

The Child Tax Credit, Labor Supply, and Poverty

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In the [paper](#), “The Anti-Poverty, Targeting, and Labor Supply Effects of the Proposed Child Tax Credit Expansion,” hereafter, Corinth et al. (2021), we examine the effects of proposed changes to the Child Tax Credit (CTC) on labor supply and poverty. We find that the Build Back Better Act changes would have negative consequences. By eliminating the strong work incentives in the previous CTC, we estimate that the proposal would reduce employment by approximately 1.5 million workers, which would diminish the proposal’s effect on child poverty and eliminate its effect on deep child poverty altogether. Even without accounting for the reduction in work, the expansion would be less targeted to those in the bottom decile of annual income and have less poverty reduction per dollar spent on families with children than most other anti-poverty programs.

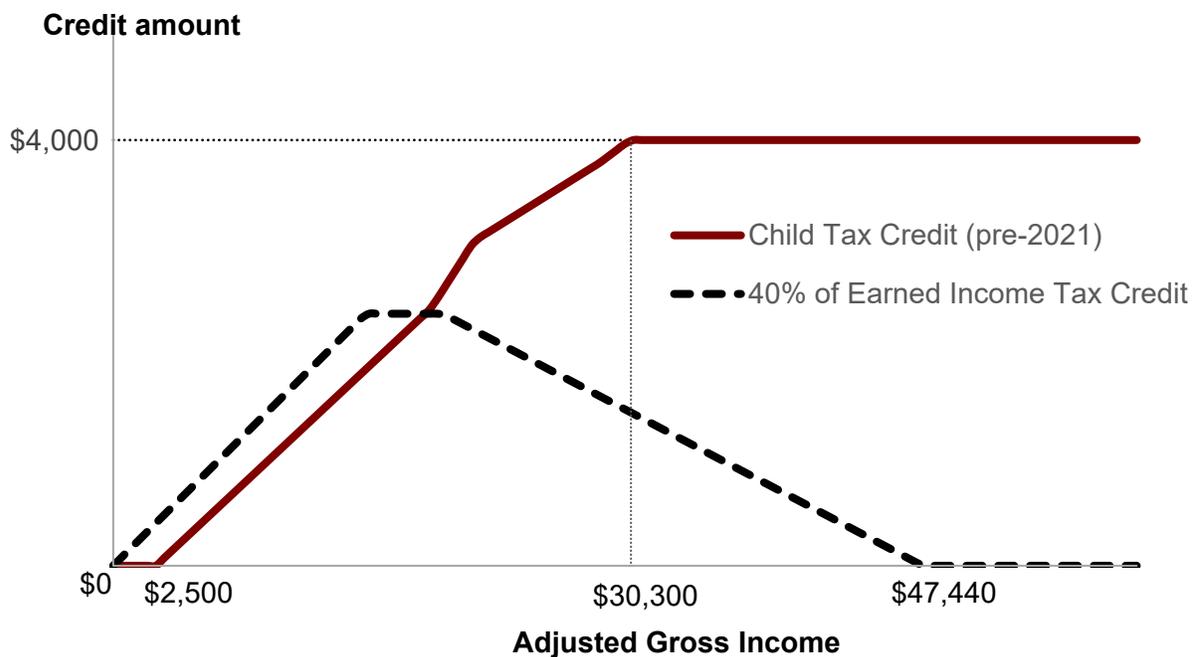
Much of the positive evidence for these CTC changes is based on a [report](#) from a National Academies of Sciences, Engineering, and Medicine (NASEM) Committee which simulated the effects of a child allowance similar to what is proposed under the Build Back Better Act (NASEM 2019). In Corinth et al. (2021) we note that the NASEM Committee made an important omission. Specifically, it left out the consequences for employment and poverty of eliminating the prior tax law CTC, which had a strong work incentive. The leadership of NASEM responded to our research by flatly stating that our paper does not “suggest that the estimates in [the NASEM Committee report] are in error”.¹ Subsequently, some of the authors have implicitly acknowledged the omission, but said that it was intended because they believe any employment effects are small (Kessler 2021; Hoynes and Moffitt 2021; Hoynes et al. 2021). These same authors have [contended](#) that they “cannot imagine ever being persuaded of employment effects in the Corinth-Meyer range” (Hoynes and Moffitt 2021). They point to a recent [paper](#) (Goldin, Maag, and Michelmore

¹ “The committee analyzed this body of research and found that an expansion of a program similar in structure to the American Rescue Plan’s child tax credit would have little effect on employment.”...“However, a single working paper does not change the conclusions drawn from a large body of published literature, nor suggest that the estimates in *A Roadmap to Reducing Child Poverty* are in error” (NASEM 2021).

2021b) that estimates employment effects several times as big as the NASEM Committee estimates, but less than half as big as our estimates.

In this note we show that when simulating the effects of the Earned Income Tax Credit (EITC), the NASEM Committee assumed a responsiveness to work incentives that implies an employment effect of the proposed CTC changes in the range we find in our paper. Specifically, the NASEM Committee devoted a full section to simulating the effects of a 40% increase in EITC benefits, which they estimated would increase employment by almost 800,000 single mothers. Figure 1 compares a 40% increase in EITC benefits (dashed black line) to the CTC in effect through 2020 (maroon line) for a single parent with two children. Since the CTC benefit level is similar to or much higher than 40% of the EITC at any given earnings level, its effect on participation in employment must be similar or higher regardless of how much an individual would earn when working. Thus, on the face of it this figure shows that NASEM cannot be right that the elimination of the 2020 law CTC would do little to decrease employment, unless they believe their EITC simulations are in error.

Figure 1. Child Tax Credit, and 40% of the Earned Income Tax Credit by Adjusted Gross Income Using Tax Cuts and Jobs Act Rules, Single Parent with Two Children Under Age 17



Notes: Child Tax Credit (CTC) and Earned Income Tax Credit (EITC) parameters are based on Tax Cuts and Jobs Act rules as of 2020 (all dollar values expressed in 2020 nominal terms). See Corinth et al. (2021) for details.

We calculate in Table 1 the employment reduction the NASEM Committee would have found for the Build Back Better CTC if it applied the same employment response it used to model a 40% increase in the EITC. Of the four values used in our calculation of the employment reduction, three are taken directly from the NASEM Committee’s report, and the other value we estimate from public use data. The first term, 0.056, is the estimated percentage point increase in the single mother employment rate when the return to work increases by \$1,000 in 2013 dollars (NASEM 2019, p. 413). We multiply this effect by the mean decrease in the return to work (in thousands of 2013 dollars) among working single mothers due to the CTC expansion, \$2.048, which we estimate using the public use 2019 CPS ASEC (see the appendix for the data and code used to generate this estimate).² Note that this dollar amount is just the height of the subsidy in Figure 1, averaged across incomes and family sizes. The product of these first two terms represents the percentage point decrease in the employment rate among single mothers due to the decrease in the return to work from the CTC expansion. We multiply this product by the NASEM Committee’s reported 10.14 million single mothers who are non-disabled, are not enrolled in school, and have a child under age 18 (NASEM 2019, p. 488). Finally, we add the 0.15 million workers the NASEM Committee estimates would exit the workforce due to the income effect from the proposed CTC changes (NASEM 2019, p. 550). Altogether, applying the Committee’s parameter and population estimates implies that at least 1.31 million workers would exit the workforce due to the proposed CTC changes, even if we assume no employment response due to weakened work incentives for single fathers or married parents.

This lower bound employment effect of 1.31 million implied by the NASEM Committee methods when recognizing the change in work incentives of the proposed CTC changes is only modestly lower than the 1.46 million estimate in our paper, and it would be higher once a reasonable employment response from single fathers and married couples is included. This result is consistent with our analysis that the employment participation elasticities we apply in our paper are similar to or more conservative than those found in the academic literature (Corinth and Meyer 2021). Thus, contrary to the contentions of members of the NASEM Committee, their own methods—when applied consistently—lead to an employment loss as large as we estimate.

² It is not clear whether the NASEM Committee in their EITC expansion simulation restricted their sample to EITC recipient single mothers to calculate the mean increase in the return to work. When we restrict the sample to working single mothers who receive the EITC, the mean decrease in the return to work due to eliminating the pre-2021 CTC is \$1.987 (in thousands of dollars). The total number of parents exiting the workforce implied by the NASEM assumptions would then fall slightly to 1.28 million.

Table 1. Millions of parents exiting workforce due to Build Back Better Act Child Tax Credit, lower bound estimate implied by NASEM Committee report

Value	Definition	Source
0.056	Percentage point increase in employment per \$1,000 increase in return to work	NASEM (2019, p. 413)
×		
2.048	Mean decrease in return to work among single mothers due to CTC expansion, in thousands \$	Our estimate
×		
10.14	Millions of single mothers who are non-disabled, not enrolled in school and have child under 18	NASEM (2019, p. 488)
+		
0.15	Millions of parents exiting workforce due to income effect	NASEM (2019, p. 550)

1.31 Millions of parents exiting workforce

Source: NASEM (2019); 2019 Current Population Survey; Bureau of Labor Statistics; Authors' calculations

Notes: With the exception of the mean decrease in return to work and the 1.31 million lower bound employment loss estimate, all values are taken directly from NASEM (2019) on the indicated page number. The mean decrease in return to work is calculated from the public use 2019 Current Population Survey Annual Social and Economic Supplement: See appendix for the brief description of our calculation. Dollar values are expressed in 2013 dollars for consistency with NASEM (2019).

The other criticisms of our paper from the NASEM authors are that our paper has not been refereed yet, and that another (unrefereed) working [paper](#) (Goldin, Maag, and Michelmore 2021b) finds smaller effects than ours. Based on one paper on married couples, that paper obtains its lower estimates by assuming elasticities for single mothers one-fifteenth or smaller than estimates generally found in surveys of the effects of tax credits for single mothers.³ Thus, the responsiveness to taxes assumed in their paper is not representative of that found in the literature and not consistent with the single mother population examined.

³ The conference [version](#) of that same paper from a month earlier indicated that an appropriate range of elasticities would be mostly higher than those we chose (Goldin, Maag, and Michelmore 2021a, p.7).

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Appendix

This appendix describes our calculation of the mean decrease in the return to work for working single mothers (and EITC recipient working single mothers) from the elimination of the TCJA CTC.⁴ We downloaded the relevant variables from the 2019 CPS ASEC from IPUMS-CPS (Flood et al. 2020), and we calculated the mean CTC amount (refundable and non-refundable) received by each working single mother with at least one child under the age of 18. We converted this 2018 dollar value into 2013 dollars based on the Chained-Consumer Price Index for all Urban Consumers. The STATA code is reproduced below.

***Read in relevant variables from 2019 CPS ASEC**

```
use <DATASET NAME>, clear
```

***Recode non-refundable CTC and refundable CTC and calculate total CTC**

```
recode ctccrd (999999=0), gen(ctc_non)
recode actccrd (99999=0), gen(ctc_ref)
gen ctc = ctc_non + ctc_ref
```

***Adjust to 2013 dollars using C-CPI-U. Source: <https://fred.stlouisfed.org/series/SUUR0000SA0>**

```
replace ctc = ctc * 132.137 / 140.239
```

***Mean CTC for all working single mothers**

```
sum ctc if sex==2 & marst!=1 & workly==2 & yngch>=0 & yngch<18 [aweight=asecwt]
```

***Mean CTC for all working single mothers receiving EITC**

```
sum ctc if sex==2 & eitcred>0 & eitcred<9999 & marst!=1 & workly==2 & yngch>=0 & yngch<18 [aweight=asecwt]
```

⁴ In order to make our calculation as simple and transparent as possible, we adopt a simplified methodology that assumes the decrease in the return to work is equal to the pre-2021 CTC itself. In rare cases, a working single mother could have enough unearned income that would allow her to claim the pre-2021 CTC even if she stopped working, and thus, her decrease in the return to work could be smaller than her full pre-2021 CTC benefit.