UNINTENDED CONSEQUENCES: CHILDLESS WORKERS, THE EITC, AND THE MINIMUM WAGE

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Abstract

This paper examines how state minimum wage increases interact with Earned Income Tax Credit (EITC) eligibility and benefits for childless workers. We use Current Population Survey data to provide new descriptive evidence on how state EITC expansions for childless adults may have unintended consequences when implemented in states with modestly high minimum wages. We focus on EITC eligibility rates among childless workers. We find that state minimum wages above the federal minimum wage of $7.25 per hour tend to be associated with lower EITC eligibility. However, this relationship is non-linear. The association is concentrated among states with more modest minimum wage levels ($10 to $12 per hour) where EITC eligibility is 8–9% lower than in states with a minimum wage of $7.25, while the relationship ceases to be negative at the highest minimum wage levels ($15 per hour). Our findings have important implications for the design and evaluation of anti-poverty policies that target low-income workers without children.

1 Introduction

The Earned Income Tax Credit (EITC) has been extensively studied, but the EITC available to adults without qualifying dependent children has received much less research interest. Prior work on the EITC for childless adults has considered the labor supply effects (Meer & Witter, 2023; Witter, 2020), material hardship for young adults (J. Lee et al., 2024), and the effects of single-city cash supplement pilots that mirror the childless EITC (Courtin et al., 2022; Miller et al., 2018; Muennig et al., 2024).

As of Tax Year (TY) 2022, this group of EITC recipients–often referred to as childless EITC filers–accounted for 6.7 million out of 23.7 million EITC filers, or about 28% of the total number of EITC filers. However, the credit amounts for this group are much smaller, only accounting for about 4% of total EITC benefits. The average EITC amount for this group was about $364, compared to an average of $3,344 for EITC filers with qualifying dependent children.[1]

Because the EITC for the childless group is so much less generous than the EITC for other qualifying tax filers, policymakers have expressed interest in expanding the credit. At the federal level, the American Rescue Plan Act of 2021 (ARPA) roughly tripled the maximum value of the childless EITC for TY 2021, while also extending the credit phase-in, plateau, and phase-out regions and making other eligibility changes (Crandall-Hollick, 2021).

Although this policy change was only effective federally for TY 2021, several states have modified their own state-level credits to include greater generosity for this population. A majority of states have some version of a state-level EITC, and as of 2025, six states specifically provide a comparatively larger state EITC match for childless filers relative to those with children.

Policy advocates have called on more states to increase childless EITC benefits. However, it is an open question which population benefits from these expansions. One key consideration is how these state EITC changes interact with concurrent minimum wage changes. Previous work explored EITC and minimum wage interactions but did not

[1] Authors' calculations based on IRS Statistics of Income data for TY 2022.

specifically focus on the childless population and covered an earlier period before the past 15 years of state minimum wage changes (Neumark & Wascher, 2011). With the exception of CA and DC, the income parameters for the state EITCs in nearly all states match the federal EITC income parameters. For single childless filers, their EITC reaches the plateau region at an income of $10,620 and fully phases out at an income of $19,104 (TY 2025). A full-time year-round worker without children who is paid $12 per hour would earn about $24,000, well beyond the qualifying income range. Because many of the states with the most generous state EITCs also have higher minimum wages, it is plausible that state childless EITCs do not reach many low-wage workers and that policymakers may not have full information on the characteristics of these workers.

This paper contributes to the literature around the EITC by providing additional evidence about the childless component of the credit, including by analyzing the EITC alongside the most recent state minimum wage changes. At this stage, we focus on federal EITC eligibility, because most state EITC eligibility mirrors the federal, but future work will specifically model state EITC eligibility.

This paper also offers policy-relevant recommendations for policymakers to consider as they explore further changes to the federal and state EITCs. This includes highlighting the state-specific state EITC rules in California, the District of Columbia, and Washington.

2 Background and Policy

The federal EITC is a tax credit for workers with income requirements that are based on marital status and number of children. Tax filers with three or more children are eligible for the largest EITC ($8,046 as of TY 2025). The credit features a phase-in, plateau, and phase-out structure, which is intended to encourage labor force participation and to lessen work disincentives that were identified in traditional cash welfare programs like Aid to Families with Dependent Children. The federal credit is also fully refundable, which means a tax filer can receive the credit amount that exceeds their income tax liability,

even if they do not otherwise owe federal income tax.

The federal EITC was enacted temporarily in 1975, made permanent in 1978, and substantially expanded in 1986 and 1990 (Crandall-Hollick, 2022). However, it was not until 1994 when a smaller EITC first became available for tax filers aged 25–64 without qualifying dependent children (max. value of about $640 in 2024 dollars). Throughout this paper, we refer to the EITC for this group of workers who are considered childless for EITC and tax purposes as the childless EITC.[2] The childless EITC was intended to partly counteract gas tax increases that were included in the larger tax and budget law (Crandall-Hollick, 2022).

While the EITC for families with children has been expanded multiple times, including to provide larger credit amounts for those with two children or two or more children, the childless EITC has not significantly changed since its creation, with the exception of the temporary expansion in 2021. Besides that change, the childless EITC is adjusted annually for inflation and includes a component to relieve marriage penalties in the credit design, both of which also apply to the EITC for filers with children. Figure 1 shows the EITC for childless workers as of TY 2025.

For 2021 only, ARPA roughly tripled the maximum amount of the credit from $538 to $1,502 and doubled the phase-in and phase-out rates from 7.65% to 15.3%. These changes shifted the phase-in, plateau, and phase-out ranges of the credit. ARPA also eliminated several other childless EITC eligibility restrictions on a temporary, one-year basis, including making the credit available to childless workers aged 19–24 (Crandall-Hollick, 2021).

[2]Some of these filers may be non-custodial parents. For example, previous work by Stykes et al. (2013) estimated that, depending on the data source, 4%–12% of men aged 15–44 had at least one nonresident child.

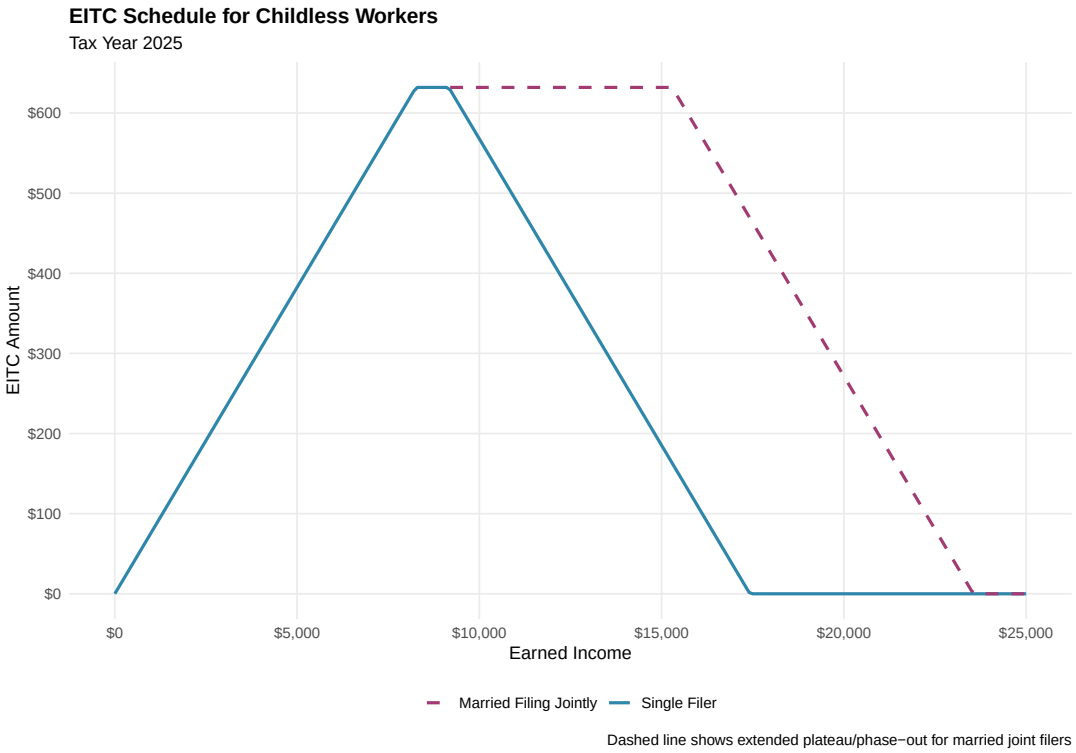

Figure 1: EITC Schedule, Adults without Children, TY 2025

2.1 Childless EITC State Policy Variation

As shown in Figure 2, many states have enacted state-level EITCs, nearly all of which are structured as a percentage of the federal EITC (National Conference of State Legislatures, 2025). Like the federal EITC, most state EITCs are fully refundable, though several are either partially refundable or nonrefundable. As of TY 2025, refundable state EITCs range in generosity from 5% in Louisiana and Oklahoma to 50% or more in Colorado, Maryland, and Washington, DC.

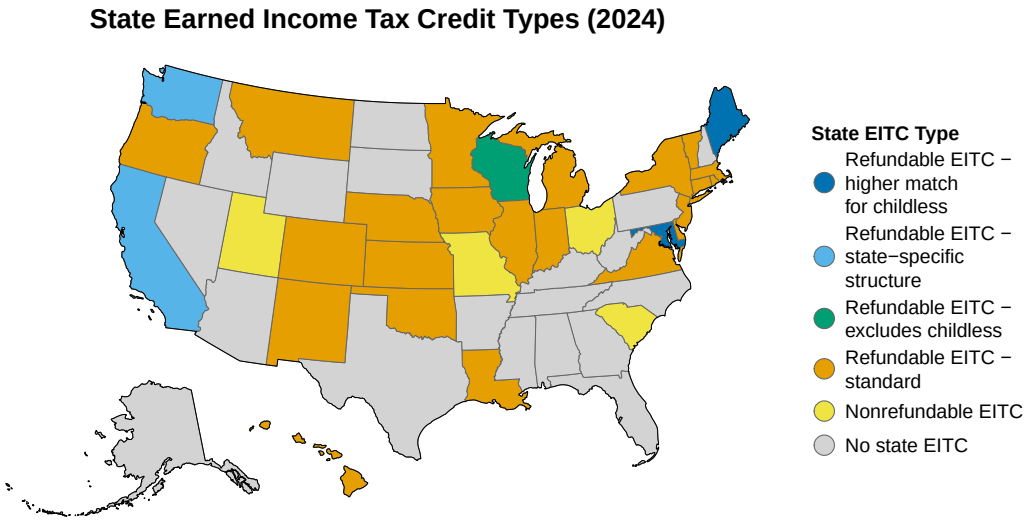

Figure 2: State EITCs, 2024

Ten states have high-percentage EITC match rates across EITC family structures, including for childless filers,[3] while a few states also provide additional EITC generosity for childless filers. These latter states include the District of Columbia, Maine, Maryland, and Vermont, where eligible childless workers qualify for a 50%–100% match of the federal EITC, a greater percentage match than EITC filers with children in those same states. In addition, California and Washington have state EITCs that differ in structure from the federal EITC. For childless filers, the maximum values of these credits roughly equate to 40%–50% of the federal EITC, or approximately $300.

Conversely, not all state EITCs are available to childless filers. Wisconsin's state EITC, which is refundable, is available only to filers with qualifying dependent children. States with nonrefundable EITCs also typically have childless EITCs in name only. For example, in the years since nonrefundable state EITCs have been in effect in Missouri, South Carolina, and Utah, the income level at which a taxpayer would begin to pay state income tax does not begin until incomes near or beyond the point at which the childless EITC fully phases out. As a result, childless filers would have minimal, if any, remaining state income tax liability to offset with the state EITC.

In terms of maximum credit value, a childless state EITC that is 100% of the federal EITC would have a maximum value of $632 (TY 2024). This is roughly analogous to a state EITC that is 10% for workers with two children, which would have a maximum value of $696 (TY 2024). However, analyzing childless EITCs also must contend with the much narrower income eligibility range and different phase-in and phase-out structures.

2.2 Minimum Wage Increases and State EITCs

As discussed above, childless workers no longer qualify for the federal EITC at relatively low earnings, which means in states with higher minimum wages, full-time workers who earn at or near the minimum wage would not qualify for the EITC. At the federal level, several lawmakers expressed a desire to modify the childless EITC the last time that the federal minimum wage was increased. At the time, several think tanks and scholars indi-

[3] As of 2025, CO, CT, HI, IL, MA, MI, MT, NJ, NM, and NY provide a refundable state EITC equal to 20% or more of the federal EITC (National Conference of State Legislatures, 2025).

cated that one motivation was to make sure that full-time minimum wage workers without children still qualified for a meaningful EITC (Aron-Dine & Sherloc, 2009; Edelman et al., 2009; Mincy et al., 2011).

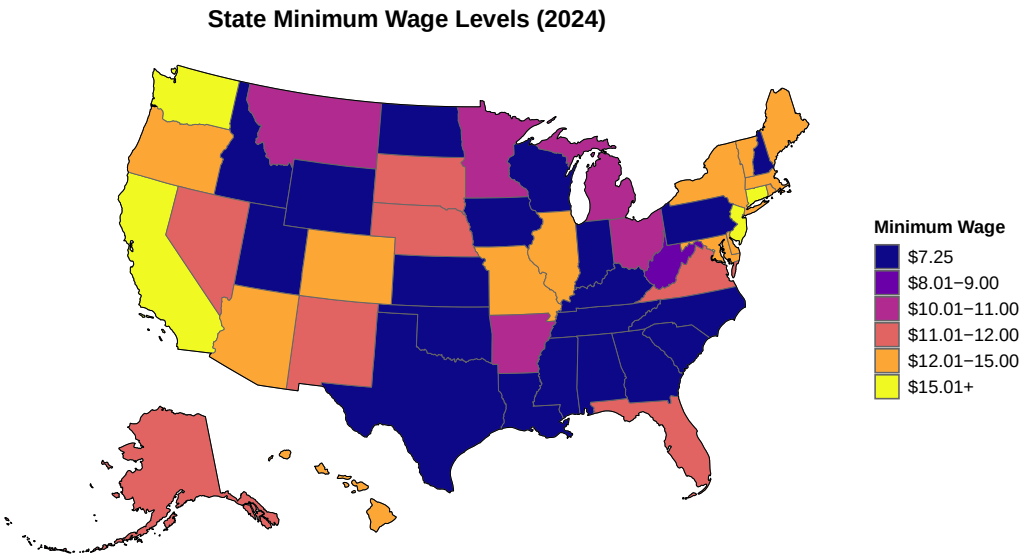

Figure 3: State minimum wage levels, 2024

We focus on childless adults and not parents for at least two reasons. First, the EITC phase-out range for workers with children extends over a much wider range of income, including income levels that are likely less sensitive to minimum wage changes. For example, the EITC phase-out range for a single parent with two children extends to an income above $55,000 (TY 2025).

Second, for those filers with children whose incomes are high enough that they begin to have positive federal income tax liability, the loss in the value of their EITC will be offset by additional credit amounts related to the nonrefundable portion of the Child Tax Credit (CTC). That is because the federal CTC is only partially refundable at a maximum of $1,700 per child, relative to the maximum nonrefundable CTC amount of $2,200 per child (TY 2025). That means, for filers with children who are in the EITC phase-out region, each EITC dollar lost by such families will be offset by an additional dollar gained from the nonrefundable portion of the CTC.[4]

[4]Older children between 17 and 23 years old who are considered qualifying children for the EITC are

2.3 Previous Literature

Relative to the larger body of research on the EITC, only a small set of studies explore effects of the childless EITC. Witter (2020) estimated labor supply responses based on federal and state variation in childless EITCs and also conducted a supplementary analysis that is specific to the Washington, DC childless EITC expansion. Meer and Witter (2023) estimated labor supply effects using the age-25 eligibility discontinuity. J. Lee et al. (2024) investigated the one-year childless EITC expansion under ARPA and found significant reductions in housing hardship for temporarily-eligible childless young adults relative to a slightly older group of childless adults who were less affected by the policy change.

Researchers have also conducted evaluations of the Paycheck Plus demonstrations in New York City and Atlanta. These randomized controlled trials delivered a cash payment to childless adults that was structured similarly to the EITC. Eligibility was based on income and was administered alongside the federal tax filing process. It is worth noting that the income eligibility guidelines for this program were much more generous than the federal EITC at the time. The maximum payments were up to $2,000 per year for those with incomes between $6,667 and $18,000. Those with incomes up to almost $30,000 could participate and receive a smaller payment.

Our study also follows the literature on EITC-minimum wage interactions. Several previous studies consider these interactions, though without a specific focus on the childless population (Berger et al., 2025; DeFina, 2008; Dube, 2019; D. Lee & Saez, 2012; Lenhart & Chakraborty, 2024; Neumark & Wascher, 2001, 2011; Neumark & Williams, 2020; Nichols & Rothstein, 2015).

With respect to policy design, one argument for pairing the EITC with a sufficiently high, binding minimum wage is that economic theory predicts that employers may capture some of the economic incidence of the EITC that would otherwise be received by workers, the intended target population (D. Lee & Saez, 2012; Leigh, 2010; Nichols & Rothstein, 2015; Rothstein, 2010). The minimum wage could counteract this effect on equilibrium wages and increase EITC incidence among intended recipients. Although this is not a

not eligible for the CTC. However, those parents would potentially be able to claim the nonrefundable credit for other dependents for those children.

focus of this paper, this strand of research represents one potential motivation for why policymakers may enact EITC and minimum wage changes alongside one another.

Rather than test claims of economic efficiency or estimate incidence, our study considers the notion of EITC-minimum wage pairings from the angle of policy design. In the presence of high minimum wages, childless EITC income eligibility ranges may need to be revisited to accommodate the redistributive aims of policymakers or risk making the childless EITC a policy with limited real world effects.

Relevant to our study, Neumark and Wascher (2011) indicated heterogeneous effects of EITC and minimum wage interactions, with positive effects on employment and earnings concentrated among single mothers and negative effects among Black and Hispanic childless men with lower educational attainment.

At least two studies have specifically considered the EITC in Washington, DC. Fahimullah et al. (2019) simulated prospective EITC-minimum wage interactions in Washington, DC after the city enacted a $15 per hour minimum wage but before the increase went into effect. Their simulations indicated that, even though most EITC recipients would receive a lower EITC, the wage gains from the policy would more than offset those reductions. This effect included 3,700 childless EITC recipients who would lose eligibility. Acs et al. (2014) also analyzed a prior minimum wage increase in Washington, DC, though the analysis period was before DC's more generous childless EITC was enacted.

Our study shares similarities with Neumark and Li (2025). Their study examined narrow targeting of California's state EITC and highlighted California's unique state EITC schedule, which, unlike the federal EITC, does not include a plateau region and fully phases out, regardless of family size, around $32,000 (TY 2024). Their analysis suggested that a small share of workers face positive economic incentives under the policy, and many other workers face either negative incentives in the phase-out range of the credit or have incomes outside the state EITC income eligibility range entirely. The authors cited these factors, along with California's relatively high minimum wage, to explain the absence of positive labor supply effects. They argue that California could adopt an EITC similar to a more conventional state EITC that is structured as a percentage of the federal

EITC and achieve similar redistributive aims, even with credit amounts that are smaller in certain parts of the distribution.

In a recent working paper that also focuses on California's EITC, Iselin (2024) found a policy-induced intensive-margin shift from full-time to part-time work and extensive-margin increases in part-time work.

Because these prior studies focus on California's EITC in its totality, it is important to note that the narrow targeting is more specific to workers with dependent children. In contrast, the income parameters for California's childless EITC extend beyond the federal childless EITC and thus also beyond the state EITCs that conform to federal EITC income eligibility. For example, a childless worker could still qualify for a $100 California state EITC at incomes between $21,051 and $21,150 (TY 2024), while the childless EITC fully phased out at $18,591 federally.

Our paper extends the prior literature by evaluating how effectively state EITCs reach low-wage workers over the full range of states and specifically for the childless population.

3 Data and Method

Our study primarily uses harmonized CPS data that is maintained by IPUMS at the University of Minnesota (Flood et al., 2025). We selected data for the 2011–2024 period to avoid overlap with the July 2009 effective date of the last federal minimum wage increase (U.S. Department of Labor, n.d.).

For our main sample, we use the CPS Annual Social and Economic Supplement (ASEC), which is administered annually in March and contains variables related to work and income that are based on questions about the prior calendar year. We limit our sample, based on the childless EITC age rules, to childless adults, ages 25–64, and any spouses, some of whom may be outside that age range.

Due to concerns about bias stemming from observations with imputed information (Borjas & Hamermesh, 2024), we exclude observations with imputed earnings or wage values as well as observations for which the entire record was imputed.[5]. We then re-

[5]We handle this by excluding IPUMS CPS observations based on the relevant income source allocation

weight the weighting variable ASECWT so that the sum of weights equals the sum of weights of the sample prior to dropping the observations with imputed values.

After running these steps, our analytic sample totals 304,024 unweighted observations.

EITC eligibility and amounts are not directly observed in the CPS ASEC. Although the Census Bureau provides some modeled tax variables in the CPS ASEC, the standard practice is to use CPS ASEC family and income variables and a tax simulator, like the National Bureau of Economic Research's TAXSIM, to estimate EITC eligibility and EITC amounts (Jones & Ziliak, 2022). However, the most recent publicly available version, TAXSIM35, only includes state tax policies coded through TY 2021. Because much of the variation in childless state EITC has occurred since that time (Maine, Maryland, and Washington),[6] we manually calculate EITC eligibility and amounts for our sample using the relevant federal EITC rules for each year. This includes all relevant rules around the calculation of earned income, the taxability of Social Security benefits, which can affect adjusted gross income (AGI), and the EITC's investment income limits. We use data on the federal EITC and its parameters from a historical table that is maintained by the Tax Policy Center (2025) and information on the annual investment income limits from Tax Notes' compilation of IRS revenue procedure documents.

Data on state minimum wages for 2022 and earlier comes from the historical series that is maintained by Vaghul and Zipperer (2022). Subsequent minimum changes were coded using minimum wage reports that are produced annually by the National Employment Law Project (Lathrop, 2022, 2023, 2024) and information from the federal Department of Labor and state agency websites. For states that increased their minimum wage during the calendar year, we averaged the minimum wages based on the number of months different minimum wage levels were in effect.

For additional state-level controls, we use data from the Bureau of Economic Analysis on state population and real GDP to construct real GDP per capita and Bureau of Labor Statistics data on state unemployment rates (non-seasonally adjusted).

flags and UH_SUPREC_A2.

[6]Vermont also increased the state EITC to 100% of the federal EITC, but this goes into effect after our period of analysis.

Finally, we adjust all dollar figures to 2024 dollars using annual-level R-CPI-U-RS price index data (Bureau of Labor Statistics, 2025).[7]

4 Descriptive Statistics

Table 1 show the summary stats for the main sample of childless adults, ages 25–64, while Table 2 shows the conditional means and percentages for the EITC-eligible population only. The tables exclude TY 2021 to avoid the influence of the one-year ARPA expansion.

The overall sample is slightly older on average at 47 years old compared to 43.6 years old in the EITC-eligible group. The overall sample also has higher levels of educational attainment (29.1% to 17.1%) and is more likely to be married (42.8% to 16.8%). As expected, the mean real earnings for the EITC-eligible group is just over $13,000.

[7]The R-CPI-U-RS is maintained by BLS for researcher use as a more consistent measure of price changes than the CPI-U. Because the BLS routinely updates and changes the methodology behind the CPI-U but does not revise earlier years of data to incorporate such methodological changes, CPI-U data in earlier years is not always directly comparable to later years. To address this limitation, the R-CPI-U-RS series applies BLS methodology updates and improvements to historical CPI data. For the time period of my study, these changes include adjustments for prescription drug and new vehicle prices.

Table 1: Overall Summary Statistics, Tax Years 2010–2020, 2022–2024

Variable	**Value**
Unweighted Total	304,024
Weighted Total	1,509,710,388
EITC-Eligible	186,745,096
Percent Eligible	12.37
Mean Age	47.0
Percent College	29.1
Percent Female	47.5
Percent Married	42.8
Percent Non-Hispanic Black	13.74
Percent Hispanic	17.0
Average State Minimum Wage ($)	8.54
Mean Real Earnings (2024 $)	60,463
Median Real Earnings (2024 $)	38,510

Note: Sample: ages 25–64 without children <24 in household, plus spouses. Excludes fully imputed records and observations with imputed income values. TY 2021 excluded (ARPA expansion). Besides the unweighted sample row, all results are weighted with ASECWT or, for 2019–2021, ASECWTCVD that is then rescaled to account for observations that were dropped due to imputed values.

Table 2: Summary Statistics, Conditional on EITC Eligibility, Tax Years 2010–2020, 2022–2024

Variable	**Value**
Unweighted Total	36,028
Mean Usual Hours	31.9
Percent Part-Time	46.2
Mean Part-Time Weeks	30.1
Mean Age	43.6
Percent College	17.1
Percent Female	46.0
Percent Married	16.8
Percent Non-Hispanic Black	17.0
Percent Hispanic	24.5
Mean Real Earnings (2024 $)	13,263
Mean Real EITC (2024 $)	412.23

Note: Sample: ages 25–64 without children <24 in household, plus spouses. Excludes fully imputed records and observations with imputed income values. TY 2021 excluded (ARPA expansion). Besides the unweighted sample row, all results are weighted with ASECWT or, for 2019–2021, ASECWTCVD that is then rescaled to account for observations that were dropped due to imputed values.

To provide preliminary evidence of our hypothesis that minimum wage increases may be associated with worker earnings shifting beyond the EITC eligibility range for childless adults, we use the example of Florida. We chose Florida for several reasons. First, as one of the most populous states, it provides greater sample size within the CPS ASEC. Second, Florida only had two large minimum wage increases during our analysis period (in 2021 and 2023), in contrast to other populous states like California, Illinois, and New York that had multiple minimum wage increases throughout the period.

In 2021, Florida's minimum wage increased from $8.65 per hour to $10 per hour. Figure 4 shows the kernel density estimates[8] for earnings of single, childless workers, ages 25–64, in Florida for 2018 through 2024, which covers three years before the minimum wage increase through three years after. We include only those individuals with positive earnings up to $35,000. We overlay the key federal EITC thresholds for TY 2020, the year before the minimum wage increase: the maximum EITC region (up to $7,030), the phase-out region (starting at $8,790), and the end of EITC eligibility ($15,820).[9]

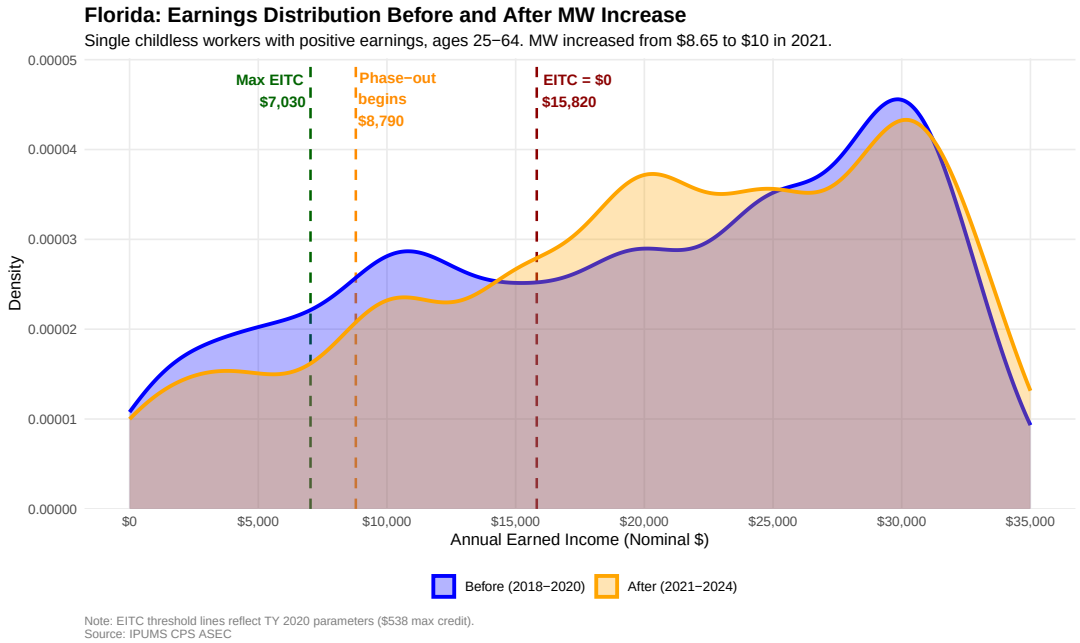

Figure 4: Florida Earnings (Kernel Density), 2018–2024

[8]We use the default kernel density estimation with R's `ggplot2 [v 3.5.2]` with adjustment factor of 0.8 to provide additional detail.

[9]The federal EITC parameters are inflation-adjusted, so these would be slightly to the left in the earlier years and slightly to the right in the later years of the period. For simplicity, we just display the TY 2020 parameters here.

Figure 4 shows that the distribution shifts right, from the EITC-eligible region (see lost mass in blue) to the region beyond the cut-off of $15,820 (see new mass in orange). To examine these potential relationships more systematically across all states and years in our sample, we next turn to the regression models.

5 Methods

We run a series of linear probability models to explore the relationship between state minimum wages and EITC eligibility. We also run regression models with estimated EITC amounts. As discussed, our work is wholly descriptive and is not intended to include causal identification.

Our preferred specification uses the following equation:

$$y_{ist} = \beta_1 MW\,AboveFed_{st} + \beta_2 MW\,AboveFed_{st}^2 + \beta_3 Unemp_{st} + \beta_4 \ln(GDP_{st}) + \alpha_s + \gamma_t + \varepsilon_{ist} \tag{1}$$

where: y_{ist} is EITC eligibility (or amount, in 2024 dollars) for individual i in state s and tax year t, $MW\,AboveFed_{st}$ is the minimum wage in state s and year t (relative to the $7.25 federal minimum wage), $MW\,AboveFed_{st}^2$ is the same term squared, $Unemp_{st}$ is the state unemployment rate (annual average), $ln(GDP_{st})$ is natural log of real GDP per capita, α_s are state fixed effects, γ_t are tax year fixed effects, and ε_{ist} is the error, clustered at the state level. Regressions are weighted using CPS ASEC person weights that are rescaled to account for the observations that were dropped due to having imputed values.[10]

We include controls for state unemployment rate and state GDP per capita to account for variation in state economies that are not captured by the state and year fixed effects. For example, some states may have had different economic trajectories during the analysis period that would affect EITC eligibility, given that EITC requires positive earnings. We

[10]We use ASECWT except for 2019–2021 where we use ASECWTCVD. See https://cps.ipums.org/ for more on the use of adjustments to account for pandemic-related nonresponse.

must emphasize that our results are purely descriptive. These controls very well could be correlated with our minimum wage and EITC variables themselves in terms of the causal mechanisms (e.g., states that experience stronger economies may increase their minimum wages).

6 Results and Discussion

Table 3 reports the results of our regression models. Moving from left to right, we add an additional control variable to each model. We show that the coefficients of interest for the minimum wage variables are robust to the addition of the controls: year fixed effects, state fixed effects, state unemployment rate, and log of state GDP per capita.

Table 3: Regression Results: Federal EITC Eligibility

	Dependent Variable: eitc_eligible				
	(1)	(2)	(3)	(4)	(5)
Constant	0.1293***				
	(0.0025)				
StateMWAboveFed	−0.0062***	−0.0049*	−0.0048*	−0.0053***	−0.0065***
	(0.0016)	(0.0020)	(0.0019)	(0.0014)	(0.0013)
StateMWAboveFed^2	0.0004*	0.0004·	0.0004·	0.0005***	0.0009***
	(0.0002)	(0.0002)	(0.0002)	(0.0001)	(0.0001)
unemp_rate				0.0025·	0.0006
				(0.0015)	(0.0013)
log(real_gdp_per_cap)					−0.1266***
					(0.0289)
Fixed Effects:					
Year FE	No	Yes	Yes	Yes	Yes
State FE	No	No	Yes	Yes	Yes
Observations	289,555	289,555	289,555	275,806	253,812
R^2	0.00054	0.00090	0.00234	0.00242	0.00258
Within R^2	–	0.00018	0.00006	0.00009	0.00018

Note: SEs clustered at state level. Significance: · $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Sample: ages 25–64 without children <24 in household, plus spouses. Excludes fully allocated records and observations with allocated income values (wage, business, farm, Social Security, unemployment, interest, dividend, rental, other). TY 2021 excluded (ARPA expansion).

Our primary specification in column 5 (with state and year fixed affects and full controls) shows that our main coefficients of interest are statistically significant -0.0065 for the linear state minimum wage above federal variable and 0.0009 for the squared term. This suggests a negative association between state minimum wage levels and EITC eligibility within state, but that this relationship approaches zero at higher minimum wage levels. In other terms, as states increase their minimum wage, we observe lower EITC eligibility, even after controlling for state economic conditions.

In Table 4, we convert these in terms of typical whole dollar minimum wage levels to illustrate the practical implications. We see that the magnitude of the relationship is largest between $10 and $12 per hour relative to lower and higher minimum wage levels. This is broadly consistent with we would expect. That is because at very high minimum wage levels, many workers who work full-time or near full-time would have earnings above the childless EITC income range, such that additional increases to the minimum wage would likely not be associated with additional reductions in eligibility.

Table 4: Predicted Effects of Minimum Wage on EITC Eligibility

MW Level (per hour)	**Change in EITC Eligibility (pp)**	**Change Relative to $7.25/hr Baseline**
$8.00	−0.44	−3.5%
$9.00	−0.86	−6.8%
$10.00	−1.11	−8.8%
$11.00	−1.17	−9.3%
$12.00	−1.06	−8.4%
$15.00	0.37	2.9%

Note: Baseline EITC eligibility at $7.25/hr is 12.6%. Changes in eligibility are measured in percentage points.

We also run our models using estimated EITC amounts (in 2024 dollars) as our dependent variable. In Table 5, we show the results of this model with the sample restricted to a policy-relevant sample that has real earnings of less than $35,000. In our preferred specification in column 5, we see a marginally significant negative coefficient on the linear state minimum wage variable and a significant positive coefficient on the squared term. However, the magnitudes are small at less than $4 change in federal EITC amount for each $1 in minimum wage above the federal minimum wage.

Table 5: Regression Results: Real Federal EITC Amounts (Low-Earnings Sample)

	Dependent Variable: RealFedEITC				
	(1)	(2)	(3)	(4)	(5)
Constant	111.8***				
	(2.560)				
StateMWAboveFed	−3.436*	−0.5448	−3.149	−3.642·	−3.783·
	(1.698)	(1.691)	(2.120)	(2.039)	(2.023)
StateMWAboveFed^2	0.0239	−0.0240	0.1776	0.2986	0.4364*
	(0.1808)	(0.1567)	(0.2221)	(0.1831)	(0.2093)
unemp_rate				0.9066	−0.2919
				(0.9916)	(0.8942)
log(real_gdp_per_cap)					−76.52**
					(25.40)
Fixed Effects:					
Year FE	No	Yes	Yes	Yes	Yes
State FE	No	No	Yes	Yes	Yes
Observations	136,550	136,550	136,550	130,098	120,443
R^2	0.00100	0.00281	0.00488	0.00488	0.00486
Within R^2	–	0.00003	0.00010	0.00008	0.00016

Note: SEs clustered at state level. Significance: · $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Sample: ages 25–64 without children <24 in household, plus spouses. Excludes fully allocated records and observations with allocated income values (wage, business, farm, Social Security, unemployment, interest, dividend, rental, other). TY 2021 excluded (ARPA expansion).

Table 6 shows the same models but restricted to the sample that is EITC-eligible. Here neither of the coefficients of interest are significant in any of the models.

Table 6: Regression Results: Real Federal EITC Amounts (EITC Eligible Sample)

	Dependent Variable: RealFedEITC				
	(1)	(2)	(3)	(4)	(5)
Constant	415.4***				
	(2.671)				
StateMWAboveFed	−1.654	1.534	−1.875	−2.537	1.195
	(2.285)	(2.687)	(3.881)	(5.050)	(4.777)
StateMWAboveFed^2	−0.2312	−0.2518	0.0561	0.1858	−0.3238
	(0.3391)	(0.3878)	(0.4657)	(0.6220)	(0.6338)
unemp_rate				0.7878	0.4362
				(2.010)	(2.302)
log(real_gdp_per_cap)					−21.09
					(57.07)
Fixed Effects:					
Year FE	No	Yes	Yes	Yes	Yes
State FE	No	No	Yes	Yes	Yes
S.E. Clustered by	STATEFIP	STATEFIP	STATEFIP	STATEFIP	STATEFIP
Observations	36,028	36,028	36,028	34,395	31,813
R^2	0.00082	0.00475	0.00715	0.00711	0.00737
Within R^2	–	0.00003	0.00005	0.00005	0.00007

Note: Sample restricted to EITC-eligible individuals. Standard errors in parentheses.
Significance levels: $^{\cdot}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

These results seem to suggest that, to the extent state minimum wage increases are associated with lower EITC amounts, this is driven by moving from eligibility to ineligibility. That is why the sample that conditions on eligibility does not show any significant relationships between state minimum wage and EITC amounts, because, by construction, the ineligible observations are no longer included in the model. Another possible explanation for the magntidue of coefficients observed in Tables 5 and 6 is that some workers qualify for a larger EITC because they are in the phase-in region of the EITC schedule. The phase-in and phase-out relationships may largely offset. We plan to explore these results in more detail to assess whether these dynamics are at play or if the results arise from some other factor.

In upcoming analysis, we plan to simulate the impact of a state's minimum wage increase on EITC eligibility and amounts received by minimum wage workers: we will examine how eligibility and amounts received by minimum wage workers would change if all workers between the old and new minimum wage received the new minimum wage and we froze individual hours worked at what they were prior to the minimum wage increase. By comparing this simulated impact with the real impact, we can quantify how much of the impact of the minimum wage on EITC eligibility and amounts is mechanical, and how much is due to adjustments in wages and hours after the minimum wage increases (whether these adjustments are causally related to the minimum wage increase or not).

7 Conclusion

Our study estimates the relationship between increases to state minimum wages and Earned Income Tax Credit (EITC) eligibility for workers without qualifying dependent children.

Our results suggest that increases to state minimum wages are associated with reduced federal EITC eligibility, particularly in the $10 per hour to $12 per hour range. Our estimated negative relationship largely disappears at higher levels.

Because our study is primarily descriptive, future research could formally model these

interactions to estimate plausibly optimal policy parameters under different sets of structural assumptions.

In addition, this study relies on publicly available survey data. Further research that incorporates administrative data, such as federal or state tax or wage records, could more cleanly identify the population of interest and produce additional insights.

The implications seem most pertinent for states that remain at the federal minimum wage of $7.25 per hour or just above that level. As minimum wages in those states increase, it may reduce federal and state EITC eligibility in those states for childless workers. For states that have the highest minimum wages, further minimum wage increases may not reduce EITC eligibility as much; in these states, higher minimum wages may mostly affect workers who are above the EITC eligibility earnings cut-off. These phenomena reflect the fact that eligibility for childless workers is much more restricted than for workers with children, with lower cut-offs in earnings for a childless worker to be eligible for EITC. The amount of the childless EITC is already modest (less than $400 per filer as of TY 2022), and the earnings cutoff is very low: with higher minimum wages, fewer and fewer childless workers can benefit from the already modest support of the EITC.

Future directions of this research will model state-specific EITC eligibility rules for childless filers that differ from the federal rules. We plan to perform a series of static simulations to show what EITC eligibility could look like at higher minimum wage levels in conjunction with an extended income range for EITC eligibility.

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