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EMPLOYMENT RESEARCH

Tax Credits for Child Care Increase Take-up and May Help More Mothers Work

Gabrielle Pepin

ARTICLE HIGHLIGHTS

- *The Child and Dependent Care Credit reduces child care costs for working families.*
- *About 20 percent of households with children younger than 13 years old qualify for benefits.*
- *A 20 percent increase in benefits increases paid child care use by about 10 percent.*
- *Increases in generosity also increase work participation among married mothers.*
- *CDCC benefits may help mothers remain in the labor force around childbirth.*

ALSO IN THIS ISSUE

Child care in the United States is expensive. According to a 2018 Care.com survey of 1,300 U.S. parents, 33 percent of families with kids spent at least 20 percent of their incomes on child care. Child care costs matter because high costs may push parents to leave the labor force or to place their children in low-quality child care arrangements. In light of this, many U.S. policymakers have advocated measures to reduce child care costs.

Currently, the Child and Dependent Care Credit (CDCC), a tax credit based on income and child care expenditures, subsidizes child care costs for working families. The federal CDCC is available to households with children younger than 13 years old in which all parents have positive annual earnings and are working or looking for work. While many families meet these criteria, the federal CDCC is nonrefundable, so only families with positive tax liability after other deductions can benefit. Nonetheless, several states offer their own refundable CDCCs that can mitigate child care costs for lower-income families.

In 2003, the Economic Growth and Tax Reconciliation Act expanded the CDCC and led to large increases in both state and federal CDCC expenditures. To understand who benefited from the CDCC before and after its expansion, I document CDCC eligibility and expenditures over time and across income and demographic groups. I find that around the time of the expansion, about 20 percent of households qualified for CDCC benefits and that the majority of federal expenditures were allocated toward low- and middle-income taxpayers. I then estimate the effects of benefit increases on paid child care participation and parent employment outcomes. I find that among households with eligible dependents, a 20 percent increase in CDCC benefits—an additional $150 on average for those receiving benefits at baseline, which is around the typical increase within that group—raises annual paid child care participation by 2 percentage points, or about 10 percent. I also find that CDCC benefits increase work and earnings among married mothers. In particular, evidence suggests that CDCC benefits help married mothers remain in the labor force around childbirth, which may subsequently lead to increases in their lifetime earnings.

If the federal CDCC were made refundable, an additional 4 percent of single mothers, 2 percent of single fathers, and 2 percent of married households would qualify for benefits.

How Does the CDCC Work?

Congress implemented the federal CDCC in 1976 and expanded it in 1981. To receive CDCC benefits, working households with children younger than 13 years old claim child care expenses on their tax forms and receive tax credits worth a fraction of those expenses that depends on their income. For two-parent households, if either parent's earnings are less than child care expenditures, then the CDCC is based off of the lesser-earning parent. Eligible child care spending includes care provided by anyone outside the household, excepting a noncustodial parent. In claiming the credit, households must list their earnings, child care expenses, and child care

providers' tax identification or Social Security numbers on federal income tax Form 2441. Benefits decrease taxes due at tax filing time the following year.

The value of the CDCC, however, was not indexed to inflation, and its real value decreased substantially over time until the Economic Growth and Tax Reconciliation Act expanded the federal credit in 2003. Beginning that year, households could claim up to $3,000 of child care expenditures per child for up to two children. Such households technically could receive benefits worth up to 35 percent of those expenses, or $1,050 per child, if their adjusted gross income (AGI) did not exceed $15,000. As income rises, however, the credit fraction falls, reaching only 20 percent, or $600, for those with $43,000 or more in AGI.

Because benefits are tied to work, increases in CDCC generosity should increase employment, as larger benefit amounts drive parents to enter the labor force.

Who Benefits from the CDCC?

In practice, the nonrefundability of the federal CDCC—the credit cannot exceed taxable income—generates a difference between statutory benefits and those that low-income households actually receive. Very-low-income households have little, if any, tax liability after other deductions. In Figure 1, I use tax filing thresholds—AGI levels at which households begin to have positive tax liability—to show that, consequently, households with children must have incomes of between $13,000 and $16,000 to be eligible for federal CDCC benefits, both before and after the federal expansion.

Before the reform, effective CDCC benefits for households with one eligible child peak at just over $600, when AGI reaches approximately $19,000; benefits then fall to about $480 for households with $30,000 or more in income. After the federal expansion, benefits instead peak at about $940 for households with $22,500 in income, and then fall to $600 for households with $43,000 or more in income. Households with two or more eligible children receive more generous credits but otherwise face similar increases and decreases with income.

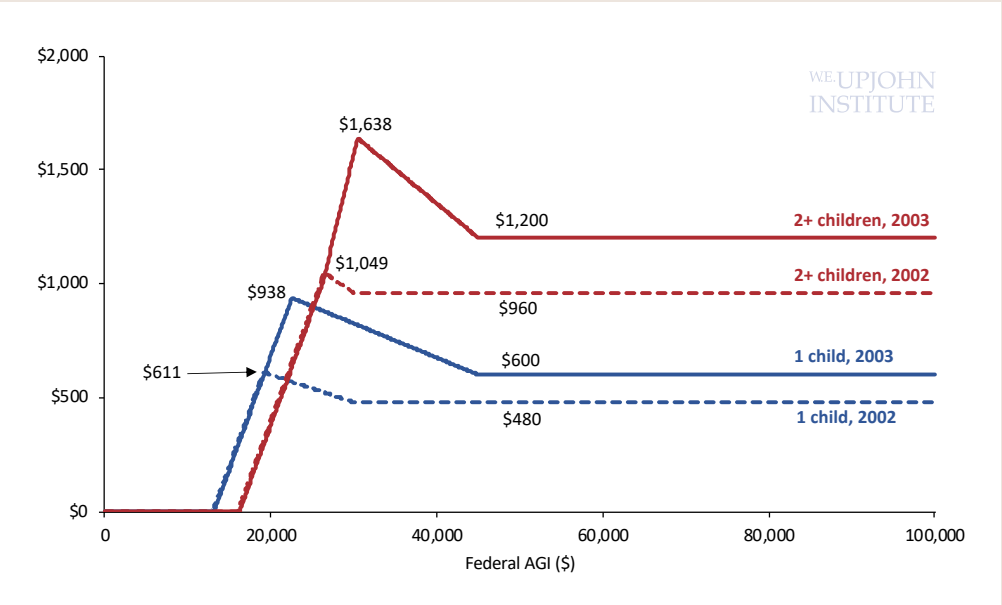
Using data from the March Current Population Survey (CPS), which has demographic and income data for U.S. families, and the Survey of Income and Program Participation, which has child care expenditure data, I find that 21 percent of single mothers, 22 percent of single fathers, and 21 percent of married-parent households qualified for CDCC benefits, after accounting for nonrefundability, right before the reform. (In the absence of other changes, an additional 4 percent of single mothers, 2 percent of single fathers, and 2 percent of married households would have qualified for benefits if the federal CDCC were refundable.)

The left panel of Figure 2 shows that the likelihood of CDCC eligibility generally rises with income, as high-income households are more likely both to pay for child care services and to have positive tax liability after other deductions. Less than 4 percent of households with AGI under $15,000 are eligible for CDCC benefits, both before and after the federal CDCC expansion. Conversely, nearly 30 percent of households with AGI between $100,000 and $200,000 are eligible for the CDCC.

The right panel of Figure 2 uses data from the Internal Revenue Service to show that low- and middle-income households received the majority of federal CDCC benefits in the early 2000s; households with federal AGI between $25,000 and $50,000 received over 30 percent of benefits both before and after the federal expansion. Very-low- and very-high-income households combined received less than 4 percent of benefits.

In addition, households in about half of states in 2002 could receive

Figure 1 Maximum Effective Federal CDCC Benefits by Federal Adjusted Gross Income



NOTE: The figure shows expected federal CDCC benefits for households with one (blue line), or two or more (red line), eligible children, as a function of adjusted gross income (AGI) before and after the federal CDCC expansion in 2003.
SOURCE: Author's calculations from federal tax forms.

additional CDCC benefits through state supplements to the federal credit. These state benefits are either a share of the household's federal benefits or based on the child care expenses used to calculate them, and some are refundable. Because of these linkages, the 2003 federal CDCC expansion increased benefits differentially across states, as well as across family sizes.

Impacts on Paid Child Care Participation and Employment Outcomes

Because the CDCC decreases child care costs, increases in its generosity should increase child care spending. Because the benefits are tied to work, generosity increases should also increase employment, as larger benefit amounts drive parents to enter the labor force. Estimating these causal relationships can be tricky, however, especially if households change their behavior in response to changes in the CDCC. For example, increases in CDCC generosity may cause households to start paying for child care services and thus newly qualify for benefits. Hence, it becomes a challenge to estimate effects because benefits change simultaneously with paid child care participation and other outcomes.

To overcome these issues, I create a "simulated" measure of CDCC generosity that is based on average benefits for household groups defined by year and state of residence, as well as household characteristics such as marital status, number and age of children, and educational attainment. These simulated averages capture the tax policy change but smooth over individual household decisions that could affect eligibility.

Using data from the March CPS, I find that a 20 percent increase in CDCC benefits increases annual paid child care participation by about 2 percentage points among households with children younger than 13. Among single mothers, who are less likely to qualify for the nonrefundable federal credit and are more likely to work before the federal expansion, I do not find statistically significant impacts on employment or earnings. Among married women, however, a 20 percent increase in CDCC benefits leads, on average, to a 1 percent increase in annual employment, a 1.6 percent increase in hours worked per week, and a 10 percent increase in annual earnings, although these average responses likely reflect little change for some mothers and even larger increases for others. Still, these effects suggest that, at least to some extent, increases in work among married mothers help drive increases in paid child care use.

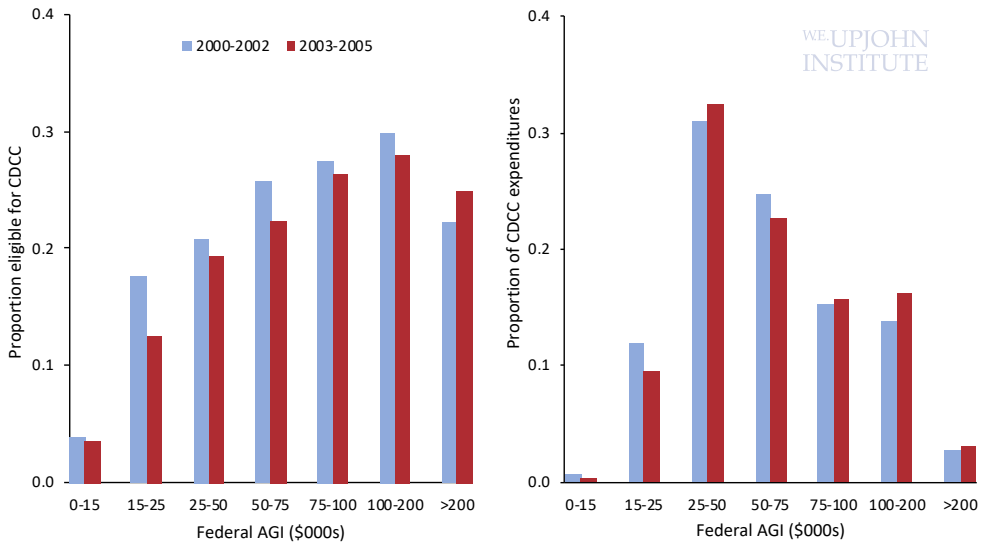
Since child care is perhaps most critical to families with very young children, I also examine workforce outcomes among families with children younger than two. For these families, a 20 percent increase in CDCC benefits increases maternal employment by 4 percent, a much larger increase than for families with only older children. This implies that CDCC generosity may help mothers remain in the labor force around childbirth, which could increase their earnings in the long run.

Policy Implications

Upticks in the use of paid child care as benefit generosity increases indicate that the CDCC helps working parents pay for child care. Nevertheless, making the federal CDCC refundable would increase eligibility and benefits among the lowest-income working parents, who largely do not benefit from the current credit. In particular, likelihood of eligibility among single mothers

Increases in the use of paid child care indicate that the CDCC helps working parents pay for child care.

Figure 2 CDCC Eligibility and Expenditures by Federal Adjusted Gross Income



NOTE: Left panel: Proportion of households with children presumed eligible for CDCC benefits, by adjusted gross income (AGI), in 2000–2002 and 2003–2005. Right panel: Proportion of federal CDCC benefits, by AGI of households, from 2000–2002 and 2003–2005.
SOURCE: Left panel: Author's calculations from March CPS and SIPP data. Right panel: Author's calculations from IRS Statistics of Income data.

would increase by 19 percent if the federal credit were made refundable. If low-income parents, who often have low work participation rates, were to enter the labor force to receive benefits, refundability of the credit could even further expand eligibility.

Moreover, substantial earnings responses to increases in CDCC generosity among married mothers, who tend to have incomes high enough to qualify for the existing (nonrefundable) credit, suggest that expanding CDCC generosity could have high returns even for those with higher incomes. Effects of CDCC benefits on earnings may be even larger amid the COVID-19 pandemic, which has led to school closures and increased child care costs for many families. By tying benefits to work, the CDCC may help keep parents in the workforce and reduce need for currently overburdened safety net programs.

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Impacts of the COVID-19 Pandemic and the CARES Act on Earnings and Inequality

Guido Matias Cortes and Eliza C. Forsythe

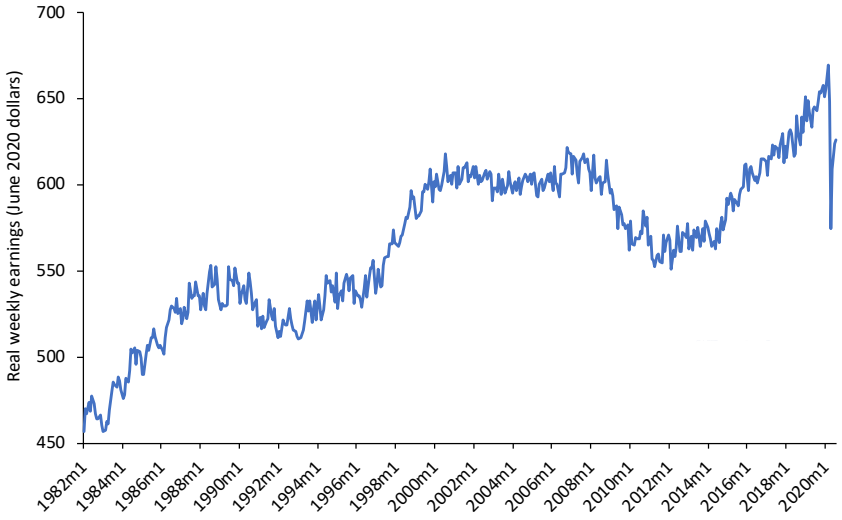
The COVID-19 pandemic has had dramatic effects on the U.S. labor market, with millions of workers losing their jobs, and millions more experiencing changes in their working conditions. In this article we analyze the labor income losses induced by the pandemic, with a focus on how impacts have varied throughout the earnings distribution. We also assess the extent to which the Coronavirus Aid, Relief, and Economic Security (CARES) Act was able to mitigate these patterns.

We show that the pandemic led to a loss of aggregate real labor earnings of more than $250 billion between March and July 2020. This decline was entirely driven by job losses, which were substantially higher among low earners, leading to a dramatic increase in labor income inequality. However, we estimate that unemployment insurance benefits from traditional programs and the CARES Act exceeded total earnings losses by $9 billion. Workers who were previously in the bottom third of the earnings distribution received 49 percent of these benefits, reversing the increase in labor income inequality.

How Did the Pandemic Impact Labor Earnings?

Using data from the Current Population Survey (CPS), the official source of labor market statistics in the United States, and implementing a

Figure 1 Evolution of Real Weekly Earnings per Adult



NOTE: Based on CPS data on usual earnings in the current job, converted to June 2020 dollars.
SOURCE: Authors' calculations using CPS data.

regression approach in order to isolate the impact of the pandemic from seasonal and annual patterns, we find that weekly labor earnings per adult fell by nearly $100 between February and April, with only a partial recovery thereafter. This essentially erased all of the increase in per capita earnings that had been experienced over the previous eight years. We estimate that this corresponds to $254 billion in lost aggregate earnings.

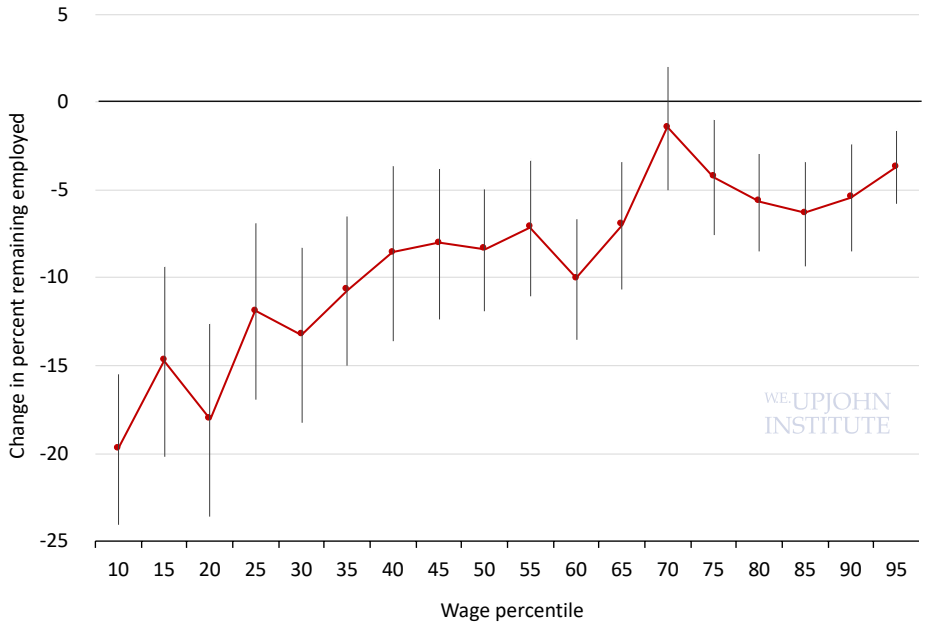
The CPS survey allows us to follow workers over time, making it possible to determine whether earnings losses were experienced by workers who remained employed, or whether they were solely driven by individuals who lost their jobs. Interestingly, we find that workers who remain employed did not experience any atypical labor earnings changes during the pandemic. This implies that the earnings losses associated with the pandemic are concentrated among individuals who lost their jobs—and hence all their labor incomes—while others who kept their jobs do not appear to have had their earnings affected.

Importantly, these job losses were not evenly distributed throughout the earnings distribution. Job loss probabilities were more than four times as large for individuals who were in the bottom decile of the earnings distribution before the pandemic, compared to individuals in the top decile. This means that the average worker from the bottom decile of the distribution lost nearly 40 percent of their earnings during the pandemic. Even within this low-earnings group, we find that those who were able to remain employed did not experience any atypical earnings changes; the earnings losses were entirely concentrated among individuals who lost their complete labor incomes due to job loss.

What Role Did Public Policy Play?

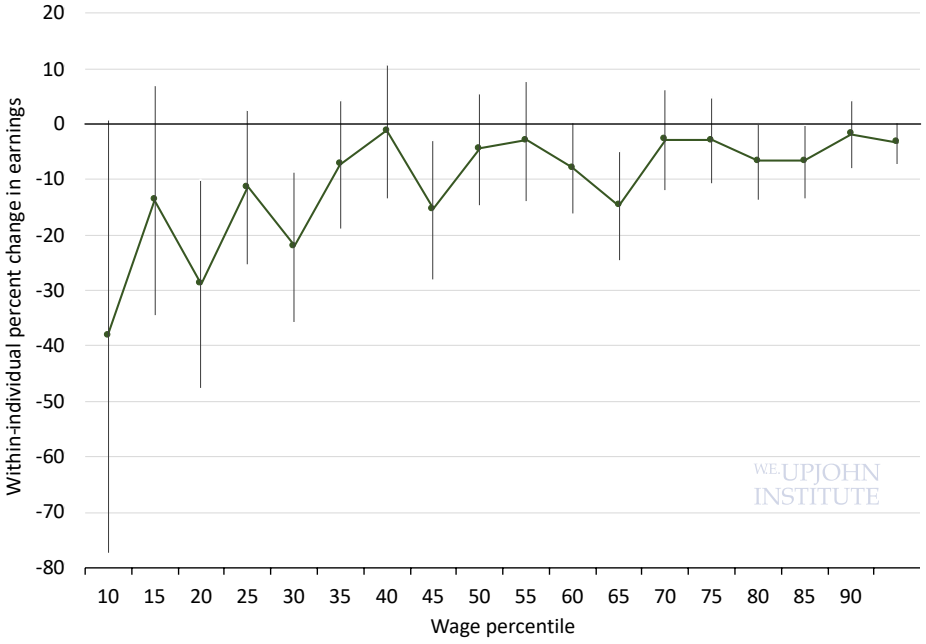
The fact that the pandemic had such devastating effects on the employment

Figure 2 Impact of the Pandemic on Probability of Remaining Employed, by Wage Percentile



NOTE: The figure plots the estimated coefficients and 95% confidence intervals for the impact of the pandemic on the probability of being employed throughout the earnings distribution, using individual-level data on year-on-year changes from January 2015 to July 2020.
SOURCE: Authors' calculations using CPS data.

Figure 3 Impact of the Pandemic on Labor Earnings (% change)



NOTE: The figure plots the estimated coefficients and 95% confidence intervals for the impact of the pandemic on the percent change in year-over-year real weekly labor earnings throughout the earnings distribution, using individual-level data on year-on-year changes from January 2015 to July 2020.
SOURCE: Authors' calculations using CPS data.

outcomes of low earners is of great concern, given that these individuals were unlikely to be able to support themselves through savings after experiencing job loss. The role of public policy through the provision of unemployment benefits therefore proved crucial during the pandemic. In addition to standard unemployment insurance (UI) policies, the CARES Act, which was signed into law on March 27, 2020, expanded UI access to millions of Americans who are typically ineligible to receive benefits—including those with insufficient earnings to qualify and those who are self-employed—while also providing all UI beneficiaries an additional $600 per week for a limited period of time.

The pandemic led to a loss of aggregate real labor earnings of more than $250 billion between March and July 2020.

Although the CPS data do not provide direct information on whether an individual is claiming UI, we can use individuals' employment histories to infer their likely eligibility status. We also benchmark our estimates to Department of Labor data on the total number of paid claims in order to adjust our estimates for underclaiming and/or delays in payments.

We find that although the expansion of UI benefits in the CARES Act was roughly intended to replace 100 percent of workers' predisplacement earnings, in practice it gave a majority of displaced workers more in benefits than they would have earned from work. The additional amount of $600 was chosen to replace 60 percent of the weekly earnings of the median worker—roughly $1,000. This supplementary payment would thus bring the total earnings replacement from standard UI (about $400) to 100 percent of the worker's previous earnings. However, because job losses were greater among lower-wage workers, the median weekly earnings of the displaced were only $519. This meant that the $600 replaced well over 60 percent of wages for most UI recipients; in fact, total UI benefits *exceeded* previous earnings for 80 percent of displaced workers.

The combination of the inequality in job loss and the flat $600 benefit made the CARES Act an extremely progressive program. Without standard UI or the CARES Act provisions, workers initially in the bottom one-third of the income distribution—as a whole, regardless of whether they lost their jobs—would have experienced an average decline in their weekly earnings growth rate of more than 15 percentage points. Instead, the greater benefits *increased* earnings growth for these individuals by 20 percentage points or more. This is illustrated in Figure 4.

Although this estimated percentage point increase in earnings growth is large, because of the low predisplacement earnings of this group, it translates into an average increase of less than $100 per week. Previous research has also found that low-income individuals and those who had lost work were the groups most likely to spend their $1,200 stimulus checks (Baker et al. 2020), and the same likely applies to additional UI benefits. These additional CARES Act payments thus were very likely to have been spent and helped stimulate the economy. Overall, we calculate that total benefits paid exceeded total lost wage earnings by around $9 billion, with workers in the bottom one-third of the earnings distribution receiving 49 percent of total UI payments (standard plus CARES Act enhancements). Therefore, the program was effective at targeting transfers to individuals who needed it most, while also providing extra stimulus to the economy.

While the expanded UI benefits under the CARES Act were successful in replacing income and increasing consumption for recipients, we nonetheless estimate that around

Figure 4 Changes in Combined Earnings and Unemployment Insurance Payments during the Pandemic Period

NOTE: The figure plots the estimated coefficients and 95% confidence intervals for the impact of the pandemic on the percent change in the total of earnings and estimated UI payments throughout the earnings distribution, using individual-level data on year-on-year percentage changes from January 2015 to July 2020.
SOURCE: Authors' calculations using CPS data.

5 percent of individuals eligible to receive benefits did not actually receive them. Furthermore, about 30 percent of individuals who lost employment during the pandemic do not meet our screen for UI eligibility—generally because they did not report sufficient predisplacement earnings. These workers are much more likely to be low-earning, and hence most in need for stimulus payments.

Policy Implications

The enhanced unemployment benefits authorized by the CARES Act ended on July 31, even though employment remains far below its prepandemic level. Workers who remain unemployed have experienced a significant reduction in benefits. Given that these individuals disproportionately worked in low-paying jobs before the onset of the pandemic, few are likely to have access to savings or other sources of income to weather a period of sustained lower earnings. Although there have been concerns that the enhanced benefits provided by the CARES Act may have discouraged recipients from seeking work, so far there has been little evidence (see Bartik et al. [2020] and Dube [2020]). Reinstating enhanced benefits along the lines of those provided by the CARES Act would not only be beneficial in terms of mitigating the asymmetric effects of the pandemic and the associated increase in inequality and potential impacts on poverty, it would also add stimulus that would promote aggregate demand and help speed the recovery.

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