The Earned Income Tax Credit

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Since its inception in 1975, the federal earned income tax credit (EITC) has grown dramatically and is now the largest antipoverty program for the non-aged in the United States. In 2014, 28.5 million families and individuals received EITC payments totaling $68.3 billion, according to IRS data. As a result, the EITC lifted an estimated 7.3 million individuals above the poverty line. In addition to directly raising incomes, the EITC has sharply changed work incentives, currently increasing the after-tax wage by up to 45 percent for those with low earnings.

The EITC is part of the tax system and does not require people to have a tax liability that the credit offsets. A person without a net tax liability receives it as a payment that, in 2016, could be as large as $6,269.

The fundamental problem in designing tax and transfer programs to those with few resources is that such programs typically undermine work. The EITC's goal has been to transfer income while encouraging work. This feature led to the political support for its initial adoption and subsequent expansions.[1] The program has become increasingly prominent during a time when policymakers have sought to reduce the dependence encouraged by welfare programs.

In this paper, I first summarize how the EITC operates and describe the characteristics of recipients. I then discuss empirical work on the EITC's effects on poverty, income distribution, and labor supply. Next, I discuss a few policy concerns about the EITC: possible negative effects on hours of work and marriage and problems of compliance with the tax system. Finally, I briefly discuss the likely effects of further expanding the credit in ways suggested by several proposals.

How the EITC Works

The EITC provides an earnings subsidy to families that satisfy three criteria. First, a family must have a wage earner, since only those who work are eligible. Second, a family must have low income. In 2016, a single-parent family with one child was eligible if its income was below $39,296, while a family with two children could earn up to $44,648, and a family with three children could earn up to $47,955. A two-parent family could earn $5,550 more than these amounts and still receive the credit. Third, while a small EITC (up to $506 in 2016) is available to the childless, to receive a significant EITC, a family has to have resident children. In 2016, the maximum credit was $3,373 for a family with one child, $5,572 for a family with two children, and $6,269 for a family with three or more children (see Table 1).

Because the EITC is refundable, a family can receive the credit even if it does not have an income tax liability. In the vast majority of cases, the credit is received as a lump sum as part of a tax refund early the following year. The tax filer must fill out a one-page form with information on the qualifying child or children that is submitted with the rest of the tax return. In summary, the credit subsidizes poor parents' work as it transfers income to them.

To help visualize the EITC, Figure 1 shows the schedule for two types of households in 2016. The top schedule, for single-parent families with two children, provides a much larger credit at all income levels than that for childless individuals, shown underneath. Both schedules provide an earnings subsidy initially as the credit is phased in: 40 cents for each dollar earned for the first $13,930 for those with two children, and 7.65 cents for each dollar earned for the first $6,610 for the childless. For example, a single mother with two children who earned $10,000 would receive a $4,000 credit.

Table 1. Earned Income Tax Credit Schedule Parameters, 2016

	Phase-In Rate (%)	Phase-In Ends ($)	Maximum Credit Amount ($)	Phase-Out Begins ($)	Phase-Out Rate (%)	Phase-Out Ends ($)
Filing Status: Single						
Childless	7.65	6,610	506	8,270	7.65	14,880
1 Child	34	9,920	3,373	18,190	15.98	39,296
2 Children	40	13,930	5,572	18,190	21.06	44,648
>2 Children	45	13,930	6,269	18,190	21.06	47,955
Filing Status: Married Filing Jointly						
Childless	7.65	6,610	506	13,820	7.65	20,430
1 Child	34	9,920	3,373	23,740	15.98	44,846
2 Children	40	13,930	5,572	23,740	21.06	50,198
>2 Children	45	13,930	6,269	23,740	21.06	53,505

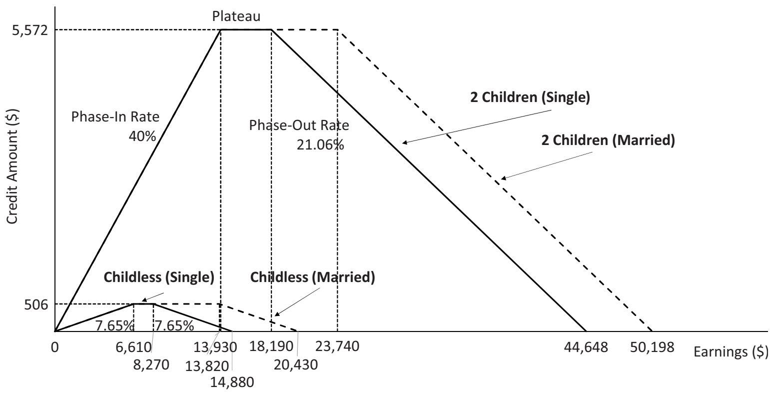
Source: Tax Policy Center, "Earned Income Tax Credit Parameters, 1975–2016," January 5, 2016, http://www.taxpolicycenter.org/sites/default/files/legacy/taxfacts/content/PDF/historical_eitc_parameters.pdf.

In the flat, or plateau, part of the schedule, the total credit received does not change with earnings. However, with additional earnings beyond the plateau, the credit is decreased in the phaseout region, resulting in an implicit tax on earnings at a rate just over 21 percent for those with two children. For those with one child, earnings subsidies, credits, and implicit taxes are somewhat lower, while for those with three or more children, everything is higher.

Who Receives the EITC

The eligibility requirements mean the EITC targets certain types of families: those headed by a single mother and large families. As Table 2 indicates, in recent years, more than 60 percent of the dollars spent on the EITC went to single parents (those with a head of household filing status). Larger families received most of the dollars as well. In 2014, 61 percent of all dollars were received by families with two or

Figure 1. Earned Income Tax Credit Schedule for Childless and Those with Two Children



Source: Tax Policy Center, "Earned Income Tax Credit Parameters, 1975–2016," January 5, 2016, http://www.taxpolicycenter.org/sites/default/files/legacy/taxfacts/content/PDF/historical_eitc_parameters.pdf.

more eligible children. While qualifying households without a child were more than a quarter of recipient households, they received just 3 percent of the dollars paid through the credit.

How the EITC Affects the Distribution of Income

The EITC's effect on the income distribution is among its most important effects. A convenient way to gauge the EITC's distributional effects is to ask how many people it raises above the poverty line.[2] Refundable tax credits (primarily the EITC) raise more people above the poverty line than any other government program or tax policy except Social Security. In 2014, 7.3 million individuals were raised above poverty, more than four million of whom were children.[3] If we believe investments in children are especially productive,[4] then the EITC is particularly well targeted.

While no other antipoverty program reduces the poverty rate as much as the EITC, its effects are concentrated just under the poverty

Table 2. Earned Income Tax Credit Benefit Amounts and Number of Recipients, by Number of Qualifying Children, 2014

Recipient Characteristics	Number (Millions)	Amount ($ Millions)
By Filing Status of Recipient (Estimates)*		
Head of Household	13.98	41,686.90
Joint	6.56	20,501.75
Single	7.99	6,150.53
Total	28.54	68,339.18
By Number of Qualifying Children		
Without a Qualifying Child	7.38	2,120.94
With One Qualifying Child	10.49	24,976.43
With Two Qualifying Children	7.21	27,075.03
With Three or More Qualifying Children	3.45	14,166.78
Total	28.54	68,339.18

Note: Numbers and amount by filing status are estimated using percentages reported in *The Earned Income Tax Credit (EITC): An Overview* by Gene Falk and Margot L. Crandall-Hollick.
Source: IRS, " SOI Tax Stats—Individual Income Tax Returns Publication 1304," Table 2.5 https://www.irs.gov/uac/soi-tax-stats-individual-income-tax-returns-publication-1304-complete-report; IRS, Earned Income Tax Credit, "Statistical Sample," https://www.eitc.irs.gov/EITC-Central/press/statistics/statsmpl; and Gene Falk and Margot L. Crandall-Hollick, *The Earned Income Tax Credit (EITC): An Overview,* Congressional Research Service Report, January 19, 2016, https://www.fas.org/sgp/crs/misc/R43805.pdf.

line.[5] The largest percentage changes in incomes from the EITC tend to be for families with incomes near 75 percent of the poverty line, in contrast to other programs such as Temporary Assistance for Needy Families (TANF) and the Supplemental Nutrition Assistance Program (SNAP), which are targeted to those with the very lowest income.

The minimum wage is a policy alternative to the EITC that has often been promoted as helping low-wage workers. But the minimum wage is more poorly targeted than these transfer programs, with a large share going to children and secondary workers in well-off families.[6]

In interpreting changes in poverty due to the EITC and transfer programs, one must keep in mind that changes in taxes and transfers may alter pretax and pretransfer incomes. A full analysis of the behavioral effects of these programs is beyond the scope of this paper. However, one would expect that the mechanical effects of the EITC on poverty indicated here understate the effects on incomes, given the evidence in the literature (summarized below) of mostly positive labor supply effects. On the other hand, transfer programs such as TANF and SNAP likely reduce pretransfer earnings, suggesting that any direct poverty-reducing effects of these programs overstate the effects once incorporating behavioral responses. Thus, this consideration would indicate that the calculations summarized here understate the EITC's true effects but overstate the effects of the other programs.

Researchers have examined whether the increase in income for recipients and the form of the payment affect several outcomes. In contrast to social programs that pay benefits evenly over the year, most EITC recipients receive their benefits in a single check, averaging more than $1,500. Lisa Barrow and Leslie McGranahan explored whether the lumpy nature of EITC payments induces changes in expenditure patterns among recipients, finding that consumption rises, particularly for durable goods, in the months in which EITC refunds are received.[7] Thus, the evidence suggests that the EITC facilitates the purchase of big-ticket items by low-income families.

Additionally, Timothy Smeeding, Katherin Ross Phillips, and Michael O'Connor examined a large sample of individuals filing 1997 income tax returns in Chicago.[8] These recipients tended to report plans to use their credit for purposes beyond current consumption, including savings, car purchases, tuition payments, residential moves, and other uses that lead to economic and social mobility.

The EITC and Employment

I will now summarize the EITC's effects on work, particularly for single mothers.[9] The EITC encourages work by making it unequivocally more attractive to single parents who are considering participating in the labor market at all over a year. Regardless of the hours level, the gain from working has increased. Given that for many single mothers the net return to working is so low (weighing what is gained by work compared to what is lost in welfare and other benefits), a few thousand dollars can dramatically change the calculation in favor of working.

I calculated with Dan Rosenbaum that the average net return to working—defined as after-tax earnings plus the cash value of benefits received if a woman worked minus the cash value of benefits received if she did not work and averaged over the earnings distribution of single women—was $7,270 in 1984.[10] Tax changes, primarily the EITC, raised that net return to work by an average of $1,442 by 1996 (in 1996 dollars). The increase in incentives was especially high for the lowest-skilled single mothers, those likely to receive welfare benefits and who, if they worked, were likely to be on the phase-in or plateau portions of the EITC schedule.

I also examined with Rosenbaum the EITC's effect on the employment of single mothers using a simple structural model and found that the employment of single mothers in 1996 was 7 percentage points higher because of the EITC.[11] We determined the labor supply effects in this study by contrasting employment changes for single mothers with those of single women without children and employment differences across women by number of children, state taxes, and the real value of the credit relative to state living costs. Other studies have found results that imply similar or even larger estimates, exploiting mostly the same types of contrasts.[12]

Hours of Work. The EITC's expected effects on hours of work for single parents are complicated. Most recipients are on the plateau or phaseout section of the credit schedule, shown in Figure 1.[13] Workers whose level of earnings put them on the plateau section or on the phaseout portion are in principle encouraged to reduce their hours under the EITC. However, this theoretical prediction has not been borne out in the data analyzed to date. This lack of an "hours effect" is one of the more puzzling yet robust findings in the literature.[14]

Various explanations have been offered for this surprising finding. The most common are: (1) workers' inability to freely vary their hours because of employers' preferences for certain hours, (2) measurement error in hours reported, and (3) imperfect perception of marginal tax rates.[15] I think the most plausible explanation is imperfect perception of marginal rates. It would not be surprising if recipients do not fully understand the tax schedule given the complexity of eligibility rules and instructions.[16] In recent years, the instructions for the EITC have been a dense 13 or 14 pages. The marginal rates are not reported on the tax forms anywhere, unlike the base income tax rates, for which marginal rates are reported quite clearly on the tax rate schedules. Most recipients do not fill out the tax forms themselves,[17] and those who prepare tax returns for them do not routinely explain marginal rates to clients. Thus, a lack of a response to the incentive to reduce hours may not be too surprising.

The EITC's expected effects on work and hours among couples are even more complicated. Since at least one parent likely is working, the effects have some similarities to the hours effects for single current recipients, which in principle means the working parent is encouraged to work fewer hours. With couples, overall hours can be reduced by one of the partners leaving the workforce or by one or more partners reducing hours. The main evidence on this occurrence comes from research from Nada Eissa and Hilary Hoynes and from Bradley Heim.[18] While Eissa and Hoynes found that the main effect is a reduction in participation by wives, Heim found mainly a change in hours by those who do work. Both papers found a small reduction in overall hours.

A caveat on the labor supply effects of the EITC is in order. The increase in the number of low-wage workers caused by the EITC has likely pushed down wages in low-skilled labor markets in general. This wage reduction decreases the earnings and employment of others. While estimating this effect is harder than estimating the labor supply,[19] the overall EITC labor supply effects are likely overstated by the estimated effect on recipients alone.

Welfare Caseloads. The EITC reduces welfare receipt by making work more attractive than welfare for a substantial number of single mothers. In response to the welfare reforms of the mid-1990s and the almost contemporaneous EITC expansions, welfare caseloads fell from more than five million families in 1994 to just over two million by 2001. Caseloads have drifted downward since, reaching 1.6 million in 2014.[20]

In his study of welfare receipt among female-headed families, Jeffrey Grogger estimated the EITC's effect by comparing those with different EITC maximum benefit amounts due to schedule changes over time and differences in the number of children.[21] He concluded that the EITC was responsible for about 15 percent of the decline in welfare receipt in the 1990s. He argued that most of the reduction in welfare cases is through a reduction in welfare entry.

Other Effects of the EITC. There is substantial evidence that the EITC has beneficial effects on health and education, through either increased household income or increased maternal work. Hilary Hoynes, Douglas Miller, and David Simon found that the EITC expansions in the 1990s reduced the chance of a low birth weight delivery, an important indication of infant health.[22] Gordon Dahl and Lance Lochner found that EITC payments appear to increase child test scores, but only in the short run.[23] William Evans and Craig Garthwaite found improvements in women's mental health.[24] In all these cases, it is unclear whether the improvements come from the adult recipients' higher income or their increased likelihood of working.

Problems with the EITC: Hours, Marriage, and Compliance

Three important problems with the EITC are its predicted negative effects on hours, its potential to discourage marriage among low-income workers, and the receipt of credits by ineligible filers. The first issue, hours of work, has already been discussed. A concern is that even if we cannot see in the data reduction in hours among single-mother recipients, the theoretical prediction is sufficiently clear that it is likely to happen. If the reason we do not see an hours response is that recipients do not understand the marginal incentives, then if recipients' understanding improves, the situation might change, and an hours reduction may emerge.

Raj Chetty and Emmanuel Saez field-tested a novel program using tax preparers to educate recipients on the marginal incentives to work under the EITC.[25] Somewhat surprisingly, they found that providing additional information on EITC incentives does not affect average earnings. This result may be due to the difficulty in getting tax preparers to successfully convey information about the phase-out range marginal tax rates. In more recent work, Raj Chetty, John Friedman, and Emmanuel Saez found that there seems to be learning over time about some features of the EITC, but this improved knowledge does not clearly carry over to marginal tax rates for wage and salary workers.[26]

A second concern is marriage incentives. The EITC as currently designed has complicated incentives for marriage. The schedule is the same for singles and couples except for the longer plateau for couples, with the maximum benefit available to someone who earns slightly more than full-time work at the minimum wage (see Figure 1).

Because of this structure, the EITC encourages marriage for some: those who have children but have little or no earnings. It discourages marriage for others: those with children who are working full time but remain poor. On net, more couples and potential couples increase their EITC payments by divorcing or staying unmarried than increase them by marrying or staying married. Thus, the EITC discourages marriage somewhat overall.

Of the two most detailed studies that estimate the effects on marriage, one found no effect, the other little or no effect on marriage. David Ellwood conducted two analyses: (1) he examined changes in marriage rates of women at different wage quartiles, with the lowest quartile expected to be affected by the EITC, and (2) he examined whether cohabitating couples marry, comparing those whose EITC amount would rise with marriage to those whose credit would fall.[27] Nada Eissa and Hilary Hoynes determined marriage effects by comparing marriage rates for a sample of married or cohabitating couples that differ in how tax and welfare provisions affect their marriage incentives because their earnings differ (and provisions change over time).[28]

The final major concern about the EITC, and the one most in the popular press, is noncompliance. Noncompliance means not paying taxes that are due, either intentionally or unintentionally. The IRS estimates that in recent years about 30 percent of credit dollars were claimed in error.[29] The most common source of error is a claim for which a child is not eligible, most often because the child does not reside with the claimant.

There are two different ways of thinking about EITC noncompliance. If one's reference point is state welfare systems, the credit seems low on administrative expenses but high on take-up and noncompliance. Because tax refunds are paid quickly and only a small share have eligibility later verified through an audit, many ineligibles receive the credit, and many eligibles receive overpayments. While it is difficult to determine the share of such payments that are fraud, certainly some are.

If one's reference point is tax administration, it is not clear that EITC noncompliance is higher than for other tax provisions. Furthermore, a high share of tax-enforcement efforts has been devoted to making sure those who receive the EITC are in fact eligible. EITC recipients have been subject to a large share of audits relative to the potential lost revenue. In fiscal year 2004, the EITC accounted for 48 percent of individual income tax return audits, despite it being only 3–4 percent of the tax gap (taxes due that were not collected). Even this share is probably overstated given the IRS methodology that counts as an overpayment payments that should go to another household member or relative.

In addition, a large share of cases in which payments are denied are overturned when assistance is provided to filers to help them understand the required documentation. Much of noncompliance is probably driven by needless complexity—14 pages of instructions in the overall tax guide and 56 pages in the EITC instruction booklet.

EITC Reforms

In an earlier paper, I discussed four types of EITC reforms: (1) providing a more generous EITC for three-child families; (2) modifying the tax schedule to reduce marriage penalties; (3) simplifying eligibility criteria for the credit; and (4) providing a more generous credit for single, childless individuals or noncustodial fathers.[30] The first was adopted as part of the American Recovery and Reinvestment Act of 2009, and the second was addressed in a limited way under Presidents George W. Bush and Barack Obama. Because marriage penalties (and subsidies) remain, I will discuss this issue and the third briefly here. The fourth, which I will also discuss, has been proposed by Speaker Paul Ryan and President Obama.

Marriage Penalties. One can reduce marriage penalties in several ways. One could change the married credit to be always twice the credit for single parents, but that would be expensive. Other alternatives that balance increased costs and penalty reductions have been considered by Janet Holtzblatt and Robert Rebelein.[31] For example, one could extend the plateau of the schedule or lower phaseout tax rates and thus extend the phaseout range for couples. Alternatively, one could add a second-earner deduction, which would reduce the amount of income subject to income tax for families with two earners in the phaseout range of the credit, thus flattening and extending the phaseout. This last option is inexpensive relative to the alternatives as nearly all the lost revenue goes toward reducing marriage penalties, but it would require another worksheet to be added to the tax forms.[32] The approach adopted by Presidents Bush and Obama was to extend the plateau of the EITC schedule for joint filers.

EITC Simplification. The EITC could be simplified in many ways. The rules and instructions are extraordinarily complicated, which is also true of other income tax provisions. As already mentioned, the main instruction booklet includes 14 dense pages on the EITC, and the dedicated booklet on the EITC is 56 pages.

Much of the complication with the EITC is determining who is a child for EITC purposes. Current tax law has several definitions of a child that apply to different tax credits. A clear simplification proposed by the President's Advisory Panel on Federal Tax Reform would use the same definition of a child in terms of relationship to the taxpayer, residency, and age for the EITC, the Child Tax Credit, and the determination of dependents (per child deduction from income).[33] One could also consider combining these three tax reductions for those with children. This is a much greater change in the overall shape of the tax schedule and could be more expensive but has been proposed by others, including David Ellwood and Jeffrey Liebman.[34]

An Expanded EITC for Those Without Coresident Children. Finally, recent proposals have circulated to expand the EITC for the childless.[35] Such an approach necessarily increases marriage penalties somewhat since it increases credits for the unmarried.

Variants on this idea were implemented in New York State and the District of Columbia. These jurisdictions supplement the federal EITC for noncustodial parents who have paid all child support that accrued during the tax year. An excellent description of noncustodial parent EITCs can be found in research by Laura Wheaton and Elaine Sorenson.[36] The New York and DC noncustodial parent EITCs have different age restrictions, with all those 18 and over eligible in New York, but only those age 18–30 eligible in DC. The New York credit is currently two-thirds of the state EITC for a single taxpayer with one child, while the DC credit is 40 percent of the federal credit for families with resident children (which depends on the number of children).

These noncustodial parent EITCs and broader EITCs for all childless adults are not likely to affect labor supply per dollar transferred as much as the current single-mother-focused EITC does, given that most men already work, despite the low participation rate for some groups noted by Nicholas Eberstadt and others.[37] It seems unlikely that a childless EITC would have appreciable positive labor supply effects. Considering that marginal tax rates are likely to increase for most recipients who will be on the phaseout portion of the schedule, and that the additional income from the credit may make recipients feel less of a need to work as hard, the labor supply effects may even be negative. An expanded EITC for the childless would, however, provide a way to transfer income to another segment of the poor without significantly discouraging work.

Conclusions

In summary, the evidence indicates that the income-distribution features of the EITC are quite good. The credit targets resources at those below the poverty line, particularly families with children. It raises more than 7.3 million people above the poverty line. While it is especially aimed at people right under the poverty line, it also raises 2.8 million people above half the poverty line.

The empirical evidence on labor supply and marriage indicates that the incentives of the EITC are remarkably favorable given the resources transferred. Studies of the EITC's effects on employment imply that the credit has sharply increased the portion of single mothers that work.

Paul Ryan and others have proposed to expand the credit for the childless. Two jurisdictions, New York and the District of Columbia, have such credits, but for noncustodial parents. While they will transfer income to those with few resources, EITCs for those without resident children are unlikely to stimulate employment as successfully as the current EITC because the vast majority of this population already works.

Notes

1. Jeffrey B. Liebman, "The Impact of the Earned Income Tax Credit on Incentives and Income Distribution," *Tax Policy and the Economy* 12 (1998); and Denis J. Ventry Jr., "The Collision of Tax and Welfare Politics: The Political History of the Earned Income Tax Credit," in *Making Work Pay: The Earned Income Tax Credit and Its Impact on America's Families*, ed. Bruce D. Meyer and Douglas Holtz-Eakin (New York: Russell Sage Foundation Press, 2001), 15–66.

2. This approach accounts for differences across family size using the same method as the Census Bureau when calculating the poverty rate.

3. Because of pronounced underimputation of EITC receipt in the CPS documented in Meyer, Mok, and Sullivan, these numbers were calculated from the 2014 Current Population Survey data and then scaled up by the 2011 ratio of families with children who received the EITC as reported

in Statistics of Income Data divided by the number of EITC families with children recorded in the CPS. See Bruce Meyer, Wallace Mok, and James Sullivan, "The Under-Reporting of Transfers in Household Surveys: Its Nature and Consequences" (working paper, National Bureau of Economic Research, July 2009), Table 10. Tables with these calculations and tables describing the EITC recipient population can be found at University of Chicago, "Bruce D. Meyer, Ph.D.," http://harris.uchicago.edu/directory/faculty/bruce-d_meyer.

4. James J. Heckman and Dimitriy V. Masterov, "The Productivity Argument for Investing in Young Children" (working paper, National Bureau of Economic Research, April 2007).

5. See Liebman, "The Impact of the Earned Income Tax Credit on Incentives and Income Distribution."

6. Richard V. Burkhauser, Kenneth A. Couch, and Andrew J. Glenn, "Public Policies for the Working Poor: The Earned Income Tax Credit Versus Minimum Wage Legislation," *Research in Labor Economics* 15 (1996): 65–109; David Neumark and William Wascher, "Using the EITC to Help Poor Families: New Evidence and a Comparison with the Minimum Wage," *National Tax Journal* 54 (2001): 281–317; Saul D. Hoffman and Laurence S. Seidman, *Helping Working Families: The Earned Income Tax Credit* (Kalamazoo, MI: Upjohn Institute for Employment Research, 2003); and Thomas MaCurdy, "How Effective Is the Minimum Wage at Supporting the Poor?," *Journal of Political Economy* 123, no. 2 (2015): 497–545.

7. Lisa Barrow and Leslie McGranahan, "The Effects of the Earned Income Tax Credit on the Seasonality of Household Expenditures" in *Making Work Pay: The Earned Income Tax Credit and Its Impact on America's Families*, ed. Bruce D. Meyer and Douglas Holtz-Eakin (New York: Russell Sage Foundation Press, 2001), 329–65.

8. Timothy M. Smeeding, Katherin Ross Phillips, and Michael A. O'Connor, "The Earned Income Tax Credit: Expectation, Knowledge, Use and Economic and Social Mobility," in *Making Work Pay: The Earned Income Tax Credit and Its Impact on America's Families*, ed. Bruce D. Meyer and Douglas Holtz-Eakin (New York: Russell Sage Foundation Press, 2001), 301–28.

9. For excellent summaries of the labor supply effects of the EITC, see V. Joseph Hotz and John Karl Scholz, "The Earned Income Tax Credit," in *Means-Tested Transfer Programs in the United States*, ed. Robert A. Moffitt

(Chicago, IL: University of Chicago Press, 2003); Nada Eissa and Hilary Hoynes, "Behavioral Responses to Taxes: Lessons from the EITC and Labor Supply," *Tax Policy and the Economy* 20 (2006): 163–92; and Austin Nichols and Jesse Rothstein, "The Earned Income Tax Credit," in *Economics of Means-Tested Transfer Programs in the United States, Volume I*, ed. Robert A. Moffitt (Chicago, IL: University of Chicago Press, 2016).

10. Bruce D. Meyer and Dan T. Rosenbaum, "Making Single Mothers Work: Recent Tax and Welfare Policy and Its Effects," *National Tax Journal* 53 (2000): 1027–62; and David Neumark and William Wascher, "Using the EITC to Help Poor Families: New Evidence and a Comparison with the Minimum Wage," *National Tax Journal* 54 (2001): 281–317.

11. Bruce D. Meyer and Dan T. Rosenbaum, "Welfare, the Earned Income Tax Credit, and the Labor Supply of Single Mothers," *Quarterly Journal of Economics* CXVI (2001): 1063–114.

12. For example, see Nada Eissa and Jeffrey B. Liebman, "Labor Supply Response to the Earned Income Tax Credit," *Quarterly Journal of Economics* 112, no. 2 (May 1996): 605–37; Jeffrey Grogger, "The Effects of Time Limits, the EITC, and Other Policy Changes on Welfare Use, Work, and Income Among Female-Headed Families," *Review of Economics and Statistics* 85, no. 2 (2003): 394–408; and V. Joseph Hotz, Charles H. Mullin, and John Karl Scholz, "The Earned Income Tax Credit and the Labor Market Participation of Families on Welfare," Mimeo, University of Wisconsin, 2005.

13. IRS data from 1994 indicate that 26.6 percent of recipients with children are on the phase-in portion of the schedule, 13.9 percent are on the plateau, and 59.5 percent are on the phaseout portion. US General Accounting Office, *Earned Income Credit: Profile of Tax Year 1994 Credit Recipients*, July 16, 1996, http://www.gao.gov/products/GGD-96-122BR.

14. Eissa and Liebman, "Labor Supply Response to the Earned Income Tax Credit"; Bruce Meyer and Dan Rosenbaum, "Welfare, the Earned Income Tax Credit, and the Labor Supply of Single Mothers" (working paper, National Bureau of Economic Research, September 1999); Bruce D. Meyer, "Labor Supply at the Extensive and Intensive Margins: The EITC, Welfare and Hours Worked," *American Economic Review* 92 (May 2002): 373–79; and Eissa and Hoynes, "Behavioral Responses to Taxes."

15. Meyer, "Labor Supply at the Extensive and Intensive Margins"; and Eissa and Hoynes, "Behavioral Responses to Taxes."

16. For a discussion of worker perceptions of EITC provisions, see Jennifer L. Romich and Thomas Weisner, “How Families View and Use the EITC: Advance Payment Versus Lump Sum Delivery,” *National Tax Journal* 53 (2000): 1245–64.

17. See US General Accounting Office, *Earned Income Credit.*

18. Nada Eissa and Hilary Hoynes, “Taxes and the Labor Market Participation of Married Couples: The Earned Income Tax Credit,” *Journal of Public Economics* 8 (2004): 1931–58; and Bradley T. Heim, “The Impact of the Earned Income Tax Credit on the Labor Supply of Married Couples: Structural Estimation and Business Cycle Interactions” (working paper, US Department of the Treasury, 2006).

19. Andrew Leigh, “Who Benefits from the Earned Income Tax Credit? Incidence Among Recipients, Coworkers and Firms,” *B. E. Journal of Economic Analysis & Policy* 10, no. 1 (2010); and Jesse Rothstein, “Is the EITC as Good as an NIT? Conditional Cash Transfers and Tax Incidence,” *American Economic Journal: Economic Policy* 10, no. 1 (2010).

20. Center on Budget and Policy Priorities, “Chart Book: TANF at 20,” August 5, 2016.

21. Grogger, “The Effects of Time Limits, the EITC, and Other Policy Changes”; and Jeffrey Grogger, “Welfare Transitions in the 1990s: The Economy, Welfare Policy, and the EITC,” *Journal of Policy Analysis and Management* 23, no. 4 (2004): 671–95.

22. Hilary W. Hoynes, Douglas L. Miller, and David Simon, “Income, the Earned Income Tax Credit, and Infant Health,” *American Economic Journal: Economic Policy* (2013).

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