Earned Income Tax Credit and the Black-White Earnings Gap

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Difficult to find settings in which potentially large income shocks affect populations quasi-randomly.

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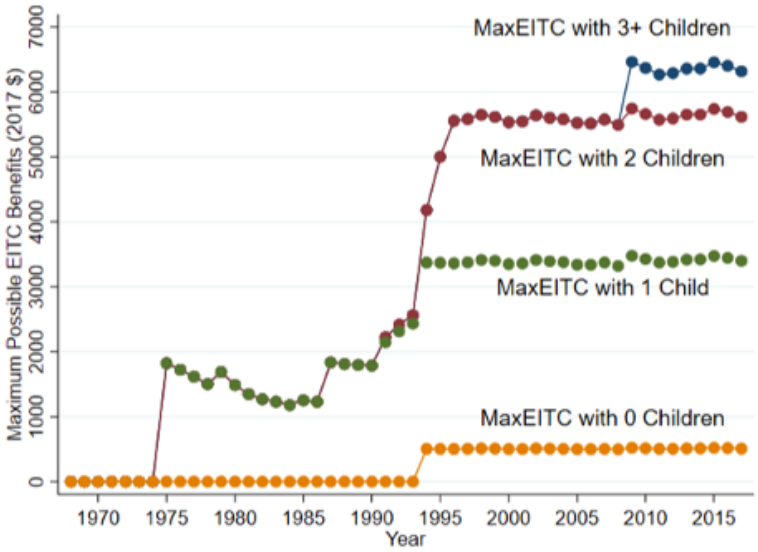
- Currently the largest government transfer program.
  - In 2018, 22 million working families and individuals received EITC benefits.
  - Average refund was $ 3,191 for a family with children; a maximum of $5,828.
  - Refund amount for families without children or individuals was around $298 on average.

Changes in EITC eligibility over time



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4. Shown to reduce maternal stress (Evans and Garthwaite, 2014)
5. Increased labor force participation and attachment, especially for single mothers (Bastian and Michelmore, 2018; Bastian, 2017).

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5. We assign race based on the most recent report for child/parent based in a decennial census or an ACS.

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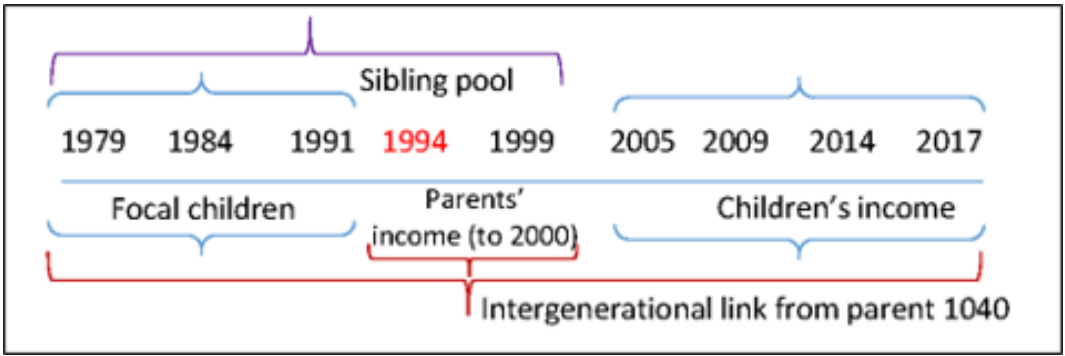
- In our analysis, we focus on outcomes at ages 25-26 for the children across birth cohorts.

Years Used in Analysis

Figure 1: Years Used in Analysis



Summary Statistics

	All families	Single moms	Married families
	(1)	(2)	(3)
Childhood EITC, 1,000s	58.6	57.3	59.7
EITC Amt, 25-26	84.71	93.52	70.85
Child claims EITC, 25-26	0.04	0.04	0.03
Child works at ages 25-26	0.80	0.82	0.82
Child married at 25-26	0.21	0.17	0.28
Child cohort	1985.00	1985.00	1985.00
Number of siblings	2.39	2.13	2.70
Years between sibling	2.44	2.43	2.55
Observations	17,700,000	7,568,000	6,786,000

Summary Statistics, cont.

	All families	Single moms	Married families
	(1)	(2)	(3)
Male	0.51	0.50	0.51
White	0.43	0.36	0.56
Black	0.26	0.38	0.09
Asian	0.04	0.02	0.07
Hispanic	0.23	0.20	0.23
Single mother	0.43	1.00	0.00
Married family	0.38	0.00	1.00
Observations	17,700,000	7,568,000	6,786,000

Research Methodology

1. Our analysis focuses on the lifetime EITC earnings exposure for children on their adult outcomes (ages 25-26).
2. Given our data set, we can control for state fixed effects, state by year trends, birth cohort fixed effects, and family fixed effects.
3. An individual child may face a difference in lifetime EITC earnings exposure as EITC eligibility can change for two different reasons:
   - 3.1 Change in the number of eligible children residing in the household
   - 3.2 Change in the generosity of EITC over time

Research Methodology and Identification of EITC Effect

1. We maintain that the focal child has no control over their exposure to their parental EITC earnings during own childhood.
2. The main estimating equation for focal children's outcomes (at ages 25/26) is:

$$\begin{aligned} Y_i = \alpha + \beta \times \textit{LifetimeEITC}_i + \nu_i + \theta_i + \gamma_i + \mu_i + \lambda_i \\ + \omega_i + \pi_i + \chi_i + \delta_i + \epsilon_i \end{aligned} \tag{1}$$

Y is the outcome variable (income or LFP); ν are birth cohort fixed effects; θ is birth order fixed effects; γ is a gender fe; μ is a single-mother family fe; λ is a family fixed effect; ω race fe; π is number of siblings fe; χ state fe; and δ is a state by birth year trend and ϵ is the error term.

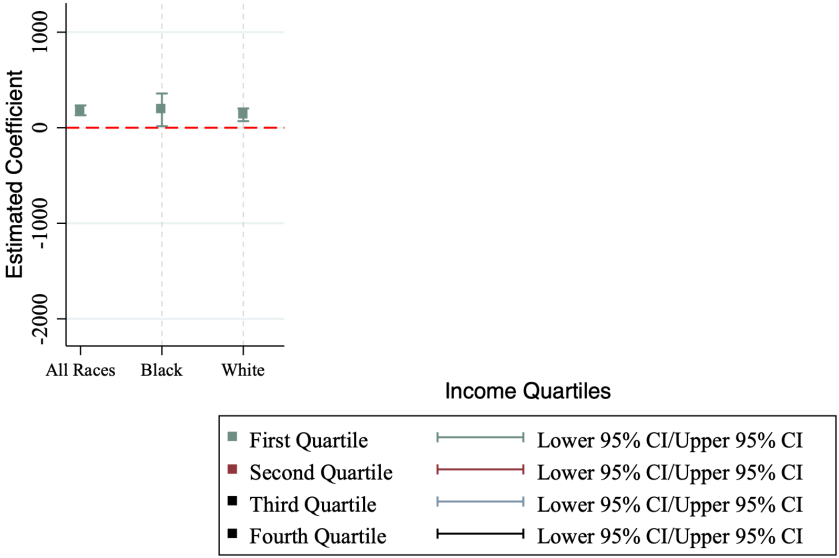
Research Methodology and Identification of EITC Effect, cont

1. Previous research has not found a fertility effect of EITC (Baugman, et al , 2009)
2. Our results are based on children within a single family; the variation in treatment depending on the timing of sibling births and the child's order in the family.
3. Our analysis does not rely on **general fertility.**

Research Methodology and Identification of EITC Effect, cont

1. We estimate the effect of Lifetime EITC Earnings exposure (in $1,000 increments) on the child's own familial income at ages 25/26.
2. We conduct our analysis within four quartiles of the **average** family income of the parents during childhood. These quartile thresholds are created from the entire (not just the EITC eligible families) distribution of families.
3. This means that there are some families that are found in the third and fourth income quartiles which may have been eligible for the EITC due to some health or employment shock for a few years. However, on average, we expect those families to have a lot less EITC treatment as they would, on average, be ineligible for the EITC program.
4. We also separate out analysis by the two largest race groups: White and Black households.
5. We also disaggregate our analysis into single mother families and married families.

Results - Family Income, All Quartiles



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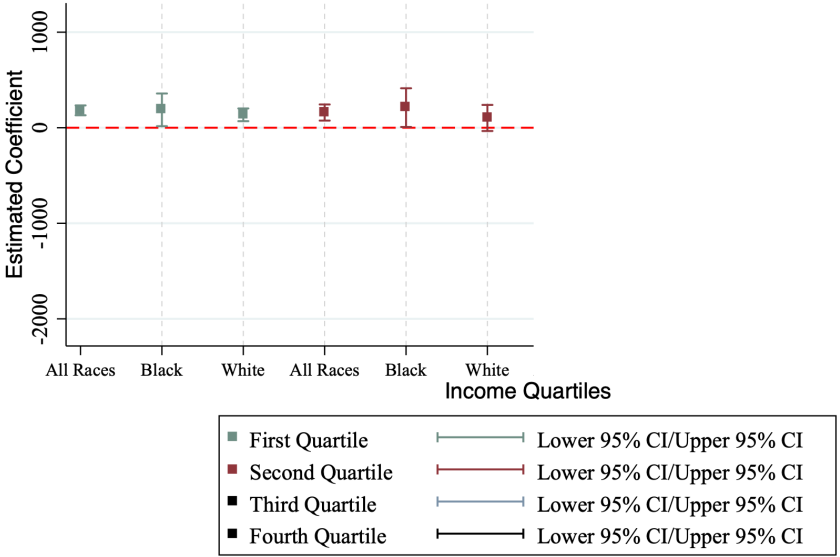

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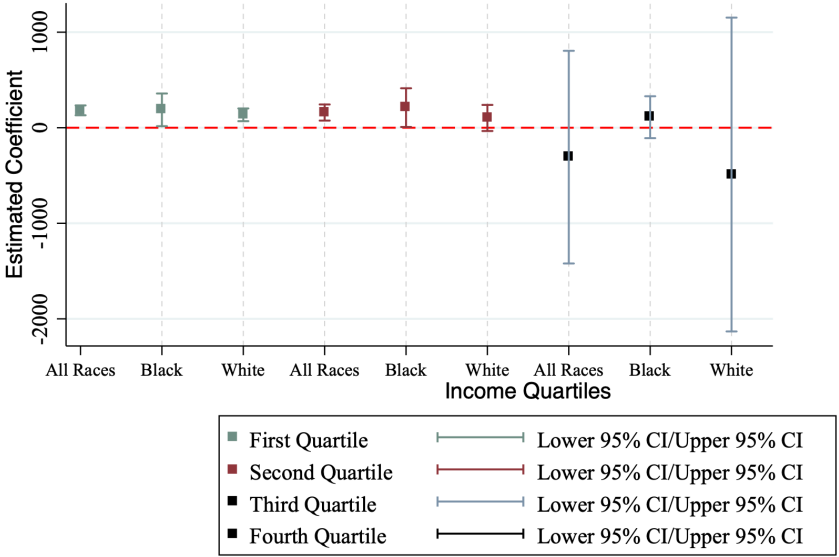

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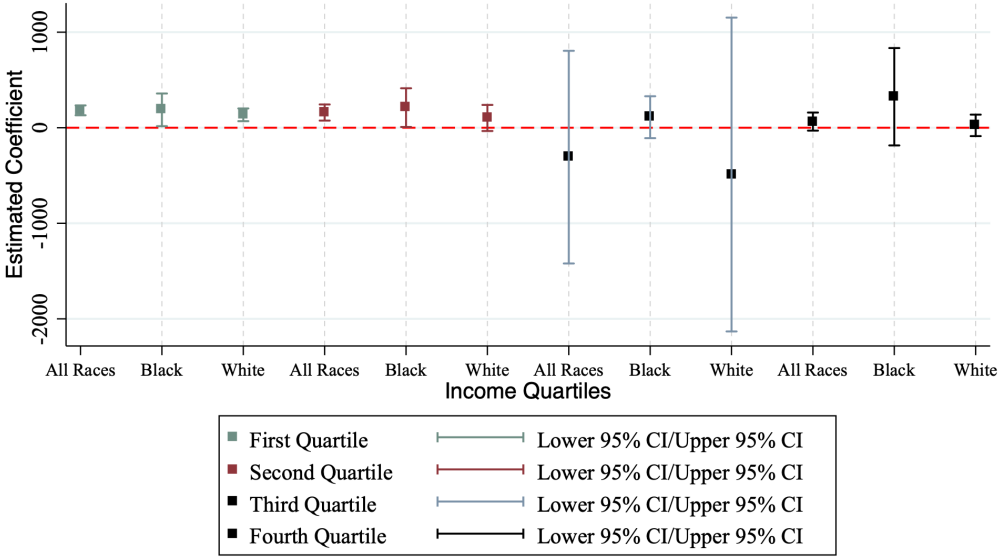
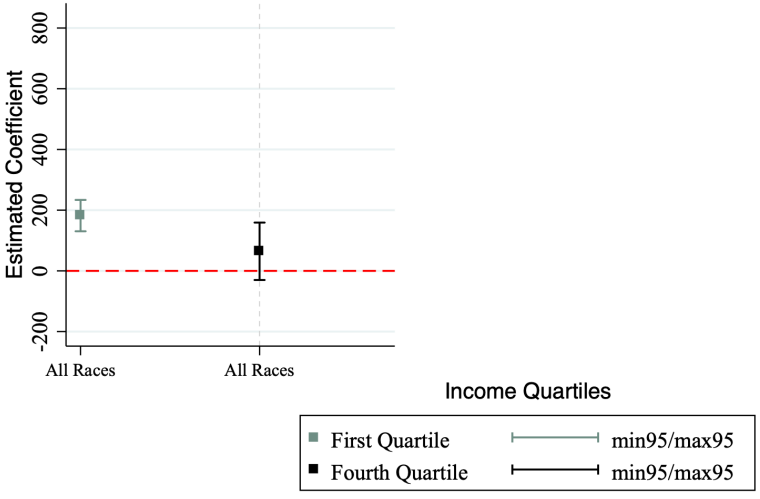


Results - Family Income, First and Fourth Quartiles Alone



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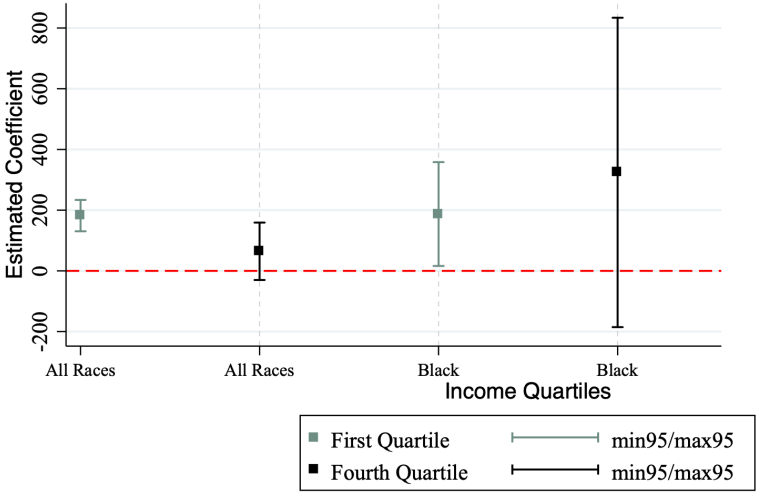

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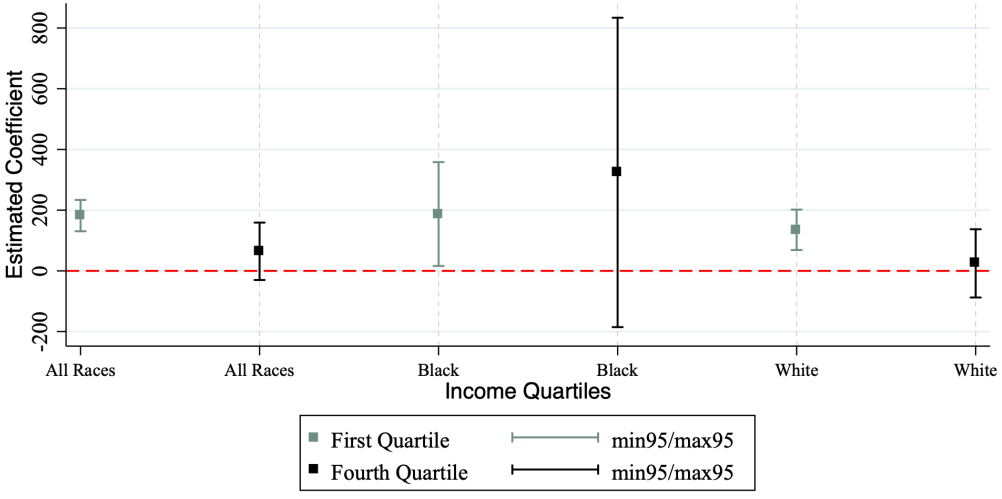
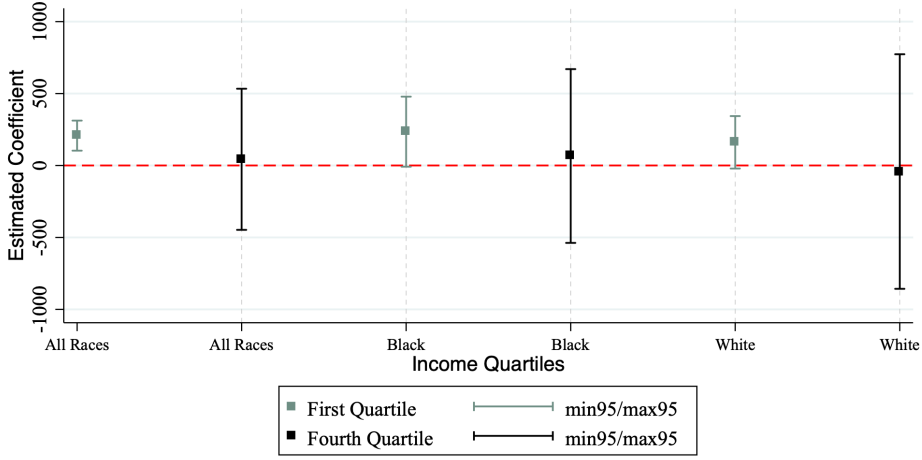
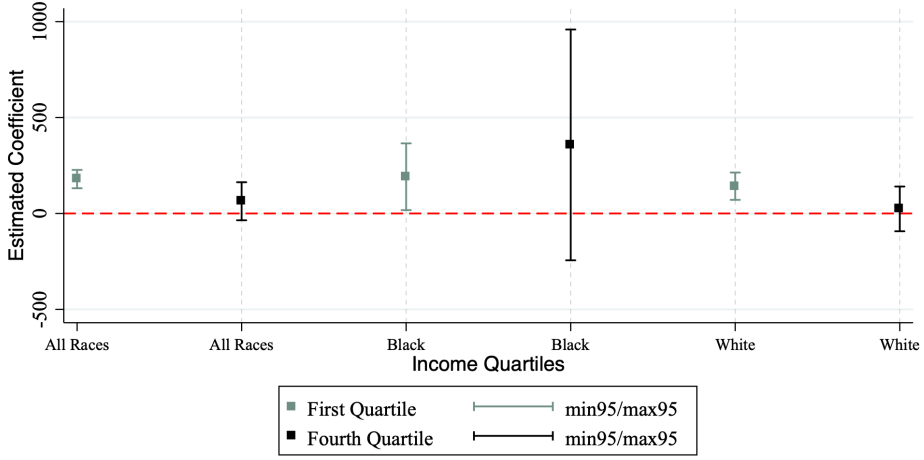


Results - Family Income, Single Mothers, First and Fourth Quartiles Alone



Results - Family Income, Married Families, First and Fourth Quartiles Alone



Summary of EITC Effects on Children's Outcomes as Young Adults

1. We find that there are increases in the child's own family income in adulthood (25/26) by about $175-$200 per year due to exposure to lifetime EITC.
2. These results are observed for children from the bottom half of the parental income distribution; little to no results for those in the upper income categories.
3. There are differences across race groups. The estimated effects are largest for Black households (almost 30% larger); however, the differences are not statistically significant.
4. Separating out by household type (single mothers vs. married families) does not produce significant differences; suggesting the program has an effect across all family types.
5. This is additional evidence that the additional income from EITC functions similarly in different household types as would be expected from a money based program.