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# The Effect of Public Policies on Work Disability: A Life Course Perspective

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# Abstract

Our study estimates the impact of exposure to three welfare-enhancing policies—Medicaid, Food Stamps, and the Earned Income Tax Credit (EITC)—throughout the life course on individuals experiencing work disability in later life. Work disability is richly characterized by self-reports of duration and severity, with individuals who report both chronic and severe work limitations expected to be at the highest risk of applying for Disability Insurance (DI) benefits. Additionally, early Medicare receipt is used as a proxy for DI claims in investigations of whether social policy effects extend to DI awards. Using the Panel Study of Income Dynamics spanning over 50 years, we take a life-course approach that investigates policy effects from birth to pre-retirement. Our results show that exposure to EITC during adulthood can substantially reduce the probability of acquiring a work disability and having DI later in life. Although we find suggestive evidence that Medicaid and Food Stamps similarly decrease the likelihood of work disability, results are imprecisely estimated and inconsistent. These findings suggest that the EITC in particular could contribute to changing DI application and award trends.


**Keywords:** Social Policy, Work Disability

**JEL Classification:** I38, J14, J18

# 1. Introduction/Literature Review

Over 2 million workers apply for Disability Insurance (DI) annually (Social Security Administration 2019), and in February 2023 alone, approximately 8.7 million Americans received SSDI.[1] Understanding the pathways and contexts that improve individual health and well-being is important to reduce the risk that individuals will need DI. Previous literature demonstrates that health and disability vary across US states (Courtney-Long et al. 2015). Additionally, social policies like Food Stamps, Medicaid, and the Earned Income Tax Credit (EITC) vary across US states (and even counties) and are known to improve individual health, resources, or labor force attachment (Bastian and Michelmore 2018; Goodman-Bacon 2021; Hoynes, Schanzenbach, and Almond 2016). Importantly, health, resources, and work also characterize work disability, which is defined as a "condition that limits the type of work or the amount of work" an individual performs (PSID 2022).Thus, we hypothesize that exposure to these policies throughout an individual's life course could improve health, resources, and work sufficiently to decrease the prevalence of work disability later in life.

This study considers three public policies—Medicaid, Food Stamps, and the EITC—that could affect work disability reports and acknowledges work disability heterogeneity to identify the individuals at risk of DI applications and claims. We choose these three policies because they interact with the three key elements of work limitations—health, resources, and work. Further, we can examine their long-term impacts because they all first rolled out in the 1960s and 1970s.

Existing literature partially recognizes the potential impact public policy may have on work disability. For example, Hoynes et al. (2016) and Goodman-Bacon (2021) find that exposure to Food Stamps and Medicaid, respectively, could reduce work disability. However, each study investigates a single policy, classifies work disability in a limited binary fashion, and finds effects that are often imprecise.[2] While the existing evidence supports our hypothesis that public policy may reduce the incidence of work disability, further research is required.

Our work contributes to several strands of existing literature. First, while work disability is often a rigid binary construction in previous studies, our study acknowledges the rich

[1] https://www.ssa.gov/policy/docs/quickfacts/stat_snapshot/2023-02.html (accessed 6/20/2023).
[2] Imprecise effects are found in Hoynes et al. (2016) and for non-Whites in Goodman-Bacon (2021).

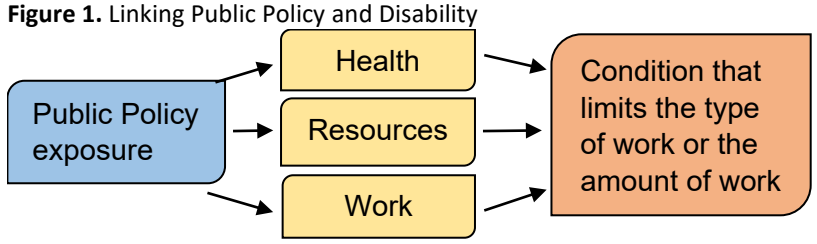
heterogeneity of work disability by incorporating duration and severity. Thus, we examine four distinct constructions of work disability.

Second, in contrast to most studies that analyze policy exposure effects by examining a single natural shock or policy, we study three welfare-enhancing policies. We explore the policy effects both individually and jointly to parse out the individual effect of each policy while controlling for the other major policies that could be correlated with the outcomes of interest.[3]

Our study also continues and improves on our previous work (Jajtner and Wang 2022), which investigates effects of exposure to these same social policies in an individual's childhood on work disability in their later life. Recognizing that (a) social policies alter health and labor market participation in important ways, even after childhood (Chatterji and Li 2017; Eissa and Hoynes 2004; Gelber, Moore, and Strand 2018; Golberstein 2015; Simon, McInerney, and Goodell 2018) and (b) that the outcome of interest needs sufficient time to develop after exposure (i.e., work disability typically emerges at older ages, but individuals experiencing exposure for the first time in childhood are typically younger), our current study examines policy exposure for a much larger portion of the life course. The goal is to give policymakers a more wholistic idea of potential policy spillovers. As social policies like the EITC and Medicaid continue to change even now, understanding exposure beyond childhood might be important for shorter-horizon projections of DI applications and claims.

Figure 1 illustrates our hypothesized link between public policies and work disability. Many household surveys ask respondents whether they have a health condition that limits the type or amount of work they can perform. Although not precisely the definition of work disability according to the SSA, particularly when duration and severity of the condition are incorporated, it is a relatively close approximation. Embedded within the survey work disability question(s) are elements of health, resources, and work. Persons with worse health are

**Figure 1.** Linking Public Policy and Disability




**Notes:** Public policies include the EITC, Food Stamps, and Medicaid.

[3] Boudreaux et al. (2016) is an exception that primarily examines the effect of Medicaid exposure in early childhood while controlling for access to Food Stamps.

more prone to having a health condition that could limit work in the first place. An individual's work is a natural part of the definition because types and amounts of work vary across individuals, occupations, and industries. Resources also play a role. These may include education, experience, or workplace accommodations. Thus, individuals with the same health condition but different work and/or resources might experience work disability differently. A rich body of literature demonstrates that social policies, including those we examine, alter health, resources, and work (Jones 2020; Hoynes, Schanzenbach, and Almond 2016; Goodman-Bacon 2021; Boudreaux, Golberstein, and McAlpine 2016; Miller and Wherry 2019; Bastian and Michelmore 2018; Braga, Blavin, and Gangopadhyaya 2020; Hoynes and Patel 2018).[4] Since social policies can meaningfully impact the elements comprising work disability, we reason that work disability itself could be altered by social policy. We hypothesize that the expanding social safety net, broadly defined, should ultimately decrease the prevalence of work disability and, by extension, the number of DI applications and awards.

Using a generalized difference-in-differences method, we find that exposure to the EITC during adulthood can substantially and statistically significantly decrease the probability of work disability later in life. Results on the effects of Medicaid and Food Stamps are less conclusive, suffering from imprecision and inconsistencies, and offer only suggestive evidence supporting our hypothesis.

Our study has several important policy and research implications. First, our findings underscore the need to evaluate how public policies impact health and work disability over the life course, not only during childhood. Second, our aim to examine the long-term impacts of policies rolled out in the 1960s and 1970s highlights the importance of taking a long-term view in both the planning and evaluation of public policies. Third, our research suggests that social programs could function as both safety nets and preventative measures to maintain the health and labor force participation of the population. Fourth, it is important for researchers to recognize the nuanced nature of work disability to provide policymakers with a more informative lens for understanding how policy can shape DI applications and awards. Finally, our study's goal to provide a more wholistic understanding of potential policy spillovers underscores the need for comprehensive data collection and analysis that incorporates multiple factors across various life stages. This could

[4] This is a non-exhaustive list.

influence data collection policies and strategies so that this information is better captured for research and policy-making purposes.

The rest of the paper is organized as follows. In the remainder of this section, we provide the background information on Medicaid, Food Stamps, and the EITC and briefly summarize the related economic literature. In Section 2, we describe our data and empirical method. In Section 3, we present our results. We discuss and conclude in Section 4.

## 1.1. Background

Social policies can have meaningful impacts on health, the labor market, and economic outcomes for recipients. These benefits can be felt in the short run and in the long run. The US social safety net is fragmented, with various programs available to different populations and at different points in individuals' lifespans. Below, we highlight the history and impact of the three specific social programs we examine to understand the long-term impacts of the social safety net on the acquisition of work disability in adulthood.

### 1.1.1. Timeline of social policies.

President Kennedy announced a pilot Food Stamp Program (FSP)—a program aimed to improve the agricultural economy and provide enhanced nutrition levels among low-income households—in eight impoverished counties in 1961. This small pilot program was later expanded to 43 counties in 1962 and 1963. The success of these pilot programs led to the 1964 Food Stamp Act, which gave local areas the authority to start up the FSP in their counties. Medicaid, a means-tested public health insurance, was established a year later by the 1965 amendments to the Social Security Act (SSA) in an effort to improve the health of low-income individuals. States were required to implement Medicaid by 1970. If not, they would lose federal reimbursements for existing medical programs. All states, except for Alaska and Arizona, adopted Medicaid before 1970, and about half of US counties had a Food Stamp program at that time. The 1973 amendments to the Food Stamp Act further mandated that all counties offer FSP by 1975. Since then, Medicaid has undergone numerous policy changes, including the Home and Community-Based Services (HCBS) Waivers in 1982, the Children's Health Insurance Program (CHIP) in 1997, and the Affordable Care Act (ACA) in the early 2010s, making it one of the most dynamic areas of health

policy in the United States. The Food Stamp program has also undergone many changes, including being renamed the Supplemental Nutrition Assistance Program (SNAP) in 2008 and the recent expansion in 2020 in response to the COVID-19 pandemic.

Our third social policy—the Earned Income Tax Credit (EITC) —began when these first two reached nearly all US geographic areas. The federal government implemented the EITC in 1975 to compensate low-wage workers for regressive payroll taxes. Benefits were modest by today's standards—just $400 for low-income households with children ($1,869 in 2018 dollars). By 1986 the federal benefit was $550 regardless of family size, although inflation had eroded the real benefit to less than $1,300.[5] Wisconsin implemented the first state EITC policy in 1983, valued at approximately $378 in 2018 dollars. In 1991 the federal benefit began to offer higher benefits to families with two or more children (around $2,300), and six states had their own EITC benefits to supplement the federal policy. By 1999, the federal benefit surged to over $5,700 for families with two or more children and nearly $3,500 for families with one child, with 11 states offering benefits ranging from $140 (Wisconsin with one qualifying child) to nearly $2,500 (Wisconsin with three qualifying children), depending on state and family size. By 2017, the final year of EITC data for our youngest study cohort, the federal benefit stood at $522 for individuals without dependents and $6,472 for those with three or more children. State benefits ranged from $18 to $5,500.

### 1.1.2. Impacts of social policies.

The FSP is the only public assistance program available to all eligible families. Eligibility for FSP is income-based, and eligible families can use vouchers to purchase most grocery store food. It is federally funded and currently one of the largest US cash or near-cash means-tested transfer programs. Although the FSP is typically understood as an income transfer (Hoynes, Schanzenbach, and Almond 2016; Hoynes and Schanzenbach 2009), a large portion of FSP benefits is spent on food. Consistent with the strong link between early-life nutrition and later-life outcomes, the literature has found that the FSP rollout had positive effects not only on contemporaneous health, as measured by birth weight (Almond, Hoynes, and Schanzenbach 2011; Currie and Moretti 2008), but also on health and income self-sufficiency decades later (Hoynes, Schanzenbach, and Almond

[5] All benefits are in 2018 real US dollars unless otherwise specified.

2016). For (adult) recipients, FSP (and its current form SNAP) has been found to be correlated with food insecurity, caloric intake, and diet quality (e.g., Nguyen et al. 2015; Leung et al. 2017), which has direct impact on people's health. More objectively, participation in FSP/SNAP also reduces mortality, particularly in low-income populations (Jones 2020; Heflin, Ingram, and Ziliak 2019).

After more than 50 years and some expansions, today Medicaid covers over 80 percent of poor children (Cohen, Martinez, and Zammitti 2012). The introduction of Medicaid between 1966 and 1970 has been found to reduce infant and child mortality rates, especially for non-White children (Goodman-Bacon 2018), and adult health (Boudreaux, Golberstein, and McAlpine 2016). Another study found childhood exposure to Medicaid reduced mortality and disability while increasing employment for adults up to 50 years later (Goodman-Bacon 2021). Echoing these findings, an analysis of the 1980s expansion found children whose mothers gained access to Medicaid while they were in utero or during the first year of life on average had fewer chronic conditions and hospitalizations related to diabetes and obesity later in life. They also had increased high school graduation rates (Miller and Wherry 2019). For (adult) recipients, the literature suggests that Medicaid has generally improved access to care, increased financial security, improved certain aspects of health, and reduced Supplemental Security Income take-up, but results vary by the population studied and health outcome measures (e.g., Finkelstein et al. 2012; Sommers, Baicker, and Epstein 2012; Wherry and Miller 2016; Miller and Wherry 2017; Soni et al. 2017; Staiger, Helfer, and Van Parys 2023; Burns and Dague 2017).

The EITC is perhaps one of the most effective anti-poverty programs in the US social safety net (Scholz 1994). Not only does it have meaningful impacts on labor market participation (e.g., Bastian 2020; Bastian and Michelmore 2018; Dickert, Houser, and Scholz 1995; Eissa and Hoynes 2006; Grogger 2003; Hoynes 2009; Meyer 2010) and income, but it also affects the health of (adult) recipients (Averett and Wang 2013; Evans and Garthwaite 2014; Lenhart 2019; Cowan and Tefft 2012; Gangopadhyaya et al. 2020; Muennig et al. 2016). Previous research has found that $1,000 of additional EITC benefits lead to a 2- to 3-percent reduction in the incidence of low birth weight (Hoynes, Miller, and Simon 2015), while a $100 average annual increase in *exposure* to the EITC in childhood increases the likelihood of reporting very good or excellent health at ages 22–27 by 2.6 percent and decreases the probability of obesity by 4.1 percent (Braga, Blavin, and Gangopadhyaya 2020). Mothers who receive EITC benefits also appear more likely to

concurrently report better health, and $500 additional EITC benefits decreases poor mental health days by 19 percent (Evans and Garthwaite 2014). Similarly, another study found that the federal EITC expansions in 1993 increased the probability of reporting very good or excellent health by 8.5 percentage points (Lenhart 2019).

We hypothesize that these demonstrated positive effects of social policies on health, work, and resources will meaningfully affect health—decreasing the likelihood of experiencing a work disability.

# 2. Data and Methods

## 2.1. Data

The Panel Study of Income Dynamics (PSID) is uniquely suited to answer our research question. The PSID started in 1968 with approximately 18,000 individuals from 5,000 US families (PSID 2022). Each year, and biennially since 1997, it continues to collect economic, health, and demographic data on these individuals and their descendants.

Our sample consists of individuals born between 1923 and 1969. These cohorts witnessed significant variation in policy exposure at various points in their life courses when policies were rolling out. The PSID is an ideal dataset to tackle the question of policy effects on work disability for several reasons. First, the PSID began shortly after policy implementation, allowing direct observation of key characteristics defining policy exposure: location and family structure over several years. Furthermore, the impressively long duration of the PSID over more than 50 years affords the opportunity to observe work disability during later adulthood, which we define as ages 50–59.

The outcome of interest is whether the individual acquires a work disability during later adulthood. We utilize several survey questions from the PSID to ascertain the presence and degree of work disability. First, heads of households and spouses/partners consistently began reporting work limitations in 1972 and 1981, respectively, from a two- to three-question series. In each survey wave, individuals are asked whether they have a health condition that limits the type or amount of work they can do. Those who answer no are categorized as “non-limited” for that wave. Individuals who answer affirmatively are asked follow-up question(s) to gauge severity. Prior to 1986, individuals simply indicated if the health condition limited work “a lot,” “somewhat,” or “just a little/not at all.” We categorize individuals with these responses as having a severe,

moderate, or mild work limitation in each wave. Beginning in 1986, work-limited individuals are also asked whether their limitation prevents some types of work, and, if affirmative, they are categorized with a severe limitation (see Meyer and Mok 2019). In our first definition of work disability, all individuals who ever report a work limitation between the ages of 50 and 59 are categorized with a work disability.

Moving beyond this elementary definition of work disability, we leverage the panel structure of PSID to capture both the duration and severity of work limitations. We hypothesize that individuals with both chronic and severe limitations are most likely to fit the Social Security Administration's definition of work disability and have not only the highest likelihood of applying for benefits but also the highest likelihood of receiving benefits. Based on the categorization in Meyer and Mok (2019), we examine a second definition of work disability that only includes both chronic and severe conditions. To qualify for this definition of work disability, individuals must report a work limitation in at least 25 percent of the waves in which they are observed between ages 50 and 59, and of the positive work limitation reports, 50 percent of the reports are severe in nature.[6] Moving away from a binary outcome, we also examine a work limitation index that captures duration and severity of self-reported limitations on a scale of zero to one, where one represents the most chronic and severe limitations.[7]

Many individuals who report work limitations in household surveys never claim DI. DI is available to individuals with severe work limitations that prevent labor market involvement and are expected to last at least one year. As mentioned previously, individuals categorized as having a chronic and severe limitation or with index values near one are expected to be at the highest risk of applying for and claiming DI. Even among these individuals, however, not everyone is or will become a DI beneficiary. Unfortunately, directly observing DI benefits in the PSID is not feasible during the late 1990s and early 2000s. Therefore, we leverage a feature of the DI program where beneficiaries are eligible for Medicare after a two-year waiting period. Since Medicare is primarily

[6] Meyer and Mok (2019) only observe individuals in the PSID prior to the introduction of the biennial wave structure. They implement a definition of chronic disability in which three years of 10 years following disability onset are positive reports, but they also require the 50 percent threshold for severity.
[7] This dependent variable is based on the formulation in Jajtner (2020). Work limitation reports that are absent, mild, moderate, or severe are assigned a value of zero, one, two, or three, respectively, each wave they are reported. The summation of the individual's reports from ages 50–59 is divided by three times the number of waves they report to produce the index.

available for American seniors (aged 65+) and DI beneficiaries, we proxy DI receipt with early reports of Medicare coverage before age 65.

## 2.2. Modeling

The effect of social policies throughout an individual's life course on later-life work disability is modeled as in equation 1. The coefficient of interest is $\beta_1$—the effect of exposure to social policy before late adulthood, i.e., before 50 years old, on work disability in late adulthood, i.e., ages 50–59. We first examine the effect of the EITC, Medicaid, and Food Stamps (ages 0–49) separately. Second, we examine the effect of each policy in childhood and adulthood (i.e., ages 0–18 and ages 19–49) to determine if childhood or adulthood might be more influential. In this case, $\beta_1$ is a vector of coefficients representing two phases of the lifespan before late adulthood. We additionally disaggregate the first 50 years of life into 10-year age bins, with $\beta_1$ representing a vector of coefficients for each of the five age bins. Finally, we examine the joint effect of all three policies from ages zero to 49 with $\beta_1$ representing a vector of three policy coefficients.

$$(1) \qquad Work\ Disability_i = \beta_0 + \beta_1 Policy_{it} + \sum \beta_j X_{ij} + \sum \beta_j V_{ij} + \sum \beta_j Z_{ij} + \delta + \gamma + \varepsilon_i$$

Following the existing literature (Bastian and Michelmore 2018; Boudreaux, Golberstein, and McAlpine 2016; Goodman-Bacon 2021; Hoynes, Schanzenbach, and Almond 2016), we additionally control for the following individual factors ($\sum \beta_j X_{ij}$): age, age-squared, race/ethnicity, educational attainment, marital status, and poverty over ages 50 to 59.[8] Individual characteristics before late adulthood ($\sum \beta_j V_{ij}$) include the portion of time spent in poverty (ages 0–49) and the portion of time an individual is married during adulthood (ages 30–49). Finally, to buttress results against contamination by unobserved state and county characteristics, we control for several state and/or county characteristics in childhood ($\sum \beta_j Z_{ij}$). In the case of state-led policies like the EITC and Medicaid, we use data from Goodman-Bacon (2021) on state income per capita and the number of hospital beds per capita. We additionally use data on the state-level unemployment rate

[8] Characteristics that change over time (i.e., age, marital status, and poverty) are calculated as the average value from ages 50–59. So, age is the average age for all survey waves falling in this age range. Marital status and poverty are dichotomized as whether the individual is married (or in poverty) or not in each wave, and the resulting covariate represents the portion of waves an individual is married or in poverty during adulthood.

(from the University of Kentucky Poverty Research Center) and the state-level minimum wage (from the Federal Reserve Economic Data). In the case of Food Stamps, a county-led rollout, we substitute hospital beds per capita at the state level for Hoynes et al. (2016) data on county-level hospital beds per capita and add a control for the presence of a community health center at the county level. Models with all three policies control for county characteristics. Following the specification in Hoynes et al. (2016), birth cohort fixed effects ($\delta$) and birth state-specific time trends ($\gamma$) are also included. Binary outcomes utilize a linear probability model, and continuous outcomes utilize an ordinary least squares regression.

An individual's decision to participate in the labor market is at least partially tied to health. Men reporting very good or excellent health on average work 94 hours per year more and earn $6.22 an hour more relative to men who report poor, fair, or good health (Hokayem and Ziliak 2014). Indeed, work disability itself is defined as a health condition that limits work ability. Healthy individuals might therefore be more likely to receive EITC benefits (because they are able to work) and less likely to receive Medicaid (if employers provide alternative health insurance).

We circumvent this selection issue by relying on *exposure* to policies rather than actual participation. Individuals in the sample are considered exposed to a policy if they live in the geographic area where the policy is available (i.e., state for the EITC and Medicaid or county for Food Stamps). The simplest policy exposure variable is Food Stamps. The independent variable of interest is simply an average portion of time in the specified age interval (most frequently ages 0–49) that the individual lives in a county with a Food Stamp program. Thus, our sample cohorts are first exposed to Food Stamps between birth and age 38 depending on birth cohort and county of residence.

Although the EITC varies only at the state level, it also varies by the number of children in the household, so the assigned exposure is the maximum benefit available for the household type. For defining exposure in our sample, we restrict the sampling to birth cohorts 1933–1969 since the 1923–1932 birth cohorts were never exposed to state-varying EITC polices before age 50. Then when individuals are children, exposure is based on the number of eligible siblings of the individual, and, as the individual ages into adulthood, exposure is based on the number of their own dependent children.

Medicaid is the least straightforward exposure we define for this report. In the main, and simplest form, it is analogous to Food Stamp exposure: the independent variable of interest simply

measures the average time an individual lives in a state with a Medicaid program. However, children were the intended recipients of early programming. Thus, this first formulation assigns Medicaid exposure to adults under the assumption that they could potentially have children who are exposed to Medicaid as beneficiaries. Additionally, not all Medicaid programs were of similar size at the time of implementation. At the time of rollout, the existing Aid to Families with Dependent Children (AFDC) program colored exposure not only within states but also by race/ethnicity (Goodman-Bacon 2021). We therefore formulate two additional definitions of Medicaid exposure following Goodman-Bacon (2021)—and using that data—that measure state-level Medicaid exposure by the probability of coverage based on aggregate or race-specific AFDC rates in each state and year from 1955 to 1988. These measures restrict exposure to childhood. Medicaid continued to evolve over time, and to help capture some changes that would be potentially applicable to our sample cohorts, we use data from East et al. (2023) to incorporate expanded eligibility for women of child-bearing ages (up to age 44) in each state and year after 1975. In this case, exposure is defined for children and women of child-bearing ages only.

## 2.3. Sample Descriptive Statistics

When social policies are examined in isolation, samples are optimized to leverage observed variation in the policies. For the EITC sample, this means we are analyzing the 1933–1969 birth cohorts, while for Food Stamps and Medicaid we additionally include the 1923–1932 birth cohorts. The 1969 birth cohort turns 50 in 2019, the final year of data in our current sample to observe the dependent variable. The 1923 birth cohort is chosen as the earliest cohort since it is the oldest cohort to reliably observe work limitations prior to age 60 in 1981 and 1982, regardless of sex.[9] Tables 1–3 report the descriptive statistics for these samples. In all tables, column 1 is the sample average. Column 2 is the sample average among individuals never reporting work limitations in late adulthood (ages 50–59), and column 3 is the sample average for individuals ever reporting a work disability during that time. Columns 4 and 5 split the work disability sample into those with chronic and severe limitations (column 5) and those with non-chronic or non-severe limitations

[9] Recall that males are by default the head of household in PSID and observe work limitations earlier. Women, however, are typically labeled as partners or spouses (unless unmarried and not cohabitating with a male partner) and only observe work limitations beginning in 1981.

(column 4). The final two columns split the full sample by whether the individual is a likely DI recipient (i.e., has Medicare before age 65). This sample is always a little smaller since Medicare is not reported until 1999. Although the Medicaid and Food Stamp samples rely on the same birth cohorts, individuals in the Food Stamp sample additionally require information on county of residence, producing a slightly smaller sample. For all tables we include in the text an abbreviated table detailing key characteristics, while full tables are available in the Appendix.

In the EITC sample, there are slightly more women in the work limitation sample relative to the non-work limitation sample. There is also a higher portion of individuals with a high school degree or less with work limitations. Individuals experiencing work limitations between ages 50 and 59 have significantly lower household incomes. In Appendix Table A1, we can see that this is partly composed of significantly higher portions of time spent in unemployment, lower average earnings, and less time married. Observed health is, as expected, lower among the work-limited sample, with lower self-reported health status and a greater portion of later-adulthood spent with a limitation in Activities of Daily Living (ADL).

Importantly for our study, we find descriptive evidence that lower exposure to EITC dollars is significantly associated with later-life work limitations. Individuals without work disability between ages 50 and 59 on average were exposed to $57,500 EITC dollars over ages 0–49, while individuals with any reported work disability between ages 50 and 59 were only exposed to $43,500—a statistically significant difference of about $14,000, or about 24 percent fewer EITC dollars. This suggests that work disability is negatively correlated with exposure to the EITC program. In columns 4 and 5, we see that many of these observed patterns follow a clear gradient. Individuals with non-chronic or non-severe limitations tend to have slightly better health and higher income and are exposed to more EITC dollars before age 50 relative to their peers who report a chronic and severe work disability between ages 50 and 59. A similar pattern also holds when comparing those with a DI award and those without.

**Table 1:** Select Descriptive Statistics of the EITC Sample (cohorts 1933–1969)

| | Sample | Never Work Limited | Ever Work Limited | Non-Chronic or non-Severe Work Limit | Chronic & Severe Work Limit | No DI | DI |
|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| % Females | 0.536 | 0.510 | 0.587*** | 0.595*** | 0.566* | 0.526 | 0.551 |
| | (0.008) | (0.011) | (0.014) | (0.017) | (0.026) | (0.010) | (0.024) |
| % non-Hispanic White | 0.737 | 0.746 | 0.720+ | 0.752 | 0.642*** | 0.764 | 0.598*** |
| | (0.007) | (0.009) | (0.013) | (0.014) | (0.025) | (0.008) | (0.023) |
| HS/GED or less | 0.397 | 0.363 | 0.463*** | 0.429*** | 0.545*** | 0.350 | 0.510*** |
| | (0.008) | (0.010) | (0.014) | (0.017) | (0.026) | (0.009) | (0.024) |
| Average Income (Ages 30–49) | $98,379 | $107,379 | $80,784*** | $88,999*** | $61,153*** | $106,624 | $65,895*** |
| | (1,353) | (1,771) | (1,875) | (2,314) | (2,832) | (1,658) | (2,199) |
| Average Overall Health (Ages 50–59) | 78.150 | 84.819 | 65.112*** | 70.939*** | 51.189*** | 81.282 | 62.532*** |
| | (0.295) | (0.223) | (0.601) | (0.616) | (1.092) | (0.282) | (1.089) |
| % Time ADL Limitation (Ages 50–59) | 0.112 | 0.016 | 0.304*** | 0.202*** | 0.559*** | 0.068 | 0.353*** |
| | (0.005) | (0.002) | (0.011) | (0.011) | (0.021) | (0.004) | (0.018) |
| EITC Exposure (Ages 0–49) | $52,736 | $57,467 | $43,486*** | $44,083*** | $42,059*** | $55,679 | $48,334*** |
| | (704) | (900) | (1,054) | (1,274) | (1,863) | (782) | (1,779) |
| EITC Exposure (Ages 0–18) | $4,420 | $5,117 | $3,058*** | $2,867*** | $3,514*** | $4,571 | $3,444*** |
| | (113) | (146) | (163) | (191) | (310) | (123) | (288) |
| EITC Exposure (Ages 19–49) | $48,316 | $52,350 | $40,428*** | $41,216*** | $38,545*** | $51,109 | $44,890*** |
| | (634) | (807) | (966) | (1,165) | (1,714) | (708) | (1,625) |
| Observations | 5,047 | 3,214 | 1,833 | 1,217 | 616 | 3,518 | 749 |

**Source:** Authors' calculations using public PSID data.

**Notes:** Average overall health is measured as the average of the HALex transformation of the five-point Likert scale with 97.5, 90, 77.5, 50, and 15 representing excellent, very good, good, fair, and poor, health, respectively. Activities of Daily Living (ADL) limitations include limitations bathing, dressing, eating, toileting, getting in and out of bed, and/or walking. + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 2 contains descriptive statistics for the Medicaid sample. Similar differences in demographic characteristics across work limitation status are observed in this sample as those noted above for the EITC sample. In terms of policy exposure, individuals with any reported work limitation between ages 50 and 59 (column 3) have significantly less exposure to Medicaid throughout the life course (ages 0–49). On average, individuals without a reported work limitation in the later working-age years were exposed to Medicaid 73.2 percent of the time between birth and age 49. By contrast, individuals reporting a work limitation between ages 50 and 59 were only exposed to Medicaid 66.4 percent of the time between birth and age 49. Looking just at childhood exposure, and adjusting for average AFDC eligibility both at the aggregate and race/ethnicity level by state, we again see a similar pattern. Individuals with reported work limitations have significantly less exposure to Medicaid in childhood. Finally, when we add in East et al. (2023) prenatal eligibility for women, we again see a similar pattern. In contrast to the EITC results, however, we do not observe a strong gradient in exposure to these policies by the duration or severity of the work limitations. We also do not note a statistically significant difference in all measures of Medicaid exposure for DI awardees relative to those without DI. However, individuals without DI were exposed to Medicaid on average for 40 percent of childhood, and those who receive DI were exposed to Medicaid for 36.7 percent of childhood. Adjusted for AFDC rates in childhood and prenatal eligibility (for women) in adulthood, Medicaid exposure is unexpectedly higher among DI recipients. Overall, we conclude that there is a clear negative association between Medicaid exposure and work disability in later life.

**Table 2:** Select Descriptive Statistics of the Medicaid sample

| | Sample (1) | Never Work Limited (2) | Ever Work Limited (3) | Non-Chronic or non-Severe Work Limit (4) | Chronic & Severe Work Limit (5) | No DI (6) | DI (7) |
|---|---|---|---|---|---|---|---|
| % Females | 0.537 | 0.511 | 0.586*** | 0.593*** | 0.569* | 0.526 | 0.551 |
| | (0.008) | (0.010) | (0.014) | (0.016) | (0.025) | (0.010) | (0.024) |
| % nH White | 0.741 | 0.749 | 0.726 | 0.758 | 0.647*** | 0.764 | 0.598*** |
| | (0.007) | (0.009) | (0.012) | (0.014) | (0.024) | (0.008) | (0.023) |
| HS/GED or less | 0.402 | 0.366 | 0.470*** | 0.437*** | 0.551*** | 0.350 | 0.510*** |
| | (0.008) | (0.010) | (0.014) | (0.016) | (0.026) | (0.009) | (0.024) |
| Average Income (Ages 30–49) | $98,599 | $107,376 | $81,913*** | $90,010*** | $62,368*** | $106,624 | $65,895*** |
| | (1,316) | (1,738) | (1,805) | (2,221) | (2,751) | (1,658) | (2,199) |
| Average Overall Health (Ages 50–59) | 78.045 | 84.843 | 65.129*** | 71.037*** | 50.869*** | 81.282 | 62.532*** |
| | (0.290) | (0.219) | (0.582) | (0.594) | (1.060) | (0.282) | (1.089) |
| % Time ADL Limitation (Ages 50–59) | 0.112 | 0.016 | 0.304*** | 0.202*** | 0.559*** | 0.068 | 0.353*** |
| | (0.005) | (0.002) | (0.011) | (0.011) | (0.021) | (0.004) | (0.018) |
| Medicaid Exposure (Ages 0–49) | 0.709 | 0.732 | 0.664*** | 0.657*** | 0.682*** | 0.741 | 0.732 |
| | (0.003) | (0.004) | (0.006) | (0.007) | (0.010) | (0.003) | (0.008) |
| Medicaid Exposure (Ages 0–18) | 0.368 | 0.407 | 0.295*** | 0.279*** | 0.332*** | 0.401 | 0.367* |
| | (0.006) | (0.008) | (0.010) | (0.011) | (0.018) | (0.007) | (0.016) |
| Medicaid Exposure (Ages 19–49) | 0.917 | 0.931 | 0.891*** | 0.888*** | 0.897*** | 0.950 | 0.955 |
| | (0.002) | (0.003) | (0.004) | (0.005) | (0.008) | (0.002) | (0.005) |
| Medicaid (AFDC) Eligibility-Exposure (Ages 0–18) | 0.026 | 0.029 | 0.021*** | 0.020*** | 0.024* | 0.029 | 0.027 |
| | (0.001) | (0.001) | (0.001) | (0.001) | (0.002) | (0.001) | (0.002) |
| Medicaid (AFDC-race) Eligibility-Exposure (Ages 0–18) | 0.032 | 0.035 | 0.027** | 0.026** | 0.030 | 0.032 | 0.044* |
| | (0.001) | (0.001) | (0.002) | (0.002) | (0.003) | (0.001) | (0.005) |
| Medicaid Eligibility-Exposure (Ages 0–44) | 0.060 | 0.063 | 0.055** | 0.054** | 0.057 | 0.064 | 0.062 |
| | (0.001) | (0.002) | (0.002) | (0.002) | (0.004) | (0.002) | (0.003) |
| N | 5,289 | 3,319 | 1,970 | 1,312 | 658 | 3,518 | 749 |

**Source:** Authors' calculations using public PSID data.

**Notes:** Average overall health is measured as the average of the HALex transformation of the five-point Likert scale with 97.5, 90, 77.5, 50, and 15 representing excellent, very good, good, fair, and poor, health, respectively. Activities of Daily Living (ADL) limitations include limitations bathing, dressing, eating, toileting, getting in and out of bed, and/or walking. + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 3 presents descriptive statistics for the Food Stamp sample. As with the previous two samples presented, demographic characteristics are similar across work limitation statuses. We additionally find descriptive evidence suggesting that the Food Stamp program rollout decreased the likelihood of work disability later in life. Individuals who never reported a work limitation between ages 50 and 59 on average spent 70 percent of their early- and mid-life exposed to a Food Stamp program, while individuals who ever experienced a work disability spent just 64 percent of their early- and mid-life exposed to the program. We observe this same pattern of lower exposure among the work limited population in both childhood (ages 0–18) and adulthood (ages 19–49). However, we do not observe a strong gradient in exposure along the dimensions of work limitation severity or duration, and notably, exposure coefficients are higher among chronic and severe work limited individuals relative to those with non-chronic or non-severe limitations. Individuals with DI have a similar amount of exposure to the Food Stamp program from birth to age 49 and during childhood. However, individuals with DI spend a statistically significant higher portion of adulthood exposed to Food Stamps.

**Table 3:** Descriptive Statistics for the Food Stamp Sample (cohorts 1923–1969)

| | Full Sample (1) | Never Work Limited (2) | Ever Work Limited (3) | Non-chronic or Non-severe Work Limit (4) | Chronic & Severe Work Limit (5) | No DI (6) | DI (7) |
|---|---|---|---|---|---|---|---|
| % Females | 0.535 | 0.509 | 0.586*** | 0.592*** | 0.573* | 0.525 | 0.548 |
| | (0.008) | (0.011) | (0.014) | (0.017) | (0.026) | (0.010) | (0.024) |
| % nH White | 0.750 | 0.758 | 0.735 | 0.767 | 0.656*** | 0.775 | 0.603*** |
| | (0.007) | (0.009) | (0.012) | (0.014) | (0.024) | (0.008) | (0.024) |
| HS/GED or less | 0.405 | 0.370 | 0.473*** | 0.438*** | 0.556*** | 0.352 | 0.510*** |
| | (0.008) | (0.010) | (0.014) | (0.016) | (0.026) | (0.009) | (0.024) |
| Some College + | 0.595 | 0.630 | 0.527*** | 0.562*** | 0.444*** | 0.648 | 0.490*** |
| | (0.008) | (0.010) | (0.014) | (0.016) | (0.026) | (0.009) | (0.024) |
| Average Income (Ages 30–49) | $98,594 | $107,554 | $81,641*** | $89,725*** | $62,190*** | $106,809 | $65,443*** |
| | (1,346) | (1,781) | (1,832) | (2,255) | (2,796) | (1,696) | (2,244) |
| Average Overall Health (Ages 50–59) | 78.033 | 84.836 | 65.168*** | 71.099*** | 50.899*** | 81.333 | 62.327*** |
| | (0.294) | (0.223) | (0.589) | (0.600) | (1.079) | (0.287) | (1.100) |
| % Time ADL Limitation (Ages 50–59) | 0.115 | 0.016 | 0.309*** | 0.205*** | 0.567*** | 0.069 | 0.363*** |
| | (0.005) | (0.002) | (0.011) | (0.011) | (0.021) | (0.004) | (0.019) |
| Food Stamp Exposure (Ages 0–49) | 0.677 | 0.699 | 0.637*** | 0.629*** | 0.656*** | 0.707 | 0.708 |
| | (0.003) | (0.004) | (0.006) | (0.007) | (0.010) | (0.004) | (0.008) |
| Food Stamp Exposure (Ages 0–18) | 0.326 | 0.360 | 0.262*** | 0.253*** | 0.283*** | 0.352 | 0.329 |
| | (0.006) | (0.008) | (0.009) | (0.011) | (0.016) | (0.007) | (0.016) |
| Food Stamp Exposure (Ages 19–49) | 0.893 | 0.906 | 0.867*** | 0.860*** | 0.884* | 0.924 | 0.940* |
| | (0.003) | (0.003) | (0.005) | (0.006) | (0.008) | (0.003) | (0.006) |
| N | 5,180 | 3,235 | 1,945 | 1,295 | 650 | 3,432 | 728 |

**Source:** Authors' calculations using public PSID data.

**Notes:** Average overall health is measured as the average of the HALex transformation of the five-point Likert scale with 97.5, 90, 77.5, 50, and 15 representing excellent, very good, good, fair, and poor, health, respectively. Activities of Daily Living (ADL) limitations include limitations bathing, dressing, eating, toileting, getting in and out of bed, and/or walking. + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

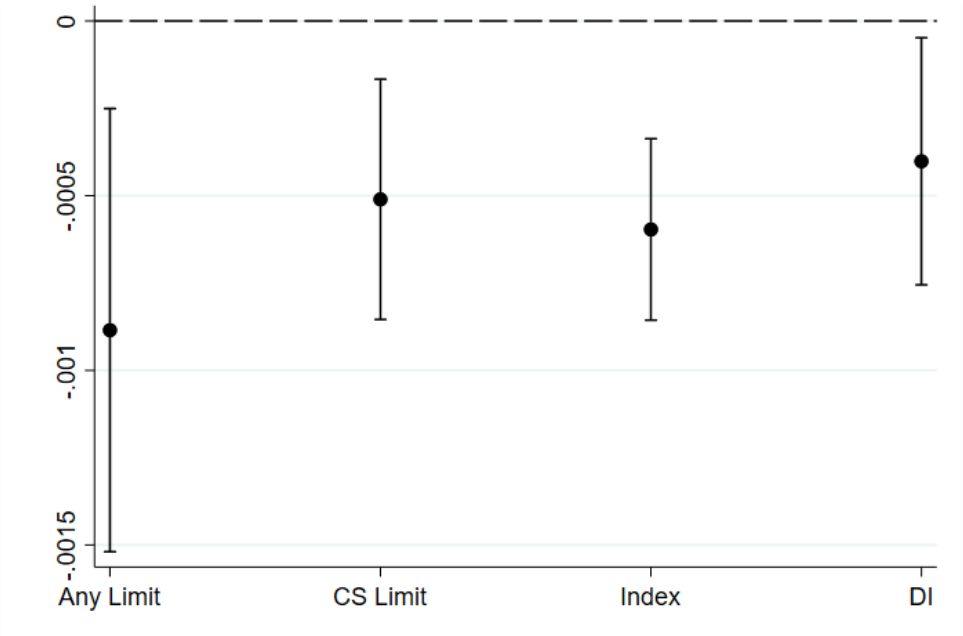
# 3. Results

The descriptive statistics highlighted in Tables 1–3 above suggest that each of the three social policies we examine is negatively correlated with work disability, as hypothesized. Turning to our empirical specification that supports a more causal interpretation, we find strong evidence of the EITC program meaningfully reducing the incidence of work disability. Analysis from the other two programs suggests these social policies may additionally contribute to a lower incidence of work disability. However, inconsistencies in estimation (Medicaid) and small sample sizes (Food Stamps) prevent stronger conclusions. Results for this report are organized in four subsections: the first three correspond to results for each of the three social policies in turn and the final subsection reports results for the joint policy analysis.

## 3.1. The Earned Income Tax Credit (EITC)

Figure 2 illustrates the effect of an exposure to $1,000 EITC on four definitions of work disability observed between ages 50 and 59: ever experiencing a work disability, having a chronic and severe work disability, the work limitation index, or being on DI before age 65. Regardless of the definition of work disability, exposure to the EITC meaningfully decreases the probability of work disability. Although the magnitudes are small (see Table 4), they translate into sizeable effects. For example, $100,000 of cumulative EITC exposure (approximately 15 percent of the sample has this level of EITC exposure or more) would translate into an 8.85-percentage point drop in the likelihood of experiencing any work disability, a 5.11-percentage point drop in experiencing a chronic and severe work disability, and a 4.02-percentage point drop in the likelihood of using DI. Utilizing the continuous measure, each $1,000 of EITC exposure reduces the predicted work limitation index by 0.0006. When scaled to cumulative exposures, this equates with 0.06 fewer index points for a $100,000 EITC exposure. Over ages 50–59, this could be one fewer report of a mild limitation per five reports.

**Figure 2:** Main Effects of $1,000 of EITC Exposure on Work Disability




**Source:** Authors' calculations using PSID public data.

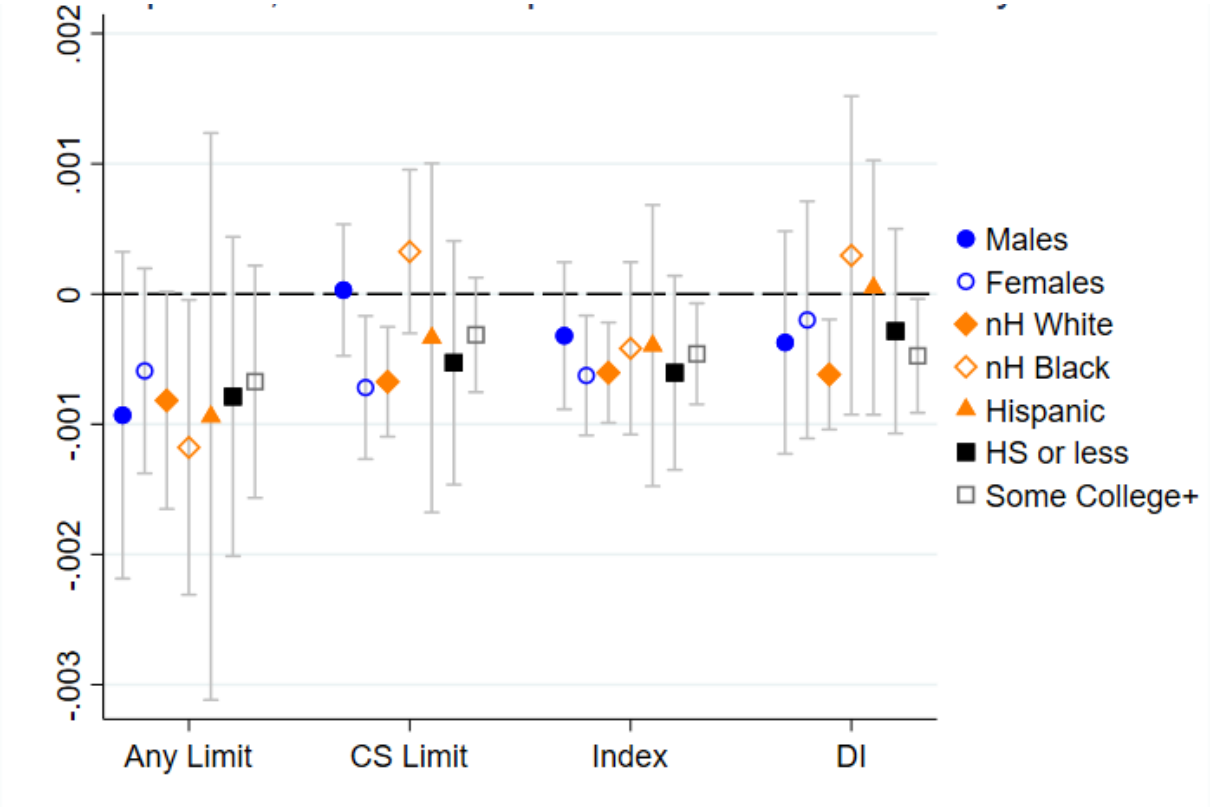
**Notes:** "Any Limit" is a binary dependent variable for any reported work limitation between ages 50 and 59. "CS Limit" is a binary characteristic for reported chronic and severe work limitations between ages 50 and 59. "Index" is the continuous work limitation index. "DI" is a binary variable for whether the individual likely had DI before age 65. All results are from an OLS regression model outlined in the methods section.

### 3.1.1. Heterogeneity by race/ethnicity, sex, and educational attainment.

Coefficient estimates for most demographic subsamples suggest the EITC decreases the prevalence of work disability across demographic characteristics (Figure 3). There are only a few exceptions with positive coefficient values, none of which are statically different from zero. Given the smaller sample sizes, it is challenging to draw strong conclusions on whether the EITC mitigates observed disparities in work disability prevalence from this analysis. The effect of the EITC on chronic and severe limitations and the work limitation index is statistically negative for females but not males. Coefficients for the other two work disability outcomes, however, suggest effects could be stronger among males. Non-Hispanic Blacks are the only race/ethnicity subgroup to experience a statistically negative effect of the EITC on any work limitation, but they have a positive coefficient estimate for two of the three remaining work disability definitions. Coefficient estimates for lower education groups (i.e., high school or less) are typically lower—suggesting a

stronger effect that would be consistent with the EITC targeting lower-income populations—however, the estimates are always near those for higher education groups. One exception is the DI outcome, where coefficient estimates could suggest that effects are stronger for higher education groups, and only the high education group has a statistically negative effect. With large confidence intervals, caution in interpreting these results is warranted. Additional research with a larger sample could provide more useful information.

**Figure 3:** Heterogeneous Effects of $1000 of EITC Exposure on Work Disability by Race/Ethnicity, Sex, and Educational Attainment




**Source:** Authors' calculations using PSID public data.

**Notes:** "Any Limit" is a binary dependent variable for any reported work limitation between ages 50 and 59. "CS Limit" is a binary characteristic for reported chronic and severe work limitations between ages 50 and 59. "Index" is the continuous work limitation index. "DI" is a binary variable for whether the individual likely had DI before age 65. All results are from an OLS regression model outlined in the methods section.

### 3.1.2. Heterogeneity by age at exposure.

When we separate exposure into childhood and adulthood exposures, only adulthood exposure is statistically different from zero (Table 4). However, coefficients on childhood exposure are sometimes lower, suggesting childhood exposure could be more important than adult exposure. When exposure is further disaggregated into ten-year exposure bins, if any period retains statistical significance, it is later adulthood. However, earlier periods can have coefficients with stronger magnitudes. It is not clear with this available evidence whether there is a certain period of the life course where exposure to EITC policies is most effective at reducing the likelihood of later-life work disability. However, our results clearly suggest, first, that the EITC mitigates work disability later in life, and, second, that later-life exposures beyond childhood matter.

**Table 4:** The Effect of the EITC on Work Disability

| | Ever Work Limit Ages 50–59 | | | CS Work Limit Ages 50–59 | | | Work Limit Index Ages 50–59 | | | DI | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
| EITC (ages 0–49) | -0.000885** | | | -0.000511** | | | -0.000597*** | | | -0.000402* | | |
| | (0.000313) | | | (0.000170) | | | (0.000128) | | | (0.000175) | | |
| EITC (ages 0–18) | | -0.0318 | | | -0.0169 | | | -0.0125 | | | -0.00585 | |
| | | (0.0478) | | | (0.0229) | | | (0.0254) | | | (0.0290) | |
| EITC (ages 19–49) | | -0.000870** | | | -0.000503** | | | -0.000591*** | | | -0.000400* | |
| | | (0.000317) | | | (0.000171) | | | (0.000129) | | | (0.000176) | |
| EITC (ages 0–9) | | | 0.0362 | | | 0.0178 | | | 0.0232 | | | 0.0310 |
| | | | (0.0403) | | | (0.0277) | | | (0.0202) | | | (0.0323) |
| EITC (ages 10–19) | | | -0.0247 | | | -0.0169 | | | -0.0165+ | | | -0.00885 |
| | | | (0.0192) | | | (0.0113) | | | (0.00852) | | | (0.0122) |
| EITC (ages 20–29) | | | 0.00143 | | | -0.000931 | | | 0.00129 | | | -0.000352 |
| | | | (0.00174) | | | (0.00117) | | | (0.00103) | | | (0.00178) |
| EITC (ages 30–39) | | | -0.000718 | | | 0.0000508 | | | -0.000706 | | | 0.0000486 |
| | | | (0.000884) | | | (0.000582) | | | (0.000469) | | | (0.000920) |
| EITC (ages 40–49) | | | -0.00124* | | | -0.000760+ | | | -0.000725* | | | -0.000684 |
| | | | (0.000556) | | | (0.000377) | | | (0.000315) | | | (0.000530) |
| N | 5047 | 5047 | 5047 | 5047 | 5047 | 5047 | 5047 | 5047 | 5047 | 4267 | 4267 | 4267 |

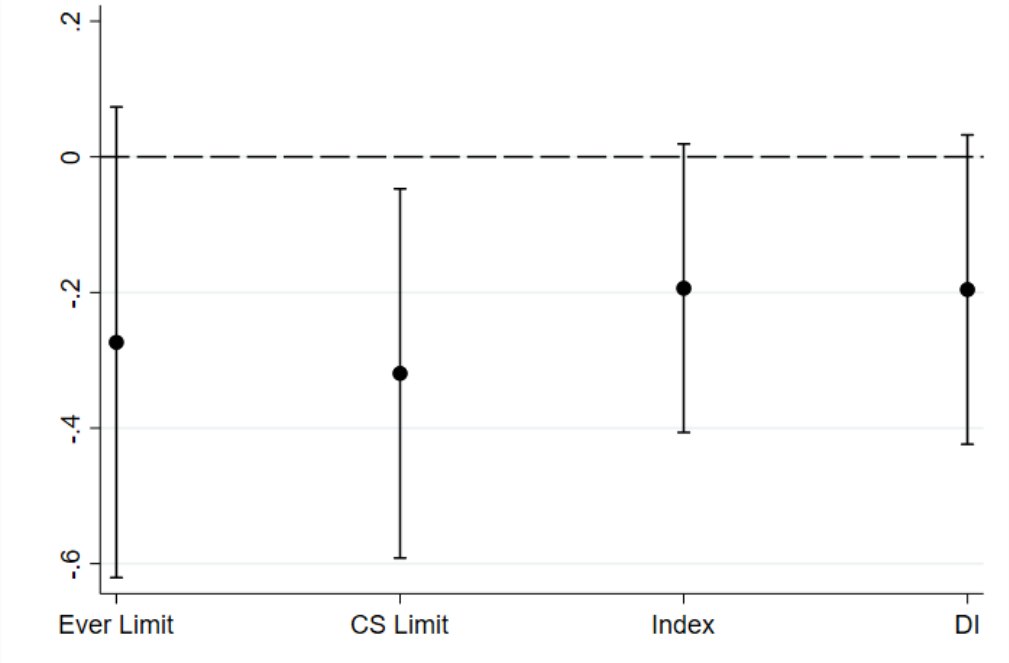
**Source:** Authors' calculations using public PSID data.

**Notes**: "CS" is chronic and severe limitations. + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

## 3.2. Medicaid

All coefficient estimates for our main definition of Medicaid exposure suggest an inverse relationship with work disability (Figure 4). Medicaid exposure only statistically decreases the prevalence of chronic and severe work limitations in the sample though. It is important to note that these results are sensitive to the definition of Medicaid exposure (Table 5). If we adjust for prevailing state AFDC rates and restrict exposure to childhood, we see results that suggest Medicaid exposure may increase the prevalence of work disability. If we further adjust for race-specific AFDC rates, most estimates are negative (as expected); however, none is statistically significant. If we account for Medicaid expansions in the 1980s that expanded coverage for pregnant women, our results would again suggest a positive relationship between Medicaid and work disability.

**Figure 4:** Main Effects Medicaid Exposure on Work Disability




**Source:** Authors' calculations using PSID public data.

**Notes:** "Any Limit" is a binary dependent variable for any reported work limitation between ages 50 and 59. "CS Limit" is a binary characteristic for reported chronic and severe work limitations between ages 50 and 59. "Index" is

the continuous work limitation index. "DI" is a binary variable for whether the individual likely had DI before age 65. All results are from an OLS regression model outlined in the methods section.

**Table 5:** Sensitivity of Results to Definition of Medicaid Exposure

| | Ever Work Limit Age 50-59 (1) | CS Work Limit Age 50-59 (2) | Work Limit Index Age 50-59 (3) | DI (4) |
|---|---|---|---|---|
| Medicaid (ages 0–49) | -0.273 | -0.319* | -0.194+ | -0.196+ |
| | (0.171) | (0.134) | (0.105) | (0.113) |
| AFDC Medicaid (ages 0–18) | 0.704 | 0.622+ | 0.535* | 0.748** |
| | (0.484) | (0.308) | (0.226) | (0.209) |
| AFDC-race Medicaid (ages 0–18) | -0.0172 | -0.154 | -0.0609 | 0.125 |
| | (0.188) | (0.131) | (0.124) | (0.113) |
| AFDC, prenatal Medicaid (ages 0–44) | 0.227 | 0.0505 | 0.172 | 0.107 |
| | (0.228) | (0.117) | (0.109) | (0.108) |

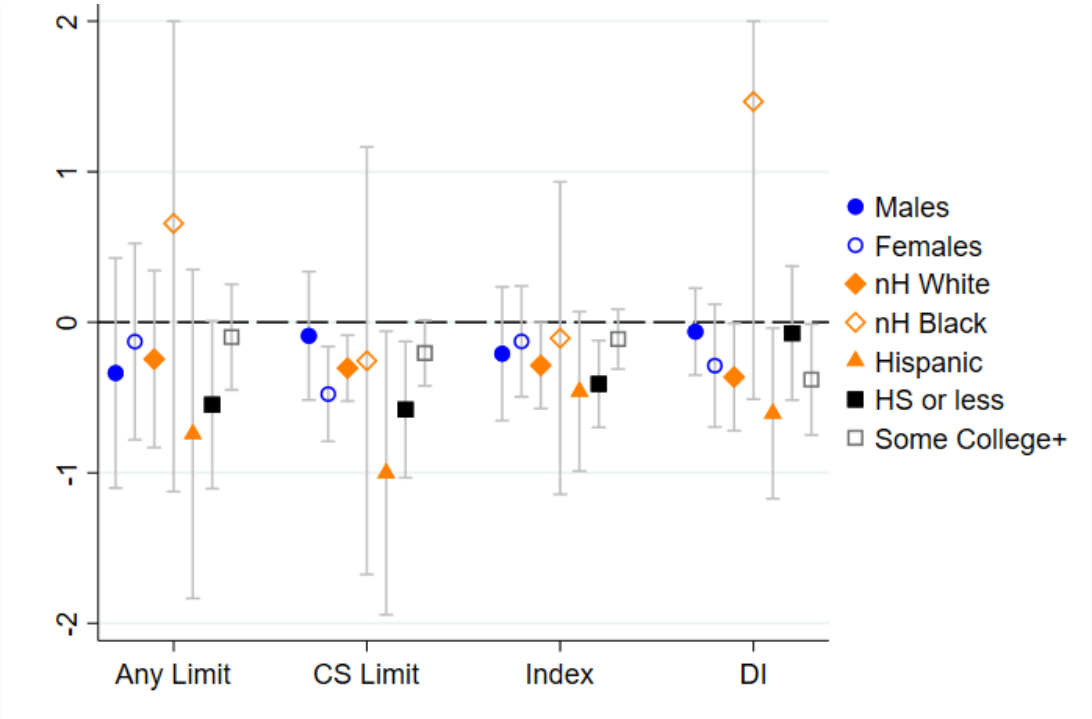
**Source:** Authors' calculations using public PSID data.

**Notes:** "CS" is chronic and severe limitations. + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

### 3.2.1. Heterogeneity of Medicaid effects by race/ethnicity, sex, and educational attainment.

Most demographic subpopulations have coefficients suggesting an inverse relationship between Medicaid exposure and work disability (Figure 5). Only two outcomes (Any Limitation and DI for non-Hispanic Black Americans) have a positive coefficient. However, only rarely are coefficients statistically less than zero. As with the EITC, the policy typically targets low-income populations, so as expected, we typically see stronger coefficients for the subpopulation with a high school degree or less relative to individuals with more education. Given the imprecise estimates and the fact that results are sensitive to the definition of Medicaid exposure, we are unable to draw strong conclusions on whether Medicaid mitigates disparities in work disability across these demographic groups.

**Figure 5:** Heterogeneous Effects Medicaid Exposure on Work Disability by Race/Ethnicity, Sex, and Educational Attainment




**Source:** Authors' calculations using PSID public data.

**Notes:** "Any Limit" is a binary dependent variable for any reported work limitation between ages 50 and 59. "CS Limit" is a binary characteristic for reported chronic and severe work limitations between ages 50 and 59. "Index" is the continuous work limitation index. "DI" is a binary variable for whether the individual likely had DI before age 65. All results are from an OLS regression model outlined in the methods section. Upper limits are truncated at two (nH Blacks for Any Limit and DI) to utilize graph space efficiently.

### 3.2.2. Heterogeneity by age of exposure.

Our results suggest that childhood exposure to Medicaid may not have an impact on later-life work disability. However, adulthood exposure may (Table 6). In all definitions of work disability, adulthood exposure to Medicaid significantly decreases the likelihood of experiencing work disability. This is interesting especially considering that early Medicaid programs were not targeting adults. However, to the degree to which households share resources to pay for medical care, adults residing in states with Medicaid programs would be eligible to have their children covered, while adults residing in states without Medicaid would not. Again, however, we urge

significant caution in that the definitions of Medicaid do not predict consistent relationships with work disability.

**Table 6:** The Effect of Medicaid on Work Disability

| | Ever Work Limit Ages 50–59 | | | CS Work Limit Ages 50–59 | | | Work Limit Index Ages 50–59 | | | DI | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
| Medicaid (ages 0–49) | -0.273 | | | -0.319* | | | -0.194+ | | | -0.196+ | | |
| | (0.171) | | | (0.134) | | | (0.105) | | | (0.113) | | |
| Medicaid (ages 0–18) | | 0.0574 | | | 0.0893* | | | 0.0720 | | | 0.0240 | |
| | | (0.0838) | | | (0.0438) | | | (0.0458) | | | (0.0645) | |
| Medicaid (ages 19–49) | | -0.334* | | | -0.412*** | | | -0.268** | | | -0.229* | |
| | | (0.133) | | | (0.0881) | | | (0.0963) | | | (0.0977) | |
| Medicaid (ages 0–9) | | | 0.0239 | | | 0.0229 | | | 0.0237 | | | -0.0365 |
| | | | (0.0487) | | | (0.0253) | | | (0.0315) | | | (0.0424) |
| Medicaid (ages 10–19) | | | 0.0205 | | | 0.0494 | | | 0.0302 | | | 0.0620 |
| | | | (0.0765) | | | (0.0434) | | | (0.0384) | | | (0.0620) |
| Medicaid (ages 20–29) | | | -0.215* | | | -0.216*** | | | -0.183** | | | -0.170** |
| | | | (0.0995) | | | (0.0547) | | | (0.0541) | | | (0.0609) |
| Medicaid (ages 30–39) | | | -0.0592 | | | -0.0443 | | | 0.0318 | | | 0.0665 |
| | | | (0.113) | | | (0.0541) | | | (0.0577) | | | (0.0768) |
| Medicaid (ages 40–49) | | | 0.175 | | | -0.0879 | | | -0.0626 | | | -0.0137 |
| | | | (0.129) | | | (0.0839) | | | (0.0883) | | | (0.107) |
| N | 5289 | 5289 | 5289 | 5289 | 5289 | 5289 | 5289 | 5289 | 5289 | 4267 | 4267 | 4267 |

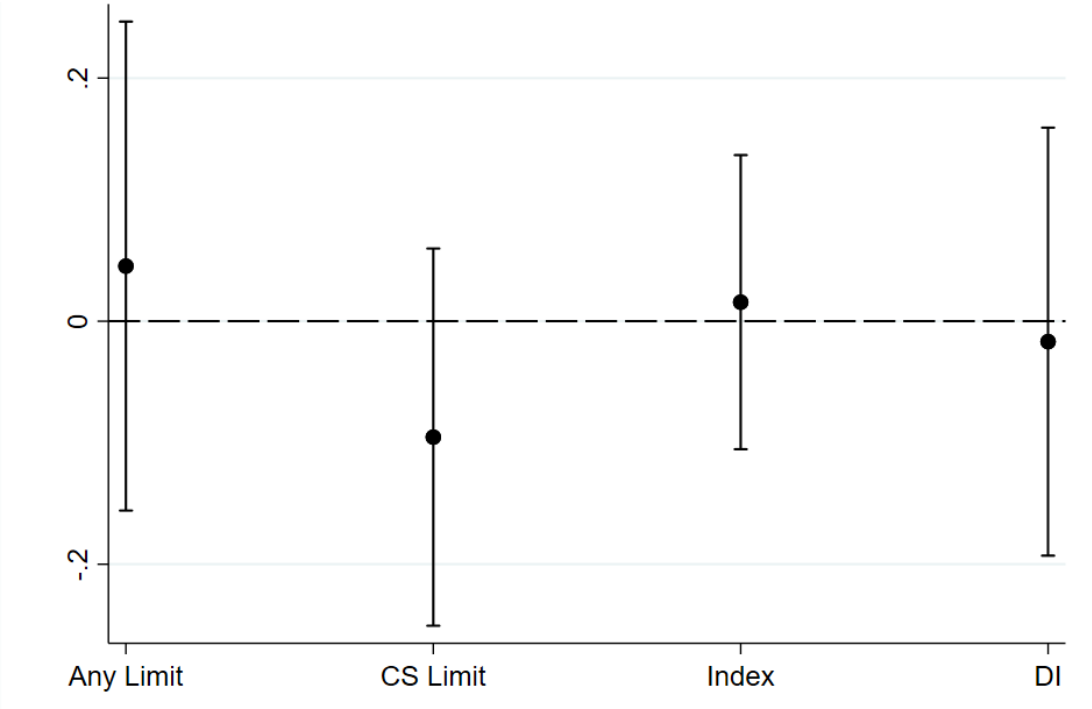
**Source:** Authors' calculations using public PSID data.

**Notes:** "CS" is chronic and severe limitations. + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

## 3.3. Food Stamps

Our analysis does not detect a statistically significant effect of food stamp exposure on work disability later in life. As illustrated in Figure 6, the estimated effect of food stamp exposure is positive (i.e., increases the prevalence of work disability) when work disability is measured by the presence of any limitation or the work limitation index. The estimated effect is negative when work disability is measured as a reported chronic and severe limitation between ages 50 and 59 or whether the individual receives DI. In all cases, coefficients are not statistically different from zero.

**Figure 6:** Main Effects of Food Stamp Exposure on Work Disability



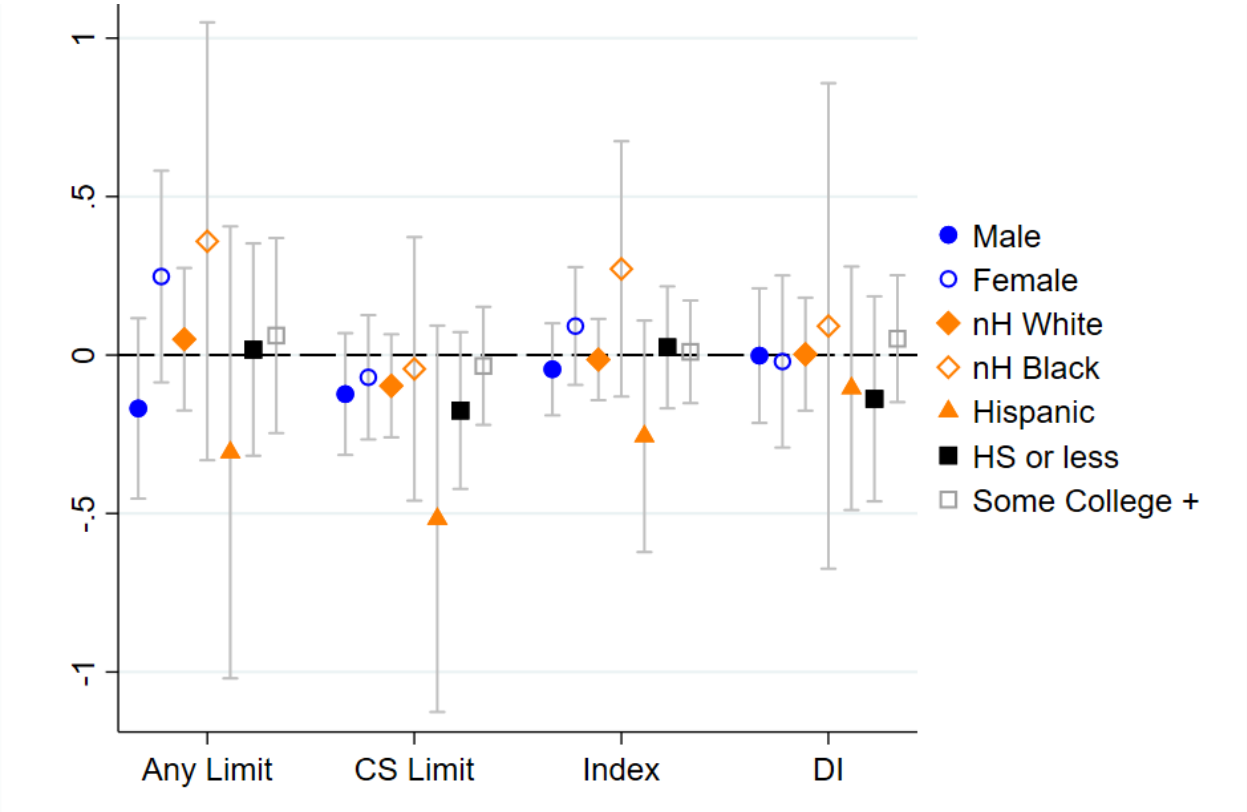

**Source:** Authors' calculations using PSID public data.

**Notes:** "Any Limit" is a binary dependent variable for any reported work limitation between ages 50 and 59. "CS Limit" is a binary characteristic for reported chronic and severe work limitations between ages 50 and 59. "Index" is the continuous work limitation index. "DI" is a binary variable for whether the individual likely had DI before age 65. All results are from an OLS regression model outlined in the methods section.

### 3.3.1. Heterogeneity of Food Stamp effects by race/ethnicity, sex, and educational attainment.

We also do not detect a statistically significant relationship between Food Stamp exposure and work disability for any demographic subpopulation (Figure 7). Males and Hispanic Americans consistently have an inverse relationship between Food Stamp exposure and work disability; however, the coefficient estimates of the other subpopulations are not consistent. Coefficient estimates in all subpopulation regressions that estimate the relationship between Food Stamps and chronic and severe work limitations are negative but not statistically distinguishable from zero. The scale of the effects (and standard errors) warrants some caution with interpretations: specifically, a larger sample would likely be better equipped to uncover the true relationship between Food Stamps and work disability.

**Figure 7:** Heterogeneous Effects Food Stamp Exposure on Work Disability by Race/Ethnicity, Sex, and Educational Attainment




**Source:** Authors' calculations using PSID public data.

**Notes:** "Any Limit" is a binary dependent variable for any reported work limitation between ages 50 and 59. "CS

Limit" is a binary characteristic for reported chronic and severe work limitations between ages 50 and 59. "Index" is the continuous work limitation index. "DI" is a binary variable for whether the individual likely had DI before age 65. All results are from an OLS regression model outlined in the methods section. Upper limits are truncated at two (nH Blacks for Any Limit and DI) to utilize graph space efficiently.

### 3.3.2. Heterogeneity by age of exposure.

Childhood exposure to Food Stamps, particularly early childhood exposure, may be related to an increase in reporting work limitations between ages 50 and 59. However, there are no other statistically significant relationships between Food Stamp exposure and work disability. Coefficient estimates for chronic and severe work limitations and DI suggest exposure during childhood could be a more important time period than adulthood to avert these more severe forms of work disability; however, estimates are not precise and further research is warranted to determine if there is an optimal period for exposure to Food Stamps to reduce work disability.

**Table 7:** The Effect of Food Stamps on Work Disability

| | Ever Work Limit Ages 50–59 | | | CS Work Limit Ages 50–59 | | | Work Limit Index Ages 50–59 | | | DI | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
| Food Stamps: Age 0–49 | 0.0453 | | | -0.0954 | | | 0.0156 | | | -0.0168 | | |
| | (0.102) | | | (0.0789) | | | (0.0615) | | | (0.0894) | | |
| Food Stamps: Age 0–18 | | 0.153* | | | -0.0798 | | | 0.00102 | | | -0.0196 | |
| | | (0.0695) | | | (0.0518) | | | (0.0442) | | | (0.0642) | |
| Food Stamps: Age 19–49 | | -0.0673 | | | -0.0285 | | | 0.0132 | | | -0.000630 | |
| | | (0.0788) | | | (0.0538) | | | (0.0403) | | | (0.0587) | |
| Food Stamps: Age 0–9 | | | 0.115* | | | -0.0351 | | | 0.00975 | | | 0.0344 |
| | | | (0.0536) | | | (0.0308) | | | (0.0295) | | | (0.0382) |
| Food Stamps: Age 10–19 | | | 0.0327 | | | -0.0531 | | | -0.0128 | | | -0.0463 |
| | | | (0.0446) | | | (0.0388) | | | (0.0293) | | | (0.0474) |
| Food Stamps: Age 20–29 | | | -0.0495 | | | -0.0275 | | | -0.0157 | | | -0.0902+ |
| | | | (0.0670) | | | (0.0400) | | | (0.0359) | | | (0.0459) |
| Food Stamps: Age 30–39 | | | -0.0522 | | | -0.00496 | | | -0.00284 | | | 0.00862 |
| | | | (0.0755) | | | (0.0391) | | | (0.0347) | | | (0.0500) |
| Food Stamps: Age 40–49 | | | 0.0773 | | | 0.0198 | | | 0.0502 | | | 0.110+ |
| | | | (0.0939) | | | (0.0517) | | | (0.0453) | | | (0.0608) |
| N | 5180 | 5180 | 5180 | 5180 | 5180 | 5180 | 5180 | 5180 | 5180 | 4160 | 4160 | 4160 |

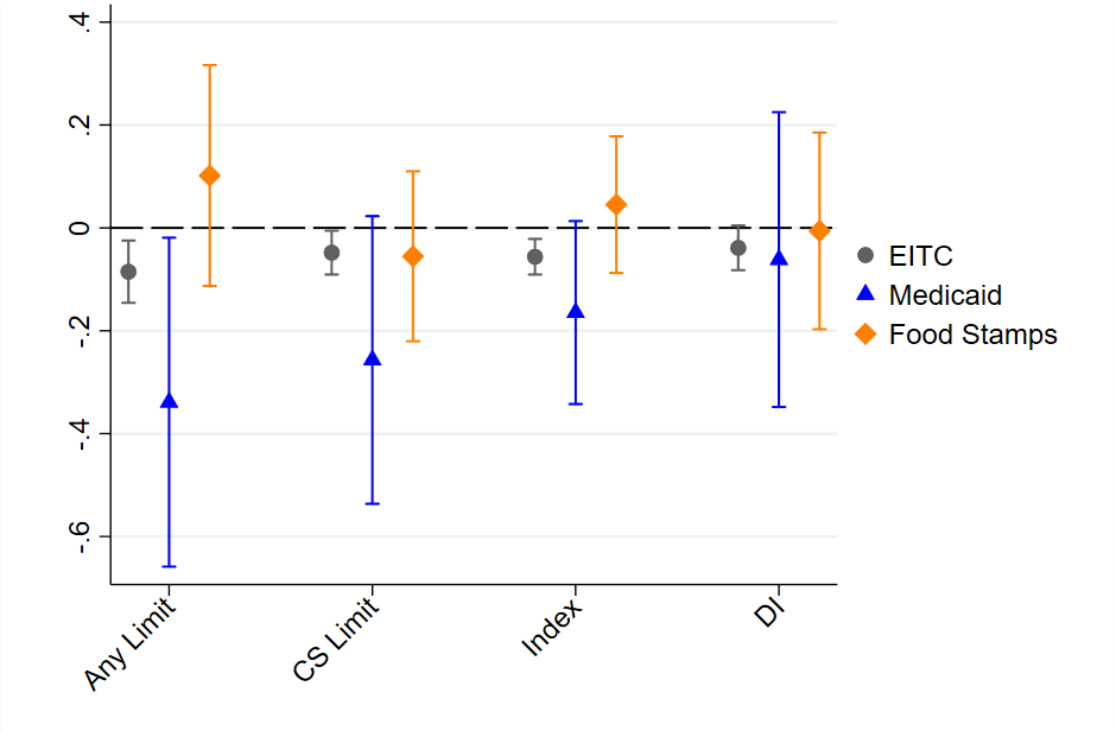
**Source:** Authors' calculations using restricted PSID data.

**Notes:** "CS" is chronic and severe limitations. + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

## 3.4. Joint Policy Analysis

When examining all three policies jointly, results largely mimic individual policy analyses above. We scale EITC effects to be per $100,000 of cumulative exposure so that effect sizes are more similar to those for Medicaid and Food Stamps.[10] The EITC appears to be most consistently linked with a decrease in work disability, regardless of definition. Medicaid potentially contributes to a decreased prevalence of work disability, although the coefficient estimate for work disability as measured by any reported limitation is the only one that is statistically less than zero. Food Stamps appear to have a mixed relationship with work disability – some definitions yielding a positive relationship and others a negative one – although none are statistically significant.

**Figure 8:** Joint Effects of the EITC, Medicaid, and Food Stamps on Work Disability




**Source:** Authors' calculations using PSID public data.

**Notes:** "Any Limit" is a binary dependent variable for any reported work limitation between ages 50 and 59. "CS Limit" is a binary characteristic for reported chronic and severe work limitations between ages 50 and 59. "Index" is the continuous work limitation index. "DI" is a binary variable for whether the individual likely had DI before age

[10] Exposure for Medicaid and Food Stamps is on a scale of zero (no exposure) to one (always exposed). $100,000 of EITC exposure is not always exposed to EITC at the maximum possible value; however, it is around the 85th percentile of cumulative exposure in our sample so that it is more comparable to the other policies.

65. All results are from an OLS regression model outlined in the methods section with all three policies included as independent variables.

# 4. Discussion and Conclusion

This study examines the effects of individuals' exposure to three large social safety net programs—EITC, Medicaid, and Food Stamps—on work limitations and DI in late-adulthood. Using PSID data and exogenous county- and state-level variation in the original rollout of these programs, we find the EITC decreases the prevalence of work limitation reports and DI awards, while descriptive evidence on Medicaid and Food Stamp programs suggests an inverse relationship with work disability, as hypothesized. In both cases, there is additional suggestive evidence that these social programs may reduce work disability using modeling strategies with a more causal interpretation; however, estimates are not precise or consistent enough to definitively support the conclusion. Modeling all three policies jointly does not alter these conclusions.

Of particular note, our results suggest that EITC exposures outside of childhood offer protection against work disability in later years, although we are not able to detect a significant effect for childhood. This could represent a true comparison of the time periods in question. However, coefficient estimates on childhood exposure are stronger than those for adulthood exposure for all examined outcomes. Our cohorts of study (1933–1969) experience relatively little childhood exposure. Recall the EITC began in 1975, meaning even the youngest cohort (1969) had zero exposure from ages 0–5 years old. Only the 1957–1969 cohorts had any exposure during childhood, and the 1957–1965 cohorts were exposed only to Federal EITC dollars. Work limitation onset is also typically later in life. Therefore, we hypothesize that prior to lending too much credit to the result that childhood exposure does not affect later-life work disability, we should instead entertain the possibility that we may not have the data available yet to truly understand the relative importance of childhood versus adulthood exposure. As birth cohorts from the 1970s and 1980s age into retirement, it would perhaps be a better time to re-examine this important question. It is clear, however, that the EITC matters for the prevalence of work disability in the population. Higher EITC benefits, even in adulthood, can reduce the incidence of work disability and the need for DI.

Although we make necessary improvements on richly classifying the heterogeneity of work disability, our analysis does not offer additional information beyond suggestive evidence that

Medicaid and Food Stamps could also contribute to declines in work disability and/or DI (particularly severe work disability). This is in line with what previous literature has found (Hoynes, Schanzenbach, and Almond 2016; Goodman-Bacon 2021), and we urge continued research in this area to fully understand whether and how these important social policies can shape work disability. A key limitation of this report is that sample sizes, particularly in demographic subpopulations, are small and unable to definitively support whether the social policies alter existing disparities in work disability and DI use. Further research with alternative strategies and/or larger sample sizes may prove more fruitful in understanding this important question.

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# Appendix

**Table 1A:** Full Descriptive Statistics for the EITC Sample (cohorts 1933–1969)

| | Sample | Never Work Limited | Ever Work Limited | Non-Chronic or non-Severe Work Limit | Chronic & Severe Work Limit | No DI | DI |
|---|---|---|---|---|---|---|---|
| % Males | 0.464 | 0.490 | 0.413*** | 0.405*** | 0.434* | 0.474 | 0.449 |
| | (0.008) | (0.011) | (0.014) | (0.017) | (0.026) | (0.010) | (0.024) |
| % Females | 0.536 | 0.510 | 0.587*** | 0.595*** | 0.566* | 0.526 | 0.551 |
| | (0.008) | (0.011) | (0.014) | (0.017) | (0.026) | (0.010) | (0.024) |
| % not nH White | 0.263 | 0.254 | 0.280+ | 0.248 | 0.358*** | 0.236 | 0.402*** |
| | (0.007) | (0.009) | (0.013) | (0.014) | (0.025) | (0.008) | (0.023) |
| HS/GED or less | 0.397 | 0.363 | 0.463*** | 0.429*** | 0.545*** | 0.350 | 0.510*** |
| | (0.008) | (0.010) | (0.014) | (0.017) | (0.026) | (0.009) | (0.024) |
| Some College + | 0.603 | 0.637 | 0.537*** | 0.571*** | 0.455*** | 0.650 | 0.490*** |
| | (0.008) | (0.010) | (0.014) | (0.017) | (0.026) | (0.009) | (0.024) |
| % Time Unemployed (Ages 30–49) | 0.051 | 0.039 | 0.074*** | 0.063*** | 0.100*** | 0.041 | 0.101*** |
| | (0.002) | (0.002) | (0.003) | (0.004) | (0.007) | (0.002) | (0.007) |
| Average Earnings (Ages 30–49) | $47,724 | $53,716 | $36,009*** | $40,514*** | $25,243*** | $52,762 | $28,732*** |
| | (921) | (1,194) | (1,322) | (1,776) | (1,234) | (1,125) | (1,248) |
| % Time Married | 0.734 | 0.764 | 0.675*** | 0.714*** | 0.583*** | 0.756 | 0.605*** |
| | (0.006) | (0.007) | (0.011) | (0.013) | (0.022) | (0.007) | (0.019) |
| Average Income (Ages 30–49) | $98,379 | $107,379 | $80,784*** | $88,999*** | $61,153*** | $106,624 | $65,895*** |
| | (1,353) | (1,771) | (1,875) | (2,314) | (2,832) | (1,658) | (2,199) |
| Average Overall Health (Ages 30–49) | 83.601 | 87.239 | 76.337*** | 79.687*** | 68.181*** | 85.537 | 74.512*** |
| | (0.211) | (0.170) | (0.469) | (0.450) | (1.059) | (0.198) | (0.850) |
| Average Overall Health (Ages 50–59) | 78.150 | 84.819 | 65.112*** | 70.939*** | 51.189*** | 81.282 | 62.532*** |
| | (0.295) | (0.223) | (0.601) | (0.616) | (1.092) | (0.282) | (1.089) |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| % Time Limiting Health Condition (Ages 50–59) | 0.067 | 0.030 | 0.144*** | 0.129*** | 0.181*** | 0.054 | 0.142*** |
| | (0.002) | (0.001) | (0.003) | (0.004) | (0.005) | (0.002) | (0.005) |
| % Time ADL Limitation (Ages 50–59) | 0.112 | 0.016 | 0.304*** | 0.202*** | 0.559*** | 0.068 | 0.353*** |
| | (0.005) | (0.002) | (0.011) | (0.011) | (0.021) | (0.004) | (0.018) |
| EITC Exposure (Ages 0–49) | $52,736 | $57,467 | $43,486*** | $44,083*** | $42,059*** | $55,679 | $48,334*** |
| | (704) | (900) | (1,054) | (1,274) | (1,863) | (782) | (1,779) |
| EITC Exposure (Ages 0–18) | $4,420 | $5,117 | $3,058*** | $2,867*** | $3,514*** | $4,571 | $3,444*** |
| | (113) | (146) | (163) | (191) | (310) | (123) | (288) |
| EITC Exposure (Ages 19–49) | $48,316 | $52,350 | $40,428*** | $41,216*** | $38,545*** | $51,109 | $44,890*** |
| | (634) | (807) | (966) | (1,165) | (1,714) | (708) | (1,625) |
| Observations | 5,047 | 3,214 | 1,833 | 1,217 | 616 | 3,518 | 749 |

**Source:** Authors' calculations using public PSID data.

**Notes:** Average overall health is measured as the average of the HALex transformation of the five-point Likert scale with 97.5, 90, 77.5, 50, and 15 representing excellent, very good, good, fair, and poor, health, respectively. Activities of Daily Living (ADL) limitations include limitations bathing, dressing, eating, toileting, getting in and out of bed, and/or walking. + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

**Table 2A:** Full Descriptive Statistics for the Medicaid Sample (cohorts 1923–1969)

| | Sample | Never Work Limited | Ever Work Limited | Non-Chronic or non-Severe Work Limit | Chronic & Severe Work Limit | No DI | DI |
|---|---|---|---|---|---|---|---|
| % Males | 0.463 | 0.489 | 0.414*** | 0.407*** | 0.431* | 0.474 | 0.449 |
| | (0.008) | (0.010) | (0.014) | (0.016) | (0.025) | (0.010) | (0.024) |
| % Females | 0.537 | 0.511 | 0.586*** | 0.593*** | 0.569* | 0.526 | 0.551 |
| | (0.008) | (0.010) | (0.014) | (0.016) | (0.025) | (0.010) | (0.024) |
| % not nH White | 0.259 | 0.251 | 0.274 | 0.242 | 0.353*** | 0.236 | 0.402*** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | (0.007) | (0.009) | (0.012) | (0.014) | (0.024) | (0.008) | (0.023) |
| HS/GED or less | 0.402 | 0.366 | 0.470*** | 0.437*** | 0.551*** | 0.350 | 0.510*** |
| | (0.008) | (0.010) | (0.014) | (0.016) | (0.026) | (0.009) | (0.024) |
| Some College + | 0.598 | 0.634 | 0.530*** | 0.563*** | 0.449*** | 0.650 | 0.490*** |
| | (0.008) | (0.010) | (0.014) | (0.016) | (0.026) | (0.009) | (0.024) |
| % Time Unemployed (Ages 30–49) | 0.050 | 0.039 | 0.072*** | 0.062*** | 0.098*** | 0.041 | 0.101*** |
| | (0.002) | (0.002) | (0.003) | (0.004) | (0.007) | (0.002) | (0.007) |
| Average Earnings (Ages 30–49) | $47,625 | $53,614 | $36,240*** | $40,539*** | $25,865*** | $52,762 | $28,732*** |
| | (900) | (1,174) | (1,279) | (1,709) | (1,252) | (1,125) | (1,248) |
| % Time Married | 0.739 | 0.767 | 0.685*** | 0.724** | 0.591*** | 0.756 | 0.605*** |
| | (0.006) | (0.007) | (0.011) | (0.012) | (0.021) | (0.007) | (0.019) |
| Average Income (Ages 30–49) | $98,599 | $107,376 | $81,913*** | $90,010*** | $62,368*** | $106,624 | $65,895*** |
| | (1,316) | (1,738) | (1,805) | (2,221) | (2,751) | (1,658) | (2,199) |
| Average Overall Health (Ages 30–49) | 83.601 | 87.239 | 76.337*** | 79.687*** | 68.181*** | 85.537 | 74.512*** |
| | (0.211) | (0.170) | (0.469) | (0.450) | (1.059) | (0.198) | (0.850) |
| Average Overall Health (Ages 50–59) | 78.045 | 84.843 | 65.129*** | 71.037*** | 50.869*** | 81.282 | 62.532*** |
| | (0.290) | (0.219) | (0.582) | (0.594) | (1.060) | (0.282) | (1.089) |
| % Time Limiting Health Condition (Ages 50–59) | 0.067 | 0.030 | 0.144*** | 0.129*** | 0.181*** | 0.054 | 0.142*** |
| | (0.002) | (0.001) | (0.003) | (0.004) | (0.005) | (0.002) | (0.005) |
| % Time ADL Limitation (Ages 50–59) | 0.112 | 0.016 | 0.304*** | 0.202*** | 0.559*** | 0.068 | 0.353*** |
| | (0.005) | (0.002) | (0.011) | (0.011) | (0.021) | (0.004) | (0.018) |
| Medicaid Exposure (Ages 0–49) | 0.709 | 0.732 | 0.664*** | 0.657*** | 0.682*** | 0.741 | 0.732 |
| | (0.003) | (0.004) | (0.006) | (0.007) | (0.010) | (0.003) | (0.008) |
| Medicaid Exposure (Ages 0–18) | 0.368 | 0.407 | 0.295*** | 0.279*** | 0.332*** | 0.401 | 0.367* |
| | (0.006) | (0.008) | (0.010) | (0.011) | (0.018) | (0.007) | (0.016) |
| Medicaid Exposure (Ages 19–49) | 0.917 | 0.931 | 0.891*** | 0.888*** | 0.897*** | 0.950 | 0.955 |
| | (0.002) | (0.003) | (0.004) | (0.005) | (0.008) | (0.002) | (0.005) |
| Medicaid (AFDC) Eligibility-Exposure (Ages 0–18) | 0.026 | 0.029 | 0.021*** | 0.020*** | 0.024* | 0.029 | 0.027 |
| | (0.001) | (0.001) | (0.001) | (0.001) | (0.002) | (0.001) | (0.002) |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Medicaid (AFDC-race) Eligibility-Exposure (Ages 0–18) | 0.032 | 0.035 | 0.027** | 0.026** | 0.030 | 0.032 | 0.044* |
| | (0.001) | (0.001) | (0.002) | (0.002) | (0.003) | (0.001) | (0.005) |
| Medicaid Eligibility-Exposure (Ages 0–44) | 0.060 | 0.063 | 0.055** | 0.054** | 0.057 | 0.064 | 0.062 |
| | (0.001) | (0.002) | (0.002) | (0.002) | (0.004) | (0.002) | (0.003) |
| N | 5,289 | 3,319 | 1,970 | 1,312 | 658 | 3,518 | 749 |

**Source:** Authors' calculations using public PSID data.

**Notes:** Average overall health is measured as the average of the HALex transformation of the five-point Likert scale with 97.5, 90, 77.5, 50, and 15 representing excellent, very good, good, fair, and poor, health, respectively. Activities of Daily Living (ADL) limitations include limitations bathing, dressing, eating, toileting, getting in and out of bed, and/or walking. + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

**Table 3A:** Full Descriptive Statistics for the Food Stamp Sample

| | Full Sample | Never Work Limited | Ever Work Limited | Non-chronic or Non-severe Work Limit | Chronic & Severe Work Limit | No DI | DI |
|---|---|---|---|---|---|---|---|
| % Females | 0.535 | 0.509 | 0.586*** | 0.592*** | 0.573* | 0.525 | 0.548 |
| | (0.008) | (0.011) | (0.014) | (0.017) | (0.026) | (0.010) | (0.024) |
| % nH White | 0.750 | 0.758 | 0.735 | 0.767 | 0.656*** | 0.775 | 0.603*** |
| | (0.007) | (0.009) | (0.012) | (0.014) | (0.024) | (0.008) | (0.024) |
| % nH Black | 0.119 | 0.101 | 0.152*** | 0.133** | 0.196*** | 0.091 | 0.270*** |
| | (0.005) | (0.006) | (0.010) | (0.011) | (0.019) | (0.005) | (0.021) |
| % Hispanic | 0.115 | 0.121 | 0.103 | 0.090** | 0.133 | 0.114 | 0.116 |
| | (0.005) | (0.007) | (0.009) | (0.009) | (0.018) | (0.006) | (0.015) |
| HS/GED or less | 0.405 | 0.370 | 0.473*** | 0.438*** | 0.556*** | 0.352 | 0.510*** |
| | (0.008) | (0.010) | (0.014) | (0.016) | (0.026) | (0.009) | (0.024) |
| Some College + | 0.595 | 0.630 | 0.527*** | 0.562*** | 0.444*** | 0.648 | 0.490*** |
| | (0.008) | (0.010) | (0.014) | (0.016) | (0.026) | (0.009) | (0.024) |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| % Time Unemployed (Ages 30–49) | 0.050 | 0.038 | 0.072*** | 0.062*** | 0.097*** | 0.040 | 0.102*** |
| | (0.002) | (0.002) | (0.003) | (0.004) | (0.007) | (0.002) | (0.007) |
| Average Earnings (Ages 30–49) | $47,579 | $53,656 | $36,081*** | $40,388*** | $25,717*** | $52,831 | $28,815*** |
| | (917) | (1,200) | (1,298) | (1,740) | (1,231) | (1,150) | (1,264) |
| % Time Married | 0.740 | 0.768 | 0.686*** | 0.723** | 0.597*** | 0.758 | 0.607*** |
| | (0.006) | (0.007) | (0.011) | (0.012) | (0.021) | (0.007) | (0.020) |
| Average Income (Ages 30–49) | $98,594 | $107,554 | $81,641*** | $89,725*** | $62,190*** | $106,809 | $65,443*** |
| | (1,346) | (1,781) | (1,832) | (2,255) | (2,796) | (1,696) | (2,244) |
| Average Overall Health (Ages 30–49) | 83.666 | 87.252 | 76.525*** | 79.783*** | 68.625*** | 85.615 | 74.562*** |
| | (0.211) | (0.173) | (0.462) | (0.455) | (1.024) | (0.200) | (0.824) |
| Average Overall Health (Ages 50–59) | 78.033 | 84.836 | 65.168*** | 71.099*** | 50.899*** | 81.333 | 62.327*** |
| | (0.294) | (0.223) | (0.589) | (0.600) | (1.079) | (0.287) | (1.100) |
| Work Limitation Index (Ages 50–59) | 0.134 | 0.000 | 0.389*** | 0.261*** | 0.696*** | 0.078 | 0.439*** |
| | (0.004) | (0.000) | (0.008) | (0.007) | (0.013) | (0.003) | (0.017) |
| % Time Limiting Health Condition (Ages 50–59) | 0.067 | 0.030 | 0.144*** | 0.129*** | 0.181*** | 0.055 | 0.144*** |
| | (0.002) | (0.001) | (0.003) | (0.004) | (0.005) | (0.002) | (0.005) |
| % Time ADL Limitation (Ages 50–59) | 0.115 | 0.016 | 0.309*** | 0.205*** | 0.567*** | 0.069 | 0.363*** |
| | (0.005) | (0.002) | (0.011) | (0.011) | (0.021) | (0.004) | (0.019) |
| Food Stamp Exposure (Ages 0–49) | 0.677 | 0.699 | 0.637*** | 0.629*** | 0.656*** | 0.707 | 0.708 |
| | (0.003) | (0.004) | (0.006) | (0.007) | (0.010) | (0.004) | (0.008) |
| Food Stamp Exposure (Ages 0–18) | 0.326 | 0.360 | 0.262*** | 0.253*** | 0.283*** | 0.352 | 0.329 |
| | (0.006) | (0.008) | (0.009) | (0.011) | (0.016) | (0.007) | (0.016) |
| Food Stamp Exposure (Ages 19–49) | 0.893 | 0.906 | 0.867*** | 0.860*** | 0.884* | 0.924 | 0.940* |
| | (0.003) | (0.003) | (0.005) | (0.006) | (0.008) | (0.003) | (0.006) |
| N | 5,180 | 3,235 | 1,945 | 1,295 | 650 | 3,432 | 728 |

**Source:** Authors' calculations using public PSID data.

**Notes:** Average overall health is measured as the average of the HALex transformation of the five-point Likert scale with 97.5, 90, 77.5, 50, and 15 representing excellent, very good, good, fair, and poor, health, respectively. Activities of Daily Living (ADL) limitations include limitations bathing, dressing, eating, toileting, getting in and out of bed, and/or walking. + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.


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