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What Is the Value of the Child and Dependent Care Credit?

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ABSTRACT

The Child and Dependent Car Credit (CDCC) subsidizes child care costs for working families. In response to the Covid-19 pandemic, the American Rescue Plan Act of 2021 increased the CDCC's generosity during 2021 only. I find that while the CDCC is of relatively little value in its current form, increases in eligibility rates and conditional benefits under the pandemic expansion increased the credit's value dramatically. Conditional on CDCC eligibility, higher-income households experienced the largest increases in benefit levels under the expanded CDCC, but lower-income households benefited disproportionately when measuring benefits as a share of income or child care spending.

JEL Classification Codes: H24, J13

Key Words: Child and Dependent Care Credit, child care, American Rescue Plan Act of 2021, eligibility benefits

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What Is the Value of the Child and Dependent Care Credit?

By GABRIELLE PEPIN*

Child care in the United States is expensive, with median prices for one child ranging from 9–16 percent of median family income (Poyatzis and Livingston 2024). High child care costs may lead parents to exit the labor force, jeopardizing their long-term earnings trajectories (Angelov, Johansson and Lindahl 2016, Kleven, Landais and Søgaard 2019, Kleven et al. 2019, Kleven, Landais and Leite-Mariante forthcoming), or to place their children in less expensive, lower-quality child care arrangements that could hinder human capital development (Cunha and Heckman 2007, Havnes and Mogstad 2011, Cornelissen et al. 2018).

Currently, the Child and Dependent Care Credit (CDCC) subsidizes child care costs for working families. The federal CDCC, a nonrefundable tax credit based on income and child care expenses, is available to households with children younger than 13 in which all parents have positive annual earnings. In previous work, I find that CDCC benefits increase paid child care use, suggesting that the credit assists at least some working parents in paying for care (Pepin accepted). Nonetheless, the CDCC is not particularly generous, does not keep pace with inflation, and fails to reach low-income families who do not have positive tax liability after deductions.

In light of an increased need for child care during the Covid-19 pandemic, the American Rescue Plan Act of 2021 (ARPA) expanded the CDCC and made it fully refundable during 2021 only. This increased the maximum annual benefit for most families with two or more children from $1,200 to $8,000 and allowed low-income families to receive a tax refund. In this paper, I estimate CDCC eligibility and benefits among families with young children from 2009–2023, giving particular attention to changes that occurred under the ARPA expansion.

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I. Institutional Details

The CDCC can help to defray child care expenditures for working parents. In every year since 2003 except 2021, households have been able to claim up to $3,000 worth of work-related care expenses per year for each of up to two qualifying individuals. Qualifying individuals include children younger than 13, as well as spouses and other dependents who are "incapable of self-care." Households may claim almost any out-of-pocket care expenses for the credit, with the exception of care provided by a noncustodial parent. After listing those expenses, along with their earnings and the child care provider's tax identification or Social Security number, on their tax forms, households can receive a tax credit worth up to 35 percent of expenditures. However, if any parent's earnings are less than child care expenditures, the CDCC is calculated as a percent of that parent's earnings, rather than their child care spending.

While the CDCC benefit schedule implies that, in theory, taxpayers may receive up to $2,100 in benefits, this does not happen in practice. Taxpayers with less than $15,000 in adjusted gross income (AGI), who face the maximum 35 percent benefit rate, do not have positive tax liability after taking the standard deduction and, therefore, do not benefit. Among taxpayers with more than $15,000 in AGI, the benefit rate decreases until it remains at 20 percent for those with $43,000 or more in AGI, who can receive up to $600 per child.

The red line in Figure 1 displays maximum effective CDCC benefits for households with two or more children as of 2020, by federal AGI.[1] The figure shows that because the CDCC is nonrefundable, taxpayers' incomes must exceed the

[1] Among low-income households, I assume that all income comes from earnings. Results are similar for low-income taxpayers with unearned income, though benefits are less generous. Additionally, at low-income levels where benefits are a function of earnings, I display maximum benefits for single households. Results are similar for married households, though benefits are less generous.

tax filing threshold of about $19,000 to be eligible for benefits. For taxpayers with incomes above this threshold, benefits increase with income before reaching a peak of about $1,500 at about $34,000 in AGI. As expected, those with $43,000 or more in AGI receive up to $1,200. The blue line shows that taxpayers with one child face a less generous but otherwise similar CDCC benefit schedule.

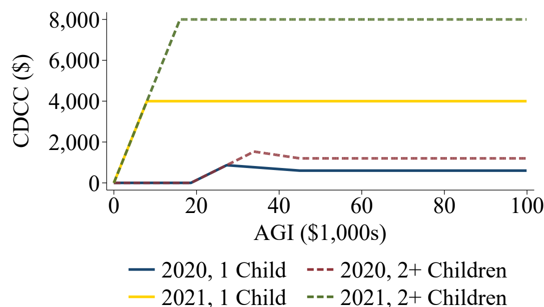

FIGURE 1. MAXIMUM CDCC BENEFITS

Notes: Maximum effective federal CDCC benefits for households with one or two or more qualifying individuals after accounting for income tax liability, by federal AGI as of 2020 and 2021.
Source: Author's calculations using federal tax forms and TAXSIM.

The green and yellow lines in Figure 1 document how ARPA—which made the CDCC refundable, increased the maximum qualifying expenditure amount to $8,000 per child, and increased the benefit rate to 50 percent of qualifying expenditures—affected benefits during 2021. As expected, low-income taxpayers become eligible for benefits, which phase in at low income levels, where they are a function of earnings. Benefits then hold steady at $8,000 for taxpayers with two or more children and $16,000 or more in AGI and at $4,000 for taxpayers with one child and $8,000 or more in AGI. Under the expansion, taxpayers with $125,000 or more in AGI (not shown in Figure 1) faced lower benefit rates, and the credit phased out completely among taxpayers with more than $400,000 in AGI.

The CDCC is one aspect of a patchwork of supports available to families with child care expenses. In addition to the CDCC, this patchwork includes free or subsidized child care services via Child Care and Development Fund subsidies, Head Start, and Early Head Start and dependent care flexible spending accounts (FSA). Child care subsidies and Head Start and Early Head Start serve low-income families, but access is limited. For example, in some states, there are more eligible applicants for subsidies than available funds can reach, and, as of 2023, 14 percent of Head Start classrooms were closed due to staffing shortages (National Head Start Association 2023, Schulman 2024). Additionally, child care subsidies often do not fully cover families' care expenses.

Turning to programs that are not means-tested, the CDCC and dependent care FSA directly subsidize families' out-of-pocket child care expenditures. Employees whose employers offer FSAs may set aside up to $5,000 of earnings before taxes for child care. The employer deducts this income from employees' paychecks, but employees receive reimbursement for care spending. As the FSA has not been updated since 1986, its benefits remain limited. Less than half of civilian workers have access to an account, and maximum annual benefits sum to only $1,200 for households with up to $100,000 in AGI.[2] While taxpayers may receive benefits from both dependent care FSAs and the CDCC, they may not double count expenses across the two programs.

II. CDCC Eligibility and Benefits across the Income Distribution over Time

I use data from the 2010–2024 Current Population Survey Annual Social and Economic Supplements (CPS ASEC) to estimate CDCC eligibility rates and benefits among households with children younger than six years old. The CPS ASEC is an annual, state-representative survey that captures demographics, prior year income, and prior year work-related child care expenditures for nearly 100,000 households.[3] I use the CPS ASEC data, along with the National Bureau of Economic Research's TAXSIM pro-

[2]Bureau of Labor Sttistics, Employee Benefits in the United States, March 2024, https://www.bls.gov/ebs/publications/employee-benefits-in-the-united-states-march-2024.htm.

[3]Regarding child care spending, each reference person living with a child younger than 15 years old is asked, "Did (you/anyone in this household) PAY for the care of (you/their) (child/children) while they worked last year? (Include preschool and nursery school; exclude kindergarten or grade/elementary schoool)?"

gram, to simulate households' CDCC benefits as of the previous calendar year.[4] In doing so, I assume that taxpayers tax-minimize and claim all child care expenditures for the CDCC. This may lead to overestimates of eligibility and benefits if households claim child care expenditures under dependent care FSAs or are reluctant to report payments made to child care providers "under the table" on their federal tax forms. I therefore estimate upper bounds on these measures but note that, as the CDCC increases in value, the relative benefits of tax evasion behavior and FSAs decrease.

Figure 2 displays CDCC eligibility rates by income quintile from 2009–2023. The figure shows that, for all years in the analysis period, eligibility rates increase with income, with economically significant differences across income quintiles. Specifically, in years outside of 2021, 0–3 percent of the lowest-income households are eligible for the CDCC, while 43–49 percent of the highest-income households are eligible for the credit. In the appendix, I show that higher-income households are more likely to meet all three of the CDCC's eligibility requirements: They are more likely to have child care expenditures, all parents working, and positive tax liability after deductions and other tax credits.

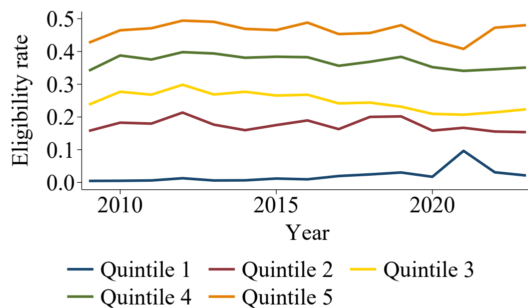

FIGURE 2. CDCC ELIGIBILITY RATES BY AGI QUINTILE

Notes: CDCC eligibility rates among households with children younger than six years old from 2009–2023, by AGI quintile. *Source:* Author's calculations using 2010–2024 CPS ASEC with household weights and TAXSIM.

As expected, Figure 2 implies that the ARPA expansion, which made the CDCC refundable during 2021 only, increases the lowest income quintile's eligibility rate by eight percentage points to 10 percent. The policy change also is associated with a dip in the highest-income quintile's eligibility rate, as four percent of households in Quintile 5 have incomes that exceed the 2021 credit's limit. Eligibility rates in the other income quintiles hold relatively steady during 2021.

In the appendix, I find that, across all years, eligibility rates are highest among demographic groups with relatively high average incomes, including married, white, and college-educated households. In general, eligibility gaps across demographic groups with different average incomes shrink—but do not close completely—when the CDCC becomes refundable. For example, the pre-pandemic 6.9-percentage-point gap between married and single households' eligibility decreases to 2.4 percentage points during 2021.

Next, I turn to estimating households' CDCC benefits, conditional on eligibility. Figure 3 displays CDCC benefits (2023 dollars) for eligible households by income quintile over time. As with eligibility rates, benefits tend to increase with income, and average benefits are substantially lower among households in the lowest income quintile, whose nonrefundable benefits are limited by their tax liability. In particular, the figure shows that benefits average less than $200 in the lowest income quintile and more than $900 in the highest income quintile before the pandemic. Increases in child care spending as income increases, which I document in the appendix, drive differences in benefits across the top four income quintiles.

Results shown in Figure 3 imply that the ARPA expansion leads to dramatic increases in CDCC benefit levels for all income groups. However, changes in benefit levels are regressive, as the expansion exacerbates differences in benefits across the income distribution. Higher-income quintiles experience larger average benefit increases, with the exception of the top quintile, which includes households with incomes at which benefits phase out. Specifically, the figure shows that, relative to 2019, average benefits increase by about $1,100 so that they sum to about $1,300 in Quintile 1 and increase by about $2,700 to reach about $3,500 in Quintile 4.

[4] Details regarding the simulation procedure can be found in the appendix.

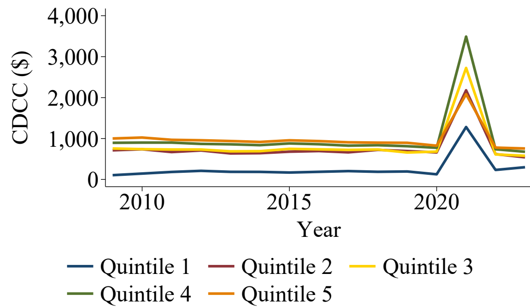

FIGURE 3. CONDITIONAL CDCC BENEFITS BY AGI QUINTILE

Notes: Average CDCC benefits among eligible households with children younger than six years old from 2009–2023, by AGI quintile, in 2023 dollars.
Source: Author's calculations using 2010–2024 CPS ASEC with household weights and TAXSIM.

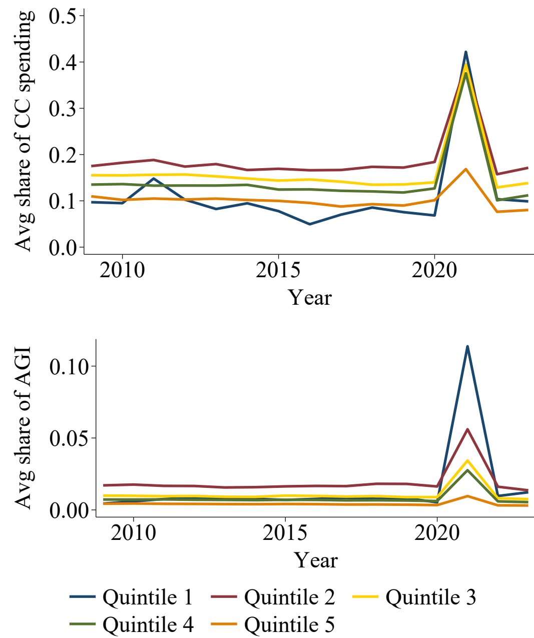

FIGURE 4. ALTERNATIVE MEASURES OF CDCC BENEFIT GENEROSITY BY AGI QUINTILE

Notes: Alternative measures of CDCC benefit generosity among eligible households with children younger than six years old from 2009–2023, by AGI quintile. Top panel: CDCC benefits as a share of work-related child care expenditures on average. Bottom panel: CDCC benefits as a share of AGI on average.
Source: Author's calculations using 2010–2024 CPS ASEC with household weights and TAXSIM.

III. Equity in the Value of Conditional CDCC Benefits

Relatively low conditional benefit amounts among low-income households under both the current and expanded CDCC may be discouraging for policymakers who would prefer equity—or even progressivity—in benefit levels across the income distribution. While this is a valid concern, another way to assess the value of the CDCC is to examine the degree to which it reduces families' child-care-related financial strain. In this section, I estimate alternative measures of CDCC generosity—namely, benefits as a share of child care spending and AGI.

I document the extent to which the CDCC covers eligible households' child care expenditures in the top panel of Figure 4. The figure shows that, in most years, the CDCC offsets the smallest share of child care expenditures for households in the lowest income quintile, where average benefits as a share of spending hover around nine percent. For the other four quintiles, benefits as a share of income decrease as income—and child care spending—increase. Pre-pandemic benefits as a share of income are therefore greatest in Quintile 2, where they cover 17 percent of child care expenditures on average.

Results displayed in the top panel of Figure 4 indicate that, consistent with the increases in benefit levels documented in Section II, ARPA generates large increases in benefits as a share of child care spending. Impacts on spending shares are much more progressive than impacts on benefit levels, as the expanded CDCC comprises remarkably similar portions of child care expenditures across the bottom four income quintiles. Specifically, it comprises around 40 percent of child care spending in Quintiles 1–4 and 17 percent of spending in Quintile 5. Hence, in addition to making the CDCC a much more valuable tax benefit, ARPA minimizes differences in benefits as a share of spending across all but the highest-income households, who benefit less from the policy change.

The bottom panel of Figure 4 displays CDCC benefits as a share of households' AGI. Across all income quintiles and years outside of 2021, the CDCC comprises less than two percent of AGI on average. Under ARPA, benefits constitute a much larger share of AGI, with lower-income quintiles experiencing the largest changes. I find that the 2021 CDCC comprises 11 percent of AGI in Quintile 1, six percent in

Quintile 2, three percent in Quintiles 3 and 4, and one percent in Quintile 5.

IV. Discussion

Child care is notoriously expensive in the United States, and supports to defray families' costs remain limited. In this paper, I examine the value of one such support—the CDCC, an income tax credit intended to help working families pay for child care. I find that, in its current form, the CDCC's value is relatively low, especially for low-income households who do not tend to benefit from a nonrefundable tax program. However, I find that a temporary expansion of the credit during the Covid-19 pandemic increased its value dramatically through large increases in eligibility rates and conditional benefits. Conditional on CDCC eligibility, higher-income households experienced the largest increases in benefit levels under the expanded credit, but lower-income households benefited disproportionately when measuring benefits as a share of income or child care spending.

Evidence points to a tension between CDCC generosity and equity in conditional benefit levels across the income distribution. By increasing the maximum qualifying expenditure amount to $8,000 per child, the ARPA expansion generated relatively large benefit increases among households spending the most on child care, who tend to have higher incomes. In theory, increasing the progressivity of the benefit schedule would increase equity in benefit amounts. However, even if households in the lowest-income quintile had faced CDCC benefit rates as high as 100 percent of qualifying expenditures during 2021, their average benefits would have fallen short of those in the top three quintiles. Moreover, differences in eligibility rates will continue to persist under a more progressive benefit schedule unless low-income households' work and child care spending decisions are very responsive to changes in CDCC policy.

Despite challenges in achieving equity in terms of CDCC benefit levels, results suggest that increasing the credit's value would reduce the financial strain that child care expenses place on all working parents and low-income parents especially. As I find that the 2021 CDCC covered around 40 percent of child care spending for all but the highest-income households, increasing the credit's generosity on a permanent basis would help to fill large gaps in the meager patchwork of supports available to families with young children in need of care.

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