

# The Short-Term Labor Supply Response to the Extended Child Tax Credit

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NBER Corporate Associates Research Symposium  
June 2023

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  - Should people receive these transfers? Is it fair if others pay higher taxes? Who should be working?
- Key empirical inputs: anti-poverty impacts of such policies, long-run impacts on recipients, and labor supply responses

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- Policy argument for work requirements: reduces resources unnecessarily spent, reduces welfare "dependency"
- Policy argument against work requirements: adds unnecessary barriers to accessing necessary aid, with no effect on work, captured by employers
- Tax/Transfer Design Question:
  - How much transferred when not working
  - Should there be a “phase-in” (i.e. wage subsidy)
  - Should benefits be paid monthly or once-a-year



# Our Study

- In 2021, Congress temporarily changed the Child Tax Credit (CTC) from being "phased-in" (requiring work for benefits) to being fully refundable (can be claimed even if zero income)
- Our research question: Did the expanded Child Tax Credit reduce labor supply?
- We compare labor market outcomes for families who qualify larger and smaller CTC transfers, before and after the policy
- We do not find significant labor supply changes in response to the size of the CTC
- Neither at the introduction of CTC payments, nor upon their expiration

# Background:

## Child Tax Credit

## Child Tax Credit - Est. 1997

- Originally a tax credit for children under 17
- Value increased from \$500, to \$1,000, to \$2,000 per child in the 2017
- Over time, became partially refundable, up to 15% of income, currently up to \$1,400 per child
- Typically need to earn above a minimum amount to receive refundable portion
  - Early on, minimum as high as \$10,000
  - Decreased to \$2,500 at the time of TCJA
  - Phases out well above \$200K (\$400K if married)
- \$118B in 2019 ( $\approx$  Medicaid and Children's Health Insurance Program)
- Current version of CTC is defined by the Tax Cut and Jobs Act of 2017 (TCJA)

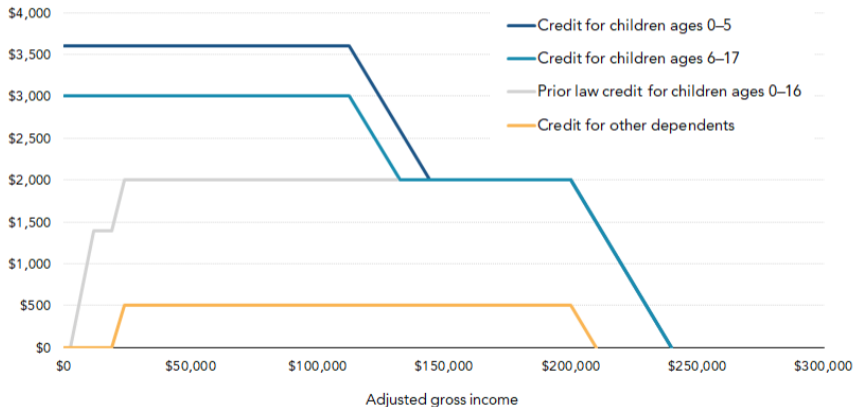
## Child Tax Credit - Extended in 2001

- In 2021, the credit became fully refundable, temporarily as a result of the American Rescue Plan (ARP)
- Increased for lowest incomes to between \$3,000 and \$3,600 per child
- Advanced payments sent out monthly, starting in July 2021, and ending in December 2021
- Critical detail: families with no earnings eligible for the maximum amount, and level of credit invariant to earnings over an initial range (i.e. no phase-in)
- Can think of this as an unconditional cash transfer to children

# CTC Design: TCJA vs ARP

FIGURE 1

Child Tax Credit, Single Parent  
For one child, tax year 2021



# CTC Incentives

- Factors potentially leading to lower labor supply
  - Increase of benefit size (negative income effect)
  - Replaces phase-in and benefit increase from entering labor force with a more neutral benefit level until phase-out (negative substitution effect)
  - For credit-constrained households, any disincentive effect will occur in each month, since they do not have to wait until tax season to get payment
- Countervailing force: credit-constrained HHs may use additional benefit to overcome cost barriers that prevent work (i.e. child care costs, transport costs)
- Could extend job search during unemployment, but also result in higher quality job match

## Prior Literature

- Similar data and design to [Ananat et al. \(2021, 2022\)](#). We bolster with additional statistical tests, and study expiration of CTC expansion
- Most other studies similarly fail to find significant labor supply responses ([Roll et al., 2022](#); [Lourie et al., 2022](#); [Karpman et al., 2022](#); [Pilkauskas et al., 2022](#)), though one finds slower employment growth among low education HHs ([Han et al., 2022](#))
- Related literature estimates the effects of making the fully-refundable CTC permanent, with emp. effects ranging from 150k-1.5M ([National Academies of Sciences, Engineering, and Medicine, 2019](#); [Brill et al., 2021](#); [Goldin et al., 2022](#); [Bastian, 2022](#); [Corinth et al., 2022](#))
  - By contrast, we estimate the response to a temporary extension
  - These studies simulate the response to hypothetical changes, while we look at realized outcomes

# Data and Method



# Data Source

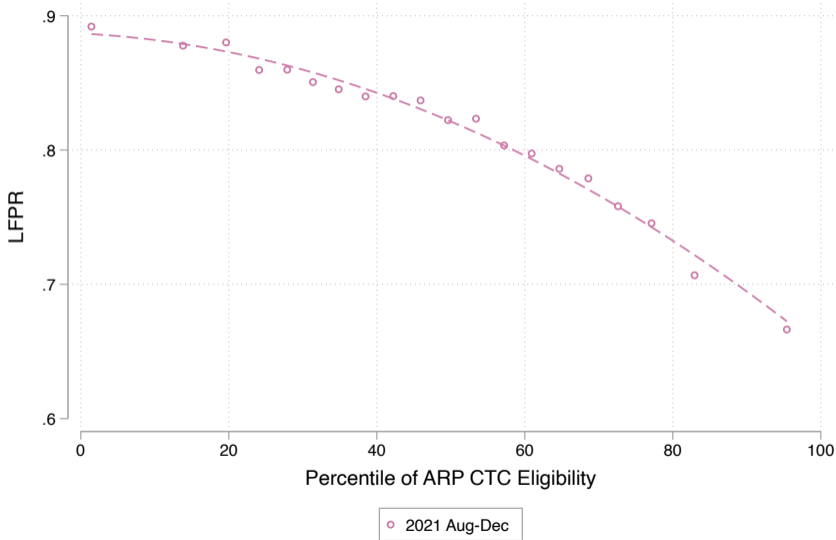
- Current Population Survey (CPS): monthly data, which captures labor force participation, employment, hours last week, and a categorical variable for family income over the past 12 months
- Group families by percentile of CTC/Income ratio, only keep parents
- Main outcome of interest: Labor force participation rate (LFPR): whether someone is either employed or unemployed, but actively looking for work

# Triple Difference Regression

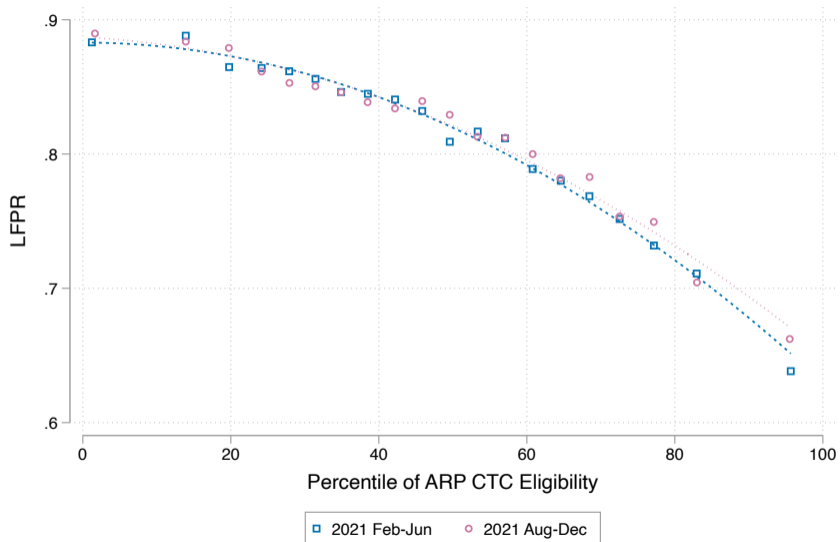
- Compare LFPR on two dimensions:
  - Before (Feb-Jun 2021) and after (Aug-Dec 2021) the implementation of the expanded CTC benefit
  - Households with larger and smaller CTC-to-income ratios
- We get a causal effect of CTC on labor supply under assumption that, but for the CTC, households who qualify for larger or smaller amounts would have had similar trends in LFPR
- To probe this assumption, we look at trends in LFPR between these groups prior to any CTC extension: run a similar analysis in 2019, to rule out “seasonal confounders” such as higher employment during Christmas season among low-income HHs
- We also look for any changes between these groups when the CTC expires at the beginning of 2022, which gives us a second test for labor supply effects

# Results

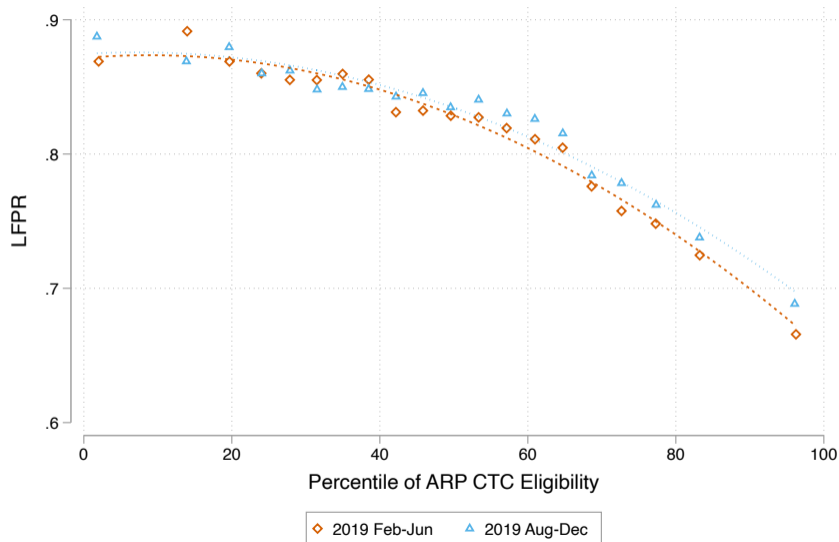
# LFPR and CTC: Aug to Dec, 2021



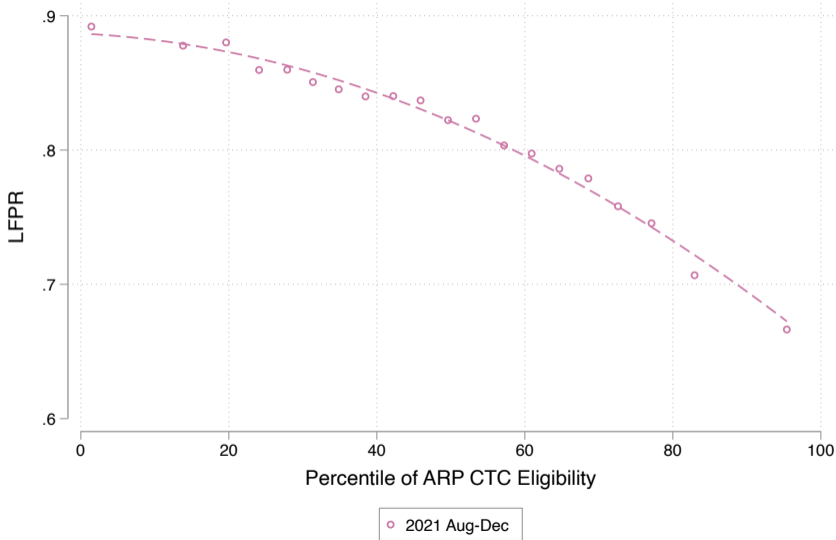
## LFPR and CTC: Feb to Jun vs. Aug to Dec, 2021



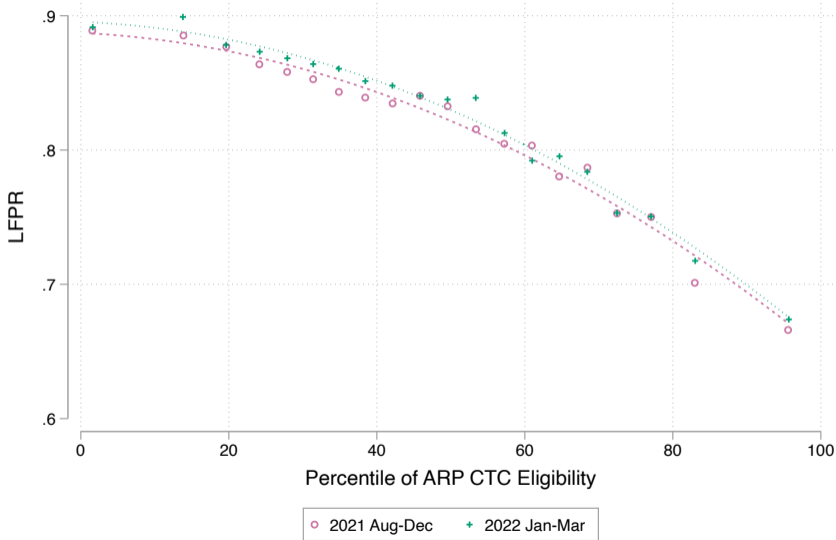
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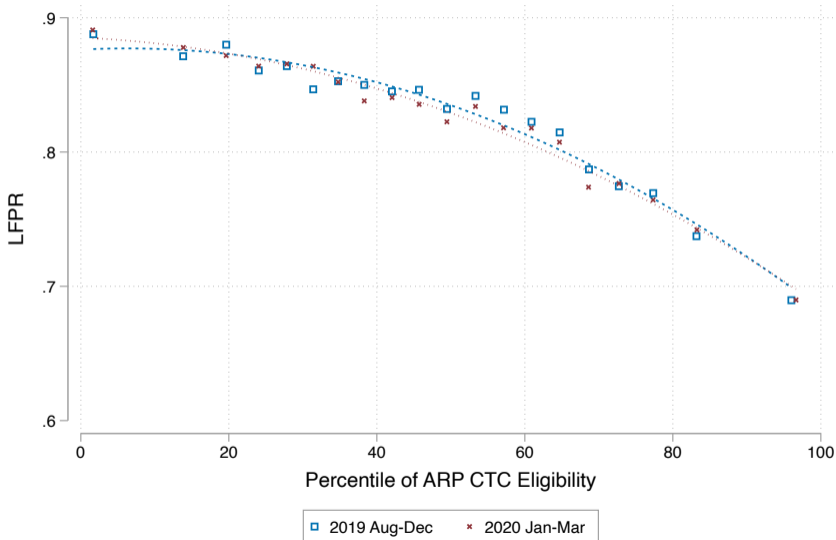


# LFPR and CTC: Aug to Dec, 2021 vs. Jan to Mar 2022

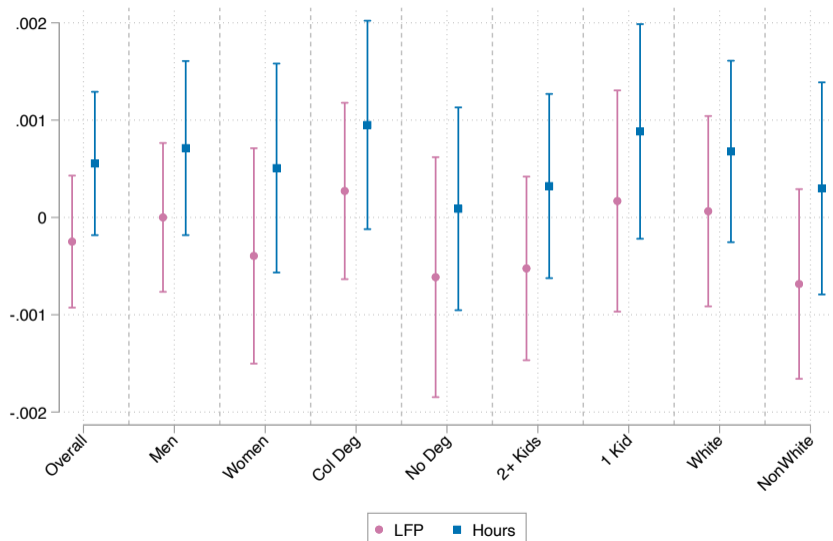




# LFPR and CTC: Aug to Dec, 2019 vs. Jan to Mar 2020



## LFPR and CTC: Heterogeneity



# Conclusion

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- Ongoing debate regarding work requirements:
  - EITC vs. Guaranteed Income
  - Additional work requirements for SNAP recipients after debt ceiling bill
  - Fully-refundable CTC
- We fail to detect any significant changes in labor force participation at the onset or expiration of the extended CTC in 2021
  - Caveat: we only look at short-run effects of a temporary policy
- Other results not shown:
  - Small increase in employment
  - Small decrease in unemployment