

## THE EARNED INCOME TAX CREDIT, POVERTY, AND HEALTH

### Key Points

- » The Earned Income Tax Credit (EITC) is a refundable tax credit that has lifted millions of poor working families out of poverty.
- » Research suggests the EITC improves health, with the most robust results for single mothers and children. Mothers experience health improvements through reduced stress. Among children there is a decreased incidence of low birthweight and improvements in the home environment, nutrition, and educational and economic attainment.
- » Even marginal expansions to EITC eligibility and credit amounts will likely improve health outcomes for women and children. Less is known about the EITC's impact on men, and further research is needed. More work is also needed to understand broader questions about the EITC, such as whether there are long-term impacts on health and the underlying mechanisms behind its health effects.

A small but growing body of studies indicates that the Earned Income Tax Credit, the largest needs-tested antipoverty cash assistance program in the US, improves health, particularly for single mothers and children.

Health professionals have an ongoing interest in the degree to which antipoverty programs can improve health. In this brief we investigate one such program, the [Earned Income Tax Credit](#) (EITC). The EITC has been widely successful at [lifting poor families](#) out of poverty, making it a medium for researching the connection between poverty and health. Recent evidence largely supports the hypothesis that health improves after receipt of the EITC, particularly for children and single mothers. However, there remain unanswered questions about why the EITC is effective and the degree to which expanding eligibility and credit amounts would improve health more broadly.

### How The EITC Works

The EITC is a refundable tax credit for low-income workers. People do not have to owe taxes to receive it, but they must file an income tax return, have earned income, and meet income qualifications. The credit provides a subsidy as a percentage of income, effectively increasing the wages of the working poor. When a family's income in a given tax year falls within a "phase-in" range, the credit equals a fixed percentage of income, up to a dollar maximum. (Families with higher incomes therefore receive a larger credit in this phase-in-range.) For families with incomes above the phase-in range, the credit remains at the fixed dollar maximum during what could be called a "plateau range" of qualifying incomes. For families with incomes above the plateau range, credits gradually phase out to zero as income increases. The rate at which the credit is phased in, the maximum credit, and the rate at which the credit is phased out depend on the number of children in the family and the tax filer's marital status. Income from the EITC is usually received as an annual lump sum in February.

The EITC began relatively modestly in 1975, in the administration of President Gerald Ford. As a result of expansions over the years by Republican and Democratic administrations, the number of tax filers claiming the EITC grew

WITH SUPPORT FROM:



Robert Wood Johnson Foundation

from 6.2 million in 1975 to 27.0 million in 2016, and annual benefits have increased from \$5.6 billion to \$65.6 billion (in 2016 dollars). Spending on the EITC now exceeds combined federal and state spending on what has traditionally been considered welfare. Twenty-eight states and the District of Columbia have their own EITC programs, which provide additional credits on top of the federal one. A twenty-ninth state, Washington, enacted an EITC but has never funded it. (From here on, we refer to both the federal and state versions of the program jointly as “the EITC.”) The average annual federal EITC has grown from \$200 in 1975 to more than \$2,400 in 2016. The EITC is now the largest needs-tested anti-poverty cash assistance program in the US.

## Who Are The Recipients?

EITC recipients are low-income workers and their families. While a small credit is available to taxpayers without a child, 97 percent of the benefits went to families with children in 2015. Many recipients have incomes at or near 100 percent of the federal pov-

erty level. Because the EITC does not benefit people without income, it typically does not help the most impoverished of poor families. Of the 28.1 million tax filers who received the EITC in 2015, about 70 percent had an adjusted gross income of \$25,000 or less. Of those in poverty and receiving the EITC, the greatest earnings increases occurred at the upper end of the income distribution, among families with incomes of 75–100 percent of poverty.

EITC recipients commonly work in low-wage industries such as transportation, construction, food service, and retail. In 2015, about 52 percent had a high school degree or less. Slightly less than 50 percent were white, while 24 percent were Hispanic, and 19 percent were black. Twenty-two percent of recipi-

ents lived in rural areas. Recipients tend to use the credit to pay bills, reduce debt, make large purchases such as cars, pay rent, or make a security deposit for a rental unit.

## Economic And Educational Effects

Next, we review how the EITC has affected poverty, labor market, and educational outcomes, all of which are channels through which the EITC may affect health. In 2016, the EITC was estimated to lift 6.5 million people out of poverty, including 3.3 million children. The severity of poverty was reduced for an additional 21.2 million families, including 7.7 million children.

Throughout the phase-in range, the EITC incentivizes additional labor, as the worker’s effective after-subsidy wage increases. There is a consensus among researchers that the EITC has encouraged single mothers to enter the labor force. Some older studies provide evidence that the EITC has discouraged married women from working, though the effect is small. While in single-parent families the parent must work to be eligible for the credit, in two-parent households only one parent needs to have earned income—which gives the other parent the option (with respect to EITC eligibility) of not working.

Empirical studies have found that the EITC increased household income. Additionally, research on women suggests that increased employment resulting from the EITC may result in long-term growth in earnings and increased retirement benefits through Social Security. The Congressional Budget Office estimated that the EITC increased lifetime average earnings for less educated women by 17 percent. Finally, the EITC increases the likelihood that women will qualify for Social Security benefits on their own.

Increases in the generosity of the EITC also result in improved education outcomes for children. A \$1,000 increase in the maximum EITC led to increases in test scores of 6–9 percent of a standard deviation. One unpublished paper found that a \$1,000 increase in EITC benefits led to a 2.1-percentage-point increase in high school graduation rates. Similarly, a study found that EITC receipt led to increases in college enrollment and graduation, with subsequent impacts on

employment and earnings. There is [broader evidence](#) that increased income during childhood is related to future earnings and hours worked.

## ■ The EITC And Health: Channels

There are four principal channels through which the EITC is likely to improve health: reductions in stress,

**“The number of tax filers claiming the EITC grew from 6.2 million in 1975 to 27.0 million in 2016.”**

increased access to medical care or health insurance, reduced risky behavior, and improved nutrition (exhibit 1).

Long-term exposure to stress [degrades health](#). To the degree that the EITC lifts families out of poverty, it may reduce stress and thereby improve health. [Children](#) may be particularly vulnerable to the effects of stress. Previous work has shown that in utero exposure to cortisol (a stress-related hormone) [reduces children’s well-being](#) and that the stock market crash of 2008 [increased children’s sick days](#) from school and decreased parent-reported child health status—likely through increased stress. The existence of a stress channel is consistent with a [study](#) showing increased happiness and self-worth among mothers after EITC receipt.

While the EITC does not seem to increase insurance coverage, [two studies](#) found shifts from public to private (largely employer-sponsored) insurance. Given that some Medicaid recipients have [difficulty](#) accessing care, this shift to private insurance could provide greater access. [Hilary Hoynes and colleagues](#) showed that among pregnant women receiving the EITC, prenatal care occurred earlier and more frequently, and the women received higher-quality care. Beyond prenatal care, we do not know of work that documents EITC-related increases in consumption of

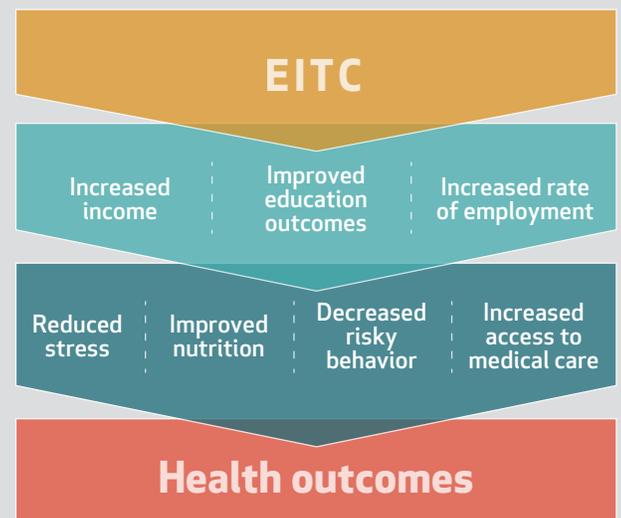
medical care, although increased income is associated with [increased consumption in general](#). Benefits from the EITC might also be spent on transportation, potentially increasing the likelihood that recipients will make and keep appointments with health care providers.

Conversely, if income from the EITC is spent on drinking, smoking, or other risky behaviors, it is possible that health would decline. [One study](#) found that smoking increased among low-income adults who received the EITC. However, others showed that receiving the EITC [decreases](#) maternal smoking and [smoking](#) among [pregnant women](#). The difference could be explained by the above mentioned improvement in prenatal care among EITC recipients. Recent quasi-experimental evidence suggests that policies causing decreased smoking during pregnancy lead to improvements in [birth outcomes](#) and [health later in children’s lives](#).

The final channel is improved nutrition. Otto [Lenhart](#) found increases in food expenditures following receipt of the EITC, while a [2014 study](#) found improvements in food security and measures of high-density lipoprotein cholesterol.

### EXHIBIT 1

#### Model of Earned Income Tax Credit effects on health outcomes



SOURCE Authors’ analysis.

## EITC And Health: Outcomes

A handful of high-quality studies indicate that the EITC improves health, with the weight of the evidence related to the health of mothers (particularly single mothers) and infants. A [2015 study](#) found that federal expansions to the EITC led to a 2–3 percent decline in the rate of low birthweight births for every \$1,000 in benefits. A [2010 study](#) found that state EITCs increased birthweights by about sixteen grams (0.56 ounces) for babies born to single mothers and eight grams (0.28 ounces) for those born to married mothers. This difference may be due to differential labor market effects of the EITC by marital status. While the birthweight effect in this study is small, it is likely a lower bound, as the authors reported the average effect over infants of all eligible women in states that expanded the EITC, rather than just infants of those who received the EITC. Regardless, the effects on birthweight are consistent with results in two other recently [published studies](#) that found a connection between EITC receipt and improved birth outcomes.

A few studies have looked at the effect of the EITC on biomarkers and self-reported well-being. [William Evans and Craig Garthwaite](#) found evidence that expanding the EITC lowered the probability of reporting elevated levels of albumin, C-reactive protein, and an aggregate measure of “any risky inflammatory biomarker” by 8–9 percentage points. The expansion decreased the number of bad mental health days reported and improved self-reported health. There is evidence that the EITC is associated with improved subjective [well-being](#) among women. [Casey Boyd-Swan and colleagues](#) found that the EITC led to reductions in self-reported symptoms of depression among married mothers.

Some work has explicitly focused on children’s health after birth. [Rita Hamad and David Rehkopf](#) found that modest improvements in children’s behavioral problems were associated with increased EITC-related income, while [Susan Averett and Yang Wang](#) found that the EITC led to increases in the quality of the home environment and lowered the probability of accidents for the children of unmarried Hispanic and white women.

This small but growing body of studies paints a picture of the EITC helping bring poor families out of poverty with spillover effects on health. The best evidence suggests that the EITC improved health for single mothers and their children.

### POLICY IMPLICATIONS: CAN THE EITC BE EXPANDED TO IMPROVE HEALTH?

Given the health effects of the EITC, to what degree can future EITC policy be used to improve health? We consider first the practicality of expanding the EITC, and second the likelihood that changes to the EITC would influence health.

The EITC has typically had bipartisan support and is therefore more likely to be expanded than other antipoverty programs are. Lawmakers have proposed federal [expansions](#) to the EITC, including an expansion for childless workers and workers as young as age twenty-one, though there has been talk of small cuts to the program as part of [entitlement reform](#). Most recently, the federal EITC was [expanded](#) in the administration of President Barack Obama to include an increase in benefits for taxpayers with three or more children. Among other things, this expansion opens the possibility for a more recent look at the impacts of the EITC, along with tests of the differential effect of targeting benefits to larger families. [Some experts](#) have called for additional expansions, focusing on people at the lower end of the earnings distribution.

One way to expand the EITC is through state governments. As noted above, [twenty-eight states](#) and the District of Columbia have implemented a supplement to the federal EITC. These programs have so far been relatively modest, ranging from 3 percent of the federal EITC in Hawaii to 35 percent in New Jersey (South Carolina is an outlier, with a benefit worth 125 percent of the federal credit when fully phased in).

At the city level, EITC dollars can have large multiplier effects. For example, San Antonio, Texas, has estimated that \$1.00 of EITC spending results in \$1.58 in [local economic activity](#). As about only 80 percent of people who are eligible receive benefits from the EITC, many cities have started campaigns to raise awareness about the credit. Some cities have

supplemented the EITC using public, private, and philanthropic funds. [San Francisco, California](#), created the Working Families Credit in 2005, using a public-private partnership to match 10 percent of the federal EITC. While the potential health effects of these smaller city programs have not been explored, such initiatives represent a way that the EITC can be expanded without new federal legislation. However, many cities face budget crises, and those with large low-income populations may have particular difficulty affording expansions.

Under what circumstances would changes to the EITC improve health? We believe that health professionals can draw several conclusions from the literature. An expansion of the EITC would likely have additional health benefits, specifically in households headed by single mothers. Such an expansion could be achieved through increases in credit amounts or broadened eligibility at the federal or state level, the establishment of new credits at the state and local level, or promotion and increased uptake of existing credits. The studies that found improvements in birthweight and the large literature on the importance of environment and health in early life suggest that mothers should ideally gain eligibility for the EITC while they are pregnant or as early in the child's life as possible. For example, a policy could be structured in such a way that a pregnant mother who already has one child would qualify for benefits as if she had two children.

Existing evidence suggests that expansions to the EITC focused on single mothers may be more likely to improve health than expansions focused on fathers or single men. However, this conclusion comes from the lack of clear evidence of effects on men, rather than estimated null effects. Future research could confirm whether male health remains unchanged following receipt of the EITC. While the different mechanisms through which the EITC affects health have different implications for policy, the effects are likely multifactorial, so a multifaceted strategy would be most effective.

One important limitation of the EITC is that it is available only to people who work. Accordingly, the credit's health benefits may be sensitive to the business cycle. One [study](#) found that during the

Great Recession, unmarried women were vulnerable to losing EITC benefits because they had no earnings. If reducing stress is a key channel for the EITC, then providing stability of access to the credit during business cycle fluctuations should be a policy priority. In addition, the EITC leads to increased work, and employment could directly affect mother and child health (positively or negatively).

Finally, the EITC does not help those who cannot work due to health conditions. This is especially salient given that good health status is predictive of

**“The best evidence suggests the EITC improved health for single mothers and their children.”**

labor market [success](#)—and women may be particularly vulnerable to negative labor market outcomes following permanent health conditions. The fact that EITC receipt is tied to employment could also have implications for child health. Several [studies show](#) that time [mothers](#) spend at [work](#) and away from home is associated with increased childhood obesity and decreases in other measures of child health. All of these limitations highlight the importance of other safety-net programs that are less conditional on work, such as the Supplemental Nutrition Assistance Program (SNAP, formerly known as food stamps), and programs that are not conditional on having higher earnings, such as the [minimum wage](#).

## ■ Areas For Future Work

The EITC is a centerpiece of American poverty alleviation efforts and crucial for low-income families, especially working single mothers. The literature connecting the EITC and health, while still nascent, is promising. There remain unanswered questions about the degree to which future EITC expansions can improve health and what the best opportunities

for expansion of the credit are. Understanding why studies find improvements to health is a critical area for future work. It is difficult to predict how the EITC could successfully be expanded to improve health without a better understanding of such mechanisms.

**“Mothers should...gain eligibility for the EITC while they are pregnant or as early in the child’s life as possible.”**

There are a number of ways in which we can improve our understanding. Researchers should continue to document the relationship between the EITC and health in different contexts, for other populations (particularly men), and with various outcomes.

There is also a need for a better understanding of the health effects of the EITC throughout the life course. Do the improvements in birthweight have longer-term implications for children’s health? Does improving health in childhood through exposure to the EITC have effects that last into adulthood?

Furthermore, many of the studies cited in this brief are based on the 1993 federal EITC expansion. Given more recent expansions to state and federal EITCs, it would be valuable to replicate this earlier work using more recent data. Looking ahead, health professionals should be aware of the potential for expansions of the EITC to improve health, particularly for mothers and children.

## HealthAffairs

This Health Policy Brief was produced with the generous support of the Robert Wood Johnson Foundation. All briefs go through peer review before publication.

Written by David Simon, an assistant professor in the Department of Economics at the University of Connecticut and Faculty Research Fellow of the National Bureau of Economic Research; Mark McInerney, a graduate student in the Department of Economics at the University of Connecticut; and Sarah Goodell, an independent health policy consultant.

Cite as: “The Earned Income Tax Credit, Poverty, And Health,” Health Affairs Health Policy Brief, October 4, 2018. DOI: 10.1377/hpb20180817.769687.

7500 Old Georgetown Road, Suite 600 | Bethesda, Maryland 20814-6133 USA | © 2018 Project HOPE—The People-to-People Health Foundation, Inc.