# Like Mother, Like Child: The Earned Income Tax Credit and Gender Norms

Xiaozhou Ding\* Dickinson College Yang Jiao<sup>†</sup> Texas A&M-Texarkana Yi Lu<sup>‡</sup> Tsinghua University

#### **Abstract**

This paper examines the impact of the 1993 Earned Income Tax Credit (EITC) expansion on gender norms and attitudes towards working women in the United States. Employing a difference-in-differences approach, we focus on the influence of this policy on the children of affected mothers, particularly highlighting the role of maternal education. Our findings reveal a significant effect of the EITC expansion on children's attitudes, especially among those with less educated mothers, emphasizing the complexity and nuance of government policy impacts on social norms. We explore mechanisms such as improvements in children's education, evolving maternal attitudes, and the dynamics of dual-working spouses. The study contributes to the literature on the EITC, extending beyond its economic effects to its influence on societal gender roles. Our research underscores the importance of considering the broader social implications of economic policies, highlighting their potential to shape societal attitudes and promote gender equality.

Keywords: Earned Income Tax Credit, Social Norms, Gender Equality

JEL Classification Codes: H39, J16

<sup>\*</sup>Department of Economics, Dickinson College. Email: dingx@dickinson.edu.

<sup>&</sup>lt;sup>†</sup>Department of Accounting, Economics, and Finance, Texas A&M University-Texarkana. Email: yjiao@tamut.edu.

<sup>‡</sup>School of Economics and Management, Tsinghua University. Email: luyi@sem.tsinghua.edu.cn.

#### 1 Introduction

Since the 1970s, the United States has seen a significant influx of working mothers into the labor market, a trend more pronounced than in other wealthy countries, contributing to the reduced gender wage gap (Maasoumi and Wang, 2019), partly due to family-unfriendly work policies and expensive childcare (Bastian, 2020; Averett and Wang, 2023). As documented in several studies, the expansion in Earned Income Tax Credit (EITC) contributes to a large portion of this increase (see Kuka and Shenhav, 2020; Schanzenbach and Strain, 2020). While prior research has found substantial evidence on how EITC affected the economic and health outcomes of single mothers (Meyer and Rosenbaum, 2001; Evans and Garthwaite, 2014; Hoynes, Miller, and Simon, 2015; Bastian, 2020) and the academic performance of their children (Dahl and Lochner, 2012; Bastian and Michelmore, 2018), less is understood about whether and to what extent the EITC has influenced societal gender norms and attitudes toward working women and gender equality.\(^1\) Our paper closes this gap. In this paper, we look at the unintended consequences of the large EITC expansion in U.S. history and how it affects gender attitudes towards working women, specifically focusing on the children of mothers who were differentially affected by the expansion.

Studying gender identity and the roles played by gender norms is important, as these topics have gained increasing attention in gender gap research. As such norms typically evolve slowly, this persistence may contribute to the slow narrowing of gender gaps in wages and labor force participation in the US and other high-income countries. Several studies have detected significant relationships between gender stereotypes and women's aspirations and marital outcomes, with consequences for their labor force participation and earnings (Field et al., 2021; Jayachandran, 2021; Pande and Roy, 2021).

Understanding how government policies, such as EITC expansion, influence gender attitudes is of particular interest to policymakers. It allows for the assessment of whether social programs designed to alleviate economic hardship have unintended consequences on societal norms and gender roles. This insight can assist policymakers in formulating policies that address not just economic disparities but also promote gender equality. Gender equality is also closely linked to improved social well-being. It leads to better health outcomes, reduced poverty, and increased access to healthcare and education, benefiting individuals and society as a whole (Sen, 2001). While it is generally perceived that more equitable gender attitudes could promote better outcomes, gender norms remain persistent in society (Akerlof and Kranton, 2000; Bertrand, Kamenica, and Pan, 2015). Consequently, understanding how government policies might influence social norms

<sup>&</sup>lt;sup>1</sup>One exception is Bastian (2020) where he examined how the 1976 EITC expansion affected the gender attitudes of those cohorts that were affected. Unlike what he did in a first-difference setting, we utilize individual-level information across two generations.

is also of significant interest to researchers.

To assess the impact of EITC expansion on children's gender attitudes, we utilize a difference-in-differences (DID) approach, leveraging two sources of variation in EITC benefits. Our analysis, following a method similar to Neumark and Shirley (2020), compares individuals based on two key sources of variation: (1) since 1993, EITC payments have been higher for families with at least two children, which establishes a "treated group," and (2) individuals are categorized into cohorts based on their varying levels of exposure to the 1993 EITC expansion, continuing up until the age of 18, the age until which they remain eligible for EITC credits.

While the DID method offers valuable insights into whether the EITC expansion causally affects attitudes towards gender equality in the subsequent generation, the connection of the Average Treatment Effect on the Treated (ATT) with the overall population is less straightforward. To contextualize our estimates, we complement our primary approach with an alternative specification inspired by Bastian and Michelmore (2018). This involves leveraging the variation in EITC benefits across states over time to explore how the generosity of EITC benefits influences changes in gender norms in the U.S. To quantify EITC exposure during childhood, we calculate the maximum potential federal and state EITC credits a child's family could receive, considering factors such as the state of residence, family size, and tax year. This approach to measuring EITC exposure helps circumvent potential endogeneity issues associated with family income and individual EITC benefits in relation to educational outcomes. We sum the EITC exposure for each child from birth until they turn 18, thus accounting for changes over time due to shifts in federal and state policies and variations in family size.

For our primary analysis, we employ the National Longitudinal Survey of Youth (NLSY) Young Adult data, an ideal dataset for various reasons. First, it provides detailed questions regarding individuals' gender attitudes, particularly focusing on aspects related to women's employment. These questions are crucial for constructing our gender equality measure. Second, the NLSY Child and Young Adult participants are the biological children of mothers surveyed in the NLSY79 cohort, who were also asked about their gender attitudes in subsequent survey waves. This unique data structure allows us to understand the intergenerational transmission of gender norms, a topic that has received relatively less attention in existing literature. To develop our gender attitude index, which serves as the key dependent variable in our study, we leverage three specific questions pertaining to women's employment.

Our results reveal that, while the average treatment effect on the treated (ATT) from the DID model presents some noisy results, there is significant heterogeneity in the impact of EITC benefits on gender attitudes, particularly when considering maternal education. Specifically, the DID estimates indicate that a one-year exposure to the EITC expansion does not universally enhance children's perceptions of working women. However, for children whose mothers have less than

a high school education, the effect is notably significant, with a one-year exposure leading to a 0.7 percentage point decrease in extreme negative views towards working women. In contrast, for children whose mothers possess at least a high school education, the response to the EITC expansion in terms of gender attitudes is less pronounced. This lack of significant results across the board in the DID model aligns with our expectations, as the average effect tends to be obscured by underlying heterogeneity in key demographics such as maternal education. This finding is in line with recent research suggesting that education plays a crucial role in shaping social norms Du, Xiao, and Zhao (2021). Our results further emphasize the differential impacts of education on gender attitudes. Additionally, our alternative analysis of EITC benefits corroborates these findings: a benefit increase of \$10,000 decreases negative views towards working women by 1.3 points for the entire sample and by 2.6 points for children with mothers who have more than a high school education. Consistently with the DID estimates, more generous EITC benefits do not significantly alter the gender attitudes of children with more educated mothers. Our supplementary analysis indicates that the observed effects are predominantly driven by children from less educated families, with male children exhibiting a slightly greater improvement in gender attitudes compared to female children.

Why does the EITC affect gender norms? To address this question, we conduct several analyses that illuminate the mechanisms underlying the intergenerational transmission of social attitudes. First, we investigate whether the EITC expansion contributes to improvements in children's education, a topic extensively discussed in existing literature (Bastian and Michelmore, 2018). Second, we explore whether children's increasingly favorable attitudes towards women might be influenced by evolving attitudes of their mothers (Dohmen et al., 2012). Last, using data from the Current Population Survey, we investigate whether the EITC expansion influences the sorting of working spouses. Specifically, we examine if married men who were more exposed to the 1993 EITC reform are more likely to have employed spouses, suggesting their support for working women. Our findings suggest that the enhancement of gender norms in the subsequent generation could be attributed to the improved education of children more exposed to the EITC expansion, the transmission of mothers' attitudes towards working women, and the sorting of working spouses.

Our paper makes three contributions to the existing literature. First, we extend beyond the predominant focus on the economic and health outcomes of the Earned Income Tax Credit (EITC) in existing studies. We demonstrate that government policies such as the long-term expansion of the EITC can significantly reshape social attitudes towards gender, albeit with notable heterogeneous effects. This finding adds a new dimension to our understanding of the broader impacts of such policies.

Second, we look into the mechanisms driving these societal changes in gender attitudes. Our analysis highlights the role of improved educational attainment in the child generation, the intergenerational transmission of gender norms from mothers, and the influence of dual-working parents. We present strong evidence supporting the intergenerational transmission of gender attitudes, drawing from individual-level survey responses across two generations. Our results align with and expand upon findings by Bastian (2020) and Kleven (2023), illustrating that exposure to EITC expansion fosters more progressive gender norms.

Third, our research contributes to the extensive literature on gender-role norms, particularly in terms of their evolution over time. We build upon works such as Goldin (2006) suggestion that innovations in contraception may have played a role in transforming women's identity during the 1960s and 1970s, and argument that men raised in families with working mothers tend to develop more liberal gender-role attitudes (Fernández, Fogli, and Olivetti, 2004). Our findings enrich this dialogue by providing contemporary insights into the changing landscape of gender norms influenced by economic policy.

In Section 2, we offer a brief review of the literature related to the 1993 EITC expansion and the development of gender roles across generations. Section 3 details the data utilized in our empirical analysis, while Section 4 outlines the empirical methodologies employed. Section 5 presents the main findings of our analysis, and Section 6 explores the mechanisms underlying the intergenerational transmission of gender attitudes. Finally, Section 7 provides a conclusion to our study.

# 2 Background and Related Literature

#### 2.1 The 1993 EITC Reform

The Earned Income Tax Credit (EITC), established in 1975, was designed to provide targeted financial assistance to low-income working individuals and families. By the early 1990s, it became apparent to policymakers that significant enhancements were necessary to improve the program's effectiveness. The 1993 reform of the EITC marked a pivotal point in the United States' efforts to combat income inequality and reduce poverty. This reform was primarily aimed at expanding the reach and impact of the EITC, making it a cornerstone of social policy for low-income families.

A critical component of the 1993 changes was the increase in credit for families with two or more children, addressing the additional financial burdens faced by larger households (Kleven, 2023). This modification was intended to more accurately reflect the varied needs and challenges of low-income families with differing family sizes. Furthermore, the reform introduced a phase-in region for the credit, allowing for a gradual decrease in support as recipients' incomes rose. The change was made to address the "cliff effect". This issue arose when individuals saw their welfare credits suddenly cut off due to small increases in their income, which discouraged them from

pursuing better job opportunities (Besley and Coate, 1992).

Additionally, the 1993 amendments expanded eligibility to include a greater number of workers without children. This broadening of the credit's scope recognized the necessity of supporting those who, despite not having dependent children, still faced financial difficulties (Marr, Huang, and Frentz, 2014). This extension sought to exert a more comprehensive impact on the low-income workforce. The legislative changes reflected a bipartisan effort to forge a more targeted and equitable social policy that promoted employment while offering substantial financial support to those in need. The 1993 EITC reform demonstrates a commitment to adapting social programs to better meet the changing dynamics of the labor market and the diverse requirements of low-income individuals and families (Hoynes, 1996).

An extensive body of literature has explored the employment effects of the EITC, with a particular focus on the 1993 expansion. Schanzenbach and Strain (2020) provides evidence that this expansion, along with other EITC enhancements, led to increased employment rates among women with lower education levels, using difference-in-differences analyses and an event-study approach. Similarly, Kleven (2023) emphasizes the significant impact of the 1993 federal EITC expansion, which was uniquely associated with increased employment among single women, regardless of their childbearing status and the number of children they have. In addition to employment effects, there is substantial research on the health outcomes associated with the 1993 EITC expansion. Hoynes, Miller, and Simon (2015) finds that the EITC contributed to reductions in the incidence of low birth weight and increases in average birth weight. Evans and Garthwaite (2014) identifies a link between the EITC and improved health indicators, including reduced blood pressure, and fewer days with poor mental and physical health. Moreover, income changes due to the EITC expansion also led to improved academic outcomes for children. Families fully exposed to the 1993 EITC expansion experienced up to a 20 percent income increase, or approximately \$2,100, between 1993 and 1997. Dahl and Lochner (2012) estimates that a \$1,000 increase in income raises combined math and reading test scores by 6 percent of a standard deviation in the short run, with more significant gains for children from disadvantaged families.

## 2.2 The Formation and Intergenerational Transmission of Gender Roles

Given the significant impacts of the 1993 EITC Reform on employment, health, and educational outcomes, particularly among low-income families, it is crucial to explore how these socioeconomic changes influence broader social dynamics, including gender roles. The EITC reform not only altered the economic landscape for many families but also potentially shaped the social and cultural environment in which children grew up. This brings us to an important intersection between economic policy and social development. The way children observe and internalize their parents'

experiences, especially in the context of enhanced financial stability and improved educational opportunities, may have profound implications on their perceptions and attitudes, including those related to gender roles. Therefore, understanding the intergenerational transmission of these attitudes becomes vital in comprehending the broader societal shifts that policies like the EITC Reform may generate. This leads us into a detailed examination of how gender roles are formed and transmitted across generations, an area that has garnered considerable attention from researchers in various fields.

Researchers have long been intrigued by the tendency of children's lives to mirror those of their parents. A wealth of sociological and economic research demonstrates intergenerational connections in areas such as education, job status, and income (Black, Devereux, and Salvanes, 2005; Ermisch, Jantti, and Smeeding, 2012). Studies in sociology, psychology, and political science have explored the intergenerational links in personal tendencies. Findings reveal correlations between parents and children in aspects like personality traits (Dohmen et al., 2012), religious practices (Patacchini and Zenou, 2016), political and economic beliefs (Vollebergh, Iedema, and Raaijmakers, 2001; Lindquist, Sol, and Van Praag, 2015), and attitudes towards social issues, including gender inequality (Perales et al., 2021). The transmission of social values and cultural perspectives from parents is considered a primary factor contributing to similarities in behavior and outcomes across generations.

Social Learning Theory, as proposed by Bandura and Walters (1977), is often used to explain how parents influence their children's social values and cultural perspectives. This theory suggests a vertical model of socialization, highlighting the crucial roles of mothers and fathers as primary agents of socialization. Children learn to interact with others and discern socially acceptable behaviors through observation and communication with their parents. This learning encompasses role modeling, where children observe, internalize, and emulate parental behaviors, as well as direct teachings, in which parents convey their values and beliefs. Parental socialization predominantly occurs during childhood and adolescence, periods when children spend considerable time with their parents and are most receptive to social learning. Adolescent years, in particular, are viewed as a sensitive or critical period for the formation of cultural values and social attitudes, as suggested by Krosnick and Alwin (1989) and Vollebergh, Iedema, and Raaijmakers (2001).

Given the significant role of parental influence and socio-economic changes, particularly in terms of income, in shaping children's perspectives and behaviors, our analysis will focus on specific mechanisms that facilitate the intergenerational transmission of gender attitudes. These mechanisms include the improvement in children's education, the direct transmission of mothers' gender attitudes, and the dynamics of dual-working spouses. Each mechanism provides a distinct perspective on the critical ways in which children's views on gender roles are influenced by the EITC expansion.

#### 3 Data

#### 3.1 NLSY Data

Our primary data source is the National Longitudinal Survey of Youth (NLSY79) Child and Young Adult Data. The respondents in this dataset are the biological children of women surveyed in the NLSY79. Beginning in 1994, children aged 15 and older have been completing a comprehensive interview, initially modeled on the NLSY79 Youth questionnaire but tailored for this second generation. This approach facilitates both life course and cross-generational analyses. These surveys include questions about gender attitudes, forming the basis of our sample for examining the long-term impacts of the EITC on gender norms. To ascertain the level of EITC exposure each young adult experienced, we also utilize NLSY79 data to match these young adults with their biological mothers and their family backgrounds, particularly focusing on the state of residence during each survey year. The NLSY79 began in 1979 with 12,686 young men and women, aged 14 to 22, offering a nationally representative sample. The survey, conducted annually until 1994 and biennially thereafter, provides invaluable longitudinal insights into these individuals' lives as they progressed into their mid-50s by 2020.

To construct a panel of children up to the age of 18, we expanded the respondents with matched sibling information. This allows us to determine the number of children in each household and match each child's birth year to the mother's state of residence, enabling us to calculate potential EITC benefits. The comprehensive coverage of the NLSY data, spanning from the late 1970s to the present, presents a unique opportunity to examine generational shifts and policy impacts. Notably, our earliest cohort, who were children in the 1980s, experienced less generous EITC benefits, while our latest cohort encompasses the 1993 EITC expansion and subsequent welfare reforms. This stark contrast across generations is crucial for analyzing the varying influences of EITC benefits. Furthermore, the NLSY's rich, longitudinal data facilitates an in-depth analysis of these generational cohorts, capturing subtle variations over time. This provides a robust platform to assess the long-term impacts of socio-economic changes. The Panel Study of Income Dynamics (PSID) was not selected for our analysis due to its focus primarily on income-related questions and lack of detailed information on people's attitudes.

#### 3.2 State Level Measurements

For our empirical analyses, we draw various data sources to compile a dataset describing socioeconomic conditions in each state over the study period, which helps control for potential confounders like employment, gdp per capita, minimum wage, and welfare programs benefit.

#### 3.3 The Dependent Variable: Gender Attitude

In our analysis, we focus on three specific questions from the NLSY Child and Young Adult survey that pertain to respondents' attitudes towards gender roles. These questions range from whether respondents strongly disagree, disagree, agree, or strongly agree with eight statements. While the survey includes eight questions about general attitudes towards gender, not all are directly relevant to our analysis of the impact of EITC on attitudes through working mothers. Some questions focus on traditional family roles of women, while others pertain to their career development. To accurately capture attitudes towards women in the workforce, we selected questions 1, 3, and 5, which align more closely with our research objectives.

The questions are as follows:

- 1. A woman's place is in the home, not the office or shop;
- 2. A working wife feels more useful than one who doesn't hold a job;
- 3. Employment of both parents is necessary to keep up with the high cost of living.

It is also worth noting that transitioning from a strong disagreement to a strong agreement for each question does not consistently gauge an individual's attitudes towards females. For example, agreeing with question 1 generally indicates a more traditionalist view of gender roles, while agreement with questions 3 and 5 suggests more progressive attitudes. To address this, we recoded the responses into a new set of variables reflecting consistent attitudes towards gender roles, denoted as r. Here, r=1 represents the least supportive attitude towards gender equality, and r=4 the most supportive. We then created three binary variables  $Att_n$  to capture the extreme attitudes towards working women, where n represents the response to question n. These variables equal one if the response strongly disagrees with egalitarian gender roles:

$$Att_{n,i} = \mathbb{1}[r_{n,i} = 1]$$

We combined these into an aggregate response value using information from the three questions

$$Att_i = \frac{\sum_n Att_{n,i}}{3}$$

and  $Att_i \in [0, 1]$ . A value of  $Att_i = 0$  suggests a more egalitarian view, as the individual does not strongly disagree with any of the statements about women's roles. Conversely, a higher  $Att_i$  indicates a more traditionalist view, with 1 representing the most extreme stance.

## 4 Empirical Methodologies

#### 4.1 Difference-in-Differences Method: The 1993 EITC Expansion

The Omnibus Budget Reconciliation Act of 1990 (OBRA90) altered the EITC formula based on family size, creating one formula for families with one qualifying child and a slightly larger credit for those with two or more qualifying children. Consequently, in 1991, the maximum credit was \$1,192 for families with one qualifying child and \$1,235 for those with two or more. The OBRA93 further enhanced the maximum credit for both categories of households. By 1994, the maximum credit had risen to \$2,038 for families with one qualifying child and \$2,528 for those with two or more, marking approximately a 25 percent increase for larger families. This discrepancy widened over time before stabilizing in 1996. The EITC credits for families with more than two children became around \$1,500 higher than for those with just one child. Figure 1 illustrates the full schedule of EITC credits. Our analysis primarily focuses on the comparison between families with one child and those with more than one child, as the majority of individuals in the NLSY adult and youth survey were born before the 2009 American Recovery and Reinvestment Act (ARRA) expansion.

A household must have at least one qualifying child to be eligible for the EITC. The qualifying child must be younger than 19 at the end of the year or, if a full-time student, younger than 24, and must have resided in the United States with the parents for more than half the year. We restrict our analysis to children under 18, as it can be challenging to ascertain the residency of those who have completed high school. Consequently, the 1993 EITC expansion differentially impacts children born in various years. Children born closer to 1993 experienced the EITC's effects more significantly due to longer exposure to the reform and more substantial EITC credits. Figure 2 delineates the construction of exposure length to the 1993 EITC expansion for different cohorts. For example, an individual born in 1975 experienced zero years of exposure to the reform, implying no impact from the EITC credit expansion. In contrast, someone born after 1993 is fully exposed to the reform, and those born between 1975 and 1993 are partially exposed.

Our evaluation of the EITC's impact on gender roles considers the two sources of variation described earlier. First, following the methodology used by Neumark and Shirley (2020), we observe that the EITC payments have been higher for families with at least two children since 1993 (the treated group). Second, we compare individuals based on their differential exposure to the 1993 EITC expansions until the age of 18, when they are still eligible for EITC credits. This approach enables us to distinctly observe the differences in attitudes toward gender equality between the treatment and control groups across various cohorts exposed to different intensities

of the EITC reform. Our specification is given by:

$$Att_{icst} = \delta Treated_i + \gamma Treated_i \times Length_c + \theta X_{icst} + \lambda_{sc} + \lambda_t + \varepsilon_{icst}, \tag{1}$$

where  $Att_{icst}$  represents the gender equality measures computed for individual i born in year c from state s and surveyed in year t.  $Treated_i$  is an indicator of treatment status, equal to 1 if individual i is not an only child.  $Length_c$  measures the length of individual i's exposure to the 1993 EITC reform, calculated by min(18, max(0, 18 - (1993 - c))).  $X_{icst}$  includes individual characteristics such as family size, a cubic age function, and indicators for race, gender, mother's marital status, and education, along with their interactions with child race and gender. We also account for other confounding factors, such as state-level welfare policies affecting gender norms and attitudes, with state-by-cohort fixed effects  $\lambda_{sc}$  and survey year fixed effects  $\lambda_t$  that control for common shocks affecting attitudes toward women at specific times.

#### 4.1.1 Threats to Identification

For our specification to be valid, several assumptions are required. First, we define our treatment group based on family size in the year 1993, as the EITC credits began to diverge following the 1993 expansion. Hence, in the absence of this policy shock, attitudes toward working women should have evolved similarly for children with varying levels of exposure to the reform in both the treated group (families with at least two children) and the control group (families with only one child). Specifically, we categorize those born before 1975 as the non-exposure cohort, those born between 1975 and 1992 as the partial exposure cohort, and those born after 1993 as the full exposure cohort. We initially analyze the linear trend of the gender equality index across different birth cohorts, comparing these trends before and after the 1993 reform. We anticipate minimal impact of the reform on the non-exposure cohort, suggesting that  $\gamma_1$  and  $\gamma_2$  should be insignificant and close to zero:

$$Att_{icst} = \beta_1 \times NonExposure_c + \beta_2 \times PartialExposure_c + \gamma_1 Treated_i \times NonExposure_c + \gamma_2 Treated_i \times PartialExposure_c + \theta X_{icst} + \delta Treated_i + \lambda_{sc} + \lambda_t + \varepsilon_{ics},$$
(2)

where  $NonExposure_c$  is a dummy variable for those not exposed to the 1993 expansion, born before 1975. The birth cohorts between 1975 and 1993 with some exposure to the 1993 expansion are captured in  $PartialExposure_c$ .

Another potential threat to our study's validity concerns the evolution of family characteristics between the treated and control groups in the absence of the 1993 expansion. Parents' educational

achievements, key determinants of children's education and attitudes toward women, could bias our estimates if parents with varying family sizes make different educational choices in response to rising family income due to the EITC reform. However, as the children in the NLSY79 sample were surveyed by a fixed group of individuals (NLSY youth and adults), this issue appears to be minimal.

Lastly, fertility decisions should be independent of the EITC reform, meaning that the reform should not significantly influence family size. Existing studies, such as those by Eissa and Hoynes (2004), have found no evidence of fertility selection due to the EITC. We also examine whether mothers in states with more generous benefits exhibited different fertility behaviors following the 1993 expansion and found no significant effects.

#### 4.2 An Alternative Specification Using EITC Credits

While the DID method provides valuable insights into the causal effects of the EITC expansion on attitudes towards gender equality in subsequent generations, establishing a direct connection with the overall population remains challenging. To further examine how the EITC influences individual attitudes toward working women, we introduce an alternative specification, drawing inspiration from the study by Bastian and Michelmore (2018), in which they focused on the long-term impacts of EITC on education and employment. Leveraging variation in EITC benefits across states over time, we investigate how the generosity of EITC benefits influences changes in gender norms in the U.S. We construct measures of EITC exposure during childhood, defined as the maximum potential federal and state credit a child's family could receive based on their state of residence, family size, and tax year. This measure is used regardless of the family's income or parental marital status to address concerns about the endogeneity of family income and individual EITC benefits with respect to education outcomes.

For each child in our study, EITC exposure is calculated from birth until they turn 18. The value of EITC exposure for an individual changes over time, primarily due to alterations in federal and state EITC policies and changes in family size. The variation in annual EITC exposure for each individual arises from three main sources: (1) the year of birth, which reflects the generosity of the federal credit; (2) the state of residence, which determines state EITC benefits; and (3) the number of qualifying children in the household and their age differences, which affects the EITC benefits for larger families.

Figure 3 illustrates the variation in potential EITC exposure a child could have received from birth to age 18, based on birth cohort, state, and the number of children in the household. The graph reveals a notable difference in maximum EITC benefits among families with varying numbers of children, with a marked divergence occurring after the 1975 cohorts.

Our reduced-form model of the impact of EITC exposure on children's gender attitudes toward working women is as follows:

$$Att_{icst} = \phi EITC_{ics} + \theta X_{icst} + \lambda_{sc} + \lambda_{t} + \varepsilon_{icst}.$$
 (3)

Here,  $EITC_{ics}$  represents the potential EITC exposure of individual i from birth until age 18, determined by their state of residence and birth cohort.  $X_{icst}$  encompasses a set of personal and family characteristics, identical to those controlled in our DID estimation. This includes family size, a cubic function of age, and indicators for race, gender, mother's marital status, and mother's education level, along with interactions between child race and gender.  $\lambda_{cs}$  represents birth cohort-by-state fixed effects, accounting for location and cohort heterogeneity. We also include a survey year fixed effect  $\lambda_t$  to control for contemporaneous shocks that might influence an individual's attitudes toward gender.

#### 4.2.1 Threats to Alternative Identification

Our estimation involves comparing outcomes between individuals who share similar family backgrounds, are born in the same state and year, have the same family size, and have siblings born in various years. The primary difference between these "statistical twins" lies in the birth gaps among their siblings, which presents potential threats to our analysis.

First, there is the concern regarding whether birth gaps among siblings correlate with our outcome variables. It could be argued that families who plan for shorter or longer birth gaps might inherently differ. This is particularly relevant as parents can transmit their social norm values to their offspring. For each child in the NLSY79 Young and Adult sample, we compute the average birth gap with all other children under 18 in the household for those with more than one sibling. Our regression analysis of gender role outcomes against birth gaps reveals no statistical correlation. Additionally, when running regressions with gender role indices against a series of birth gap indicators, the coefficients do not systematically vary with gap length. Therefore, we conclude that the birth gap between siblings is exogenous to one's gender attitude towards women.

Second, migration poses a concern, as families might relocate to states offering more generous tax credits and better welfare systems. We differentiate between "stayers" and "movers" in our sample. "Movers" are identified as families who have crossed state lines, considering that EITC benefits vary by state. Running separate regressions for these two groups, we find that our study's main conclusions are driven by the stayer sample, with mover estimates being small and statistically insignificant. This suggests that migration in pursuit of greater welfare benefits does not significantly impact our findings.

Third, our specification primarily measures the intent-to-treat effects, exploring variations in time and state EITC rules. Identifying the impact on families who actually receive and are eligible for EITC credits is challenging due to data limitations in the NLSY. Following Bastian and Michelmore (2018) approach, we focus on a "high-impact" group, excluding certain demographics based on income, marital status, full-time education, disability, and retirement. A concern, as Eissa and Hoynes (2004) point out, is the changing composition of our sample over time due to rising educational attainment trends. Parents' education, especially mothers', can significantly influence children's development of social and gender norms. We address this by examining samples from specified percentiles of the mother's educational distribution (e.g., bottom 70%) and assessing whether estimates align with our main sample findings.

#### 5 The Main Results of DID and EITC Benefits

DID Table 1 presents our primary empirical results from Equations (1) and (3). The dependent variable in each column is our gender attitude index, with each column representing a separate regression. Columns (1) to (3) display our DID estimation results, while columns (4) through (6) detail the results based on EITC benefits. Columns (1) and (3) utilize the full sample, whereas we separately examine the impact of EITC on gender attitudes for mothers with differing educational attainment levels.

To ensure the robustness of our results, we estimate a variety of specifications. All columns include demographic information about respondents and maternal characteristics as control variables. Additionally, we control for state-level economic conditions by birth year and include a linear state trend.

Our coefficient of interest is the interaction term between Treated and Length of exposure. In column (1), we do not observe a significant effect, and although the negative sign of the coefficient suggests an improvement in gender attitudes directionally, it is not conclusive enough to assert a significant impact of EITC expansion on enhancing children's gender attitudes. This lack of effect in the full sample is not entirely surprising, given that education plays a crucial role in shaping social norms (Du, Xiao, and Zhao, 2021). To explore this further, we divide the sample into two groups based on mothers' educational attainment: those with at least a high school education and those with less. Column (2) reveals that, on average, one year of EITC expansion exposure in treated families leads to a 0.7 percentage point increase in favor of gender equality for children of mothers who did not complete high school. While this effect may seem modest, a back-of-the-envelope calculation suggests an equivalent 12.6 percentage point increase in the

<sup>&</sup>lt;sup>2</sup>In a related study examining the impact of EITC expansion on general health, Evans and Garthwaite (2014) used a sample consisting solely of women with children who had a high school education or less.

gender attitude index over 18 years. Considering that the average percentage of individuals in our sample who held extremely negative views against working women is around 8 percent, this change represents a significant shift in societal norms. Conversely, among children of more educated mothers, we do not observe a significant improvement in attitudes towards gender equality associated with increased EITC exposure.

Next, we will demonstrate how these findings align with our alternative specification using measures of maximum EITC dollar benefits.

Alternative Specification Results In the right panel of Table 1, we present our estimations from Equation (3). Column (4) of our estimate indicates that, on average, a \$10,000 increase in EITC benefits raises the gender attitude index by 1.3 points. To contextualize this finding, consider that the post-1993 EITC expansion resulted in an approximate \$1,500 difference in benefits between families with two children and those with one child. An 18-year full uptake of this benefit would lead to an increase of about 3.51 percentage points in the gender attitude index.<sup>3</sup> Notably, this effect is primarily driven by changes among less educated mothers, echoing our findings from the DID estimation. For children of mothers with less education, a \$10,000 increase in EITC benefits reduces the extremely negative attitude towards working women by 2.6 points. This is double the effect observed in the overall sample, equating to an approximate 7 percentage point increase, closely aligning with our DID effect of full take-up at 12.6 percentage points. In contrast, for children of more educated mothers, the effect is marginal, at a negligible -0.4 points.

**Pre-Trend Test and Robustness Checks** To verify that our DID analysis satisfies the pre-trend assumption, we conduct a parallel trend test using Equation (2). The results are presented in Table 2. The first three columns compare individuals born before 1975 (not exposed) to those born after 1975 (partially or fully exposed to the 1993 EITC reform). The next three columns differentiate between individuals with partial exposure (born between 1975 and 1993) and full exposure (born after 1993). All other control variables, including demographic controls, state-level economic and welfare variables, mother state fixed effects, child birth state-by-cohort fixed effects, and child residence state fixed effects, are consistent with our primary specification.

An inspection of the first three columns indicates that earlier cohorts did not significantly alter their gender equality attitudes relative to later exposed cohorts. If anything, children of less educated mothers who were not exposed to the EITC expansion exhibit more persistently extreme negative views towards working mothers, though this difference lacks statistical significance. The last three columns change our base group to mothers with partial exposure. Both the direction and magnitude of the results provide an intuitive explanation. The non-exposure group shows

 $<sup>^{3}1,500 \</sup>times 18/10,000 \times 1.3 = 3.51.$ 

no significant difference compared to the partial-exposure group, while the full-exposure group demonstrates more progressive attitudes towards women while still not statistically different.

Table 3 further dissects our sample along two dimensions to assess the robustness of our results. We examine whether the main findings are particularly influenced by the gender of the child and the mother's employment status during the child's developmental stage. Columns (1) to (4) explore the heterogeneous effects on male and female children, categorizing them based on whether their mothers attained an education level below or above high school. The final three columns classify individuals based on their mothers' employment duration after the child's birth and before they turned 18. Our findings remain consistent and similar to our main specification. Both male and female children exhibit a reduction in negative views towards working mothers in response to the EITC expansion, with male children showing a slightly larger point estimate than their female counterparts. However, both genders show insignificant effects when born to less educated mothers. Interestingly, we observe mixed results regarding the influence of the duration of mothers' employment on children's gender attitudes. Children of mothers who were not employed at all show no effect from the expansion. In contrast, a significant effect is evident for children of mothers who were employed less than half of the child's upbringing, but this effect diminishes when maternal employment exceeds half of the child's upbringing. The U-shaped pattern of this effect might seem puzzling, yet it is notable that there is a significant difference in gender attitudes between treated and non-treated groups for children of longer-employed mothers. These children may already have more egalitarian attitudes, potentially diminishing the marginal impact of EITC expansion exposure compared to children of less-employed mothers.

# 6 Understanding the Mechanisms of Intergenerational Transmission of Gender Norms

The primary findings suggest that individuals with greater exposure to the EITC reform, particularly those who likely received higher EITC credits during childhood, show a decreased opposition to women's employment and a heightened propensity to support it. In this section, we investigate the possible mechanisms through which the expansion of the EITC may shape the formation of individuals' gender attitudes.

## 6.1 Improving the Education of Children

Education extends beyond cognitive and intellectual development; it also serves as an institution that influences attitudes and values. It plays a pivotal role in expanding our worldview and fostering a more enlightened outlook. Previous research has shown that individuals with

higher levels of education often exhibit more egalitarian attitudes toward gender roles compared to those with lower educational attainment (Thornton, Alwin, and Camburn, 1983; Kane, 1995; Du, Xiao, and Zhao, 2021). Education shapes individuals' gender identities for several reasons. First, it contributes to the development of "modern" values in an evolving world by adapting its content and curriculum (Davis and Greenstein, 2009; Dhar, Jain, and Jayachandran, 2022). Second, the enhancement of women's education increases their economic value and socioeconomic standing, which in turn helps diminish gender inequality and fosters more gender-equitable preferences (Qian, 2008; Field et al., 2021). Third, educated individuals typically have greater access to media, a significant factor in shaping social norms (Gerber, Karlan, and Bergan, 2009; Jensen and Oster, 2009).

Research suggests that children from low-income families, who are more likely to be the recipients of the EITC, demonstrate improved academic performance Bastian and Michelmore (2018) and are more inclined to complete high school and pursue higher education (Manoli and Turner, 2018). It is crucial for policymakers to consider the potential long-term effects of policies like the EITC on future generations (Chetty, Friedman, and Rockoff, 2011).

In Table 4, we investigate how the education of children, as indicated by the likelihood of completing high school, is influenced by the 1993 EITC reform. Our analysis focuses on individuals aged 23 and older who have completed their education, and we conduct the regression similar to Equation (2). We gradually incorporated control variables such as demographic controls and state controls into the first three columns, aligning with the approach used in other regression analyses.

Our results show that individuals more significantly impacted by the 1993 EITC expansion exhibit a 0.8 percentage point increase in the likelihood of completing high school for each additional year of exposure to the reform. For children born after 1993 into families receiving higher EITC credits, this likelihood increases by 18-fold. This finding aligns with the results reported in Bastian and Michelmore (2018), which estimated that a \$1,000 increase in family income from EITC exposure between ages 13 and 18 is associated with a 0.2% higher likelihood of completing high school and a modest uptick in total years of schooling.

In the last two columns, we examine whether the effects differ based on the child's gender. We find a more pronounced impact on daughters; an additional year of exposure to the 1993 EITC reform in "treated" families increases the probability of high school completion for daughters by 1.1 percentage points compared to sons. Our findings slightly diverge from those presented in Dahl and Lochner (2012), which identified a stronger influence of the EITC on boys' academic performance, particularly in math and reading test scores. Our study, however, focuses on the long-term impact of EITC on educational attainment, examining high school completion rates over an extended period.

#### 6.2 Shaping the Gender Attitude of Parents

Parents play a crucial role in instilling their beliefs and values in their children. Extensive research in the intergenerational transmission of values consistently shows a strong correlation between the social values of children and those of their parents (Bisin and Verdier, 2000; Hauk and Saez-Marti, 2002; Bisin and Verdier, 2011; Dohmen et al., 2012). Recent studies have identified significant associations, including high correlations between risk and trust attitudes (Dohmen et al., 2012), attitudes towards supporting one's own parents in old age (Jellal and Wolff, 2002), perspectives on fertility, human capital, and work orientation (Blau et al., 2013), and views on gender roles (Farré and Vella, 2013; Cano and Hofmeister, 2023). The persistence of certain norms, values, and beliefs in ethnic and religious minorities and their influence on economic institutions and regimes have also been linked to this intergenerational transmission (Bisin and Verdier, 2000; Bisin, Topa, and Verdier, 2004; Guiso, Sapienza, and Zingales, 2008; Doepke and Tertilt, 2009; Alesina and Giuliano, 2015).

The EITC may reshape parents' views regarding women in the workforce. Parents who adopt more egalitarian stances are likely to significantly influence the attitudes and values instilled in their children. Thus, the intergenerational transmission of beliefs becomes a dynamic interplay between parental viewpoints and external factors, such as policy changes, contributing to the evolution of societal norms and values.<sup>4</sup> To investigate how the EITC influences parents' views on women's roles in the workforce, we first connect the offspring in the NLSY79 Child and Young Adults dataset with their biological mothers in the NLSY79 dataset. Mothers in the NLSY79 were surveyed about women's roles in the labor market in 1979, 1982, 1987, and 2004. We create a comparable metric for mothers, mirroring the measurement for sons, to gauge a mother's perspective on women's roles. Our analysis includes mothers who responded to all survey questions, covering the period both before and after the 1993 EITC reform.

In Table 5, we apply a fixed-effect model to individual mothers. A mother is considered as "treated" if she gives birth to multiple children, qualifying for larger benefits under the EITC expansion. The survey year 2004 is labeled as "post"-reform. The results in the first column suggest that post-EITC reform, mothers show increased support for working women, moving away from traditional gender role views. In the next two columns, we categorize the mother's residential states into high- and low-benefit groups based on whether a state falls within the top or bottom 50th percentile of the EITC credit distribution. The impact appears more pronounced in states with more substantial EITC expansion and higher benefits. In the final two columns, we categorize mothers according to their educational attainment, a factor influencing the likelihood of participating in social welfare programs and qualifying for EITC credits (Eissa and Hoynes, 2004;

<sup>&</sup>lt;sup>4</sup>Empirical studies in sociology and economics often focus directly on the mechanisms of socialization between parents and children.

Bastian, 2020). The findings indicate that the effect is slightly more noticeable among mothers with high school degrees. Nevertheless, the difference between mothers with and without a high school education is not statistically significant.

#### 6.3 Having a Working Spouse

The influence of the Earned Income Tax Credit (EITC) on maternal employment has been extensively studied, as highlighted by Eissa and Hoynes (2004); Chetty, Friedman, and Saez (2013); Hoynes (2019); Bastian (2020). Serving as the largest federal cash transfer initiative, the EITC effectively incentivizes low-income parents, particularly single mothers, to enter the workforce, by reducing their tax burden and offering a financial incentive for their labor. The program has been notably successful in motivating single parents, especially women, to secure employment opportunities. The EITC's success in encouraging labor force participation among single mothers is a significant aspect of its impact on social norms.

Numerous studies, such as that by Charles, Guryan, and Pan (2022), shows a positive correlation between social norms promoting gender equality and increased female labor force participation. Their findings suggest that lower levels of sexism in the prevailing societal context lead to increased wages and higher participation of women in the labor force.<sup>5</sup>

As pointed out in Fernández, Fogli, and Olivetti (2004), another crucial factor contributing to the gradual yet consistent rise in women's participation in the U.S. labor market is the increasing number of men who, over time, were raised in distinct families in which mothers pursued employment. They argued that being raised in an environment where their mothers worked may have influenced a man's inclination towards a spouse with a career or directly enhanced his qualities as a partner. For instance, this upbringing could have augmented his capacity to collaborate and contribute to household responsibilities, making him a more supportive partner for a working woman. Consequently, the presence of such men with different perspectives and attributes rendered the pursuit of market skills and a career as a woman more appealing.

In our study, we examine whether married men who were more exposed to the 1993 EITC reform are more likely to have employed spouses. However, the NLSY79 Child and Young Adults dataset lacks detailed information about the children's spouses, so we use the 1990 and 2020 Current Population Survey data to supplement this information. Our analysis focuses on cohorts identical to our baseline, consisting of individuals born between 1975 and 1997. By incorporating parental information, we classify an individual as "treated" if they are the only child in the family, and their exposure to the 1993 EITC aligns with Equation 1.

<sup>&</sup>lt;sup>5</sup>It is worth noting that Charles, Guryan, and Pan (2022) measure prevailing sexism in a society based on attitudes towards women's capabilities, the perceived impact on the family when women engage outside the home, and traditional gender roles.

The outcomes are detailed in Table 6. In comparison to individuals minimally affected by the 1993 EITC expansion, those more susceptible to its impact exhibit a 0.9% increase in the probability of having a working spouse. This effect is particularly noticeable among individuals with higher levels of education, especially when both their own education and their mother's education are higher. A mother with a higher level of education is more likely to be employed. Chen and Ge (2018) highlighted that men raised by working mothers are more inclined to endorse egalitarian gender roles, are more likely to have wives who work, and tend to be more industrious or willing to participate in household chores compared to their counterparts.

#### 7 Conclusion

Understanding the impact of large government policies on social norms is an important research question, given the persistence of these norms in society. This paper has explored the profound influence of one of the largest cash transfer programs, the Earned Income Tax Credit (EITC), in shaping gender norms and attitudes towards working women in the United States. We employ a difference-in-differences method, in conjunction with the 1993 EITC expansion, to examine the policy's impact on gender attitudes. This federal policy, originally designed to alleviate economic hardship, has been instrumental in reshaping societal perspectives on gender roles, especially through its effects on the children of mothers impacted by the EITC expansion.

Our findings reveal that, while the overall impact of the EITC expansion on children's attitudes towards working women is complex and nuanced, it is notably significant among children whose mothers have less than a high school education. This underscores the importance of considering underlying demographic factors, such as maternal education, to fully understand the broader social impacts of fiscal policies. Our analysis, employing a difference-in-differences approach and complemented by an alternative specification leveraging state-level variations in EITC benefits, provides robust evidence of the EITC's influence on gender attitudes.

Furthermore, we investigate the mechanisms through which the EITC expansion may have influenced gender norms. Our analysis indicates that improvements in children's education, the evolution of mothers' attitudes towards working women, and the dynamics of dual-working spouses collectively contribute to shaping children's views on gender roles. These findings highlight the multi-faceted nature of policy impacts, extending beyond immediate economic effects to broader social implications.

Our study makes a significant contribution to the extensive literature on the impact of the EITC. While existing research identified substantial effects on the labor market, health-related outcomes, and long-term impacts on children's education, less is known about its influence on social norms. Our paper complements these studies by examining gender-role norms and their

evolution over time.

In conclusion, it is crucial to recognize that policies like the EITC, while primarily economic tools, have far-reaching effects on societal attitudes and norms. Understanding these broader implications is essential for policymakers aiming to design interventions that address not only economic disparities but also promote social well-being and equality. Our study serves as a reminder of the powerful role policy can play in shaping the social fabric of our society and highlights the importance of considering these wider impacts in policy formulation and evaluation.

### References

- **Akerlof, George A., and Rachel E. Kranton.** 2000. "Economics and Identity." *The Quarterly Journal of Economics*, 115(3): 715–753.
- **Alesina, Alberto, and Paola Giuliano.** 2015. "Culture and Institutions." *Journal of Economic Literature*, 53(4): 898–944.
- **Averett, Susan, and Yang Wang.** 2023. "Assessing the Fertility Effects of Childcare Cost Subsidies: Evidence from the Child and Dependent Care Tax Credit." *IZA Discussion Papers*.
- **Bandura, Albert, and Richard H Walters.** 1977. *Social Learning Theory.* Vol. 1, Englewood Cliffs Prentice Hall.
- **Bastian, Jacob.** 2020. "The Rise of Working Mothers and the 1975 Earned Income Tax Credit." *American Economic Journal: Economic Policy*, 12(3): 44–75.
- **Bastian, Jacob, and Katherine Michelmore.** 2018. "The Long-Term Impact of the Earned Income Tax Credit on Children's Education and Employment Outcomes." *Journal of Labor Economics*, 36(4): 1127–1163.
- **Bertrand, Marianne, Emir Kamenica, and Jessica Pan.** 2015. "Gender Identity and Relative Income within Households." *The Quarterly Journal of Economics*, 130(2): 571–614.
- **Besley, Timothy, and Stephen Coate.** 1992. "Workfare versus welfare: Incentive arguments for work requirements in poverty-alleviation programs." *The American Economic Review*, 82(1): 249–261.
- **Bisin, Alberto, and Thierry Verdier.** 2000. "Beyond the Melting Pot": Cultural Transmission, Marriage, and the Evolution of Ethnic and Religious Traits." *The Quarterly Journal of Economics*, 115(3): 955–988.
- **Bisin, Alberto, and Thierry Verdier.** 2011. "The Economics of Cultural Transmission and Socialization." In *Handbook of Social Economics*. Vol. 1, 339–416. Elsevier.
- **Bisin, Alberto, Giorgio Topa, and Thierry Verdier.** 2004. "Religious Thermarriage and Socialization in the United States." *Journal of Political Economy*, 112(3): 615–664.
- **Black, Sandra E, Paul J Devereux, and Kjell G Salvanes.** 2005. "Why the Apple Doesn't Fall Far: Understanding Intergenerational Transmission of Human Capital." *American Economic Review*, 95(1): 437–449.

- **Blau, Francine D, Lawrence M Kahn, Albert Yung-Hsu Liu, and Kerry L Papps.** 2013. "The Transmission of Women's Fertility, Human Capital, and Work Orientation across Immigrant Generations." *Journal of Population Economics*, 26: 405–435.
- **Cano, Tomás, and Heather Hofmeister.** 2023. "The Intergenerational Transmission of Gender: Paternal Influences on Children's Gender Attitudes." *Journal of Marriage and Family*, 85(1): 193–214.
- **Charles, Kerwin Kofi, Jonathan Guryan, and Jessica Pan.** 2022. "The Effects of Sexism on American Women: The Role of Norms vs. Discrimination." *Journal of Human Resources*.
- **Chen, Xi, and Suqin Ge.** 2018. "Social Norms and Female Labor Force Participation in Urban China." *Journal of Comparative Economics*, 46(4): 966–987.
- Chetty, Raj, John N Friedman, and Emmanuel Saez. 2013. "Using Differences in Knowledge across Neighborhoods to Uncover the Impacts of the EITC on Earnings." *American Economic Review*, 103(7): 2683–2721.
- Chetty, Raj, John N Friedman, and Jonah Rockoff. 2011. "New Evidence on the Long-Term Impacts of Tax Credits." Vol. 104, 116–124, JSTOR.
- **Dahl, Gordon B, and Lance Lochner.** 2012. "The Impact of Family Income on Child Achievement: Evidence from the Earned Income Tax Credit." *American Economic Review,* 102(5): 1927–56.
- **Davis, Shannon N, and Theodore N Greenstein.** 2009. "Gender Ideology: Components, Predictors, and Consequences." *Annual Review of Sociology*, 35: 87–105.
- **Dhar, Diva, Tarun Jain, and Seema Jayachandran.** 2022. "Reshaping Adolescents' Gender Attitudes: Evidence from a School-Based Experiment in India." *American Economic Review*, 112(3): 899–927.
- **Doepke, Matthias, and Michele Tertilt.** 2009. "Women's Liberation: What's in it for Men?" *The Quarterly Journal of Economics*, 124(4): 1541–1591.
- **Dohmen, Thomas, Armin Falk, David Huffman, and Uwe Sunde.** 2012. "The Intergenerational Transmission of Risk and Trust Attitudes." *The Review of Economic Studies*, 79(2): 645–677.
- **Du, Huichao, Yun Xiao, and Liqiu Zhao.** 2021. "Education and Gender Role Attitudes." *Journal of Population Economics*, 34(2): 475–513.

- **Eissa, Nada, and Hilary Williamson Hoynes.** 2004. "Taxes and the Labor Market Participation of Married Couples: The Earned Income Tax Credit." *Journal of Public Economics*, 88(9-10): 1931–1958.
- Ermisch, John, Markus Jantti, and Timothy M Smeeding. 2012. From Parents to Children: The Intergenerational Transmission of Advantage. Russell Sage Foundation.
- **Evans, William N, and Craig L Garthwaite.** 2014. "Giving Mom a Break: The Impact of Higher EITC Payments on Maternal Health." *American Economic Journal: Economic Policy*, 6(2): 258–90.
- **Farré, Lídia, and Francis Vella.** 2013. "The Intergenerational Transmission of Gender Role Attitudes and Its Implications for Female Labour Force Participation." *Economica*, 80(318): 219–247.
- **Fernández, Raquel, Alessandra Fogli, and Claudia Olivetti.** 2004. "Mothers and Sons: Preference Formation and Female Labor Force Dynamics." *The Quarterly Journal of Economics*, 119(4): 1249–1299.
- Field, Erica, Rohini Pande, Natalia Rigol, Simone Schaner, and Charity Troyer Moore. 2021. "On Her Own Account: How Strengthening Women's Financial Control Impacts Labor Supply and Gender Norms." *American Economic Review*, 111(7): 2342–75.
- **Gerber, Alan S, Dean Karlan, and Daniel Bergan.** 2009. "Does the Media Matter? A Field Experiment Measuring the Effect of Newspapers on Voting Behavior and Political Opinions." *American Economic Journal: Applied Economics*, 1(2): 35–52.
- **Goldin, Claudia.** 2006. "The Quiet Revolution That Transformed Women's Employment, Education, and Family." *American Economic Review*, 96(2): 1–21.
- Guiso, Luigi, Paola Sapienza, and Luigi Zingales. 2008. "Social Capital as Good Culture." *Journal of the European Economic Association*, 6(2-3): 295–320.
- **Hauk, Esther, and Maria Saez-Marti.** 2002. "On the Cultural Transmission of Corruption." *Journal of Economic Theory*, 107(2): 311–335.
- **Hoynes, Hilary.** 2019. "The Earned Income Tax Credit." *The Annals of the American Academy of Political and Social Science*, 686(1): 180–203.
- **Hoynes, Hilary, Doug Miller, and David Simon.** 2015. "Income, the Earned Income Tax Credit, and Infant Health." *American Economic Journal: Economic Policy*, 7(1): 172–211.
- Hoynes, Hilary W. 1996. "Work, welfare, and family structure: what have we learned?"

- **Jayachandran, Seema.** 2021. "Social Norms as a Barrier to Women's Employment in Developing Countries." *IMF Economic Review*, 69(3): 576–595.
- **Jellal, Mohamed, and François-Charles Wolff.** 2002. "Cultural Evolutionary Altruism: Theory and Evidence." *European Journal of Political Economy*, 18(2): 241–262.
- **Jensen, Robert, and Emily Oster.** 2009. "The Power of TV: Cable Television and Women's Status in India." *The Quarterly Journal of Economics*, 124(3): 1057–1094.
- **Kane, Emily W.** 1995. "Education and Beliefs about Gender Inequality." *Social Problems*, 42(1): 74–90.
- Kleven, Henrik. 2023. "The EITC and the Extensive Margin: A Reappraisal." NBER Working Paper.
- **Krosnick, Jon A, and Duane F Alwin.** 1989. "Aging and Susceptibility to Attitude Change." *Journal of Personality and Social Psychology*, 57(3): 416.
- **Kuka, Elira, and Na'ama Shenhav.** 2020. "Long-Run Effects of Incentivizing Work after Childbirth." *NBER Working Paper*.
- **Lindquist, Matthew J, Joeri Sol, and Mirjam Van Praag.** 2015. "Why Do Entrepreneurial Parents Have Entrepreneurial Children?" *Journal of Labor Economics*, 33(2): 269–296.
- **Maasoumi, Esfandiar, and Le Wang.** 2019. "The Gender Gap between Earnings Distributions." *The Journal of Political Economy*, 127(5): 2438–2504.
- **Manoli, Day, and Nicholas Turner.** 2018. "Cash-on-Hand and College Enrollment: Evidence from Population Tax Data and the Earned Income Tax Credit." *American Economic Journal: Economic Policy*, 10(2): 242–271.
- Marr, Chuck, Chye-Ching Huang, and Nathaniel Frentz. 2014. "Strengthening the EITC for childless workers would promote work and reduce poverty." Washington: Center on Budget and Policy Priorities.
- **Meyer, Bruce D, and Dan T Rosenbaum.** 2001. "Welfare, the Earned Income Tax Credit, and the Labor Supply of Single Mothers." *The Quarterly Journal of Economics*, 116(3): 1063–1114.
- **Neumark, David, and Peter Shirley.** 2020. "The Long-Run Effects of the Earned Income Tax Credit on Women's Labor Market Outcomes." *Labour Economics*, 66: 101878.
- **Pande, Rohini, and Helena Roy.** 2021. ""If You Compete with us, We Shan'T Marry You": The (Mary Paley and) Alfred Marshall Lecture." *Journal of the European Economic Association*, 19(6): 2992–3024.

- **Patacchini, Eleonora, and Yves Zenou.** 2016. "Social Networks and Parental Behavior in the Intergenerational Transmission of Religion." *Quantitative Economics*, 7(3): 969–995.
- Perales, Francisco, Heidi Hoffmann, Tania King, Sergi Vidal, and Janeen Baxter. 2021. "Mothers, Fathers and the Intergenerational Transmission of Gender Ideology." *Social Science Research*, 99: 102597.
- **Qian, Nancy.** 2008. "Missing Women and the Price of Tea in China: The Effect of Sex-Specific Earnings on Sex Imbalance." *The Quarterly Journal of Economics*, 123(3): 1251–1285.
- **Schanzenbach, Diane Whitmore, and Michael R. Strain.** 2020. "Employment Effects of the Earned Income Tax Credit: Taking the Long View." *Tax Policy and the Economy, Volume 35*, 87–129. University of Chicago Press.
- **Sen, Amartya.** 2001. "The Many Faces of Gender Inequality." *The New Republic.* Frontline (November 9, 2001).
- **Thornton, Arland, Duane F Alwin, and Donald Camburn.** 1983. "Causes and Consequences of Sex-role Attitudes and Attitude Change." *American Sociological Review*, 211–227.
- **Vollebergh, Wilma AM, Jurjen Iedema, and Quinten AW Raaijmakers.** 2001. "Intergenerational transmission and the formation of cultural orientations in adolescence and young adulthood." *Journal of Marriage and Family*, 63(4): 1185–1198.

# 8 Tables

Table 1: Baseline Results

	(1)	(2)	(3)	(4)	(5)	(6)
	All	Mom's	Mom's Education		Mom's Education	
		< High School	>= High School		< High School	>= High School
$Treated \times Length$	-0.001	-0.007**	-0.0003			
	(0.002)	(0.003)	(0.003)			
Treated	0.008	0.095**	-0.011			
	(0.029)	(0.047)	(0.037)			
EITC Benefit	, ,	, ,	, ,	-0.013**	-0.026**	-0.004
v				(0.006)	(0.012)	(0.008)
Demographic controls	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	✓	$\checkmark$
State controls	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
State FE	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Birth State×Birth Cohort	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Residence State× Birth Year	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Observations	13,672	5,273	8,308	13,672	5,273	8,308
$\mathbb{R}^2$	0.0644	0.1308	0.0951	0.0645	0.1309	0.0950

Notes: The dependent variable is the likelihood of an individual's gender attitude against working women. The first three columns of the table are based on the specification outlined in Eq. 2 and the last three columns follow the specification in Eq. 3. Robust standard errors are clustered at the childbirth state level. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

Table 2: Pre-Trend Test

	(1)	(2)	(3)	(4)	(5)	(6)
	All	Mom's Education		All	Mom's Education	
		< High School	>= High School		< High School	>= High School
$Treated \times NonExposure$	0.0400	-0.0216	0.0720			
	(0.0518)	(0.0130)	(0.1610)			
$Treated \times PartialFullExposure$	-0.0115	-0.0010	-0.0220			
	(0.0104)	(0.0151)	(0.0171)			
$Treated \times Partial Exposure$				-0.0121	-0.0031	-0.0302
				(0.0112)	(0.0191)	(0.0219)
$Treated \times Full Exposure$				-0.048	-0.0425	0.1668
				(0.0374)	(0.0454)	(0.1270)
Observations	13.864	5,378	8,438	13.864	5,378	8,438
$R^2$	0.0166	0.0225	0.0249	0.0166	0.1327	0.1332

Notes: The dependent variable is the likelihood of an individual's gender attitude against working women. This table conducts a pretrend analysis based on the specification outlined in (2). In the initial three columns, a comparison is made between individuals born before 1975 (not exposed) and those born after 1975, who were subject to some or the full extent of exposure to the 1993 EITC reform. Subsequently, the following three columns distinguish between individuals with partial exposure (born between 1975 and 1993) and those with full exposure (born after 1993). All other control variables remain consistent with the primary regression, including demographic controls, state-level economic variables and welfare variables, mother state fixed effect, child birth state by cohort fixed effect, and child residence state by fixed effect. Robust standard errors are clustered at the childbirth state level. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

Table 3: Robustness Test

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Female		Male		Mom's Employment During Children's Development		
	Mom Ed < HS	Mom Ed >= HS	Mom Ed < HS	Mom Ed >= HS	Not Employed	Employed Less Half of Time	Employed More Half of Time
$\overline{Treated \times Length}$	-0.007*	0.001	-0.012**	-0.006	0.010	-0.006***	0.002
	(0.004)	(0.004)	(0.006)	(0.005)	(0.002)	(0.002)	(0.002)
Treated	0.100*	-0.028	0.163	0.040	-0.102	0.068**	-0.049*
	(0.052)	(0.041)	(0.097)	(0.046)	(0.340)	(0.031)	(0.026)
Observations	3,061	4,539	2,756	4,340	891	7,119	6,794
$R^2$	0.186	0.146	0.210	0.151	0.340	0.110	0.109

Notes: The dependent variable is the likelihood of an individual's gender attitude against working women. The initial four columns assess the diverse effects on male and female individuals based on whether their mothers have an education level below or above high school. The final three columns categorize individuals depending on their mothers' duration of employment during the ages of 0 to 18. All other control variables remain consistent with the primary regression, including demographic controls, state-level economic variables and welfare variables, mother state fixed effect, child birth state by cohort fixed effect, and child residence state by fixed effect. Robust standard errors are clustered at the childbirth state level. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

Table 4: EITC Reform Impact on Children's Education

	(1)	(2)	(3)	(4)	(5)
		All		Ge	nder
				Males	Females
$\overline{Treated \times Length}$	0.009**	0.009***	0.008**	0.004	0.011*
	(0.003)	(0.003)	(0.003)	(0.005)	(0.006)
Treated	-0.060***	-0.061***	-0.057***	-0.038	-0.078*
	(0.019)	(0.019)	(0.019)	(0.031)	(0.039)
Demographic controls		✓	✓	$\checkmark$	$\checkmark$
State controls			$\checkmark$	$\checkmark$	$\checkmark$
State FE	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Birth State×Birth Cohort	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Residence State $\times$ Birth Year	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Observations	6,802	6,802	6,802	3,177	3,503
$R^2$	0.600	0.610	0.620	0.638	0.624

Notes: The dependent variable is the probability of completing high school. This example limits individuals aged 22 and above to ensure they have finished their education.

Table 5: EITC Reform Impact on Mom's Gender Attitude

	(1)	(2)	(3)	(4)	(5)	
	All	Exposure to Benefits High Low		Mom's Education < High School >= High Scho		
$Treated \times Post$	-0.174**	-0.163**	-0.079	-0.032	-0.147**	
	(0.070)	(0.075)	(0.109)	(0.367)	(0.084)	
Individual FE	✓	√	√	√	√	
State FE	✓	√	√	√	√	
Year FE	✓	√	√	√	√	
Observations $R^2$	11,244	4,556	6,688	1,192	10,052	
	0.746	0.766	0.733	0.567	0.770	

Notes: The dependent variable is a mother's gender attitude against working women. This table is based on data from the mothers of NLSY79 Children and Young Adults who participated in four survey waves conducted in 1979, 1982, 1987, and 2004, focusing on their attitudes towards gender. Column (2) comprises mothers residing in the state that provides higher EITC benefits to eligible families, given by those above the 50th percentile in the credit distribution. Mothers residing in the state who receive less than the 50th percentile of EITC benefits are contained in Column (3).

Table 6: EITC Reform Impact on Probability of Having a Working Spouse

	(1)	(2)	(3)	(4)	(5)	
	All	Own Education		Mom's Education		
		< High School	>= High School	< High School	>= High School	
$Treated \times Length$	0.010***	0.007	0.010***	0.009	0.011***	
	(0.002)	(0.006)	(0.002)	(0.009)	(0.003)	
Treated	0.020	0.016	0.029	-0.193***	0.018	
	(0.023)	(0.055)	(0.022)	(0.063)	(0.023)	
Demographic controls	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
State×Birth Cohort	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
Observations	12,952	2,075	10,526	6,281	6,430	
$R^2$	0.239	0.404	0.232	0.298	0.290	

Notes: The dependent variable is the probability of having a spouse who is employed for a men. Data is derived from CPS data between 1990 and 2020. The analysis focuses on married men born between 1975 and 1997. Column (1) incorporates demographic controls such as the squared term of age, indicators for race, various educational achievements, and employment status. Standard errors are clustered at the state level.

# 9 Figures

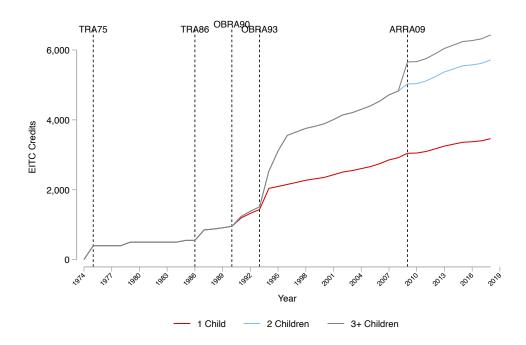


Figure 1: Federal EITC Maximum Credits

Notes: This figure shows the maximum annual credit for families with 1, 2, and 3+ EITC-eligible children between 1974 and 2018, in 2018 USD. Source: Tax Policy Center.

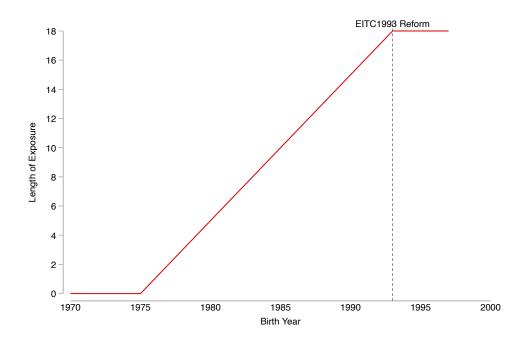
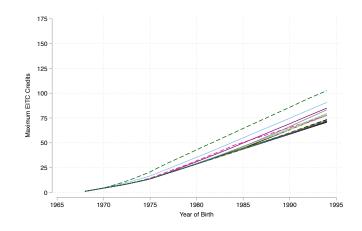
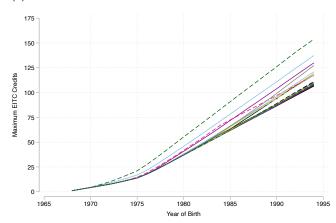


Figure 2: Exposure to 1993 EITC Expansion by Birth Cohort

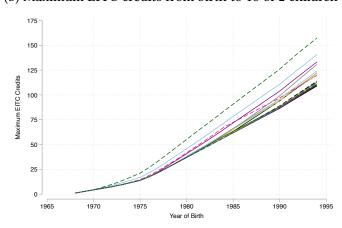
Notes: This figure shows the exposure of different cohorts to the 1993 EITC expansion. The exact formula is is calculated by Length = min(18, max(0, 18 - (1993 - c)).



(a) Maximum EITC credits from birth to 18 of 1 child



(b) Maximum EITC credits from birth to 18 of 2 children



(c) Maximum EITC credits from birth to 18 of 3 children

Figure 3: EITC Exposure from Birth to Age 18 by Cohort and State of Residence