

The last area to examine in terms of race is inequality. According to the results in Table 21, households where the SPM head is Black experience the greatest levels of inequality. Without the credit, Black-headed households had a Gini coefficient of 0.368. When taking the expanded child tax credit into account, the Gini coefficient was 0.337. With a 0.031 Gini point reduction in inequality Black-headed households benefited the most from the child tax credit in terms of inequality. Which is interesting because Black households did not receive the most, or even the second most from the child tax credit. As a matter of fact, Latinx households received the most and only experienced a 0.026 Gini point reduction in inequality due to the child tax credit. Thus, the child tax credit led to greater coverage among resources of Black households

than any other race. Contrastingly, Asian-headed households had the lowest levels of inequality, both without, 0.323, and with the credit, 0.307. In addition, Asian-headed households experienced the smallest changes in inequality, with a 0.016 Gini point reduction with the child tax credit of 2021. Such a small difference among Asian households coincides with the lower credit that Asian households received on average.

CONCLUSION

Drawing on a sample of children in the United States, the effects of the expanded child tax credit have been explored. There were striking differences in the impacts of the child tax credit based on family type, region, education, and race. Overarchingly, the expanded child tax credit was able to decrease poverty and inequality for all recipients. The poverty rate for recipients dropped by 3.56% to 5.31%. The child poverty rate dropped by 4.01% down to 5.18%. Inequality also dropped, with a 0.023 Gini point reduction. Thus, the overall impact of the extended child tax credit was large across the board, with some telling differences at the margins.

Throughout the research it became clear that with the expansion, lower income groups experienced a greater benefit from the credit. In most cases, groups with the lowest SPM resources on average saw greater decreases in poverty rate. Thus, those with the lowest average SPM resources were more likely to live just below their poverty thresholds and were able to get out of poverty with the child tax credit. When looking at race, however, households who had the lowest SPM resources on average did not experience the largest decreases in poverty. Latinx households experienced the lowest decrease in poverty due to their higher average number of children. Overall, households where the SPM head did not obtain a high school diploma experienced the greatest decrease in poverty of any group observed, a 9.04 percentage point change.

A similar pattern can be observed when looking at child poverty. Children in regions with the lowest household SPM resources on average experienced the greatest decreases in poverty rates. Latinx children also saw the greatest decrease in poverty, 6.34 percentage points,

despite not having the lowest household SPM resources. Black children, whose households had the lowest SPM resources, did not lag far behind though with a 6.11 percentage point decrease in child poverty.

Lower income groups also experienced the greatest decrease in inequality with the expanded child tax credit. According to the Gini coefficient, households with the lowest SPM resources on average saw the greatest movement towards equality. The one expectation appears when looking at regions, as the Midwest, the region with the second lowest SPM resources, saw a 0.028 Gini point reduction and the South had a 0.027 Gini point reduction. With that minor expectation, households with the lowest SPM resources benefited the most from the expanded child tax credit in terms of inequality.

Prior to the 2021 expansion under the American Rescue Plan, those with the lowest incomes were not benefitting the most from the credit. As a matter of fact, those with the lowest incomes were not even eligible to receive the credit. 10% of children were completely ineligible for the credit and 80% of those children were ineligible because they failed to meet the earnings requirement (Goldin and Micheltmore 2022). Specifically, eligibility requirements for the credit in the past made it difficult for Black or Hispanic children to receive the credit. Relative to the overall population, children who were ineligible were more likely to be Black (25% versus 14% among all children) or Hispanic (30% versus 26% among all children), and less likely to be white, non-Hispanic (36% versus 50%) (Goldin and Micheltmore 2022). Under the 2021 expansion, white households had the lowest reciprocity rate and Latinx families were most likely to receive the credit. Latinx households also experienced the largest in SPM poverty of any race, while Black households saw the largest drop in inequality. Thus, the expanded child tax credit of 2021 was more racially inclusive and worked to bridge poverty and inequality gaps between races.

On a similar note, the expanded child tax credit was able to reach more single-parent households and female-led households than in previous years. Prior to the expansion, ineligible children were more likely to have both parents absent (22% compared with 4% overall) and were particularly unlikely to have a father present (71% compared with 26%) (Goldin and Micheltmore 2022, 131). Even children who were partially eligible for the credit in the past were

less likely to have a father present (45% compared with 26%) (Goldin and Michelmore 2022, 131). However, with the expansion, nearly 85% of single mother households and 51% of single father households received the credit. In comparison to married couples with children, single-parent households also experienced the largest decreases in poverty and inequality with the expanded child tax credit. Consequently, with the expansion, the child tax credit no longer favored married households.

In totality, the expanded child tax credit in 2021 under President Biden's American Rescue Plan has proven to have immensely positive effects on children and households throughout the country. The expanded credit had the ability to lift millions out of poverty and decreased inequality among many groups. In 2022, reverting to the more conservative child tax credit may be putting these families right back where they were at the beginning of the pandemic. Regression is not the answer. Further consideration must be given as to whether the United States should make a permanent shift to a more progressive, fully refundable child tax credit. The answer ought to rest upon what is best for the people living in the country.

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