UNDERSTANDING YEARLY CHANGES IN FAMILY STRUCTURE AND INCOME AND THEIR IMPACT ON TAX CREDITS

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The earned income tax credit (EITC) and child tax credit (CTC) provide substantial assistance to low- and moderate-income families with children but determining how much credit a family qualifies for can be complicated. Credit amounts depend primarily on number of eligible children, income, and marital status of the tax unit, which is often, but not always, a family. These factors can change throughout the year and from one year to the next—sometimes in ways that are unpredictable. Among low-income households interviewed in two consecutive years for the Current Population Survey (CPS), we find 39 percent saw their EITC drop by at least $500. For the CTC, we find about 20 percent of low-income families saw their CTC drop by at least $500. Hispanic families with low-income were more likely to see a reduction in their EITC and CTC from one year to the next than non-Hispanic White families and non-Hispanic Black families.

Benefits from tax credits play an important role in people's financial lives. Partly because of this, interest in advancing tax credits has reemerged. One option to consider might be basing future credits on the prior year. But to do this, Congress should consider how accurate advanced payments are likely to be and what sort of protections should reasonably be put in place for people whose credit drops (and how many people would likely need those protections). Although income changes drive most changes to credits, families that change throughout the year because of marriage, divorce, or change in the number of children in the tax unit are most likely to see large (over $2,000) credit swings —and these types of families are becoming a greater share of all families with children.

Refundable tax credits, those that can exceed federal income taxes owed, provide an important source of financial support for many low- and middle-income families with children. The largest of these are the EITC and CTC. The credits are determined on an annual basis and are often received as a single payment as part of a family's tax refund. For low-income families, it is often the family's most significant financial event of the year (Morduch and Schneider 2017).

Tax credits accrue to tax units—the group of individuals who appear on a tax return together based on legal relationships, child residency, and support. Though families may change throughout the year, only one adult or married couple will likely be able to benefit from the EITC and CTC for any one child (and often it is the same person for both credits), even when several adults provide significant amounts of support to a child throughout the year.

Because most families file taxes once a year, after the tax year has ended, families that change throughout the year may have difficulties correctly determining their filing status and who can properly claim a child for the purpose of receiving child-related benefits. According to the Internal Revenue Service (IRS), the most common error filers make when claiming the EITC is claiming a child who is not actually a qualifying child (IRS 2022).

Families often report that the amount of tax credits they receive at tax time are a surprise (Anderson et. al 2022; Romich and Weisner 2000). The complexity of the credits along with family and income changes throughout the year likely contribute to not knowing what credits are likely to be delivered at tax time (Maag et al. 2017; Maag, Peters, and Edelstein 2016).

This analysis reviews how trends in changing family structures diverge from how tax credits are delivered. We then briefly describe the EITC and CTC and the role income and family composition play in their calculations. Finally, we explore how well data in one year predicts EITC and CTC receipt in a subsequent year.

Understanding the predictability of tax credits is important for two reasons. First, because the EITC and CTC are significant sources of economic support for families, it is important to gain a better understanding of how much credit amounts vary from year to year. Second, recent experience with advancing up to half of the CTC in 2021 has re-energized calls for delivering tax credits on a monthly basis in advance of families filing a tax return

If credits are advanced based on information from the prior year, families that experience drops in credits for which they are eligible may be required to repay any credit they received in error when they complete their tax return. This may create a hardship for some families. Understanding to what extent prior year data can be useful in predicting eligibility is critical to designing an advanced payment program that can sufficiently protect families from potentially needing to pay back credits determined to be in error.

On the other hand, people who find out they are eligible for larger credits when they fill out their tax return than predicted by prior year data may miss out on the full impact of having credits advanced. Because both issues are likely to affect low-income families more, we focus most of our analysis on families with income below 200 percent of the federal poverty level.

Among low-income families, 39 percent see the amount of their EITC drop at least $500 from one year to the next, 39 percent see their EITC change by less than $500 (almost half of this group receives no EITC in either year), and the remaining 22 percent see their EITC rise by at least $500. CTC amounts are more stable from one year to the next. About 49 percent, see their CTC change by less than $500, 20 percent see their credit drop by at least $500, and the remaining 31 percent see their CTC rise by at least $500.

Year-over-year changes in income drive much of the change in credits, though changes in the number of children and marital status drive some credit change. Almost all benefits from the EITC accrue to families with children in the bottom

40 percent of the income distribution. Initially, benefits phase in with earnings. Once earnings reach about $10,000 for families with one child or about $14,000 for families with at least two children, they remain flat as income increases. Benefits begin to phase out once income increases beyond about $19,000. Among the 39 percent of low-income families that see their EITC decrease from one year to the next, almost three-quarters experience a decrease in their EITC because their income rises. In other words, their credit begins to phase out or phases out completely because they have more income in the second year we observe them than in the first year.

In contrast, the CTC delivers benefits to all but the highest income families with children. Benefits generally increase with earnings until the maximum benefit is reached. A single parent with two children needs about $32,000 in income to receive the full CTC benefit. The Tax Policy Center estimates that 19 percent of children under age 17 live in families that do not receive the full $2,000 per child CTC benefit because their families do not earn enough.[1]

The credit does not begin to phase out until income reaches $200,000 for single parents and $400,000 for married couples. As a result, low-income families rarely lose credits because their income increases. Because the credit initially rises with earnings, low-income families often qualify for higher credits when their earnings increase from year to the next. For the 31 percent of families that see their CTC rise by at least $500, about two-thirds of the time that increase is driven by increases in income. Families move from receiving no CTC or only part of the $2,000 per child credit to receive more or all of the credit.

If the IRS were to advance credits based on prior year filing information, Congress would need to consider how accurate advanced payments are likely to be and what sort of protections should reasonably be put in place (and how many people would likely need those protections). Although income changes drive most changes, families that change throughout the year because of marriage, divorce, or change in the number of children in the tax unit are most likely to see large (at least $2,000) CTC swings—and these types of families are becoming a greater share of all families with children. Program administrators should consider the larger context of changes to the American family when designing policy going forward.

CHANGES TO THE AMERICAN FAMILY

The tax system was designed at a time when marriage rates were high and children tended to grow up in families with two biological parents. By 2019, 41 percent of children lived in a household arrangement other than with two married biological parents (Anderson, Hemez, and Kreider 2022). The decline in marriage rates alongside an increase in births outside of marriage is also reflected in tax data. In 1962, 59 percent of all tax returns were filed by married couples. By 2018, the share of tax returns filed by married couples dropped to 35 percent. Over the same period, the share of returns filed by single parents with custody of their children (head of household) increased from about 2 percent to over 10 percent, with single filers without children on their tax return making up almost all of the rest of the filing population (CBO 2019).

By far, the most common filing status associated with receipt of the EITC is head of household. In 2017, nearly 56 percent of EITC claimants were unmarried filers with children (National Taxpayer Advocate 2020, p. 52), or people who typically file as head of household.

Child custody is shared in a growing number of cases, both in households headed by single parents and by married couples where at least one partner has an additional child outside their current marriage. Sharing custody complicates the process of determining who should receive the CTC and EITC on behalf of that child. More than one parent or

[1] "Distribution of Tax Units and Qualifying Children by Amount of Child Tax Credit (CTC), 2022," table T22-0123, Tax Policy Center, October 18, 2022, https://www.taxpolicycenter.org/model-estimates/children-and-other-dependents-receipt-child-tax-credit-and-other-dependent-tax.

caregiver may reasonably feel entitled to the credit, even if the law does not define them as eligible. In recent years, over half of divorces have resulted in shared custody agreements (Meyer, Cancian, and Cook 2017). Children from lower-income families are more likely to live in families with tax filing ambiguities which complicate their ability to claim tax credits: as many as 60 percent of lower-income families, compared to 40 percent overall (Michelmore and Pilkauskas 2022).

DESCRIPTION OF EARNED INCOME AND CHILD TAX CREDITS

The EITC and CTC together lift more children out of poverty than any other income support program in a typical year (Fox and Burns 2020). Benefits from the EITC are concentrated among low- and moderate-income families, while benefits from the CTC cover almost every family with children. We describe each credit's structure briefly to better understand why it may be difficult to predict the credit eligibility in advance of filing a tax return.

Earned Income Tax Credit

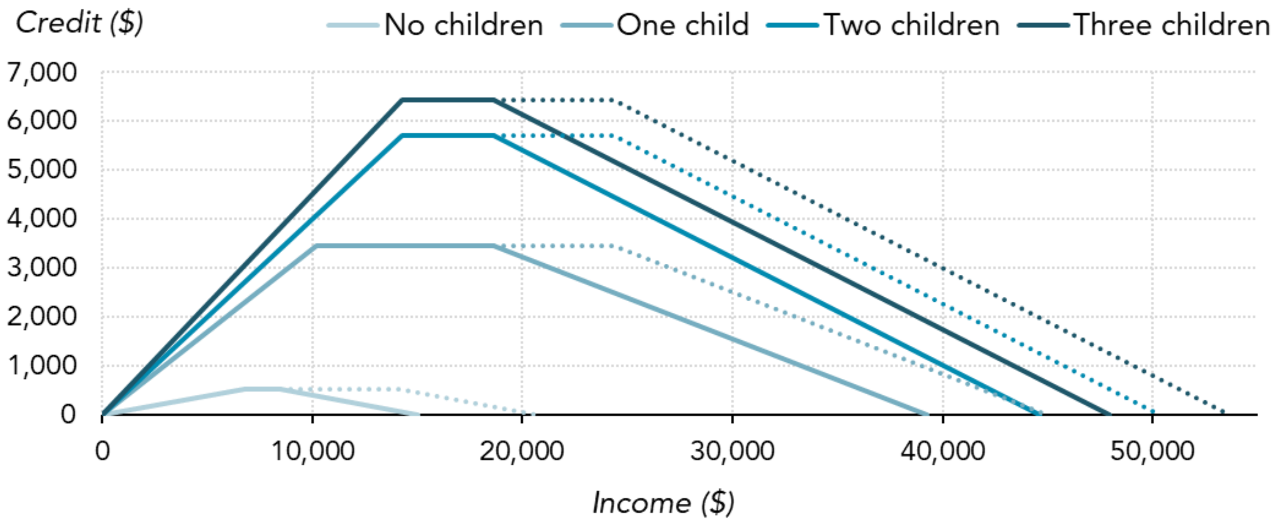
The EITC provides substantial support to low- and moderate-income working parents. Workers receive a credit equal to a percentage of their earnings up to a maximum credit (figure 1). Both the credit rate and the maximum credit vary by family size, with larger credits available to families with more children. From 2015 to 2018, the years of our analysis, the maximum credit for families with one child varied from $3,359 to $3,461, while the maximum credit for families with three or more children varied from $6,242 to $6,431. A much smaller credit is available to some workers without children living at home (about $500). After the credit reaches its maximum value, it remains flat until income reaches the point where the credit begins to phase out. Thereafter, it declines with each additional dollar of income until no credit is available (figure 1).[2] The EITC is a refundable tax credit—if a family qualifies for a credit worth more than the taxes they owe, they may receive it as a tax refund. Each year, the credit grows with inflation.

In cases where a child is supported by people in more than one tax unit, the tax unit where the child lives for the majority of the year is the intended beneficiary of the EITC. In a multigenerational household, a parent has the option to claim the child, the child's grandparent in the household can claim the child if that grandparent has a higher income than the child's parent. Only one tax unit may benefit from the EITC on behalf of a child and generally the same tax unit will also benefit from the CTC. If two parents of a child cohabit—live together without marrying—they may choose which parent will claim the child. If both cohabiting parents claim the child on a tax return, the one with the higher income will be determined eligible.

[2] The EITC begins to decrease whenever a family's earnings or adjusted gross income, whichever is higher, exceeds the phaseout threshold.

FIGURE 1

Earned Income Tax Credit, 2018



Source: Urban-Brookings Tax Policy Center calculations.
Notes: Assumes all income comes from earnings. Dotted lines represent married couples. All credit amounts are indexed annually for inflation.

The group of people who benefit from the EITC is not stagnant. Prior analysis using tax data showed that over a 10-year period, 61 percent of claimants claimed the EITC for only one or two years and about 20 percent of EITC recipients claimed the credit for more than five years (Dowd and Horowitz 2011). Credit eligibility relies on both the income of the taxpayers and the composition of the tax unit. A tax filer needs to know who will live in their household, their marital status, and taxpayers' income to anticipate their EITC.

Understanding who should claim a child for the EITC creates confusion. The Treasury department has estimated that 70 percent of all improper payments of the EITC stem from the incorrect person claiming the child for credit purposes (Department of the Treasury 2017; Holtzblatt and McCubbin 2002). The IRS indicates that another two of the five most common errors with respect to claiming the EITC are claiming a child that does not qualify for the benefit and more than one person claiming the child (IRS 2022). Determining whether a credit should be advanced based on the presence of a child will presumably also be difficult for families.

Child Tax Credit

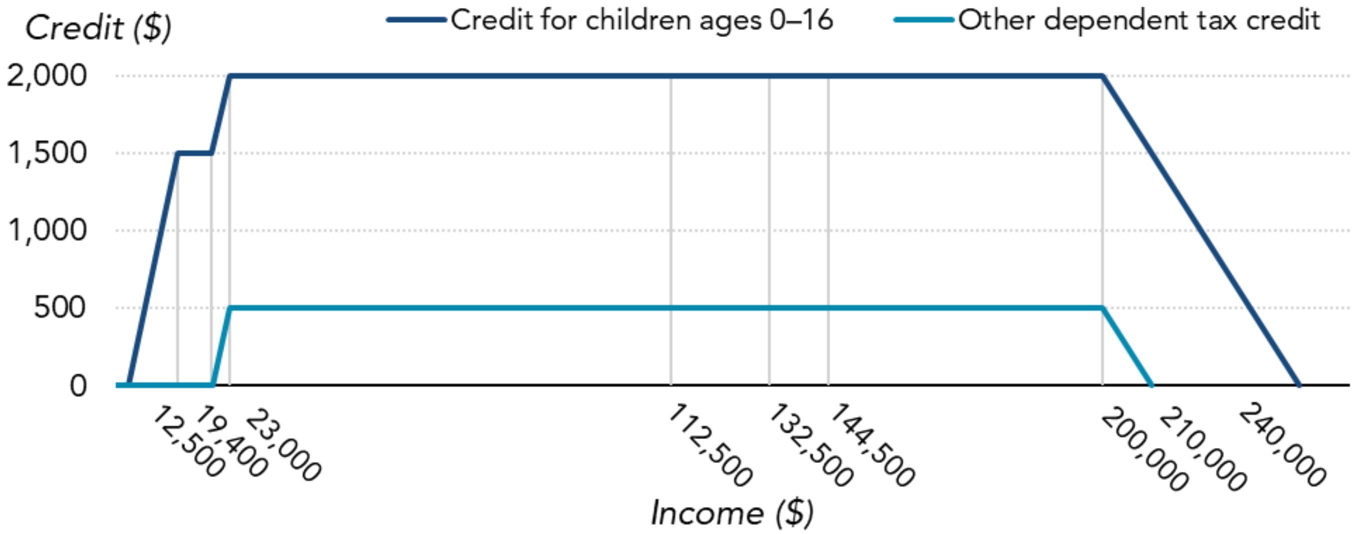
The CTC offsets part of the cost of raising children for working families. Expanded as part of the Tax Cuts and Jobs Act of 2017 (TCJA), the CTC provides a benefit of up to $2,000 per child under age 17 (figure 2). After first being used to offset taxes owed, part of the CTC can be received as a tax refund. The refundable portion of the credit is calculated as 15 percent of earnings over $2,500. Prior to 2021,[3] the refundable portion of the credit was limited to $1,400 per child. How much of the credit can be received as a refund is the only CTC parameter indexed for inflation. In 2022, the refundable portion rose to $1,500. Over 90 percent of families with children benefit from the CTC.[4]

[3] In 2021, the American Rescue Plan Act created a temporary expansion of the CTC, making the credit fully refundable. It also increased the size of the credit to $3,600 for children from birth to age 5 and $3,000 for children ages 6 to 17. For more information see https://taxpolicycenter.org/briefing-book/what-child-tax-credit.

[4] "Tax Benefit of the Child Tax Credit (CTC) Current Law, by Expanded Cash Income Percentile, 2022," table T21-0225, Tax Policy Center Microsimulation Model (version 0721-1), September 2021, https://www.taxpolicycenter.org/model-estimates/tax-benefits-child-tax-credit-september-2021/t21-0225-tax-benefit-child-tax-credit.

FIGURE 2

Child Tax Credit, Single Parent with One Child, 2018



Source: Urban-Brookings Tax Policy Center Calculations.
Notes: Assumes all income comes from earnings, and child meets all tests to be a CTC-qualifying dependent. Refundable amount limited to $1,500 out of maximum $2,000 credit per child. Credit phases out beginning at $400,000 of income for married parents. Only children with social security numbers qualify for the CTC. Noncitizens under age 18 who meet the dependency tests for eligibility can qualify for the other dependent tax credit.

In addition to the refundable and nonrefundable portions of the CTC, there is also a credit for other dependents (ODTC). This credit is worth up to $500 and can only be used to offset taxes owed. Generally, the credit is available to families with dependents who do not qualify for the CTC. Dependents of any age can qualify for the ODTC this includes children aged 17 or 18, full-time college students up to age 24, and children who do not have social security numbers.

Claiming the CTC is less studied than the EITC. Divorced and never married parents may alternate years of claiming a child, regardless of where the child lives the majority of the year. Because the rules for claiming a child are less strict for the CTC than the EITC, there are likely fewer errors in who claims the credit. For example, a child does not have to live with the claiming parent for a given number of months for the parent to claim the child—but only one parent (or other relative) may claim the child each year.

WHY DO EITC AND CTC CREDIT AMOUNTS CHANGE FROM ONE YEAR TO THE NEXT?

EITC

EITC amounts depend on three main characteristics of the tax unit: the number of eligible children, earnings and income, and marital status.[5] EITC amounts increase annually with inflation, so even with no other changes, many families

[5] To a lesser extent, EITC amounts depend on investment income (which cannot exceed about $3,500) and a variety of other qualifying characteristics. For example, married couples must file a joint return to be eligible for the EITC, those who file with the status "married filing separately" are ineligible. The taxpayer and spouse (if applicable) must have SSNs valid for work as do any qualifying children. Taxpayers cannot file for a foreign earned income exclusion. The taxpayer cannot be the qualifying child of another person. Taxpayers without children have additional restrictions. Internal Revenue Service, 2019. *IRS Publication 596, Earned Income Credit (EIC) For use in preparing 2018 Returns.* Washington, DC. Department of the Treasury.

will see their EITC increase from one year to the next. In the years of our study, these changes were modest, causing the maximum credit for a family with one child to grow $102—from $3,359 to $3,461.

If the number of qualifying children in a tax unit changes, a family's EITC will also likely change. The number of eligible children can increase from birth, adoption, or other arrival of a new child. The number of eligible children can decrease if a child moves to another home for more than half the year, turns 17 during the year, becomes the qualifying child of another tax unit in a household with cohabiting parents or multiple generations, or dies. Credit amounts increase for each additional child up to three. Increases beyond three have no effect and decreases above three have no effect. In many cases, a family will be able to predict these changes are coming the next tax year, but not in all cases. Families will not necessarily know how changes in the number of children will affect their benefit. In general, a change in the number of children is the most dramatic effect. In 2018, increasing from no children to one child increases the maximum credit from $519 to $3,461. Increasing from two to three children increases the benefit by a max of $715. There are no further adjustments for children beyond the third.

Earnings change from one year to the next for a variety of reasons. These include changes in wage rates, changes in the number of hours worked, changes in bonus income, changes in jobs, irregular schedules, moving in and out of the labor market. Prior research shows that among low-income families, those with income below twice poverty, almost two-thirds have income that for at least one month of the year will spike above or dip below their average monthly income by at least 25 percent (Maag et al. 2017). Earnings can also change when marital status changes because the tax unit will now include income from both partners in the couple for a newly married couple or only one partner from the couple in the case of a divorce. How the EITC changes with income depends on whether a family has income in the phase-in period of the credit, the range where the credit delivers a flat benefit, or in the phase-out range of the credit (Williams and Maag 2008).

Marital status changes when people marry, divorce, or become widowed. In the case of the EITC, married couples can earn more income before the credit begins to phase out than single people, so changing marital status can change credit amounts—even if income amounts do not change. In particular, a couple may be able to receive the maximum credit rather than have it partially phase down with their additional income or may be able to receive a higher credit amount if they are in the phase-out range of the credit than when they were single.

CTC

CTC amounts depend on the number of children in the family and to a lesser extent, earnings and income amounts. The maximum benefit does not change annually with inflation, but instead is set at $2,000 per child under age 17 until 2025, at which point it will drop to $1,000.

There is no maximum number of children that can benefit. The reasons for child changes in the CTC are the same as for the EITC, but unlike the EITC, only specific changes inform a change in the number of children claimed for the CTC. In the case of the CTC, unmarried parents can designate who will claim the credit. It is not necessary that the child meet a defined residency criteria. In some cases, such as cases in which parents have made an agreement to shift who claims the child annually, the change is predictable for the parents. In other cases, decisions may be made on an annual basis and would not be any easier to predict than child residency.

The CTC phases out at relatively high income levels ($200,000 for single parents, $400,000 for married couples). Low- and moderate-income families may see their credit increase if earnings increase—or they may see their credit decrease if earnings decrease. Unlike the EITC, they are unlikely to experience a credit decrease when earnings increase because of the relatively high point at which the CTC begins phasing out. In 2018, about 2 percent of children received no credit because their parents did not earn enough. Only increases in earnings can change their credit. About 12 percent had earnings too low to be eligible for the full credit—an earnings increase could increase their credit and a decrease could decrease their credit. Over 60 percent of children received the full credit and the vast majority would be unaffected by modest changes in earnings.[6]

The credit begins to phase out at double the income level for married couples as single parents. Changes in marital status may affect the credit amount but are unlikely to be a large factor—except to the extent that parents with low-income marry low- or moderate earners, increasing their tax unit's total income.

DATA AND METHODS

We use the Annual Social and Economic Supplement of the Current Population Survey (CPS-ASEC) to estimate year-over-year eligibility for tax credit. The CPS ASEC collects data on a representative sample of households throughout the year on a monthly basis. Households are in the survey for four consecutive months, are out of the survey for the next eight months, and then return to the survey for another four months before leaving the sample permanently. The design means that some households will be in the survey for two consecutive years in March, the month that income data are collected, which can be used to estimate taxes including refundable tax credits. We use this feature of the survey to follow households with at least one child under age 18 who appear in the survey in two consecutive years. We use the Transfer Income Model, version 3 (TRIM3) to estimate changes in the EITC and CTC from one year to the next.[7] We exclude from our sample households where income was imputed because imputations are not designed to show changes from one year to the next.

Our analysis uses data from 2016 through 2019, which represents income amounts from 2015 through 2018. We pair observations in 2015 and 2016, 2016 and 2017, and 2017 and 2018. We apply 2018 tax law in all years: our calculations were therefore unaffected by the Tax Cuts and Jobs Act's changes to the CTC that went into effect in 2018. A household must have a child in at least one year to be part of our sample. [8]

RESULTS

We compare the EITC and CTC a tax unit appears eligible for in year two with the credit they appear eligible for in year one.[9] All of the families in our analysis have a child in either the first or second year they are observed. For each credit, we group tax units into those with an increase in the credit of at least $500 from year one to year two, those that have a change of less than $500, and those with a credit decrease of at least $500 between the two years. Low-income families are defined as those with income beneath 200 percent of the official poverty measure.

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[6] "Distribution of Tax Units and Qualifying Children by Amount of Child Tax Credit (CTC), 2018," table T17-0228, Tax Policy Center, October 18, 2017, https://www.taxpolicycenter.org/model-estimates/distribution-amount-child-tax-credit-october-2017/t17-0228-distribution-tax-units.

[7] Information presented here is derived in part from the Transfer Income Model, Version 3 (TRIM3) and associated databases. TRIM3 requires users to input assumptions and/or interpretations about economic behavior and the rules governing federal programs. Therefore, the conclusions presented here are attributable only to the authors of this report.

[8] Our data do not allow us to implement the rules that all persons in the tax unit must have a Social Security number (SSN) eligible for work to be eligible for the EITC. Although TRIM3 models SSN requirements, the TRIM3 imputation of whether a person has an SSN is not necessarily consistent in two consecutive years of CPS data and so we do not use those imputations for this analysis. We allow the EITC parameters to adjust with inflation but deliver a maximum CTC benefit of $2,000 per child with up to $1,400 allowed as a refund, consistent with 2018 law.

[9] Because the CPS is a household survey, we cannot track people who move households. We can track changes that happen to a tax unit if the tax unit stays in the same household. For example, if a couple divorces and one partner remains in the household, we can compare the EITC and CTC the partner who stayed in the household qualified for in year 2 with the EITC and CTC the partner was eligible for as part of a couple in year 1. In this way, our estimates likely overstate stability in the tax credits because people moving homes are probably more likely to experience a change in credits than people remaining in the same home.

Earned Income Tax Credit

Not all families are eligible for an EITC in both years. In our data, about 40 percent of families with children receive an EITC in at least one year and 60 percent receive no EITC in both years. We estimate that 16 percent of families experience a drop in their EITC of at least $500, over two-thirds of families (69 percent) have no major change in eligibility, and the remaining 15 percent of families appear eligible for an EITC that is at least $500 larger in year two than in year one (figure 3).

Among low-income families with children, those with income below twice poverty in year one, we observe that 79 percent receive an EITC in at least one year and 21 percent receive no EITC in both years. We estimate that 39 percent of families experience a drop in their EITC of at least $500, 39 percent have no major change in eligibility, and the remaining 22 percent see their credits increase by at least $500.

INCOME CHANGES DRIVE EARNED INCOME TAX CREDIT CHANGES AND LARGE EARNED INCOME TAX CREDIT CHANGES ARE MOST COMMON

If a family's income is in the phase-in range of the credit, a decrease in income results in a year-over-year decrease in the EITC. A sufficiently large decrease in income from the plateau range of the credit can also decrease the credit. Income increases can also have the opposite effect. An increase in income can decrease benefits if a person's income moves into or farther into phase-out range of the credit.

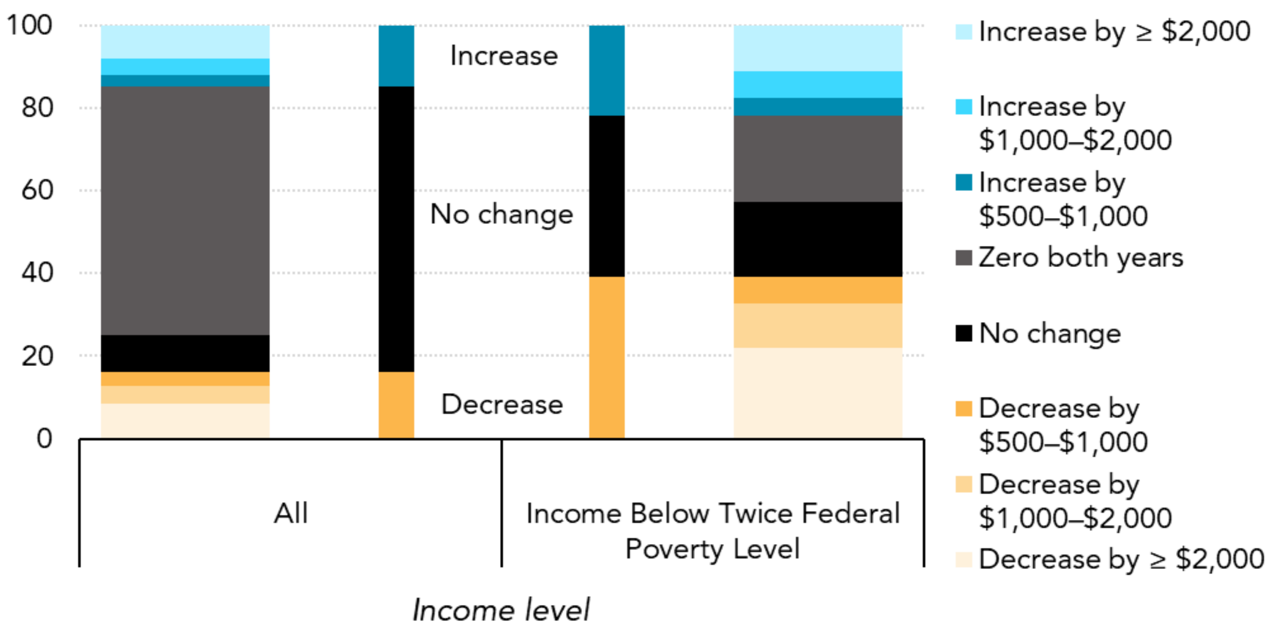
An increase in income can happen because a person works or earns more—but also when couples marry and additional income may become available to the tax unit. We find that over 70 percent of the low-income families that experience a decrease in their EITC experience that decrease because of an increase in earnings (representing 28 percent of all low-income families in our sample).[10] The remaining families that see an EITC drop of at least $500 from one year to the next are split roughly evenly between families where the number of children decreased and families where income decreased and caused the EITC to decrease. Changes in other household characteristics such as marital status not accompanied by changes in income or children affect under 1 percent of low-income families.

[10] Decrease in earnings is defined as a decrease in earnings without a change in the number of children over the same period.

In some cases, drops in the EITC from one year to the next can be dramatic. Among low-income families, about 22 percent see a drop of at least $2,000 and another 11 percent see a drop of between $1,000 and $2,000 (figure 3). Drops of at least $2,000 are caused by income increasing 64 percent of the time, children decreasing 20 percent of the time, and income decreasing 16 percent of the time.

FIGURE 3

Year-to-Year Changes in Earned Income Tax Credit Amounts for Families with Children



Source: Urban Institute TRIM3 model using data from Current Population Survey Outgoing Rotation Groups 2015–18.
Note: Sample includes households with one dependent child under age 18 in either year. No change is defined as a change of less than $500.

About 22 percent of low-income families with children become eligible for a larger EITC in the second year than in the first. Changes in income drive increases in the EITC for these low-income families about 75 percent of the time (9 percent of low-income families see their EITC increase because their income decreased and another 8 percent of low-income families see their EITC increase because their income increased). For 5 percent of low-income families, we observe an EITC increase driven by the number of children in the tax unit increasing. About half of all low-income families with an EITC increase see an increase of more than $2,000. Only a small share of low-income families become newly eligible for an EITC because they have no earnings in the first year we observe them and some earnings in the second year we observe them.

DEMOGRAPHIC VARIATIONS IN EARNED INCOME TAX CREDIT CHANGES AMONG LOW-INCOME HOUSEHOLDS

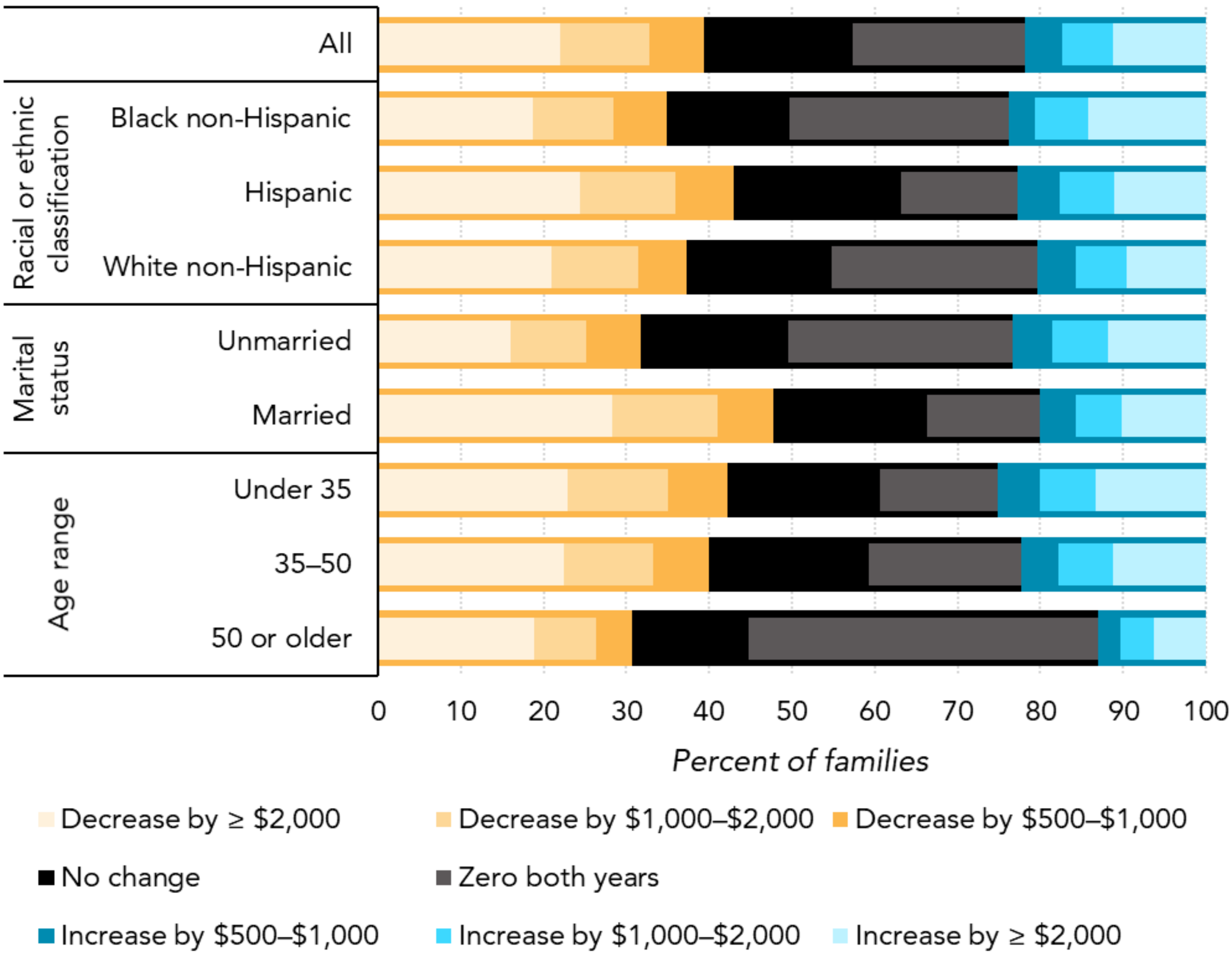
We estimate whether the likelihood of an EITC increase or decrease varies by demographic characteristics for those with income below 200 percent of the federal poverty level in year one (figure 4). About 42 percent of white non-Hispanic and 41 percent of Black non-Hispanic households receive no credit in both years or have no major change in their credit amount from year one to year two Hispanic families were less likely to experience no change in eligibility, about 34 percent. While the share of families, by race and ethnicity, that experienced an increase in the amount of EITC they were eligible for from year one to year two was roughly the same, Hispanic families were more likely to see their EITC drop than white, non-Hispanic or Black, non-Hispanic families.

FIGURE 4

Year-to-Year Changes in Earned Income Tax Credit Amounts

Families with Children and Income Below Twice Federal Poverty Level

By head of household characteristics



Source: Urban Institute TRIM3 model using data from Current Population Survey Outgoing Rotation Groups 2015–18.
Note: Sample includes households with one dependent child under age 18 in either year with incomes below twice federal poverty level in the first year observed. No change is defined as a change of less than $500. Marital status only shown for those with same marital status in both years. Families with maritial status changes excuded due to small sample size.

People who were low-income and unmarried in both years of our sample were more likely to maintain similar EITC eligibility in year two (45 percent) than people who were married (32 percent). This may be because with only one potential earner in the tax unit, there is less opportunity for variation. In a married couple, two people may be exposed to changes in employment. About 32 percent of unmarried adults with low incomes in our sample saw the amount of credit they were eligible for decline by at least $500 in year two and the remaining 23 percent saw their credit amount increase.

Younger adults with low incomes were more likely to see their EITC change from year one to year two than households where they survey respondent was either under 35 or over age 50. While just 33 percent of adults under age 35 and 35 percent of adults ages 35 to 50 experienced no change in credit eligibility, over half of adults in our older group had no major change in credit eligibility. In many cases, it was because older tax filers were more likely to be ineligible for a credit in both years. Most changes in predicted eligibility were greater than $2000.

Child Tax Credit

Over 90 percent of all families with children received a CTC in either year, compared with 82 percent of families with incomes under 200 percent of the federal poverty level. Among families with low incomes that received no CTC, some had no earnings or earnings below $2,500 and others had children aged out of eligibility for the program. Children must be under age 17 to qualify for the CTC. Older limits apply for children to qualify for the EITC. Just over 58 percent of all families with children saw no major change in CTC eligibility for from year to year (a change of less than $500). Forty-nine percent of low-income families with children saw changes of less than $500 from one year to the next. Among those that saw their credits change by at least $500, roughly half saw their credits increase and the other half experienced a credit decrease. Among families with low-incomes, more saw an increase in their CTC from one year to the next than saw a credit decrease.Year-over-year CTC decrease

Just over 21 percent of all families with children and 20 percent of low-income families with children experienced a drop in credit eligibility of at least $500 from year one to year two. A drop in the number of children in the tax unit was associated with 55 percent of CTC decreases, and decreases in children specifically caused by children aging out of eligibility were associated with 37 percent of CTC decreases. Among low-income families, income drops and reductions in the number of children contributed similarly to declines in credit eligibility.

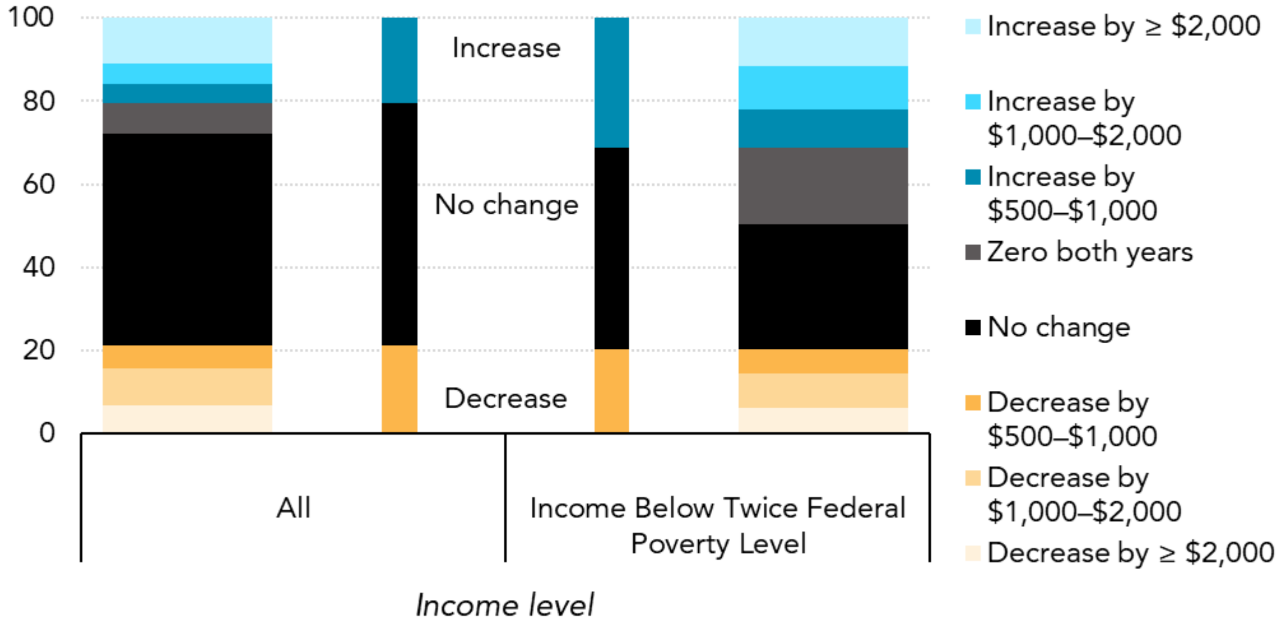
YEAR-OVER-YEAR CTC INCREASE

Among families with children, 21 percent of all families became eligible for a credit of at least $500 higher in the second year and 31 percent of low-income families saw the same. Just under half of credit increases were driven by an increase in the number of qualifying children, and nearly a quarter by an increase in children because of the birth or adoption of a child between years one and two. Among low-income families, credit increases most often stemmed from an increase in income. This allowed families to either move further up the phase-in of the credit or have additional tax liability that could be offset with the nonrefundable portion of the CTC. Among low-income families, a smaller share of CTC increases was attributable to increases in the number of children. For families with incomes too low to qualify for any CTC, an increase in children has no effect on their credit.

Most families whose credit decreased did so by amounts between $1,000 and $2,000. About 9 percent of all families and 8 percent of families with incomes below 200 percent of the federal poverty level in year one fell by this amount (figure 5). For families experiencing a credit increase, the majority (10 percent of all families) had an increase of at least $2,000. This likely indicates a new child joining the tax unit.

FIGURE 5

Year-to-Year Changes in Child Tax Credit Amounts for Families with Children



Source: Urban Institute TRIM3 model using data from Current Population Survey Outgoing Rotation Groups 2015–18.
Note: Sample includes households with one dependent child under age 18 in either year. No change is defined as a change of less than $500.

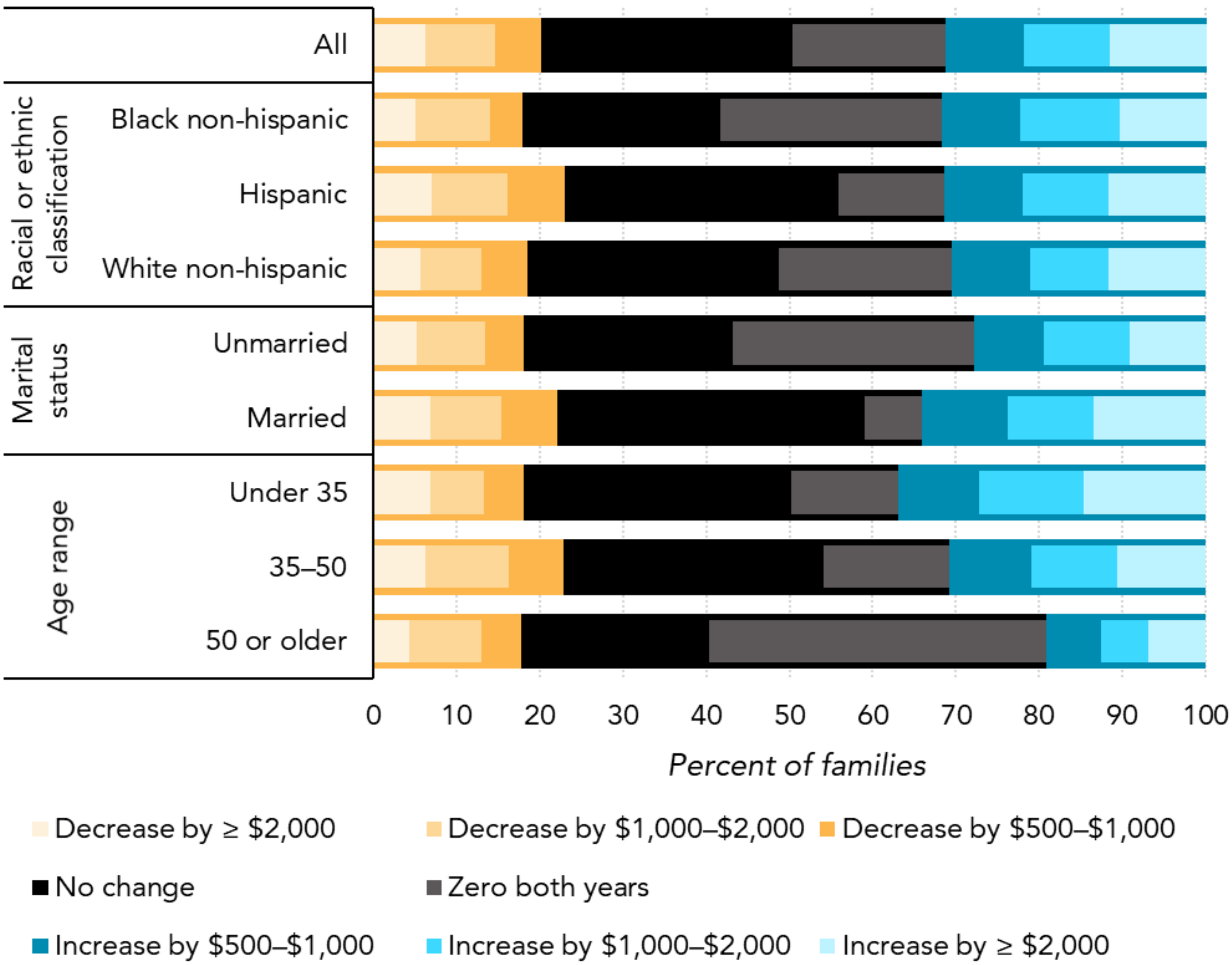
Comparing changes in credit by race and marital status among families with children with income below 200 percent of the federal poverty level, we see few differences. In general, families with income below 200 percent of the federal poverty level are more likely to see their credit increase (31 percent) than decrease (20 percent). We observe greater volatility in credit amounts among families where the parent that responded to the survey was between ages 35 and 50 (figure 6).

FIGURE 6

Year-to-Year Changes in Child Tax Credit Amounts

Families with Children and Income Below Twice Federal Poverty Level

By head of household characteristics



Source: Urban Institute TRIM3 model using data from Current Population Survey Outgoing Rotation Groups 2015–18.
Note: Sample includes households with one dependent child under age 18 in either year with incomes below twice federal poverty level in the first year observed. No change is defined as a change of less than $500. Marital status only shown for those with same marital status in both years. Families with maritial status changes excuded due to small sample size.

DISCUSSION

Refundable tax credits like the EITC and CTC provide substantial support to families with children. Low- and moderate-income families often receive the credits as a single payment at tax time—but there is interest in delivering credit through the year, building on the experience of a temporary expansion of the CTC in 2021. But advancing credits is not without risk if families must pay them back if they end up receiving them errantly.

Our analysis estimates the size of year-over-year changes in the EITC and CTC to better understand how feasible it might be to deliver a tax credit based on information from the prior year's tax return. Importantly, to deliver a credit in advance, it must be based on something. If families, or the IRS, were to use information from a current tax return to predict their next year's credit, our analysis shows how often they are likely to make a prediction within $500. Because credits are based on income, qualifying children (and in the case of the EITC where they reside most of the year), and marital status, families (or the IRS) would need to guess at some factors. No administrative data exist with this information. In prior work, we explored using administrative data to determine eligibility for credits and it was largely insufficient (Pergamit et al. 2014).

We are more concerned with credit changes for low-income families who likely would have more difficulty paying back errantly delivered tax credits than high-income families. Moreover, they are likely to be harmed more by not getting credits advanced, and recent evidence following the monthly delivery of the CTC from July to December 2021 suggests lower-income households are more interested in advanced monthly payments than others (Maag and Karpman 2022).

Among low-income families with children, those with incomes below 200 percent of the federal poverty level, 21 percent received no EITC in either the first or second year we observed them in national data, and 18 percent saw their EITC change by less than $500 from one year to the next. Advanced credits could be designed to not deliver the entire benefit in advance or limit the amount of errantly delivered credit that would need to be repaid—though th would cost the government revenue. We find that 39 percent of low-income families see their EITC drop by at least $500 and 22 percent see their EITC increase by at least $500 from one year to the next. About 28 percent of low-income families saw their EITC drop from one year to the next because their income increased (about 72 percent of all families that saw an EITC drop).

Among low-income families with children, we estimate 18 percent receive no CTC in either year—often because they have no earnings or their children are over age 16, the oldest qualifying age for the credit. Another 30 percent see their CTC change by less than $500. About 20 percent of low-income families see their CTC drop by at least $500 and the remaining 31 percent see their CTC increase by at least $500. The largest groups that see credit changes are related to an increase in earnings. In the case of the CTC, 21 percent of low-income families saw their CTC increase because their earnings increased (about two-thirds of the low-income families that saw their CTC increase from one year to the next).

Families also see credits change because the number of children in the tax unit change or their marital status changes. These changes are less common than income changes but still affect a significant group of people. We estimate that 6 percent of all low-income families experienced a CTC increase because the number of children in the tax unit increased and almost 8 percent saw their CTC decrease because the number of children in the tax unit decreased. About 10 percent of EITC changed because the number of children in the household changed—divided evenly by EITC increases and decreases. Families that change from one year to the next (through marriage, divorce, or change in the number of children) are likely to see credit changes of at least $2,000.

Tax credits increasing and decreasing year over year introduces a source of income volatility among low-income families that in some cases can be positive—family income jumps more than expected because tax credits are higher than expected. In other cases, it can present a negative shock as tax credits drop. Analysis shows that these changes are often a surprise to families (Anderson et al. 2021).

IMPLICATIONS OF VOLATILITY

Not all income volatility is experienced in the same way by families—and some is more predictable than others. When income increases, which often happens at tax time when tax refunds are delivered, families have new opportunities present. Families might invest in items such as a used car or child care than can help with increasing employment or might invest in a relatively large purchase like a refrigerator. Evidence also suggests that families are more likely to go to the doctor following receipt of a tax refund (Hamad 2019) and families with older children are more likely to enroll in school (Manoli 2018). If credits are advanced throughout the year, presumably refunds would be smaller—but it also might be the case that refunds could disappear altogether or families could unexpectedly owe taxes if too much credit is delivered in advance.

When changes in tax credits are foreseeable because children are aging out of eligibility, the IRS, tax preparers, and community organizations can work to educate taxpayers about coming changes. In some cases, families will know they are likely to add another child either through birth or adoption. Other times, changes can be more difficult to predict, and it's unlikely that families could be warned appropriately. It may be the case that custody of a child changes abruptly and who lives together can also change. The IRS would only know about these changes if families or third-party assistants were able to apprise the IRS of the changes, in which case credits that were being advanced could be stopped or started, as appropriate. In the recent experience with the IRS portal for the expanded CTC, few families updated information through the portal (GAO 2022).

Decreases in the credits are more concerning because that could put families in the vulnerable position of needing to repay the IRS. In many cases, income swings that appear to be driving a lot of the year-over-year changes we observe would not be predictable, absent new reporting requirements. And, as with family changes, only if the IRS were notified quickly could advance payments be stopped to limit a family's potential liability.

CONCLUSION

Refundable tax credits provide an important source of income for families with low incomes. Determining who can claim a child can be complicated by family structure and living arrangements. As the share of married couples with only biological children declines and the share of children in shared custody arrangements rises, filing a tax return can become more complex. Families must determine what tax unit a child should be properly assigned to—and how that decision is made can have a dramatic impact on who will benefit from the EITC and CTC. Importantly, the determination is made on an annual basis and only one family can get a tax benefit for a given child—even when multiple families share custody of a child. Changes in the number of children that a family can claim, income, and marital status (which can itself affect income) can all drive large credit changes from one year to the next.

Most families experience year-over-year changes in their EITC or CTC of less than $500. When calculating the EITC, this often happens because families are eligible for no credit in either year one or year two. Among low-income families, those with income below twice poverty, 39 percent have a change of less than $500 in their EITC, and about half have a change of less than $500 in their CTC. A virtually identical share of families with no change in marital status or number of children have a change of less than $500 in their EITC and 56 percent of these families have a change of less than $500 in their CTC.

Among low-income families with children about 40 percent see their EITC decrease by more than $500 and 19 percent see their CTC decrease by more than $500. Most often, when families experience a drop in their EITC, it is because their earnings increase. In some cases, this is because a single parent marries, bringing a new source of income into the tax unit. Conversely, a decrease in earnings is the most common reason for an increase in the EITC (families are moving from beyond the phase-out or in the phase-out range to the maximum credit range), which shows how the credit can mitigate a loss in income in some cases. When a low-income family's CTC increases, it often does so because of an increase in income rather than a change in the number of children in the tax unit. This is because low-income families have their credit limited by their earnings not being enough to access more credit—but very few will see an earnings increase large enough to result in the credit beginning to phase out.

Helping families understand how credits are calculated might help them predict when a credit will increase or decrease. This is important because it could help families understand the financial position they will be in at tax time the following year. Understanding how credits change from year to year can also help policy makers design credits that can be advanced without putting families at risk. For example, policy makers can design provisions that protect a certain amount of credit from being clawed back at tax time if too much credit has been delivered in advance.

Our research suggests that protecting about $500 of each advanced credit would protect most families from needing to repay credits at tax time. These protections would cover a smaller share of low-income families, especially with respect to the EITC, which suggests that further measures are needed protect low-income families in particular. Otherwise, advancing a credit based on last year's tax return could result in a disruptive tax bill. While steps might be available to mediate changes in credit stemming from changes in income (depending on how soon they were reported), family changes present additional challenges.

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