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THE DISENROLLMENT AND LABOR SUPPLY EFFECTS
OF SNAP WORK REQUIREMENTS

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ABSTRACT

Amid growing efforts to expand work requirements in U.S. transfer programs, new proposals target parents of young children, despite limited evidence of efficacy for this population. We provide the first modern causal estimates of the Supplemental Nutrition Assistance Program's (SNAP) work requirements on parents using linked administrative data. Parents do not increase their work, but are much less likely to receive SNAP, undermining SNAP's ability to reach the neediest households. The structure of these policies enables us to tease apart mechanisms and we conclude that administrative burdens imposed by work requirements are the key driver of this disenrollment effect.

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1 Introduction

Means-tested transfer programs in the U.S. are increasingly adding or expanding work requirements. Proponents of work requirements argue that they will help counteract labor supply disincentives created by transfer programs (Besley and Coate, 1992), increase individuals' "self-sufficiency" (e.g. Johnson and Corcoran, 2003), and reduce program spending (Herd and Moynihan, 2018). However, recent economics research has examined the efficacy of work requirements in several major U.S. transfer programs and has generally found little to no effect on work behavior. Moreover, a consistent result across these studies is a substantial decline in transfer program receipt. These declines could be driven by the high administrative burdens brought on by having to comply with the requirements, challenges finding a job in the labor market that also meets the strict requirements, or a combination of both (Bauer and East, 2023). Despite the attention given to these issues, the exact mechanisms driving the disenrollment effects remain unclear.

This paper provides new evidence on *why* work requirements cause disenrollment by studying the two largest work requirements in the Supplemental Nutrition Assistance Program (SNAP), which are ideally suited to isolate the role of administrative burdens in reducing program receipt. Using linked SNAP and Unemployment Insurance records, we generate the first, modern, causal estimates of these policies' effects on employment and program participation. Understanding the impacts of these requirements is also policy-relevant since SNAP is one of the most important transfer programs in the U.S., serving over 12% of the total population. We additionally focus on households with children, who are of increasing importance amidst proposed expansions to work requirements for parents, but have been largely ignored in the work requirements literature.

Our empirical strategy is a transparent difference-in-differences design that leverages exogenous variation in exposure to work requirements. We take advantage of the fact that once the youngest child in the household turns 6, the head of household becomes subject to General Work Requirements and can be referred to the state's Employment and Training (E&T) program. We combine the exact age-in-months of the youngest child in the household with the exact date of SNAP eligibility recertifications, which occur roughly every 6 months. Thus, the main identification assumption is that households in which the youngest child narrowly turns 6 *before* recertification are otherwise identical to households in which the youngest child narrowly turns 6 *after* recertification. We further strengthen the empirical approach by introducing a placebo treatment cutoff where we include SNAP households in which the youngest child is right around their fifth birthday at a given recertification to help account for any relationship between children aging and the outcomes of interest. We demonstrate the validity of our approach by conducting several placebo tests, showing there is balance in observable characteristics around the age-6-relative-to-recertification cutoff, verifying parallel pre-trends in the key outcome variables, and showing no bunching in the age-6-relative-to-recertification variable around the cutoff.

The main analysis sample includes households with young children receiving SNAP between 2012-2020. Our data come from a single state in the mountain-plains region, hereafter, the "mountain-plains state". To identify the effects of the E&T Program separately from General Work Requirements, we take advantage of the richness of our data and the fact that we observe many of the demographic characteristics that determine referral to E&T before the eligibility recertification. We split the sample by these characteristics, and, we exploit the fact that potential sanctions from the two policies begin at different times and that our data allow us to identify the precise timing of effects.

We find that General Work Requirements alone, which require those working to not reduce work, and, those not working to search for work, do not have large or significant SNAP disenrollment impacts at

recertification. With newly collected auxiliary data, we show this is because very few people are actually sanctioned as a result of this requirement, likely because these individuals receive exemptions.

On the other hand, we find that General Work Requirements open up the possibility of being referred to the E&T Program, and E&T in turn does have meaningful disenrollment impacts. Importantly, individuals can complete E&T without ever finding a job[1]; so, failure to complete E&T is consistent with administrative burdens reducing program receipt.

E&T referral reduces SNAP receipt among the head of household, who is subject to the requirement, by 57% over the 6 months following the recertification. The rest of the household is still eligible for SNAP, so generally still receives benefits. However, because SNAP benefits are a function of the number of eligible household members, household-level SNAP benefit amounts fall by 23% over this 6-month period. If benefits are fungible across household members, E&T will have important negative spillover effects on children because reduced SNAP benefits in childhood leads to worse health and economic outcomes (Bronchetti et al., 2019; East, 2020; Bailey et al., 2020).

Next, we analyze the effects of both requirements on labor market outcomes, which we observe whether or not the household continues to receive SNAP. We find no evidence of statistically significant or quantitatively large changes in quarterly employment or earnings. This is true regardless of whether the adult in the household is likely referred to E&T. We can rule out increases in quarterly employment of more than 0.03 percentage points for the full sample.[2] We also show similarly small and insignificant effects persist for at least three quarters. Thus, these programs are unsuccessful as labor supply incentives or at increasing self-sufficiency for SNAP recipients with young children.

Finally, we explore which households have the hardest time complying with the work requirements. Leveraging our detailed data, we split the sample by pre-treatment earnings, which is a proxy for need.[3] Those who have the lowest prior earnings suffer the largest disenrollment effects from E&T. Strikingly, we find that those with the highest prior earnings are able to fully avoid disenrollment by becoming exempt from the requirement. Thus, E&T worsens SNAP targeting by reducing SNAP receipt among the most disadvantaged, while the more advantaged are able to navigate and overcome the administrative burden.

The data for our main analysis come from a single state, but several pieces of evidence point to external validity. First, we use data from the SNAP Quality Control (QC) system to show that on most dimensions, including employment rates and earnings, SNAP recipients in the mountain-plains state are similar to SNAP recipients in the whole country. The main exception to this is the mountain-plains state is less racially diverse, but we see little evidence of heterogeneous effects by race. Second, we use the less-detailed QC data to assess the impacts of the work requirements on program participation outcomes at the national level and the results confirm the analysis in the mountain-plains state. In particular, we find that mandatory E&T programs reduce program participation among household heads with young children.[4]

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[1] E&T requires completing 48 job contacts over 3 months, and completing online job readiness and job search training modules. This is described in more detail below.

[2] The prior literature on other work requirements has also found null effects with a similar, or larger, range of effects included in the confidence intervals. For example, Gray et al. (2022) rule out an increase in employment larger than a 0.035 percentage point increase.

[3] Targeting effects are challenging to measure because it is generally not possible to observe a households true "type" and whether they should receive benefits or not based on this. The approach in the literature, which is the same as the one we take here, is to split the sample by proxies of household need—in this case by past earnings—and assume that more needy households are more likely to be the unobserved type that should receive benefits (e.g., Giannella et al., 2023; Wu and Meyer, 2023).

[4] States can choose whether to implement a "mandatory" or "voluntary" E&T program, and the mountain-plains state has a mandatory program. Mandatory programs require that everyone who is referred to E&T participate in the program to continue receiving SNAP. On the other hand, voluntary programs allow those referred to choose whether to participate and individuals will not lose SNAP either way.

Our work contributes to three literatures. First, we contribute to the literature on the efficacy of work requirements. In particular, our setting uniquely allows us to conclude that the disenrollment effects of the work requirements we study are driven by administrative burdens. The prior literature on SNAP work requirements focus on requirements for so-called "able-bodied adults without dependents" ("ABAWDs") and generally finds large disenrollment effects with little impact on labor supply (Gray et al., 2022; Stacy et al., 2018; Vericker et al., 2023).[5] However, this research is unable to identify the mechanisms behind the disenrollment effects.

We also provide the first evidence of the effects of SNAP work requirements on parents. This is important because nearly one-in-four children in the U.S. receive SNAP benefits, and households with children are the most common household-type among SNAP recipients. Moreover, many existing work requirements take effect when children reach age 6, though there is little empirical evidence on the impact of work requirements on this population, as noted by Aizer et al. (2022).[6] Finally, recent policy proposals explicitly suggest expanding SNAP work requirements to more families with young children and making the existing requirements for families with children stricter (Bakst, 2024; American Enterprise Institute, 2024). Theoretically, work requirements may be even harder to comply with for parents, who often face childcare constraints. On the other hand, the requirements we study are meant to be more flexible and easier to comply with because they do not require finding a job. Thus, the impacts of these requirements is an empirical question.

Second, we add to a broader set of research on ordeals and administrative burdens in SNAP. Importantly, everyone in our sample has already overcome the costs associated with learning about and successfully applying for SNAP. Therefore, our findings demonstrate that increases in the cost of continuing to receive benefits impact program receipt. This complements several papers that find that the costs imposed on SNAP participants to recertify eligibility—filling out complicated forms, providing supporting documentation, and completing an interview with a caseworker—also reduce SNAP receipt (Homonoff and Somerville, 2021; Unrath, 2024).

Finally, this paper complements the literature on the relationship between SNAP and work decisions. Due to the lack of plausibly exogenous variation in SNAP across locations or over time, studies of SNAP's effect on labor market outcomes are limited. The most generalizable modern evidence comes from Cook and East (2024) who identify the effect of SNAP on labor market outcomes using a caseworker fixed effects design.[7] Cook and East find that barriers to work faced by most SNAP recipients mean that SNAP has little impact on their labor outcomes. Here, we similarly show that the removal from SNAP, due to the imposition of work requirements, does not lead to increases in work.

The rest of the paper proceeds as follows. Section 2 describes the SNAP program and the relevant work requirements. Section 3 describes the data and sample. Section 4 outlines our empirical approach and discusses the descriptive analysis. Sections 5-9 discuss the results, and Section 10 concludes.

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[5]Research using survey data, with greater potential for mis-measurement (Meyer et al., 2022), have mixed findings on employment outcomes (Ribar et al., 2010; Cuffey et al., 2022). A large body of research evaluated the work requirements imposed in welfare-to-work programs in the 1980s and 1990s. These programs were more similar to SNAP E&T, although there was heterogeneity in program design and target populations across the welfare-to-work programs. These analyses mostly find small positive effects on employment and negative effects on overall household income because households lost welfare benefits (as summarized by Greenberg et al., 2005).

[6]There has been only one other study of work requirements on this population that we are aware of. This study is different than ours in several ways since it looks at the imposition of a minimum *annual earnings* requirement under a different program—the Child Tax Credit (CTC)—in California when the youngest child turns 6 (Goldin et al., 2024). The study finds little change in earnings or employment, but do not examine CTC receipt as we do here for SNAP.

[7]Prior research took advantage of the program roll-out in the 1960-70s (Hoynes and Schanzenbach, 2012), or changes in rules for small subgroups such as non-citizens (East, 2018). These papers find null to negative effects on work.

2 SNAP Policy

2.1 SNAP Design and Labor Supply Incentives

SNAP (formerly the Food Stamps program) is a means-tested federal entitlement program in which states are responsible for determining eligibility and paying out benefits. In general, to qualify for SNAP, applicants must have gross income below 130 percent of the federal poverty level and net income after deductions below 100 percent of the federal poverty level. Households that receive SNAP benefits are required to recertify periodically to demonstrate their continued eligibility. This involves updating paperwork and documentation and can require an interview with a caseworker. In the mountain-plains state, recertifications happen every six months for almost all working-age households.

Households with zero and near-zero income receive maximum SNAP benefits, which are a function of household size. As a household's income increases, benefits are decreased by the benefit reduction rate.[8] Additionally, if some members of the household become ineligible to receive SNAP, the household benefit amount is lowered. The canonical static labor supply model where individuals trade off consumption and leisure predicts that SNAP will disincentivize work, both because of the income effect from the benefit guarantee, and because of the substitution effect from the benefit reduction rate.[9]

However, as we showed in our prior research, this simple model does not do a good job of capturing the actual impact of SNAP on labor supply decisions for most working-aged SNAP recipients due to barriers to work (Cook and East, 2024). Indeed, most adults receiving SNAP do work if they can work; 35% of all SNAP recipients are working-aged non-disabled adults, and 81% of those who can work have worked within the past year (Keith-Jennings and Chaudhry, 2018). Those who did not work within the past year cite barriers to work: 38% report caring for children or other household members, 23% report a health condition (besides any reported disability) limits their ability to work, 15% cannot find suitable work, and 15% are currently attending school.

It is an open question, that our work addresses, as to whether these barriers to work extend beyond the labor market and affect household abilities to complete required activities outside of jobs. In our analysis sample, the barriers to work are likely non-trivial because all households have a child around age 6 who needs at least some amount of childcare.[10]

2.2 SNAP Work Requirements

There are three major work requirements in SNAP and we describe them in detail next.[11] But, before we do that, we fix ideas about how work requirements add administrative burdens for participants using the framework outlined by Herd and Moynihan (2018) and Bauer and East (2023). First, there are learning costs of figuring out the details of the program and how individuals can comply. Second, there are compliance costs

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[8]SNAP's benefit reduction rate is 30%; however, the actual benefit reduction rate as income increases varies by the types of deductions the household has and is very close to zero at low income levels (Bitler et al., 2021; Han, 2022). SNAP-allowable deductions include a 20 percent deduction for every dollar of earned income, as well as deductions for certain types of expenditures including costs for shelter, childcare, and medical care. Households participating in multiple programs may have a more complicated benefit reduction rate. There are also asset tests and residency tests for non-citizens that vary by state and time.

[9]We discuss the predictions of this model when work requirements are added to SNAP in Appendix A.

[10]We show that childcare is a barrier for single parents with children at ages besides 6 in Appendix Figure A2, which suggests our results likely generalize to households with children younger and older than age 6. Specifically, we tabulate the percentage of working-aged single adults who report childcare as a barrier to working outside the home in the Current Population Survey by the age of the youngest own child in the household.

[11]Information from `www.fns.usda.gov/snap/work-requirements` and a Hamilton Project report co-authored by Chloe East on SNAP work requirements: `www.hamiltonproject.org/publication/paper/a-primer-on-snap-work-requirements/`.

of actually completing the required tasks and ensuring that proof of completion is submitted. Finally, there are psychological costs that include feelings of being stigmatized for having to complete the requirements in order to continue receiving SNAP.

2.2.1 General Work Requirements

We begin with the requirement that affects the largest group of people–the "General Work Requirement". 28% of all SNAP households have at least one person potentially subject to the General Work Requirement.[12] This requirement applies to working-aged (16-59) SNAP recipients who do not meet the following exemptions: working at least 30 hours per week or having weekly earnings equivalent to 30 hours of minimum-wage work, meeting work requirements for another program like TANF or UI, taking care of children under 6 or an incapacitated person, having a physical or mental disability, participating in a drug or alcohol program, or being enrolled in school or a training program at least half-time. Those subject to these requirements are called "work registrants" and they must not voluntarily quit or turn down a job offer and not voluntarily reduce hours below 30 hours per week. There is a minimum hours requirement, but it is not strict.

As far as we know, there are no existing causal studies on the impacts of the General Work Requirements. One reason that General Work Requirements may have gone unstudied is that they are thought to have little bite in practice since conventional wisdom is that few households are removed from SNAP as a result of sanctions from this requirement. To assess this, we gathered new data through Freedom of Information Act requests. Of the 50 states we requested information from, 4 states have provided us this information. With this newly-collected data, we tabulate that across these states, at most 1% of work registrants were ever sanctioned. This confirms the conventional wisdom and supports our findings below. Unfortunately, the data from the mountain-plains state does not allow us to observe General Work Requirement exemptions or sanctions directly, but we explore the intent-to-treat effect of the requirement on SNAP receipt among those recertifying.

2.2.2 Employment and Training Programs

Another under-studied aspect of SNAP work requirements is its Employment and Training (E&T) Program. Roughly 25 percent of work registrants participate in E&T programs nationally.

States are required to implement an E&T Program, but the nature of the program varies by state.[13] As far as we know, and after talking to USDA, there is no comprehensive database about the details of state's E&T Programs over time. However, we have collected information on a key dimension of heterogeneity— whether the state has a mandatory or voluntary E&T Program. If mandatory, work registrants referred to E&T must complete the program in order to comply with the General Work Requirement and avoid sanction. If voluntary, work registrants referred can choose whether to complete the E&T Program and will not be sanctioned if they choose not to. The mountain-plains state is one of 24 mandatory E&T states in 2013. While our main analysis focuses on a single state, and thus the E&T Program in that state, we show that the results generalize to all states that have mandatory E&T Programs.

In the mountain-plains state, the E&T Program is state-run and focuses on job search and "job readiness" activities. Specifically, there are three key activities participants must do to satisfy the program requirements.

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[12]Authors calculations using the SNAP Quality Control (QC) Data.

[13]Allowable components of the program include job search, workfare, work experience or training, educational programs, self-employment programs, or job retention (Kaz et al., 2018). This flexibility was intended to best meet the needs of local labor markets. States may use third-party partnerships to operate their programs, which allows them to contract out E&T eligibility determination, staffing, program referral, and program administration.

First, they must register in the state's online job search and job readiness system. Second, participants must make 48 job contacts and enter information about each job contact in the state's online system. Third, participants can be assigned to complete job readiness workshops, which primarily consists of instructional videos on topics such as resume writing and networking.[14] The average time spent on any one E&T activity in mandatory E&T states ranges from 7-19 hours per week (U.S. Department of Agriculture, Food and Nutrition Service, 2023), and the mountain-plains states requires that weekly time spent on E&T not exceed 30 hours. Participation in E&T for three consecutive months satisfies the program's requirements and the participant is then exempted from referral to E&T for the next twelve months.

In the mountain-plains state, certain characteristics exempt someone from being referred to E&T. Adults can be exempted for the following reasons: they are over age 47, have *any* earned income, receive Refugee Cash Assistance, live more than 35 miles from an employment center, are pregnant, are a refugee, are applying for Supplemental Security Income, have no fixed address, are on temporary layoff, are required by their probation or parole to complete court ordered activities, or are participating in a Vocational Rehabilitation program. Caseworkers can also exempt people from E&T referral if they are deemed "unable to work", which is somewhat subjective. Reasons cited for this "unable to work" exemption are lacking childcare, having domestic violence issues, having limited language skills, lacking public and/or private transportation, or if the cost to participate in E&T would exceed $50. We observe many of the objective characteristics that exempt people from being referred to E&T and we use these criteria to split the sample into recipients likely to be referred to E&T or not.

An internal audit of the outcomes of people referred to E&T in 2012-2014 in the mountain-plains state found that 12% completed the E&T requirements, and of those who completed the requirements about half did so by having non-zero earnings. Moreover, of the 88% who did not complete the requirements, 77% of them never logged on to the online E&T system, meaning they never even set up an account on the E&T website.

The literature on E&T programs is limited. The analysis most similar to ours was conducted in the 1980s on the precursor to SNAP—the Food Stamp program (Puma and Burstein, 1994). This study was a randomized control trial experiment on new Food Stamp participants, where those in the treatment group were referred to E&T, and those in the control group were not. E&T activities in this study included job search, job search training, workfare and work experience, and education and vocational skills training. Rates of E&T participation in the treatment group were low, and the study found that being referred to E&T reduced receipt of SNAP benefits and had no significant impacts on employment, earnings, or wages. We update this analysis using more modern data, which is important since the nature of the labor market, who receives SNAP, and the E&T programs have changed over time.

The USDA conducted several descriptive studies of state E&T pilot programs in the late 2010s.[15] In three mandatory E&T states, between 36-63% of people referred never participated in any E&T activities. Additionally, in the first six months after initial referral to E&T, roughly 15% were sanctioned for the first time for failing to participate or getting a good cause exemption. For some, non-completion reflects individuals finding employment, but for many it was reflective of larger barriers to participating (such as lack of transportation or childcare).[16] However, this analysis simply compared outcomes of those referred to those not, whereas our empirical strategy allows us to identify the *causal* impacts of being referred to E&T.

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[14]In most of our sample period, participants did not have to meet with an E&T caseworker. However, in parts of 2011-2012 and after 2021, monthly meetings with a caseworker to develop a job search plan that they must follow was additionally required.

[15]Link to report.

[16]https://fns-prod.azureedge.us/sites/default/files/resource-files/SNAP-ET-FinalReport.pdf.

2.2.3 ABAWD Work Requirements

The last work requirement is for "able-bodied adults without dependents" (ABAWDs) and this was added to SNAP in 1996. There are two key differences between the ABAWD requirements and the ones we focus on. The first difference is that ABAWD work requirements exclude most parents, whereas we explicitly study the effect of work requirements on parents. The second is that ABAWDs must complete at least 80 hours per month of employment or job training, and, notably, time spent searching for work does not count towards this requirement (as it does with other programs). In practice, it is uncommon for ABAWDs to participate in job training programs. The reporting requirements for ABAWDs are similar to those required to complete E&T—individuals must demonstrate to their caseworker they are meeting the requirements every month. Thus, the disenrollment effects of ABAWD requirements can be driven by either administrative burdens or challenges in finding a suitable job. We discuss the findings from the literature studying this requirement, and compare it to our analysis, below.

2.3 Timeline of Treatment around Eligibility Recertification

We focus our analysis on SNAP-recipient households that go up for recertification. When individuals recertify their eligibility, they are screened for whether they are subject to work requirements. If subject, they are verbally made aware of the requirements they face, along with the consequences of failure to comply. They also receive mailers reminding them of the requirements.

While it may be possible for households to anticipate the future imposition of work requirements, we believe this is unlikely to happen in practice for several reasons. First, households are not informed about work requirements until they are subject to them. Second, learning about the work requirements on one's own is not straightforward and is costly because the rules are very complex. Finally, we directly examine pre-trends in SNAP receipt and labor market outcomes and there is no evidence of anticipatory effects. Therefore, we interpret our estimates as the effect of work requirements themselves, rather than anticipatory effects.

In our analysis, some cases will be newly subject to the General Work Requirements and possibly referred to E&T, while others remain exempt at recertification. To understand how we map this into our empirical analysis, we show a timeline in Figure 1, where time is in months relative to the focal recertification. This is important both to understand our empirical strategy and to assess potential mechanisms. Note that our SNAP data is at the monthly level, so this timeline maps directly to the SNAP outcomes, but the UI earnings records are at the quarterly level, so we focus on work outcomes measured in quarters that are either fully in the pre or post periods.

The first set of cases, depicted in the top row, are those that had the youngest child in the household between the ages of 6 years and 6-years-and-5-months at the focal recertification. This is the treatment group in our difference-in-differences analysis. These households were exempt from all work requirements before the focal recertification because their youngest child was under age 6. After the focal recertification, these cases are newly subject to the General Work Requirements, and these begin binding in the month after recertification ($t + 1$).

The head of household is also eligible to be referred to E&T beginning at $t + 1$. Referred adults can participate in E&T as early as the month they are referred or wait until the following month to begin participation. If those referred do not participate in E&T by the end of the first month *after* referral, they are given another month as a grace period, during which time they can submit evidence of a "good cause"

exemption for why they did not participate before. Thus, individuals who do not participate in required E&T will lose benefits beginning in $t + 2$.

The second set of cases—shown in the middle row—have a youngest child between 5-years-and-6-months and 5-years-and-11-months at the focal recertification. These cases are exempt before the focal recertification and remain exempt between the focal and subsequent recertification. Then, these cases become subject to the requirements at the subsequent recertification in $t + 7$. This group is the main control group in our difference-in-differences analysis.

The final set of cases—shown in the bottom row—have a youngest child below age 5-years-and-6-months at the focal recertification. These cases remain exempt from work requirements at both the focal and subsequent recertifications. Eventually, as these children get older, all these cases will become subject to the work requirements as well. We include cases where the youngest child is near age 5 at focal recertification as a secondary control group in our difference-in-differences analysis.

3 Data

Our primary data come from a single state in the mountain-plains region, which remains unidentified for anonymity. In our prior paper, we showed that the population of SNAP recipients in the mountain-plains state is very similar to all SNAP recipients nationally, with the exception that the mountain-plains state has fewer non-white recipients (Cook and East, 2024), and we do a similar comparison here below. We observe SNAP recipients and the dates and outcomes of eligibility recertifications for recipients. We have detailed information about the composition of recipients' household and demographics of each household member.

These data are linked to quarterly labor supply information from the state's Unemployment Insurance (UI) database. This type of data has been used in the past to evaluate the labor supply effects of other means-tested programs such as Medicaid, public housing, and SNAP (Baicker et al., 2014; Chyn, 2018; Gray et al., 2022). For every head of household that has interacted at all with the SNAP system, we observe the quarterly earnings and industry of every job they work. Importantly, we can observe these outcomes whether or not the household is currently receiving SNAP. A limitation of any study using UI earnings data to measure labor supply is that a small group of workers are excluded from the data because they work in jobs not covered by UI, such as those who are self-employed. We show in other work that this is unlikely to impact our results due to low rates of employment in non-covered jobs among the SNAP-eligible in our sample period (Cook and East, 2024). We also show below that the earnings measured in the UI data are very similar to total earnings that SNAP recipients report on their SNAP forms. Finally, we use self-reported household income, that includes income from self-employment, as an alternative measure of labor supply and the results are robust to this.

3.1 Sample Construction

To estimate the impact of General Work Requirements and the E&T Program, we start with households needing to complete a SNAP eligibility recertification between 2012 and 2020. We then make several sample restrictions to cleanly identify the effects of these requirements. First, we balance the sample by keeping recertifications with valid outcome information 3 months before and 12 months after a given recertification. Because labor supply outcomes are matched to the head of the case, we drop the few cases for which the head of the household is not receiving SNAP before the recertification. Next, we drop SNAP households

for which the youngest in the household is exactly 6 during the month of recertification. This accounts for potential measurement error in the children's age-in-month variable.[17]

Over 80% of SNAP households with children near age 6—our main analysis sample—have only one working-age adult in them, and we limit our main sample to these single-adult households. Since each child younger than 6 exempts only one adult in the household from General Work Requirements and E&T, limiting to households with a single adult allows us to identify the adult that will lose the exemption when the child turns 6. Additionally, the mountain-plains state only linked UI earnings records for the heads of household as a data security measure, so this ensures we are not missing any important secondary-earner effects. We do, however, find similar results when we include two-adult households.

We further drop cases for which the head of household would be exempt from General Work Requirements for objective reasons besides their youngest child being below age 6. Specifically, we drop cases with the head of household below age 16 or above age 59, the head of household in school at least part-time, households where any member has a disability that is documented in the SNAP system, and households that received TANF.[18] We measure these characteristics before the focal recertification.

3.1.1 Summary Statistics

To understand the external validity of our findings, we explore how SNAP recipients who successfully recertified eligibility in the mountain-plains state differ from those who successfully recertified eligibility in the whole country in Appendix Table A1. For the national sample, we use the SNAP Quality Control (QC) Data and create a sample of cases with a working-aged, non-disabled, single head of household.

Columns (1) and (2) display demographics for this sample for the entire country and the mountain-plains state, respectively. On most dimensions the mountain-plains state is similar to the national sample, however, the mountain-plains state is less racially diverse. Importantly, the mountain-plains state is similar to the national sample in terms of employment and earnings.

In column (3) we show the demographics of all households recertifying their SNAP eligibility, regardless of whether the recertification was successful, using the administrative data from the mountain-plains state. Column (4) applies the sample restrictions detailed above to obtain our main analysis sample. Reassuringly, our analysis sample is very similar to all recertifications in the mountain-plains state. The main difference is our analysis sample includes households with more children, since we explicitly focus on households with young children at recertification.

Columns (5)-(6) divide the full sample from column (4) into cases that are more and less likely subject to E&T, respectively. Specifically, we defined cases as more likely eligible to be subject to E&T if the head of household is between the ages of 16 and 47,[19] is not a refugee, pregnant, receiving disability insurance or worker's compensation, or is not themselves disabled or living with someone who is disabled. Also, importantly, to be eligible for E&T referral, the head must have not reported any earned income at their focal recertification. Because earnings can be volatile for low-income earners, we consider cases to be less

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[17]We observe age measured in years and we infer the age-in-months of each recipient using other information about SNAP recipients. Specifically, we observe detailed information about case demographics for everyone on the case during each month of benefit receipt. When participants have a birthday, their age updates in the data, even during the middle of a certification cycle. When we observe a participant's age increment, this identifies the given birth month. Using this procedure, we are able to infer birth month for roughly 90 percent of beneficiaries. We drop the recertifications for which we cannot infer the ages-in-months for all 3-to-6-year-old children within the household.

[18]The mountain-plains state exempts those who are receiving TANF from work requirements.

[19]While in principle it could be possible to study the effects of aging out of E&T eligibility at age 47, this is not straightforward since those around age 47 may have been previously treated by the requirements.

likely to be referred to E&T if their baseline earnings are above the bottom 25th percentile. The likely-subject-to-E&T subsample is similar to all recertifications in the state; however, earnings and employment are lower because of the sample restrictions.

4   Empirical Design

To identify the causal impact of work requirements on household outcomes, we implement a difference-in-differences approach that exploits the change in eligibility for General Work Requirements and E&T when the youngest child in the household turns 6. This approach takes advantage of the uniquely rich information we have on the age-in-months of every member of a SNAP household, as well as the exact dates of SNAP eligibility recertification for each household.

The first difference in our difference-in-differences approach compares households whose youngest child turns 6 right before or after the focal recertification. Specifically, we define the treatment group as those whose youngest child is between the ages of 6-years-and-one-month and 6-years-and-5-months at the focal recertification. This is the group in the top row of Figure 1. The control group is those with a youngest child between the ages of 5-years-and-7-months to 5-years-and-11-months, shown in the middle row of Figure 1. We call this control group the "just-below-age-6 control group" in what follows.[20] The fact that we do not simply compare before and after the youngest child's sixth birthday, but the birthdate *relative* to the focal recertification date strengthens the identification assumption; potential confounders must vary not only with the child's date of birth, but with the date of birth relative to the date of recertification.

To further strengthen our empirical approach, we net out a placebo comparison between cases with a youngest child turning 5 narrowly before versus after the focal recertification. Specifically, comparing the first difference described above, with a second difference between cases with the youngest child between the ages of 5-years-and-one-month and 5-years-and-5-months, and those with the youngest child between the ages of 4-years-and-7-months to 4-years-and-11-months. We call these control groups the "placebo-age-5 control groups". There are no changes in SNAP work requirements or other SNAP policy rules around the fifth birthday, so including these groups accounts for any other changes in the outcomes of interest that happen as children age. Appendix B provides empirical support for including this second difference; in short, we find evidence that the youngest-child's age at recertification across ages 3 through 5 has a small negative relationship with SNAP participation, though no relationship with labor supply. Thus, our main specification includes this second difference, but as shown in the Appendix Figure B1, the results are very similar when we exclude it.

Formally, we estimate the impact of the work requirements with the following difference-in-differences specification:

$$Y_{ir}^{\tau} = \alpha + \phi PostBirthday_{ir} + \theta SixthBirthday_{ir} + \beta PostBirthday_{ir} \times SixthBirthday_{ir} + \gamma X_{ir} + \epsilon_{ir} \quad (1)$$

where Y_{ir}^{τ} is the outcome of interest for case i, measured τ periods (either months or quarters) relative to the case's focal recertification, r. *PostBirthday* indicates whether the youngest child in the household has

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[20]The intuition of this approach is similar to that of a regression discontinuity model where the running variable is age-in-months of the youngest child in the case at the month of the focal recertification. However, we do not implement a regression discontinuity model due to a unique institutional feature of our setting. In particular, cases are treated every 6 months when they have to complete another eligibility recertification. Thus, cases that are far enough to the right of the age-at-recertification cutoff will be treated prior to the focal recertification. Specifically, cases with a youngest child age 6 years and 6 months, or older, will have been treated at the recertification *prior to* the focal recertification. This limits the length of the potential window around the cutoff and the ability to implement a regression discontinuity approach.

had either their 5th or 6th birthday by the time of the focal recertification. *SixthBirthday*, is a dummy equal to 1 if the youngest child is near their 6th birthday at the focal recertification, and equal to zero if the youngest child is near their 5th birthday at the focal recertification. The coefficient of interest is β, which provides the additional impact of the youngest child narrowly turning 6 at recertification, relative to narrowly turning 5 at recertification. We include a vector of baseline demographics and time fixed effects X to improve statistical precision.[21] We cluster standard errors by case, because cases can appear multiple times in the sample.

We run a separate regression for each time period relative to the focal recertification, which means that we are testing not only if the *trends* in outcomes in the pre-period are related to the treatment, but also whether the *levels* are different. Thus, this method tests a stronger assumption than standard panel event study regressions that only test for differential trends, and we use it to plot regression-adjusted levels of outcomes by treatment and control group over time.

The identification assumption is that cases with the youngest child just over age 6 at the focal recertification have the same potential outcomes as cases with the youngest child just below age 6 at the focal recertification, after netting out other changes in potential outcomes as children age with the placebo age-5 control groups. The most obvious potential confounder in our setting is that many children increase school enrollment around age 6. The compulsory school age in the mountain-plains state is 6 and the state offers publicly provided full-day kindergarten in most areas beginning at age 5. Given the strong positive relationship between children's school enrollment and parental labor supply (Cascio, 2009; Gibbs et al., 2024), the relationship between youngest child's age and school enrollment would potentially bias towards finding a positive effect of work requirements on labor supply. Any relationship between school enrollment and parental labor supply that increases by children's age similarly at age 6 and age 5 is already accounted by the placebo group. And, a number of other checks help reassure us that school starting age is not driving our findings. First, the recertifications happen throughout the year, and not just around the beginning of the school year. Second, in robustness checks below, we drop observations with a focal recertification date between August and October, when the school year begins in the mountain-plains state, and the results are very similar.

We show further support for the identification assumption by examining balance in observable characteristics of cases across the treatment and control groups in Table 1 in the pre-period. The table provides estimates of β from Equation (1), where the outcome variables are case demographics measured in the SNAP administrative data as well as labor supply information from the Unemployment Insurance earnings records, estimated in separate regressions. Column (1) includes the full sample, column (2) restricts to the 43% of cases who are likely subject to E&T and column (3) includes the 41% of cases who need to meet General Work Requirements, but are likely exempt from E&T when their youngest child turns 6. The remaining cases we exclude from these subsamples because it is less clear if they will be subject to E&T or not. Observable characteristics, including pre-recertification labor supply, generally do not correlate with the treatment indicator, supporting the identifying assumption.

Finally, we show in Appendix Figure A3 that the density of the number of cases is smooth across the age-6 cutoff (labeled month 72) for cases in our main sample. Statistical tests from Frandsen (2017) fail to reject the null of a break in the density at conventional levels of statistical significance. This rules out the

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[21]The vector X includes the following head of household information: gender, race/ethnicity, citizenship, age, Spanish speaking status, pre-focal-recertification SNAP benefit amount, past referrals and participation in E&T, and county of residence. It also includes baseline labor supply information for the quarter preceding the focal recertification, including: quarterly employment, earnings, indicators for part-time and greater than part-time work, the number of jobs, the industry of employment, and wages in the industry of employment. Finally, it includes fixed effects for the calendar year-by-month of the focal recertification.

possibility that cases are strategically choosing when or whether to recertify based on their anticipation of work requirements. One notable, though small, change in density is the drop for cases where the youngest child is at or above 6 years and 6 months old (78 months, shown in the black line) at recertification, among cases likely subject to E&T (panel (b) of the figure). Recall that these cases will have faced a recertification 6 months earlier, after which they will be potentially subject to the General Work Requirement and E&T. This suggests that being subject to these requirements reduces the likelihood of remaining on SNAP, which we investigate formally below, and which would explain the small decline in the number of cases at 78 months old.

5 Effects on SNAP Receipt

5.1 SNAP Benefit Outcomes

We begin with our analysis of the effects of General Work Requirements and E&T on program receipt outcomes. Figure 2 plots the outcomes for the treatment group—those with their youngest child between the ages of 6-years-and-1-month and 6-years-and-5-months at the focal recertification—in the solid black line. The outcomes for the just-below-age-6 control group—those with their youngest child between the ages of 5-years-and-7-months and 5-years-and-11-months at the focal recertification—are plotted in the solid gray line. The outcomes are regression-adjusted both to account for the control variables and netting out the effects for the placebo age-5 control groups, however, for transparency, Appendix Figure B1 plots a version of Figure 2 that does not include any control variables and also does not include the placebo age-5 control group and the results are very similar. The difference-in-differences estimates from Equation (1) that correspond to Figure 2—that measure the gap between the solid black and dashed gray lines—and their standard errors, are in Table 2. In what follows, we discuss the results from Figure 2, but use the analogous point estimates and standard errors from this table for additional context.

As expected, the outcomes are essentially identical among the treatment and control groups in the 3 months before the focal recertification, supporting our identification assumption. Since E&T turns out to be a key driver of the SNAP receipt results, we begin by examining first-time E&T referrals (panel (a)) and E&T participation (panel (b)). In the initial month after the focal recertification, the treatment group is significantly more likely to be referred to E&T for the first time compared to the control group, as expected (row (1) of Table 2). In this same month, there is a significant increase in the likelihood of first participating in E&T (row (2) of Table 2), though of much smaller magnitude—referrals increase by 9 percentage points, but participation only increases by 0.8 percentage points, indicating many people referred do not end up participating. There is also a large and significant increase in first-time E&T referrals in the second month after recertification, as well as a smaller and significant increase in first-time E&T participation in this month. This follows what we expect based on the timeline laid out above in Figure 1. In particular, referrals to E&T begin in the month after focal recertification, and some people choose to begin participating in that month, whereas some begin in the following month $(t + 2)$. The second month after focal recertification $(t + 2)$ is when those referred in $t + 1$ are required to start participating and may be sanctioned if they do not.

Turning to SNAP receipt in panels (c)-(e), it is clear that the treatment reduces the likelihood the head of household receives SNAP beginning in month $t + 2$, but there is little effect on benefit amount or household

benefit receipt in any time period.[22] This corresponds to a significant 0.31 month reduction in head's receipt of SNAP over the 6 months following the focal recertification (final column of row (3) in Table 2).

The dynamics of these effects are informative. In particular, while there is a large drop in all SNAP receipt outcomes at $t+1$, these declines are the same magnitude for the treatment and control groups, reflecting the fact that recertification is a common time for households to stop receiving SNAP benefits either because they have become ineligible or because of the costs imposed on participants to recertify (Unrath, 2024; Homonoff and Somerville, 2021). The fact that the effect on head's SNAP receipt doesn't appear until $t+2$ and then persists is consistent with E&T driving this, because the E&T sanctions begin in $t+2$, whereas the General Work Requirement sanctions begin in $t+1$. Based on the timing of the effects, the effects on SNAP receipt seem to be driven by referrals to mandatory E&T, which we explore in more detail next.

Finally, these figures allow for another placebo test. Looking at the months after the *subsequent* recertification, in $t+6$, we see a very similar pattern for the just-below-age-6 control group as we saw for the treatment group after the focal recertification. This is expected because at that point all the children in this control group are old enough to make the head eligible for General Work Requirements and possibly E&T. And, after $t+6$, when both the treatment and control groups are now subject to the requirements, their outcomes re-converge.

5.1.1 E&T Program Effects

We further explore if E&T is indeed driving these main effects by splitting the sample into those likely subject to and exempt from E&T in panels (b) and (c) of Table 2 and in Figure 3.[23] In Figure 3, the rates of E&T referral and participation among the treatment group are much higher in the likely-subject sample (panels (a) and (c)) than the likely-exempt sample (panels (b) and (d)). Cumulatively, over the 6 months following the focal recertification, there is a 23.7 percentage point increase in E&T referrals and a 6.2 percentage point increase in E&T participation for the likely-subject sample, compared to 1.5 and 0.1 percentage point increases for those likely exempt. The reason E&T referrals are not closer to 100% in the likely-subject subsample is twofold: first, we are not able to perfectly predict eligibility based on the observables, and, second, caseworkers can choose to give some people exemptions from E&T even if they are likely to be referred based on our categorization. Importantly, the negative effect on head's SNAP receipt is only present for those likely subject to E&T (panel (e) compared to (f) of Figure 3), confirming the hypothesis that program disenrollment effects are driven by E&T.

The fact that the increase in E&T referrals is more than three times as large as the increase in E&T participation indicates there will likely be many SNAP recipients who are sanctioned for not meeting the requirements. Indeed, cumulatively over the 6-month period, heads lose 0.8 months of benefits. This translates into $159 in lost benefits over 6 months, a 6% loss in benefits per month. Note, that the estimated cumulative effect on E&T referrals and participation is the total increase in people referred and participating, since each person can only do so once. On the other hand, the cumulative effect on head's receipt of SNAP can represent multiple months of reduced receipt for the same individual. There is also a negative, marginally significant effect on benefit receipt at all, suggesting that some households stop participating in

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[22]Recall that this pattern is expected because sanctions from work requirements only impact the household head; any other household members can still receive benefits.

[23]As described above, individuals are likely eligible to be referred to E&T if the head of household is between the ages of 16 and 47, is not a refugee, pregnant, receiving disability insurance or worker's compensation, or is not themselves disabled or living with someone who is disabled. Also, importantly, to be eligible for E&T referral, the head must have not reported any earned income at their recertification—we consider cases to be exempt from E&T if their baseline earnings are above the bottom 25th percentile to account for volatility in earnings.

SNAP altogether as a result of E&T, but the more common response is for only the head to stop receiving benefits.

There are no effects on SNAP receipt outcomes for the subsample that is subject to General Work Requirements, but is likely exempt from E&T. This is consistent with the descriptive data discussed above. We also show below that these requirements have no impact on labor supply. So, in their current form, these requirements are an administrative cost to the federal and state governments with no meaningful effect on existing recipients' behavior.

The next exercise we do to understand if E&T drives the main effects is to split the full sample by observable pre-recertification demographics, as well as our measure of likely-referred-to-E&T or not. We show that there is a strong correlation between the increase in E&T referral and the decrease in head's receipt of SNAP across subgroups in Appendix Figure A4 panel (a).[24] This provides further evidence that E&T is likely the mechanism through which the main effects operate.

Now that we have demonstrated E&T is the likely primary mechanism, we implement an instrumental variables model where the endogenous variable is whether the case is referred to E&T at all over the 6-month window following the focal recertification. The IV estimates are shown in Appendix Table A2 and indicate that E&T referral reduces the number of months the head is receiving SNAP benefits by 3.37 months over a 6-month period. E&T also reduces total household benefits received over this 6-month period by $669. Relative to baseline benefit amounts received among this group, this is equivalent to missing out on 1.4 months of SNAP for the entire household. As with any research design, the local average treatment effect (LATE) here is estimated among the compliers—the cases with near-6-year-old children. The fact that E&T substantially reduces benefits for cases with young children is striking given that young children are particularly sensitive to reductions in nutritional resources (East, 2020; Hoynes et al., 2016).

5.2   Robustness

We explore if these results are robust to our main specification choices in Appendix Table A3. We show the results for the full sample in panel (a), and the subsamples likely to be referred to, or exempt from, E&T in panels (b) and (c), respectively. The first column shows the baseline results for the 6-month cumulative outcomes. The second column shows the results using households with the youngest child around age 4 at the focal recertification, instead of age 5, for the placebo control groups. Recall, as we discussed in Appendix B, these groups are included in the difference-in-differences framework to account for the relationship between youngest child's age and the outcomes of interest, but they matter little for the overall conclusions. Nevertheless, this check reassures us that our main results are robust to the choice of control groups.

In the third column, we drop the control variables that account for pre-focal recertification demographics and labor supply. The results are very similar to the baseline, providing further supporting evidence for our identification assumption that the treatment and control groups are similar on these observables.

Finally, we drop observations where the focal recertification took place in between August and October when school starts. If we are picking up the effect of older children being more likely to start school around the focal recertification, then the results would change when we drop these observations, but they do not.

We conduct a further placebo test to ensure that our main results are not driven by other changes that occur differentially around when children turn age 6 compared to the recertification date. To do so, we

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[24]For each subgroup, we estimate the effect on E&T referral in the 6-month window following the focal recertification (x-axis), and the effect on head's SNAP receipt in the 6-month window following the focal recertification (y-axis).

estimate a slightly modified version of our main model on the full sample, where we focus on the age of the second-youngest child rather than the youngest child. The "treatment" group in this model are those whose second-youngest child turned 6 right before the focal recertification, but because they have an even younger child in the household, none of these households will actually be treated by work requirements. We only include a single control group, and thus this is a single difference model, where the control group includes those whose second-youngest child turned 6 right after the focal recertification. The results are shown in Appendix Figure A5 in panels (b), (d), and (f). We contrast this to the baseline results in panels (a), (c), and (e). There is no impact on E&T outcomes or head's receipt of SNAP for this placebo group as expected.

6 Effects on Labor Market Outcomes

We next examine whether General Work Requirements and E&T generate any effects on labor market outcomes. These outcomes are measured quarterly, and recertifications occur every six months, which makes it slightly more challenging to implement our event-study model. Therefore, we focus this analysis on comparing outcomes in the first quarter after focal recertification, which is the first fully-treated time period, and we show corresponding event studies to verify pre-period balance as well. While one quarter following treatment is a short-run outcome, it is policy-relevant. If beneficiaries begin working to replace lost benefits, as a result of work requirements, or after completing E&T, the effects will appear in the first quarter after recertification.

Table 3 shows the results. The full sample of cases potentially subject to General Work Requirements is in column (1) and in columns (2)-(3) we split by whether the head of household is likely to be referred to E&T or not, respectively. The rows display the results on the likelihood the head works at all in the quarter and quarterly earnings, including zeros.

We find no consistent evidence of statistically significant or quantitatively large positive impacts on labor supply for the full sample. We can rule out changes in the extensive margin of working at all of larger than a 0.4 percentage point increase or smaller than a 3 percentage point decrease. We can also rule out changes in earnings of larger than a $68 increase per quarter or smaller than a $78 decline per quarter.[25]

Splitting the sample by whether the head of household is likely subject to or exempt from E&T yields similar null results for both subsamples. We do a number of things to ensure that we are not missing any meaningful labor supply effects among those more likely to be subject to E&T. First, we show in Appendix Figure A4 panel (b) that the likelihood of being referred to E&T is unrelated to the estimated effect on earnings across subgroups. Second, we estimate the same IV model as above with the endogenous variable being referral to E&T in Appendix Table A2. We find small and insignificant effects on employment and earnings.[26]

In Figure 4, we show the corresponding results from an event-study-style plot with the regression-adjusted outcomes for the treated and control group by quarter. The quarter of focal recertification should be thought of as a partially treated quarter. This analysis confirms the null results above and validates parallel pre-trends in the three quarters before the focal recertification.

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[25]In Appendix Table A4 we also look at the likelihood of working multiple jobs in a quarter, the likelihood quarterly earnings are greater than $0 but below $2,000, and the likelihood quarterly earnings are above $2,000. We use earnings greater than $0 but below $2,000 as a proxy for part-time work, because $2,000 per quarter is below the earnings level of a full-time full-quarter minimum wage job. The threshold of $2,000 in earnings per month is not particularly notable for SNAP recipients, and the results are similar using other cutoffs, such as $1,500 or $2,500.

[26]We have also estimated an IV model where the endogenous variable is E&T participation. The results we find using this last IV approach are not precise, which, given the very small number of people participating in E&T is unsurprising, however, the IV estimates are quantitatively close to zero and similar to the intent-to-treat estimates. Results available upon request.

6.1 Extensions and Robustness

In principle, there may be longer-run impacts on labor supply, especially if the E&T Program successfully prepares participants for future work. We explore this directly in Appendix Table A5, which looks at the employment and earnings outcomes in the second and third quarters after focal recertification. Note that, as we move forward in time, the nature of the comparison between treatment and control groups changes because cases experience subsequent recertifications; so, some of the just-below-age-6 control group—with children ages 5-years-and-7-months to 5-years-and-11-months at the focal recertification—will now be subject to the work requirements as well. Thus, these estimates measure the longer-run effects of an additional 6 months of earlier exposure to the General Work Requirement and E&T. There is no evidence of large or significant labor supply impacts in the longer-run.

Next, we confirm these labor supply results are robust to our main specification choices in Appendix Table A3, as we did for program receipt above. We also implement the same placebo test as above using the age of the second youngest child in the household. The results, in Appendix Table A6, show no impacts on labor supply. This rules out the possibility that our main results are driven by other changes that occur when children in the household, besides the youngest child, turn 6.

Finally, a potential concern with relying on UI earnings to measure labor supply is it does not capture self-employment, including gig work, which has become much more common in recent years. To address this, we re-run the main labor supply analysis using the income that SNAP recipients report to their caseworkers that includes any income from self-employment. This is only observed for cases that continue to receive SNAP, but, as we documented above, the work requirements have little effect on overall SNAP receipt of the household. As shown in Appendix Table A7, there are precise null effects on this measure of income, confirming the main results.

7 Magnitudes

We establish that SNAP's General Work Requirement and E&T Program have no positive impacts on labor supply and that E&T causes a large reduction in the head of household's SNAP receipt, leading to fewer benefits paid to the entire household. We next discuss how the direction and magnitude of our results compare with the past literature.

Figure 5 plots the intent-to-treat estimates from the full sample of this paper with the two most closely related ABAWD Work Requirement papers. To compare across papers, we rescale all estimates to be in percent terms relative to baseline mean, rather than percentage point terms.

Looking first at the SNAP receipt outcomes highlights a key difference in our analysis; because we are focused on work requirements for parents, it is important not to only look at receipt of SNAP for the individual subject to the work requirement, as in the prior literature, but to understand how this impacts the overall household's receipt of SNAP. The decline we find on the head of household's own SNAP receipt (plotted as individual SNAP receipt in the figure) is in between the estimates from the ABAWD literature. And, novel to our study, we document a large and significant reduction in household benefit amount even though households generally continue to receive SNAP.

Additionally, unlike the previous research on work requirements, we are able to conclude that administrative burdens are an important channel driving the disenrollment effects. We benchmark this finding against the literature on other administrative burdens in SNAP. For example, Giannella et al. (2023) find that giving SNAP applicants access to flexible interviews, instead of inflexible pre-scheduled ones, increases

receipt of SNAP by 13% in the first month and 4% over five months. Similarly, when looking at the flexibility of recertification interviews, Homonoff and Somerville (2021) find that more flexibility in the ability to reschedule these interviews increases SNAP receipt by 22%.

Finally, we find null effects on employment and earnings, and we can rule out similar-sized effects as in past analyses. For example, we rule out changes in quarterly employment larger than a 0.9 percent increase or smaller than a 6.8 percent decrease. As a point of comparison, Gray et al. (2022) rule out effects on quarterly employment larger than a 13 percent increase and smaller than a 5.7 percent decrease.

We further contextualize our results with a social welfare framework using the Marginal Value of Public Funds (MVPF) approach in Hendren and Sprung-Keyser (2020).[27] The MVPF of eliminating the E&T Program is the ratio of individuals' willingness to pay to eliminate the E&T Program to net government costs of eliminating the E&T Program. We calculate that a conservative estimate of this MVPF is 1.11, so, if E&T was eliminated, recipients would receive $1.11 in benefits for every $1 the government spends.

8 Heterogeneity

Our results point to administrative burdens being the main mechanism through which E&T reduces SNAP participation. In this analysis, we exploit the richness of our data to understand who is most impacted by these administrative burdens and to shed light on the targeting impact of work requirements.

We split the sample by earnings in the year *prior* to the focal recertification as a proxy for household need, as is common in the related literature (e.g., Giannella et al., 2023; Wu and Meyer, 2023).[28] We create three groups: those with no work in the year prior (66% of the sample) and, among those who did work, those with above- and below-median annual earnings ($7,686 per year).[29]

Panel (a) of Figure 6 reveals that parents with the lowest pre-recertification earnings experience the largest drop in head's receipt of SNAP. Strikingly, parents with the highest pre-recertification earnings actually experience no statistically significant drop in SNAP receipt. Thus, we conclude that these work requirements reduce targeting of SNAP by reducing SNAP receipt among the neediest households.

The richness of our data allows us to understand this heterogeneity in more detail. In panels (b), (c), and (d), we show the heterogeneous impacts on E&T referral, E&T participation, and whether the head is exempt from participating in E&T, respectively. This reveals two reasons that E&T worsens targeting. The first is that those with lower earnings are more likely to be referred to E&T, and lose SNAP as a result. The second mechanism is that the higher earnings groups are more likely to receive new exemptions from E&T once referred.[30] All earnings groups see a decline in the likelihood of having any E&T exemption in the

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[27]Appendix C provides the details of the MVPF calculation.

[28]We further support this claim using data from the Survey of Income and Program Participation—the total monthly household income of SNAP households with zero earnings is only $830 and $567 of this comes from SNAP. On the other hand, SNAP households with earnings have a total income of $3,727, of which $3,207 comes from earnings and $458 comes from SNAP. For these tabulations, we use the 2008 panel of the Survey of Income and Program Participation (SIPP) for years 2008-2013. We include all households with a head of household of working age, between 18 and 59.

[29]The E&T-likely sample skews toward those with no baseline annual earnings. Recall that in order to be eligible for E&T, recipients must report $0 of gross earned income during month of the focal recertification. As we documented in Table 1, past earnings are not related to whether the household will become subject to E&T at the focal recertification, so we are not splitting by an endogenous measure of household resources, which is a strength of our data.

[30]These exemptions are for a combination of objective and subjective reasons. The objective reasons include whether the youngest child is below age 6, as well as having positive earnings, being a student, receiving unemployment insurance, or being pregnant or homeless. Subjective exemptions are determined by the caseworker and the most common reasons are: lacks transportation, "low functioning", and simply "caseworker determination". Due to the nature of our data in which all exemption reasons are coded as a single categorical variable, and there is no systematic hierarchy for which exemption reason is selected, we do not separately examine effects on different exemption reasons.

first month after focal recertification, due to losing the exemption for the youngest child below age 6. But, by 4 months after the focal recertification, the highest earning group has fully exempted themselves from E&T. This is consistent with this group being able to navigate and overcome the administrative burdens the easiest.

We examine whether there are heterogeneous labor responses across these same earnings groups in Appendix Table A8. The panels show estimates from different quarters after the focal recertification. All but one estimate indicates no significant or quantitatively large changes in labor outcomes for any of the earnings groups. The exception is a marginally significant increase in the likelihood of working at all for the above-median-earnings group in the first quarter after the focal recertification. This could indicate that some in this small group are increasing employment and become exempt from E&T. However, it is difficult to draw strong conclusions from this one estimate since we see no indication of a meaningful change in earnings and this effect on employment seems to be short-lived, as it disappears in the later quarters.

Finally, we split by the employment-to-population ratio in the county of the SNAP case at the time of the focal recertification in Appendix Figure A6. We find no evidence it is easier for individuals to comply with work requirements during relatively good economic times, consistent with administrative burdens being the primary mechanism.

9 Nationwide Effect of Work Requirements

Our main analysis takes advantage of the richness of the administrative data from the single mountain-plains state to identify the causal impacts of General Work Requirements and E&T. However, a limitation of this analysis is that it is only for a single state. To shed light on the generalizability of our findings, we turn to the SNAP Quality Control data. These repeated cross-sectional data are a random sample of monthly SNAP case reviews administered by state SNAP agencies each year. The dataset contains detailed information on the demographics of households that receive SNAP, as well as information about whether its members are subject to, or are sanctioned from, various SNAP work requirements. Importantly, the QC only includes cases that received SNAP, so if work requirements impact the number of SNAP cases, this will impact our sample. However, we saw above little effects on benefit receipt at all, and instead a decline in the likelihood the head receives benefits, so this is the outcome we focus on in the QC data.

The QC analysis sample mimics the main sample using the mountain-plains state data. We keep SNAP cases from 2012 to 2020 that have recertified SNAP eligibility, with a single adult head of household, whose youngest child in the household is between the ages of 3 and 9. We further restrict to those more likely to be eligible for General Work Requirements by including only those aged 16-59, who have no disability and no one in the household with a disability, and are not receiving TANF. We also construct a sample of those likely subject to E&T by further restricting to those aged 16-47 with no earned income at recertification, non-refugees, and those not receiving worker's compensation.[31]

We implement a simple pre-post model because we do not observe precise information on recertification date or child's age in the QC data. If the youngest child in the household is above age 6, we assume they are possibly treated, and if they are below age 6 we assume they are not yet treated. This requires a stronger identification assumption than the prior analysis: cases with children below and above age 6 are otherwise identical. Despite this strong assumption, this analysis helps to inform the generalizability of the results

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[31]In the mountain-plains data, the sample of those likely subject to E&T requirements also excludes pregnant women and those not receiving disability insurance. This information, however, is not available in the QC data.

using the mountain-plains state data. Additionally, we exploit several unique features of the QC data and dimensions of heterogeneity to strengthen the assumptions in this analysis. First, the QC data allows us to observe directly whether adults in a SNAP case are not receiving SNAP benefits because they are not meeting work requirements, so we use this to construct our main outcome of interest. Second, we split the sample by whether the head of household is likely subject to or exempt from E&T. Third, we split the sample by whether the state operates a mandatory or voluntary E&T program.[32]

We begin by examining the effects on E&T participation and head's receipt of SNAP across the full sample (first column), those likely subject to E&T (second column), and those likely exempt from E&T (third column) in Figure 7. The horizontal axes of the panels indicate the age of the youngest child in years and the vertical axes indicate the value of each outcome variable. We plot the average outcomes by age of youngest child in the dots. Additionally, in each panel, we report the results of the following pre-post regression with standard errors in parenthesis: $Y_{ir} = \alpha + \tau Post6Birthday_{ir} + \epsilon_{ir}$. Here, τ is the coefficient of interest and represents the difference in outcomes for cases with the youngest child above and below age 6. Given the imprecise information on dates in the QC data, we do not take a stand on whether households with the youngest child exactly age 6 will be treated, so we omit these households from the regression sample.

We find similar results as those using data from the mountain-plains state. There is a significant increase in E&T participation that is driven by those likely subject to E&T (panel (b)). And, there is a roughly 1 percentage point drop in the likelihood the head of household receives SNAP in the likely-subject group (panel (e)). The effects on E&T participation among the likely-exempt group are much smaller, and there is no drop in the head's receipt of SNAP (panel (f)) for this group.

Figure 8 focuses on the subsample likely subject to E&T and splits the sample into states with mandatory programs (left column) and voluntary programs (right column). Those facing a mandatory E&T Program have higher rates of E&T participation (panel (a)). Additionally, they have a higher likelihood of the head of household being removed from SNAP for not meeting these requirements than in voluntary states. Heads of household likely subject to E&T in mandatory states are 1.2 percentage points less likely to receive SNAP. It is difficult to directly compare the magnitudes of these estimates to the estimates from the mountain-plains given the differences in data and analysis structures. Therefore, we emphasize instead that the results all point to the same conclusion—mandatory E&T programs lead to a meaningful reduction in head's receipt of SNAP.

10   Conclusion

This paper examines the effects of SNAP General Work Requirements and E&T on SNAP benefit receipt and labor supply outcomes using a difference-in-differences design. We are the first to rigorously examine

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[32]In order to determine whether a state runs a mandatory or voluntary E&T program in a particular year, we use combined information from SNAP QC data and GAO (2018) and McConnell et al. (2024). We identify which states have mandatory and voluntary SNAP E&T programs in 2010 and 2017 from GAO (2018). We additionally identify states that offer a combination of mandatory and voluntary programs from McConnell et al. (2024). Often these combination programs require the heads of household to comply with E&T as if it is mandatory, but other household members can treat it as voluntary. To classify these combination states as either mandatory or voluntary and to identify the year that states switch their status from mandatory to voluntary, or vice versa, we use the QC data. Specifically, we calculate the number of mandatory E&T participants in each state and year. For states who switch between mandatory and voluntary E&T programs between 2010 and 2017, we designate the year with the largest quantitative change in mandatory E&T participants as the year the state switched from a mandatory to voluntary E&T program. For states that offer both mandatory and voluntary programs, we calculate the ratio of mandatory E&T participants to total E&T participants by state and year. We then classify the program as mandatory if over 50% of the participants were in a mandatory program, and voluntary otherwise. We have also re-run the results dropping states with a combination of mandatory and voluntary programs and dropping states that switch the type of program in our time period. The results are robust to these changes.

SNAP's General Work Requirement and its accompanying Employment and Training Program. We show that General Work Requirements have no detectable effect on whether the household receives benefits likely because of widely available exemptions from the requirements, but that referral to the E&T Program does. These disenrollment effects are driven by administrative burdens. While only the head of household loses benefits as a result of E&T, this can have negative consequences on the entire household due to lower benefit amounts.

We also find no evidence of meaningful effects of General Work Requirements or E&T on labor supply. These results add to mounting evidence that SNAP Work Requirements decrease SNAP receipt and have little effect on labor supply (Bauer and East, 2023).

While our analysis identifies the effects for households with a child near age 6, this is a policy-relevant local average treatment effect. Work requirements in other programs, such as the California Child Tax Credit, take effect when children turn 6 (Goldin et al., 2024), and recent policy proposals for SNAP include expanding the ABAWD requirement to include adults in households with children as young as 5 (American Enterprise Institute, 2024). In addition, children in this age range are particularly sensitive to changes in household resources and nutrition.

Our results also shed important light on the impact of these policies on targeting of transfer programs. In particular, the USDA's Food and Nutrition Service is explicit that their goal is "ensuring access to SNAP for eligible individuals... [and] it is incumbent upon the State to correctly identify individuals through the screening process who must be exempt [from E&T] and impose requirements that put individuals' and families' access to SNAP at risk through no fault of their own."[33] Our results suggest that many people who are not able to complete the mandatory E&T programs are referred to the program, and this causes them to lose SNAP benefits. This is especially common for more disadvantaged recipients. This has important policy implications for program efficacy, equity, and administration.

[33]https://www.fns.usda.gov/snap/et-screening-and-referral-guidance

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11 Figures and Tables

Figure 1: General Work Requirement and E&T Timeline Surrounding Focal Recertification

Age of Youngest
Child at Focal
Recert.

6yrs to 6yrs & 5 months	Subject to General Work Req's in $t + 1$ forward; Eligible to be referred to E&T in $t + 1$ forward; Participate in E&T/sanctioned in $t + 2$ forward	
5yrs and 6 months to 5yrs and 11 months	Exempt from General and E&T	Subject to General Work Requirements and eligible to be referred to E&T from $t + 7$ forward
Under 5yrs and 6 months	Exempt from General and E&T	Exempt from General and E&T

$t - 1$ t $t + 1$ $t + 2$ $t + 3$ $t + 4$ $t + 5$ $t + 6$ $t + 7$ Months

Focal Recert.   Subsequent Recert.

Notes: Plot depicts the timeline for General Work Requirements and E&T. The x-axis is months relative to the focal recertification month in period t. The subsequent recertification month occurs in period $t + 6$. The three y-axis categories show work requirement subjection/exemption status for cases with various ages of their youngest child, measured at recertification t. The dark grey shading emphasizes which months occur during the recertification cycle following t.

Figure 2: Effects of Work Requirements on SNAP Outcomes

(a) Referred to E&T

(b) First-Time Participation in E&T

(c) Whether Head is Receiving SNAP

(d) SNAP Amount

(e) SNAP Receipt

Months Surrounding Focal Recertification

— ● — Youngest Child 6y1m to 6y5m at Focal Recertification

— ◆ — Youngest Child 5y7m to 5y11m at Focal Recertification

Notes: Figure displays regression-adjusted averages of the given outcome for cases with a youngest child narrowly older than 6 at recertification (the solid black line) and younger than 6 (the dashed grey line). Averages remove placebo estimates for cases with the youngest child narrowly turning 5 at recertification using the method described in Section 4. The x-axis is months relative to the focal recertification in period 0. For cases still on SNAP, the subsequent recertification occurs in period 6. The full sample is restricted to case-recertification combinations between 2012 and 2020, to cases with a single adult where the head of the case is receiving benefits at baseline, we can observe age-in-months for all children on the case, and the head of the case is not exempt from General Work Requirements by being too old/young, having a disability or caring for someone with a disability, or receiving TANF at baseline.

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Figure 3: Effects of Work Requirements on SNAP Outcomes, by Whether Case is Likely Subject to or Exempt from E&T

Likely Subject to E&T   ## Likely Exempt from E&T

(a) Referred to E&T

(b) Referred to E&T

(c) First-Time Participation in E&T

(d) First-Time Participation in E&T

(e) Whether Head is Receiving SNAP

(f) Whether Head is Receiving SNAP

Months Surrounding Focal Recertification

Youngest Child 6y1m to 6y5m at Focal Recertification

Youngest Child 5y7m to 5y11m at Focal Recertification

Notes: Figure displays regression-adjusted averages of the given outcome for cases with a youngest child narrowly older than 6 at recertification (the solid black line) and younger than 6 (the dashed grey line). Averages remove placebo estimates for cases with the youngest child narrowly turning 5 at recertification using the method described in Section 4. The x-axis is months relative to the focal recertification in period 0. For cases still on SNAP, the subsequent recertification occurs in period 6. The full sample is restricted to case-recertification combinations between 2012 and 2020, to cases with a single adult where the head of the case is receiving benefits at baseline, we can observe age-in-months for all children on the case, and the head of the case is not exempt from General Work Requirements by being too old/young, having a disability or caring for someone with a disability, or receiving TANF at baseline. The left column further restricts to cases that are likely to be categorically subject to E&T, while cases in the right column are likely categorically exempt.

Figure 4: Effects of Work Requirements on Labor Market Outcomes

Employment
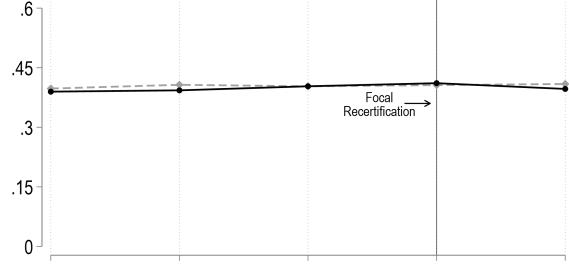
Earnings
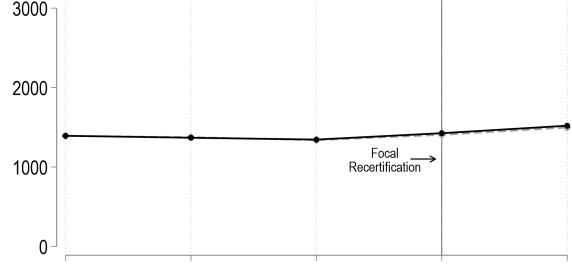
(a) Full Sample

(b) Full Sample
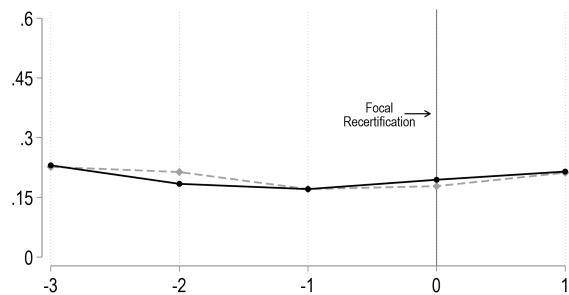
(c) Likely Subject to E&T
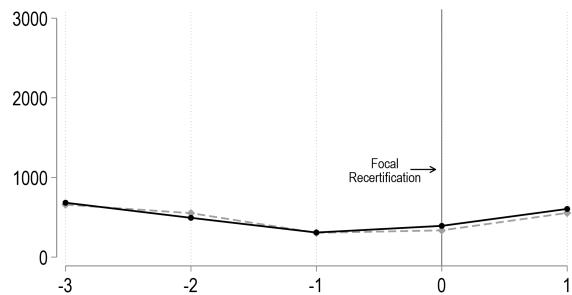
(d) Likely Subject to E&T
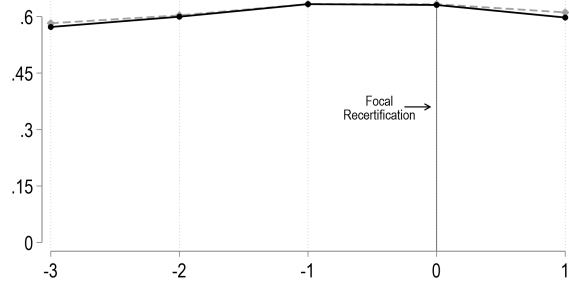
(e) Likely Exempt from E&T
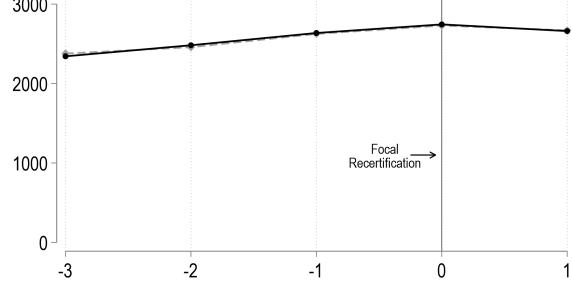
(f) Likely Exempt from E&T

Quarters Surrounding Focal Recertification

Youngest Child 6y1m to 6y5m
at Focal Recertification

Youngest Child 5y7m to 5y11m
at Focal Recertification

Notes: Figure displays regression-adjusted averages of the given outcome for cases with a youngest child narrowly older than 6 at recertification (the solid black line) and younger than 6 (the dashed grey line). Averages remove placebo estimates for cases with the youngest child narrowly turning 5 at recertification using the method described in Section 4. The x-axis is months relative to the focal recertification in period 0. For cases still on SNAP, the subsequent recertification occurs in period 6. The full sample is restricted to case-recertification combinations between 2012 and 2020, to cases with a single adult where the head of the case is receiving benefits at baseline, we can observe age-in-months for all children on the case, and the head of the case is not exempt from General Work Requirements by being too old/young, having a disability or caring for someone with a disability, or receiving TANF at baseline. The second row further restricts to cases that are likely to be categorically subject to E&T, while cases in the third row are likely categorically exempt.

Figure 5: Intent to Treat Estimates Compared to Related ABAWD Work Requirement Papers

Percent Effect

—●— Cook and East (2024) ·●· Stacy, Scherpf, and Jo (2018)
—●— Gray et al. (2023)
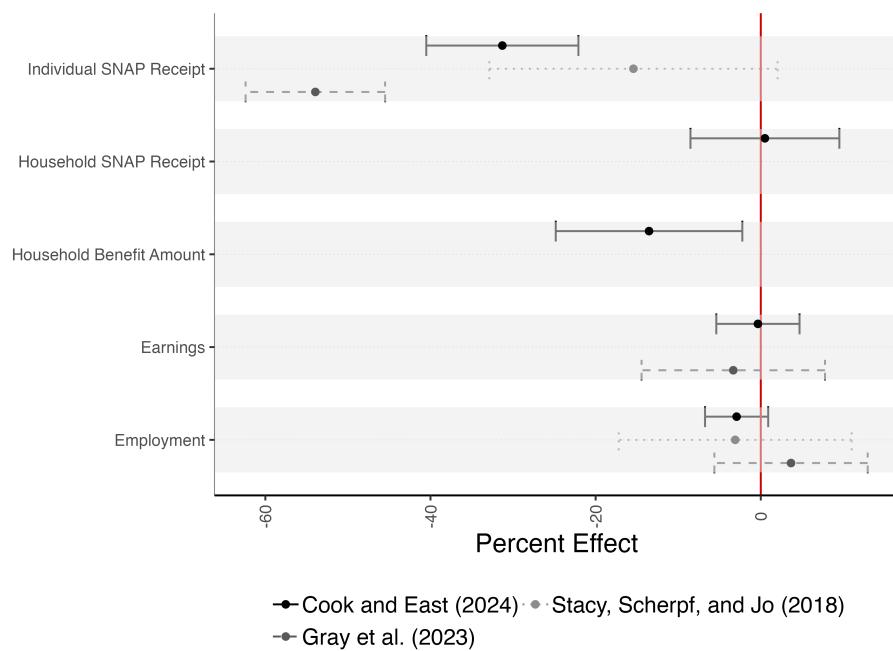
Notes: Shows the point estimates and associated 95 percent confidence intervals for estimated effects from this paper compared to those from related papers studying ABAWD Work Requirements. All estimates are converted to percent effects. In Gray et al. (2023) employment, earnings, and SNAP receipt are monthly. In Stacy, Scherpf, and Jo (2018) employment and SNAP receipt are annual measures. Our estimates of SNAP receipt (both household and individual) and benefit amounts are calculated using the 6-month cumulative estimates for the full sample. Earnings and employment estimates from our paper are measured one quarter later for the full sample.

Figure 6: Heterogeneous Effects of Work Requirements by Baseline Earnings

(a) Whether Head is Receiving SNAP

(b) E&T Referral

(c) E&T Participation

(d) E&T Exemption
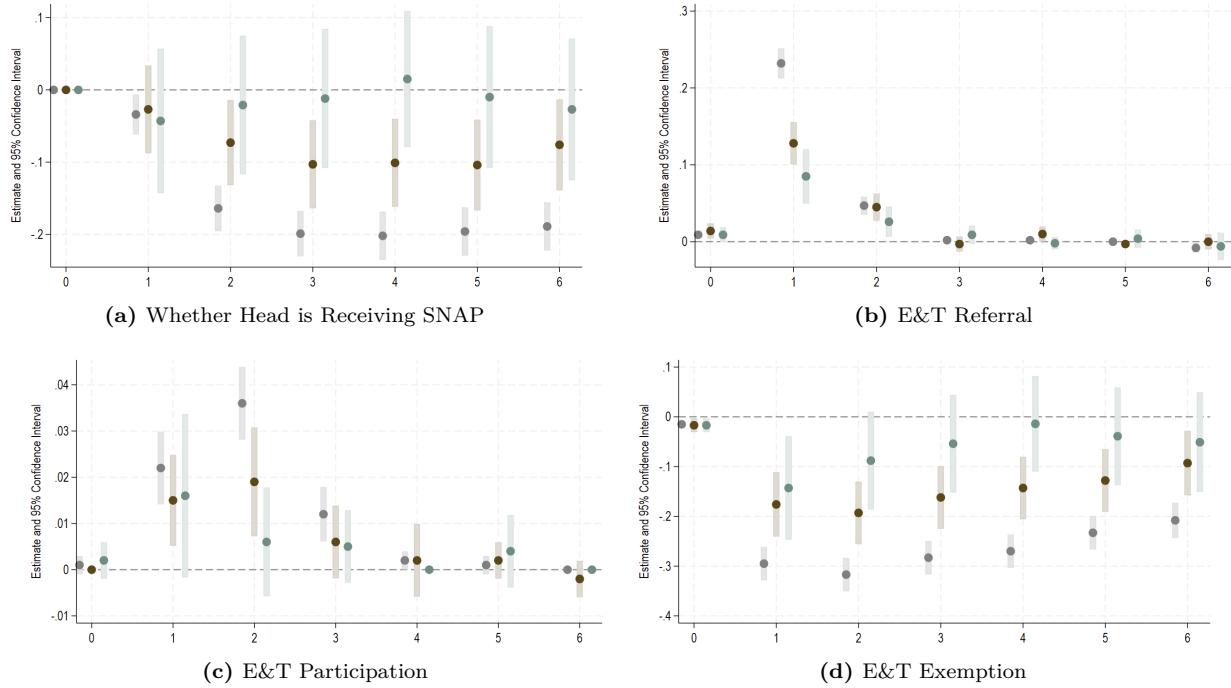
Months Surrounding Focal Recertification

● No Base Earn   ● Below-Med   ● Above-Med

Notes: Figure presents estimates of β from Equation (1) for three subgroups: cases with no earnings during the year prior to the focal recertification, and cases with above/below-median earnings during the year prior to the focal recertification. The x-axis is months relative to the focal recertification in period 0. The full sample is restricted to case-recertification combinations between 2012 and 2020, to cases with a single adult where the head of the case is receiving benefits at baseline, we can observe age-in-months for all children on the case, and the head of the case is not exempt from General Work Requirements by being too old/young, having a disability or caring for someone with a disability, or receiving TANF at baseline.

Figure 7: Nationwide Effects of Work Requirements on SNAP Outcomes

(a) Full Sample

(b) Likely Subject to E&T

(c) Likely Exempt from E&T

(d) Full Sample

(e) Likely Subject to E&T

(f) Likely Exempt from E&T

Age of Youngest Child (Years)
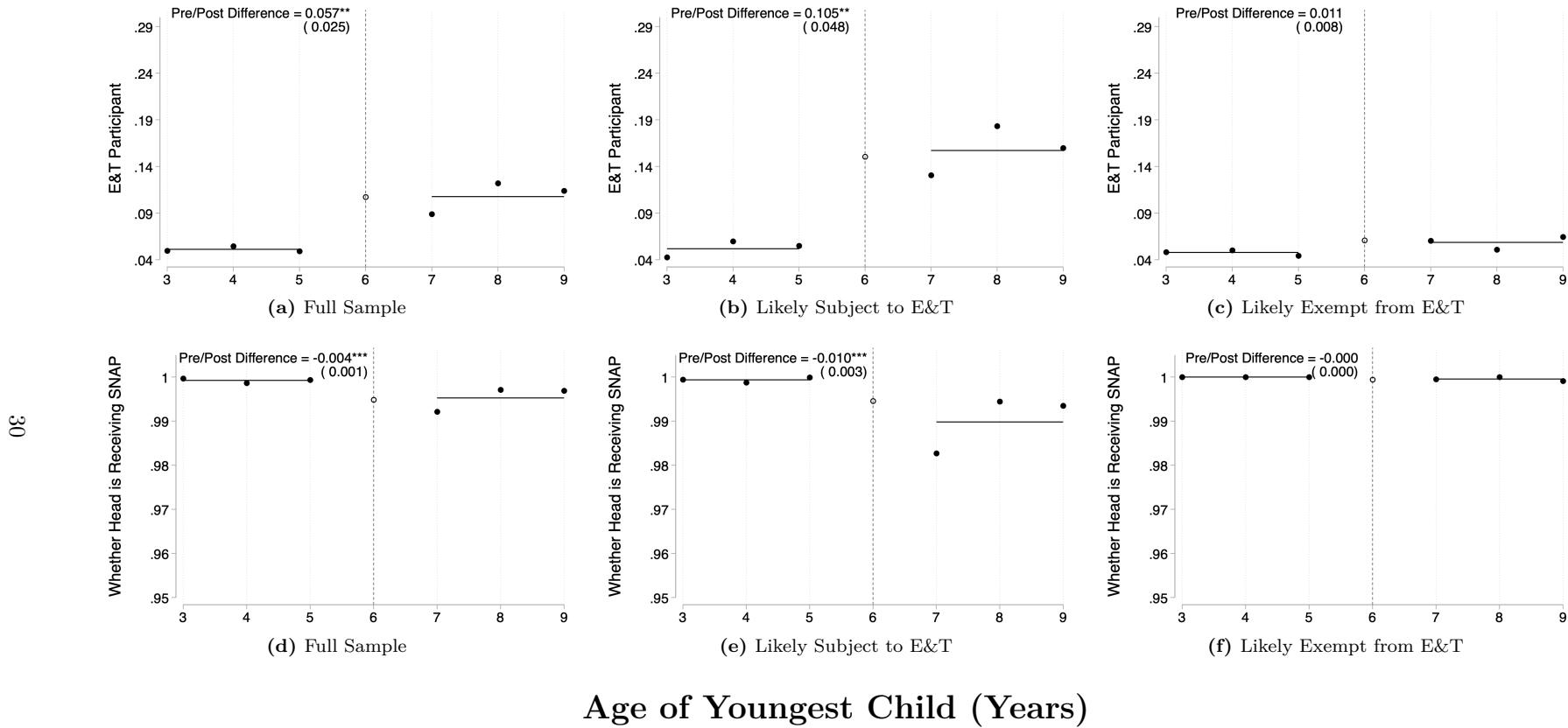
Notes: Data source is SNAP Quality Control (QC) from 2012 to 2020. Includes single adult household heads between the ages of 16 and 59, with no disability. Uses only SNAP recertifications. Panels use three different samples, a full national sample, those likely subject to E&T (ages 16–47, no earned income, non-refugees, no workers compensation, and no TANF), and those likely exempt from E&T (not likely subject with earned income greater than the 25th percentile). The x-axis denotes age of the youngest child in the household. The household head participated in E&T if they were completing a component of the training program, including: were participating in a non-SNAP E&T, job search or job search training, workfare or work experience, work supplementation, education leading to high school diploma or GED, postsecondary education leading to degree or certificate, remedial education, or vocational training. Results are weighted using QC weights and use clustered standard errors at the state level. * p<0.10, ** p<0.05, *** p<0.01

Figure 8: Nationwide Effects of Work Requirements on SNAP Outcomes for those Likely Subject to E&T, by State Policy

(a) States With Mandatory E&T Programs

(b) States With Voluntary E&T Programs

(c) States With Mandatory E&T Programs

(d) States With Voluntary E&T Programs
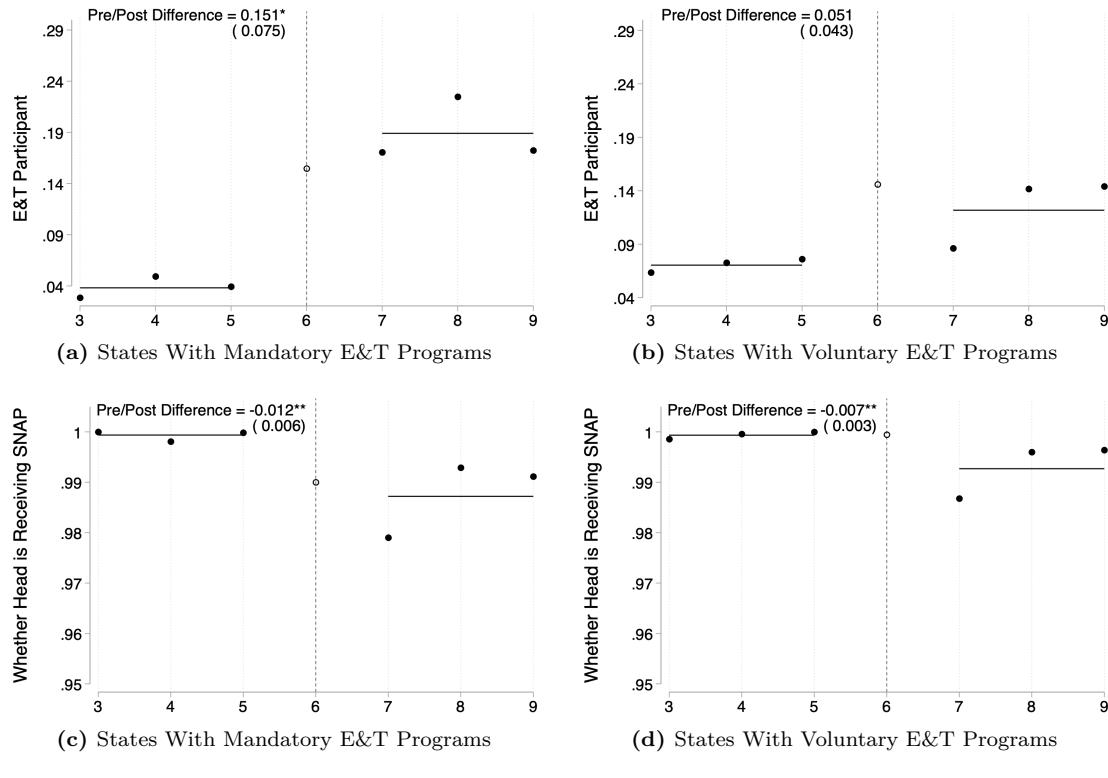
Age of Youngest Child (Years)

Notes: Data source is SNAP Quality Control (QC) data from 2012 to 2020. Includes single adult household heads between the ages of 16 and 47, with no disability, no earned income, non-refugees, no workers compensation, no TANF. Uses only SNAP recertifications. Panels use two different samples a sample of states during years in which they had a mandatory E&T program, and states during years in which they had a voluntary E&T program. The x-axis denotes the age of the youngest child in the household. The household head participated in E&T if they were completing a component of the training program, including: were participating in a non-SNAP E&T, job search or job search training, workfare or work experience, work supplementation, education leading to high school diploma or GED, postsecondary education leading to degree or certificate, remedial education, or vocational training. Results are weighted using QC weights and use clustered standard errors at the state level. * p<0.10, ** p<0.05, *** p<0.01

Table 1: Above Age-6 Threshold Balance Test

	Full Sample	Likely Subject to E&T	Likely Exempt from E&T
Age	0.212**	0.054	0.279*
	(0.098)	(0.156)	(0.165)
	[31.908]	[31.510]	[31.905]
Spanish Speaking	0.002	0.004	0.001
	(0.002)	(0.003)	(0.004)
	[0.013]	[0.005]	[0.022]
Citizen	-0.001	0.002	-0.002
	(0.002)	(0.003)	(0.004)
	[0.985]	[0.987]	[0.982]
Benefit Amount	8.169**	8.807	9.639
	(3.823)	(5.357)	(6.463)
	[393.013]	[451.899]	[322.383]
Black	-0.003	-0.003	-0.005
	(0.003)	(0.005)	(0.006)
	[0.034]	[0.027]	[0.046]
Hispanic	0.003	-0.005	0.005
	(0.006)	(0.010)	(0.011)
	[0.160]	[0.142]	[0.193]
White	-0.004	0.011	-0.014
	(0.007)	(0.012)	(0.013)
	[0.732]	[0.744]	[0.697]
Female	0.003	0.000	0.004
	(0.004)	(0.007)	(0.007)
	[0.940]	[0.935]	[0.945]
Quarterly Employment	0.010	0.020	0.007
	(0.009)	(0.013)	(0.014)
	[0.406]	[0.175]	[0.638]
Quarterly Earnings	33.556	36.360	31.322
	(38.723)	(37.170)	(72.407)
	[1357.042]	[321.245]	[2652.069]
Part-time Work	0.001	0.010	0.007
	(0.007)	(0.011)	(0.009)
	[0.114]	[0.116]	[0.061]
Full-time Work	0.009	0.011	-0.000
	(0.009)	(0.009)	(0.015)
	[0.292]	[0.060]	[0.577]
Median Earnings in Industry	0.075	0.246	0.053
	(0.158)	(0.232)	(0.250)
	[6.585]	[2.938]	[10.389]
N	26,894	11,517	11,152

Notes: Each cell in this table reports estimates of β from separate regressions of Equation (1) using the outcome variable specified in the row label. Standard errors (in parentheses) are clustered by case. Columns are estimates run on the full sample or samples that are likely subject to or exempt from E&T. Control means of the outcomes are provided in brackets. * p<0.10, ** p<0.05, *** p<0.01

Table 2: Effects of Work Requirements on SNAP Outcomes

a) **Full Sample**	Months After Recertification						Cumulative 6-Month Effect
	1st Month	2nd Month	3rd Month	4th Month	5th Month	6th Month	
First Referred to E&T [Base Avg.=0.000]	0.088*** (0.004)	0.023*** (0.002)	0.001 (0.001)	0.002** (0.001)	0.000 (0.001)	-0.002** (0.001)	0.112*** (0.004)
First Participated in E&T [Base Avg.=0.000]	0.008*** (0.001)	0.013*** (0.001)	0.005*** (0.001)	0.001 (0.001)	0.001 (0.001)	0.000*** (0.000)	0.028*** (0.002)
Head Receiving SNAP [Base Avg.=1.000]	-0.008 (0.009)	-0.050*** (0.009)	-0.064*** (0.009)	-0.064*** (0.009)	-0.063*** (0.009)	-0.064*** (0.010)	-0.313*** (0.047)
SNAP Receipt [Base Avg.=1.000]	-0.002 (0.009)	0.002 (0.008)	0.001 (0.009)	0.005 (0.009)	0.002 (0.009)	-0.003 (0.009)	0.005 (0.046)
SNAP Amount [Base Avg.=399]	-4 (4)	-11*** (4)	-11*** (4)	-9** (4)	-10** (5)	-9* (5)	-54*** (23)

b) **Sub-Sample Likely Subject to E&T**	Months After Recertification						Cumulative 6-Month Effect
	1st Month	2nd Month	3rd Month	4th Month	5th Month	6th Month	
First Referred to E&T [Base Avg.=0.000]	0.193*** (0.008)	0.044*** (0.004)	0.001 (0.002)	0.004** (0.002)	0.000 (0.001)	-0.005*** (0.002)	0.237*** (0.009)
First Participated in E&T [Base Avg.=0.000]	0.019*** (0.003)	0.029*** (0.003)	0.010*** (0.002)	0.002** (0.001)	0.001 (0.001)	0.000*** (0.000)	0.062*** (0.005)
Head Receiving SNAP [Base Avg.=1.000]	-0.037*** (0.013)	-0.131*** (0.013)	-0.160*** (0.014)	-0.160*** (0.014)	-0.159*** (0.014)	-0.151*** (0.014)	-0.798*** (0.070)
SNAP Receipt [Base Avg.=1.000]	-0.026** (0.013)	-0.022* (0.012)	-0.018 (0.012)	-0.011 (0.012)	-0.017 (0.013)	-0.020 (0.013)	-0.113* (0.065)
SNAP Amount [Base Avg.=468]	-12* (7)	-28*** (7)	-32*** (7)	-28*** (7)	-30*** (7)	-29*** (7)	-159*** (35)

c) **Sub-Sample Likely Exempt from E&T**	Months After Recertification						Cumulative 6-Month Effect
	1st Month	2nd Month	3rd Month	4th Month	5th Month	6th Month	
First Referred to E&T [Base Avg.=0.000]	0.006*** (0.002)	0.006*** (0.002)	0.001 (0.001)	0.002** (0.001)	0.000 (0.001)	-0.001*** (0.000)	0.015*** (0.003)
First Participated in E&T [Base Avg.=0.000]	-0.001 (0.001)	0.000*** (0.000)	0.000*** (0.000)	0.000 (0.001)	0.001 (0.001)	0.000*** (0.000)	0.001 (0.001)
Head Receiving SNAP [Base Avg.=1.000]	0.017 (0.015)	0.010 (0.014)	0.007 (0.015)	0.014 (0.015)	0.013 (0.015)	0.000 (0.016)	0.061 (0.079)
SNAP Receipt [Base Avg.=1.000]	0.022 (0.014)	0.020 (0.014)	0.016 (0.014)	0.023 (0.015)	0.021 (0.015)	0.007 (0.015)	0.108 (0.078)
SNAP Amount [Base Avg.=319]	4 (6)	3 (7)	6 (7)	8 (7)	10 (7)	7 (8)	39 (36)

Notes: Each cell in this table reports estimates of β from separate regressions of Equation (1) using the outcome variable specified in the row label. Standard errors (in parentheses) are clustered by case. Columns denote during which month relative to recertification the outcome is measured. "Cumulative 6-Month Effect" uses as the outcome the summation of the given variable during the 6 months following the focal recertification. In panel (a), we apply the sample restrictions described in Section 3.1. We further restrict to cases that would likely be subject to E&T requirements if the youngest child is over six (panel (b)) or exempt from E&T (panel (c)). * $p<0.10$, ** $p<0.05$, *** $p<0.01$

Table 3: Effects of Work Requirements on Labor Market Outcomes

	Full Sample	Likely Subject to E&T Sub-Sample	Likely Exempt from E&T Sub-Sample
Employed [Base Avg.=0.410]	-0.012	-0.002	-0.013
	(0.008)	(0.014)	(0.008)
Real Quarterly Earnings [Base Avg.=1,439]	-5	37	-39
	(37)	(51)	(60)
	26,888	11,510	11,141

Notes: Each cell in this table reports estimates of β from separate regressions of Equation (1) using the outcome variable specified in the row label. Standard errors (in parentheses) are clustered by case. Columns are estimates run on the full sample or samples that are likely subject to or exempt from E&T. The full sample is restricted to case-recertification combinations between 2012 and 2020, to cases with a single adult where the head of the case is receiving benefits at baseline, we can observe age-in-months for all children on the case, and the head of the case is not exempt from General Work Requirements by being too old/young, having a disability or caring for someone with a disability, or receiving TANF at baseline. * $p<0.10$, ** $p<0.05$, *** $p<0.01$

A   Additional Results

A.1   Static Labor Supply Model Predicted Effects

We use a simple static, single-earner model where individuals trade-off consumption and leisure to model the effects of the imposition of different types of work requirements. This model assumes there are no barriers to work, such as childcare, and that the only source of income is the earnings of a single adult and SNAP. This model helps to fix ideas but may also be unrealistic for predicting labor supply decisions in our sample as we discuss below, which is why we do not focus on it in the main paper.

We begin by analyzing a work requirement that mandates a strict minimum hours of work in Appendix Figure A1 panel (a). Here we build off the model from Gray et al. (2022) for the ABAWD Work Requirement, the main difference being that we add the time costs imposed on SNAP participants for compliance with requirements, such as gathering documentation of work effort and submitting documentation to the SNAP caseworker. In these figures, hours not working is on the x-axis and income from earnings and SNAP is on the y-axis. In this discussion, we simplify the analysis and do not consider households that still receive SNAP because the children remain eligible for SNAP even when the head of household loses eligibility because of a work requirement. In the empirical analysis, we consider the possibility that children continue to receive SNAP.

Starting with the strict hours work requirements in panel (a), the gray dashed line shows the basic budget constraint for SNAP without any work requirements. The benefit guarantee—the distance between D and E—increases income for those who are not working. The benefit reduction rate leads to a change in the slope of the budget constraint from B to D, up to the point the household becomes ineligible for SNAP because their income is too high (point B). It is worth noting that a full-time worker in a single household with two children would not cross this income eligibility threshold unless their hourly wage is above $16, more than double the federal minimum wage. Thus, individuals are unlikely to cross this threshold, as most SNAP recipients do not work full-time or earn much above the minimum wage, but we include this income eligibility threshold on the graph for illustrative purposes.

The imposition of a minimum hours work requirement is denoted as the solid black line. We incorporate a time cost of complying with the work requirements, represented by the distance between E and G. For those who work less than the minimum hours threshold, they earn wages from work but receive no SNAP benefits. Once individuals cross the minimum hours threshold, they receive SNAP benefits (point C). After this point, the set of choices follows the original dashed budget constraint. The minimum hours threshold for ABAWDs is 80 hours per month and for work registrants is 30 hours per week, but this latter requirement is not as strict.

This strict hours work requirement changes the incentives to work in several ways. First, for those who would work just below the hours threshold in the absence of work requirements, there is an incentive for them to increase their hours to the threshold level to receive SNAP (point C) due to both income and substitution effects. Second, for those who would not work at all, or work very few hours in the absence of work requirements, it is not optimal for them to increase their hours to the threshold level, so they will stop receiving SNAP. Some of the people who stop receiving SNAP may increase work slightly in response to the loss of SNAP (the income effect). However, if we allow for the possibility of barriers to work, such as those due to dependent care responsibilities, individuals who exit SNAP may not change their labor supply in response to the work requirements. Moreover, this model assumes that all individuals can find jobs easily and have complete flexibility in setting their work schedules, which is not the case (Bauer et al.,

2025; Schneider and Harknett, 2019).

Next, we consider the impact of the E&T requirement in this same framework in panel (b) of Appendix Figure A1. The key differences are that there is no minimum work hours requirement, and that complying with E&T takes time, but this is unpaid time. Of course, the motivation behind E&T is that there will be a future monetary reward for the time spent in E&T activities, which is not accounted for in this simple static model. Whether this is true is an empirical question, and below we show no evidence of these benefits in the longer-run. Nevertheless, if participating in E&T increases future earnings, either because of human capital investments or better job matches, then E&T is not only a time cost, but has some monetary benefits that will be realized in the future. So, some people may choose to forgo current wages in order to participate in E&T and receive higher wages in the future.

Those subject to E&T requirements cannot choose point D, because if they do not work, they must complete the E&T activities in order to get SNAP benefits. Instead, for those who do not work, they must spend time engaged in E&T-related tasks.[34] So, for those who do not work and do not participate in E&T their income is zero (point E), and for those who do not work and do participate in E&T their income is the maximum SNAP benefit amount (point H). The exact location of point H depends on how time-intensive E&T is. Descriptive studies of E&T suggest the weekly hours is similar to that of the other work requirements.

Also, recall that having *any* positive earnings exempts one from E&T, so the rest of the budget constraint, for anyone who works any positive amount, remains the same as in the basic SNAP case. Importantly, if the individual works the same number of hours as it takes to complete the E&T program, as long as the number of hours is greater than zero, they will have greater total income (earnings plus SNAP) if they work than if they participate in E&T. Thus, we would expect, among those able to work and with some control over their work hours, the utility-maximizing choice will be to work at least a small amount, instead of participating in E&T.

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[34]There are possibly cognitive costs and psychological costs of these tasks (Herd and Moynihan, 2018) that are not easily incorporated into this model.

Figure A1: Work Requirement Budget Constraint

(a) Strict Hours Work Requirements
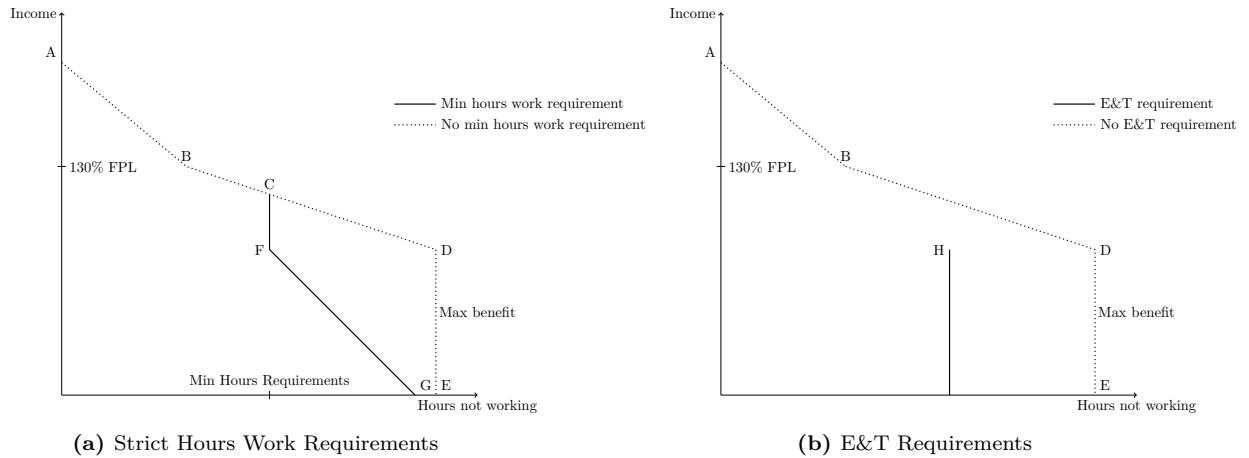

(b) E&T Requirements

Notes: Panels (a) and (b) plot a budget constraint with hours not working on the x-axis and income on the y-axis. Panels (a) and (b) show the budget constraints of a work requirement with a strict minimum hours threshold and E&T requirements respectively. In panel (a), line ABCDE represents the budget line when there is no minimum required hours of work. Line ABCFG represents the budget line when there is a minimum-hours-of-work requirement. The line FG shows income before meeting the minimum-hours-of-work requirement to receive SNAP. Similarly, CD shows at the same number of hours worked but with no work requirements, income is higher. Finally, at point B, individuals earn 130% of the FPL and no longer receive SNAP. Panel (b) displays the budget constraint when there are E&T requirements (line H), and when there are no E&T requirements (line ABDE). Unlike work requirements, individuals don't receive income by participating in E&T. Consequently, at point H, individuals spend fewer hours not working because of the time spent participating in E&T activities but don't receive higher income.

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Figure A2: Percent Not Looking For a Job Due to Lack of Childcare or Family Responsibilities
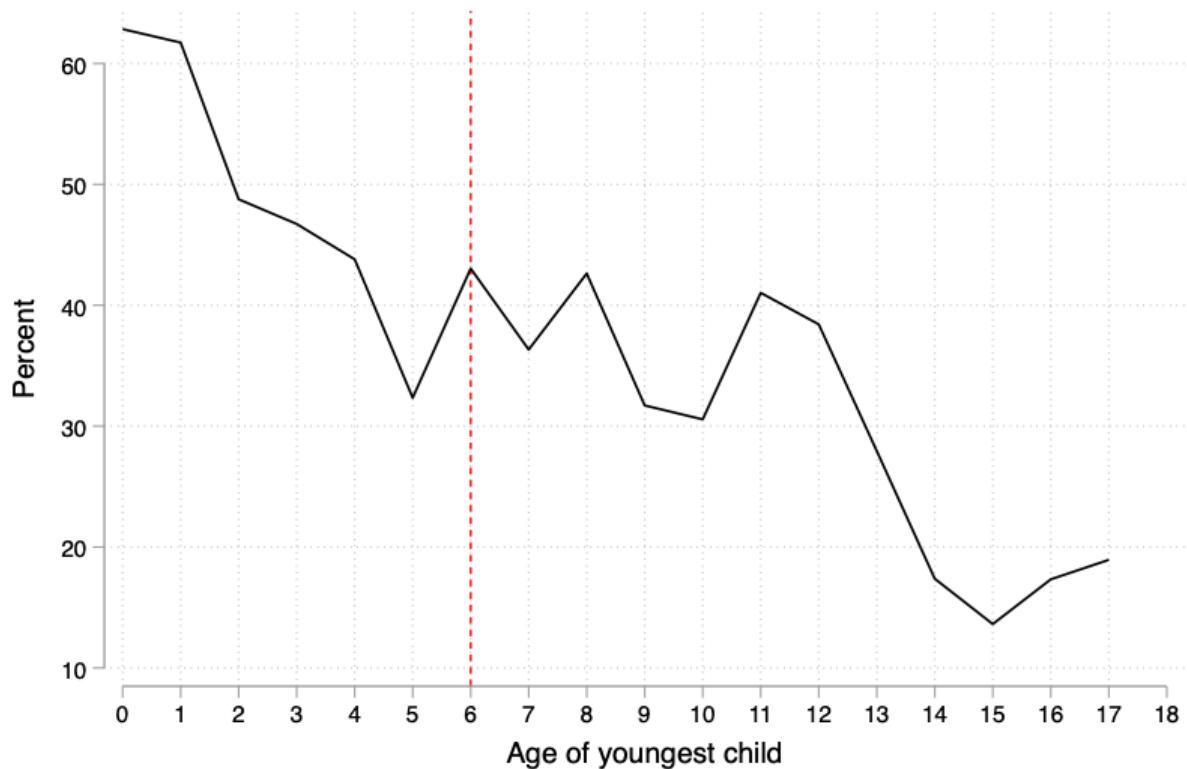
Notes: Uses Current Population Survey data from 2012-2020. The sample consists of single heads of household aged 16-59, who are not working and have not looked for work in the previous four weeks, but would like to work. Statistics are weighted using CPS weights.

Figure A3: Densities Surrounding Age Cutoff for Households Who are Otherwise Subject to General Work Requirements

(a) Full Sample

(b) Likely Subject to E&T Sample

(c) Likely Exempt from E&T Sample

Age of Youngest (in Months)
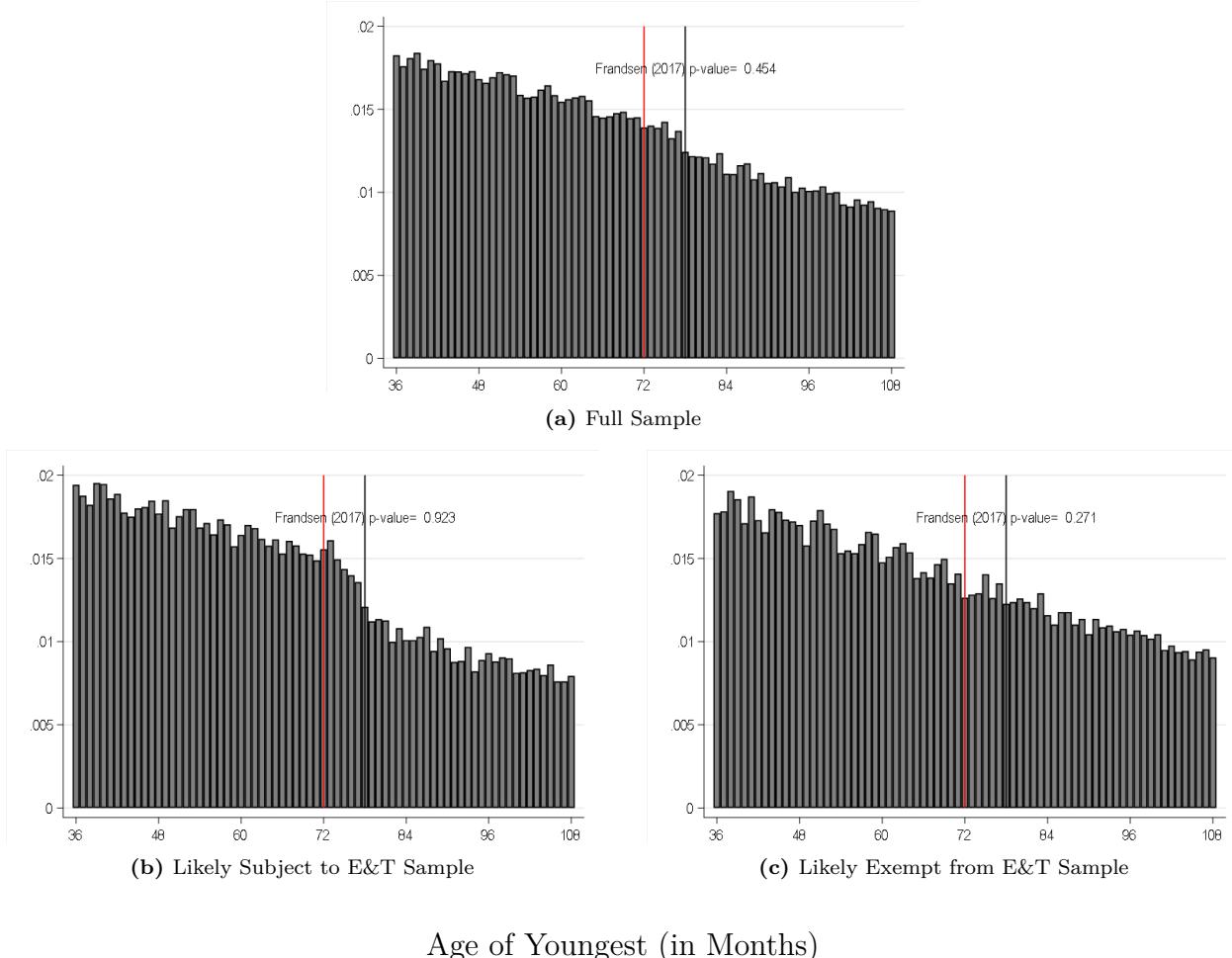
Notes: Figure plots the densities of the age-of-youngest child measured in months at recertification for the full sample (panel (a)), and for the samples that are likely subject to (panel (b)) and exempt from E&T (panel (c)). *p*-values from RD manipulation tests of (Frandsen, 2017) are printed in each panel. See Section 4 for details on the sample selection. The red line signifies the age-6 cutoff that confers eligibility for General Work Requirements. The black line signifies the subsequent recertification 6 months later.

Figure A4: Effects on E&T Referral, SNAP Receipt, and Earnings for Various Subgroups
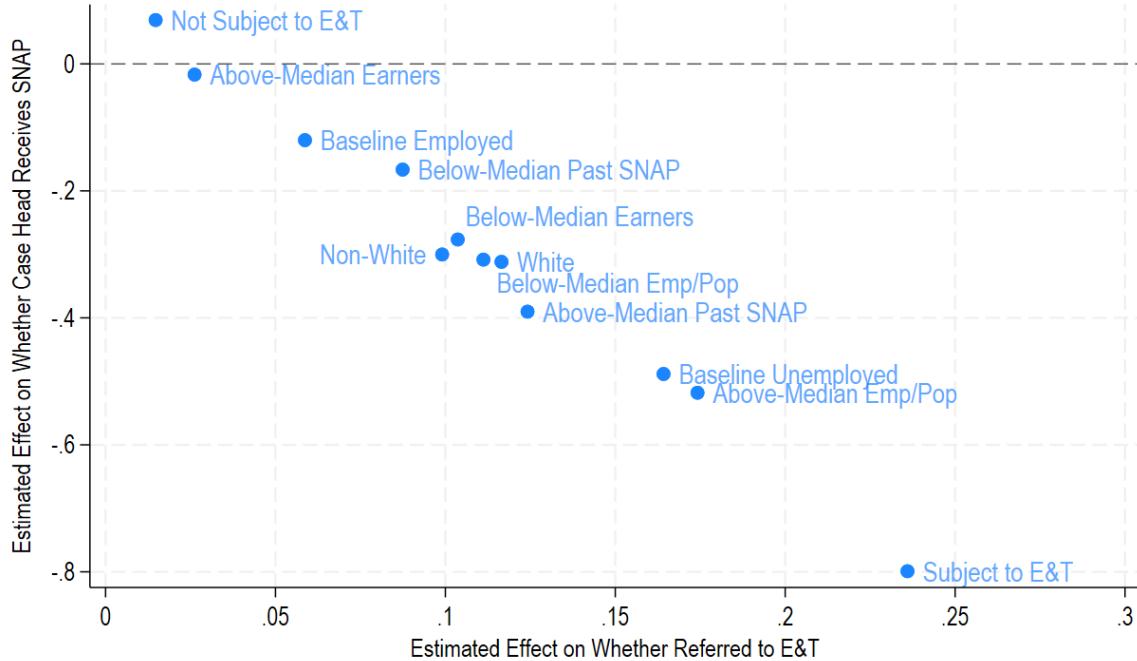
(a) Vertical Axis Outcome: Cumulative Months Head is on SNAP (6 Months)
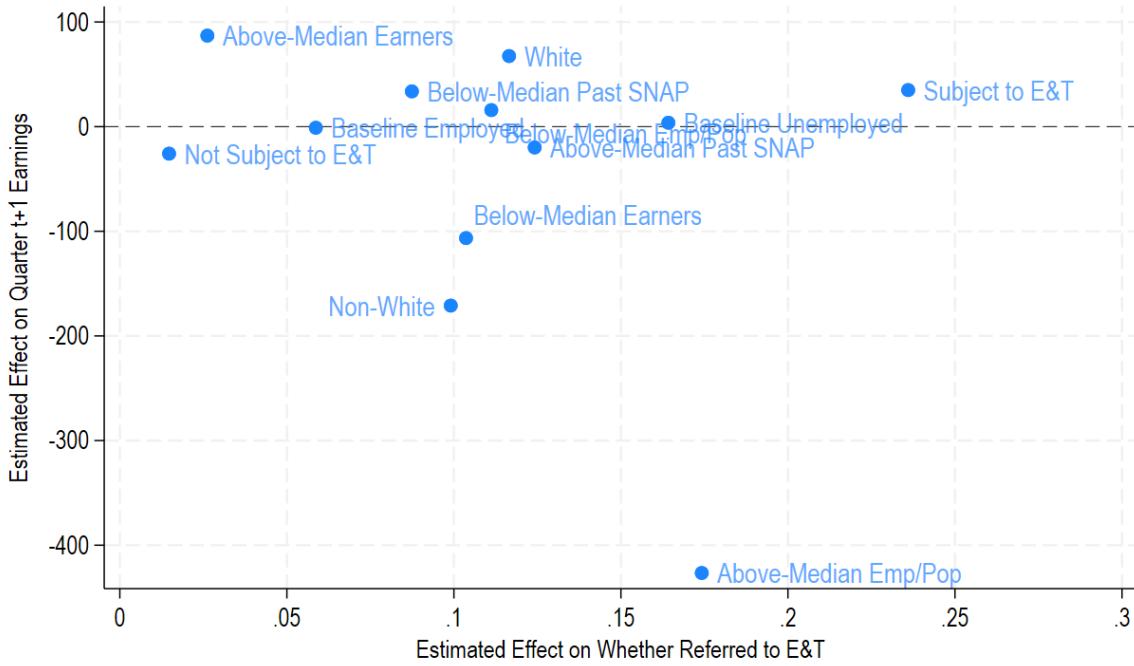
(b) Vertical Axis Outcome: Earnings in Quarter $t+1$

Notes: Each point in this figure reports estimates of β from separate regressions of Equation (1). The x-axis uses as the outcome an indicator that equals one if the cases is ever referred to E&T over the 6 months following the focal recertification. The y-axis uses at the outcome either the cumulative months the case head receives SNAP over the next 6 months (panel a) or the quarterly earnings during the quarter after recertificiation (panel b). The full sample is restricted to case-recertification combinations between 2012 and 2020, to cases with a single adult where the head of the case is receiving benefits at baseline, we can observe age-in-months for all children on the case, and the head of the case is not exempt from General Work Requirements by being too old/young, having a disability or caring for someone with a disability, or receiving TANF at baseline.

Figure A5: Effects of Work Requirements on SNAP Outcomes – Older-Sibling Age-6 Placebo

Cutoff – Age-6 of Youngest in Case

Cutoff – Age-6 of Second Youngest in Case

(a) Referred to E&T

(b) Referred to E&T

(c) First-Time Participation in E&T

(d) First-Time Participation in E&T

(e) Whether Head is Receiving SNAP

(f) Whether Head is Receiving SNAP

Months Surrounding Focal Recertification
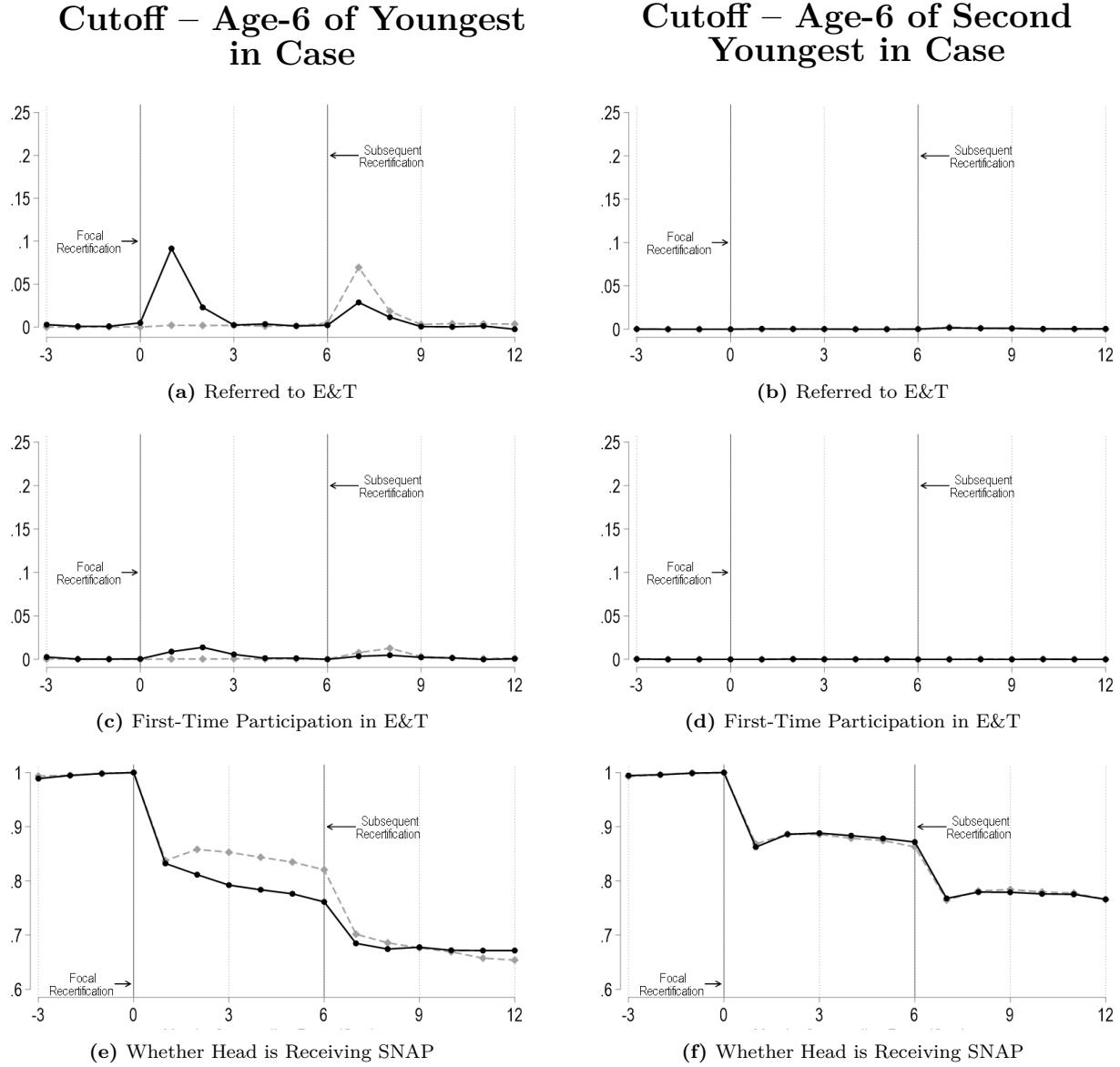
Notes: The left column of the figure re-displays the plots from Figure 2 for comparison. The plots in the right column plot average values of the given outcome for cases with a *second-youngest* child narrowly above (in solid black) or below (in dashed grey) the age-6 cutoff. These right-column plots augment the sample restrictions from Section 3.1 by focusing on cases within 5 months of their *second-youngest* child turning 6 at the focal recertification.

Figure A6: Heterogeneous Effects by County by Year Employment to Population Ratio
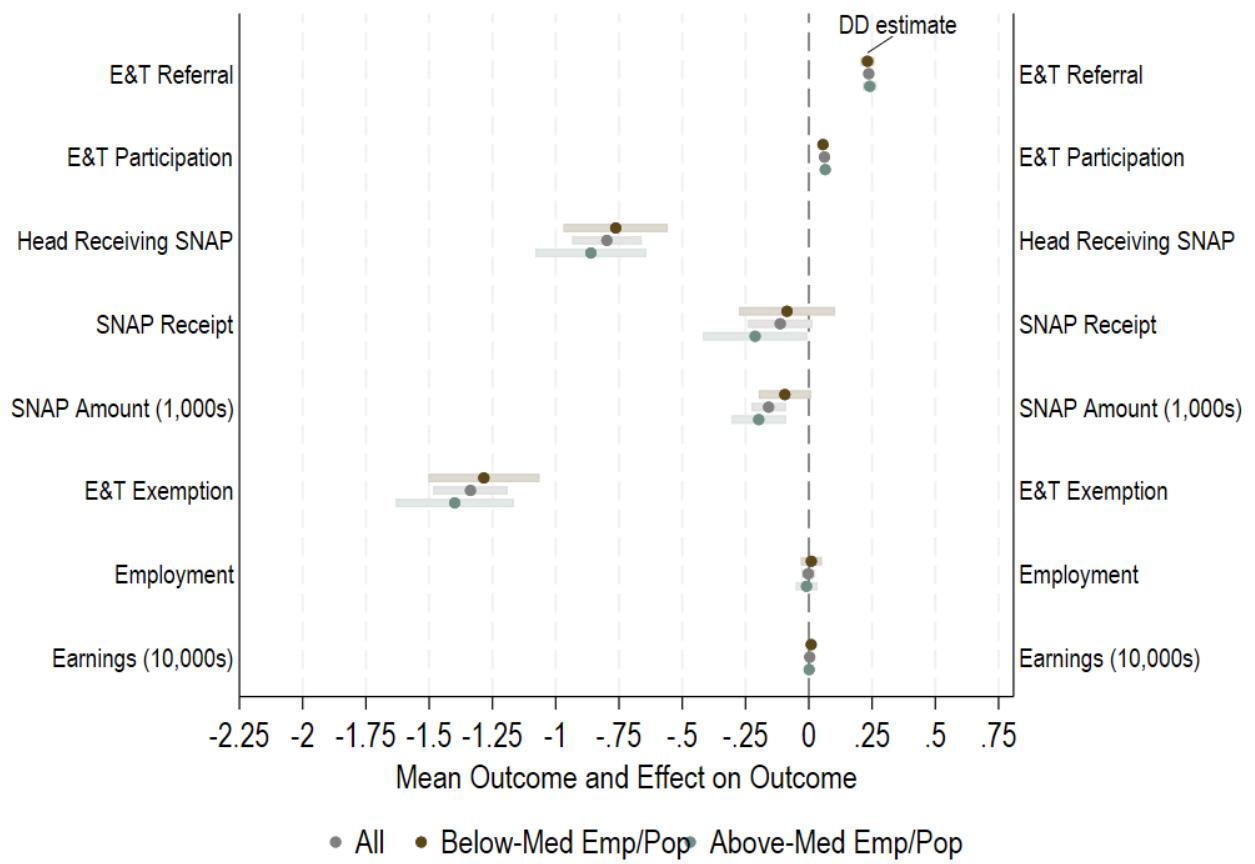
Notes: The Figure depicts estimates and 95% confidence intervals of β from Equation (1) split by whether the case resides in a county with above or below median employment per population rates observed in the full sample.

Table A1: Summary Statistics for Working-Age, Non-Disabled, Single Households

	All SNAP Recertifications (QC Data)		Mountain Plains Administrative Data			
	National	Our State	All Recertifications	Full Sample	Likely Subject to E&T	Likely Exempt from E&T
Age	37.043	35.994	35.052	32.130	31.650	32.121
Female	0.763	0.797	0.812	0.937	0.928	0.942
White	0.334	0.714	0.728	0.736	0.755	0.694
Black	0.308	0.029	0.039	0.034	0.028	0.044
Hispanic	-	-	0.153	0.157	0.135	0.192
Pacific Islander	0.003	0.009	0.015	0.014	0.013	0.018
Asian	0.010	0.007	0.014	0.015	0.013	0.018
Native American	0.012	0.024	0.056	0.050	0.063	0.040
Household Size	2.335	2.637	2.673	3.338	3.212	3.535
# Kids	1.299	1.620	1.673	2.338	2.212	2.535
Quarterly Earnings	1075.304	1180.157	986.671	1334.989	311.043	2616.529
Employed	0.343	0.369	0.332	0.402	0.175	0.629

Notes: The first two columns use data from the SNAP Quality Control Data Set for years 2012-2020. We use the weights provided by the Quality Control data. In the Quality Control data, large percentages of race and ethnicity information is unreported, and Hispanic is only identified among multiple race individuals. We take this information into account when considering how our racial composition compares to that in the QC. Samples are restricted to single adult households with young children, which consists primarily of females in both datasets. In columns (3)-(6) we use administrative data from the mountain plains state from 2012-2020. In both datasets we look at recertifications and use only working age, non disabled, single heads of household. In column (3) we use the broadest sample of recertifications among working-age, non-disabled, single household heads in the administrative data. In column (4) we restrict to our full sample, which includes those likely subject to General Work Requirements. Last, in column (5) we further restrict to those likely subject to E&T requirements (ages 16–47, no earned income, non-refugees, no workers compensation, and no TANF) and in column (6) we restrict to those likely exempt from E&T requirements (not likely subject with earned income greater than the 25th percentile).

Table A2: IV Estimates of E&T Referral on SNAP and Labor Market Outcomes

	Full Sample	Likely Subject to E&T Sub-Sample	Likely Exempt from E&T Sub-Sample
Benefit Outcomes (6-month Cumulative)			
Head Receiving SNAP [Base Avg.=1.000]	-2.792***	-3.369***	—
	(0.423)	(0.302)	
SNAP Receipt [Base Avg.=1.000]	0.044	-0.478*	—
	(0.407)	(0.276)	
SNAP Amount [Base Avg.=399]	-482***	-669***	—
	(204)	(149)	
	26,888	11,510	
Labor Supply Outcomes (Quarter $t+1$)			
Employed [Base Avg.=0.410]	-0.107	-0.009	—
	(0.069)	(0.058)	
Real Quarterly Earnings [Base Avg.=1,439]	-41	158	—
	(328)	(215)	
	26,888	11,510	

Notes: Each cell in this table reports IV estimates analogous to Equation (1) using the outcome variable specified in the row label. The endogenous variable is whether the case is referred to E&T over the 6 months following the focal recertification. The instrument is an indicator for having a recent birthday interacted with being near the age-6 cutoff. Standard errors (in parentheses) are clustered by case. Columns are estimates run on the full sample or samples that are likely subject to or exempt from E&T. Estimates are not displayed for the likely-exempt sample because there is not enough variation in E&T referrals for Stata to run the regression. The full sample is restricted to case-recertification combinations between 2012 and 2020, to cases with a single adult where the head of the case is receiving benefits at baseline, we can observe age-in-months for all children on the case, and the head of the case is not exempt from General Work Requirements by being too old/young, having a disability or caring for someone with a disability, or receiving TANF at baseline. * p<0.10, ** p<0.05, *** p<0.01

Table A3: Robustness Checks of Effects of Work Requirements

a) **Full Sample**	Main Estimates		Age-4 Placebo		No Controls		Drop Aug-Oct	
LS Outcomes: One Quarter After Recert.								
Employed	-0.012	(0.008)	0.000	(0.005)	-0.002	(0.009)	-0.009	(0.009)
Real Quarterly Earnings	-5	(37)	-43	(26)	26	(44)	-13	(42)
Benefit Outcomes: 6-Month Cumulative								
First Referred to E&T	0.112***	(0.004)	0.124***	(0.004)	0.111***	(0.004)	0.114***	(0.005)
First Participated in E&T	0.028***	(0.002)	0.030***	(0.002)	0.028***	(0.002)	0.027***	(0.003)
Head Receiving SNAP	-0.313***	(0.047)	-0.376***	(0.035)	-0.305***	(0.049)	-0.283***	(0.055)
SNAP Receipt	0.005	(0.046)	-0.036	(0.033)	0.013	(0.047)	0.051	(0.053)
SNAP Amount	-54***	(23)	-91***	(17)	-23	(25)	-48*	(27)
b) **Sub-Sample Likely Subject to E&T**	Main Estimates		Age-4 Placebo		No Controls		Drop Aug-Oct	
LS Outcomes: One Quarter After Recert.								
Employed	-0.002	(0.014)	-0.003	(0.010)	0.011	(0.015)	-0.006	(0.016)
Real Quarterly Earnings	37	(51)	-40	(38)	62	(56)	35	(58)
Benefit Outcomes: 6-Month Cumulative								
First Referred to E&T	0.237***	(0.009)	0.258***	(0.009)	0.235***	(0.009)	0.235***	(0.011)
First Participated in E&T	0.062***	(0.005)	0.065***	(0.005)	0.062***	(0.000)	0.059***	(0.006)
Head Receiving SNAP	-0.798***	(0.070)	-0.771***	(0.054)	-0.797***	(0.071)	-0.800***	(0.082)
SNAP Receipt	-0.113*	(0.065)	-0.053	(0.048)	-0.113*	(0.066)	-0.095	(0.076)
SNAP Amount	-159***	(35)	-123***	(26)	-130***	(40)	-141***	(41)
c) **Sub-Sample Likely Exempt from E&T**	Main Estimates		Age-4 Placebo		No Controls		Drop Aug-Oct	
LS Outcomes: One Quarter After Recert.								
Employed	-0.013	(0.008)	-0.002	(0.006)	-0.004	(0.014)	-0.011	(0.010)
Real Quarterly Earnings	-39	(60)	-37	(43)	21	(81)	-44	(69)
Benefit Outcomes: 6-Month Cumulative								
First Referred to E&T	0.015***	(0.003)	0.016***	(0.003)	0.014***	(0.000)	0.016***	(0.003)
First Participated in E&T	0.001	(0.001)	0.002**	(0.001)	0.001	(0.001)	0.000	(0.002)
Head Receiving SNAP	0.061	(0.079)	-0.057	(0.056)	0.072	(0.081)	0.142	(0.092)
SNAP Receipt	0.108	(0.078)	-0.016	(0.055)	0.119	(0.081)	0.186**	(0.091)
SNAP Amount	39	(36)	-57**	(26)	67*	(40)	54	(42)

Notes: Each cell in this table reports estimates of β from separate regressions of Equation (1) using the outcome variable specified in the row label. Standard errors (in parentheses) are clustered by case. Table panels are broken out by sample type and outcome grouping. The first column provides the main estimates. Column (2) uses as the placebo comparison group cases with a youngest child narrowly above and below turning 4 at recertification (instead of turning 5). Column (3) provides estimates that exclude the vector of baseline controls X. Column (4) provides estimates that exclude recertifications happening from August through October. * p<0.10, ** p<0.05, *** p<0.01

Table A4: Effects of Work Requirements on Labor Market Outcomes, Additional Outcomes

	Full Sample	Likely Subject to E&T Sub-Sample	Likely Exempt from E&T Sub-Sample
Multiple Jobs [Base Avg.=0.082]	0.002	-0.001	0.008
	(0.006)	(0.008)	(0.012)
Qrt. Earnings $1 − 2000 [Base Avg.=0.112]	-0.007	-0.009	0.002
	(0.007)	(0.011)	(0.010)
Qrt. Earnings $2000+ [Base Avg.=0.298]	-0.005	0.007	-0.015
	(0.008)	(0.011)	(0.012)
	26,888	11,510	11,141

Notes: Each cell in this table reports estimates of β from separate regressions of Equation (1) using the outcome variable specified in the row label. Standard errors (in parentheses) are clustered by case. Columns are estimates run on the full sample or samples that are likely subject to or exempt from E&T. The full sample is restricted to case-recertification combinations between 2012 and 2020, to cases with a single adult where the head of the case is receiving benefits at baseline, we can observe age-in-months for all children on the case, and the head of the case is not exempt from General Work Requirements by being too old/young, having a disability or caring for someone with a disability, or receiving TANF at baseline. * p<0.10, ** p<0.05, *** p<0.01

Table A5: Effects of Work Requirements on Labor Market Outcomes Two and Three Quarters After Focal Recertification

	Full Sample	Likely Subject to E&T Sub-Sample	Likely Exempt from E&T Sub-Sample
Two Quarters After Recert.			
Employed [Base Avg.=0.410]	-0.006	0.001	-0.005
	(0.008)	(0.014)	(0.010)
Real Quarterly Earnings [Base Avg.=1,439]	-9	41	-30
	(41)	(60)	(68)
	26,888	11,510	11,141
Three Quarters After Recert.			
Employed [Base Avg.=0.410]	-0.008	-0.007	-0.006
	(0.009)	(0.014)	(0.011)
Real Quarterly Earnings [Base Avg.=1,439]	-20	33	-52
	(44)	(66)	(70)
	26,888	11,510	11,141

Notes: Each cell in this table reports estimates of β from separate regressions of Equation (1) using the outcome variable specified in the row label. Standard errors (in parentheses) are clustered by case. Columns are estimates run on the full sample or samples that are likely subject to or exempt from E&T. Table panels provide estimates for labor supply outcomes measured two quarters (panel (a)) or three quarters (panel (b)) after the focal recertification. The full sample is restricted to case-recertification combinations between 2012 and 2020, to cases with a single adult where the head of the case is receiving benefits at baseline, we can observe age-in-months for all children on the case, and the head of the case is not exempt from General Work Requirements by being too old/young, having a disability or caring for someone with a disability, or receiving TANF at baseline. Columns (2) and (3) respectively restrict the sample to cases who are likely subect to or exempt from E&T. * p<0.10, ** p<0.05, *** p<0.01

Table A6: Effects of Second-Youngest in Case Narrowly Turning 6 on Labor Market Outcomes

	Full Sample	Likely Subject to E&T Sub-Sample	Likely Exempt from E&T Sub-Sample
Employed [Base Avg.=0.401]	0.006	0.011	-0.001
	(0.006)	(0.011)	(0.007)
Real Quarterly Earnings [Base Avg.=1,420]	30	54	0
	(32)	(43)	(52)
	9,684	4,066	4,390

Notes: Each cell in this table reports estimates from regressing the outcome (specified in the row label) against an indicator equal to one if the *second-youngest* in the case is narrowly older than 6 at recertification. Standard errors (in parentheses) are clustered by case. These specifications augment the sample restrictions from Section 3.1 by focusing on cases within 5 months of their *second-youngest* child turning 6 at the focal recertification. * p<0.10, ** p<0.05, *** p<0.01

Table A7: Effects of Work Requirements on Labor Market Outcomes Measured in SNAP Data

	Full Sample	Likely Subject to E&T Sub-Sample	Likely Exempt from E&T Sub-Sample
SNAP-Reported Gross Income [Base Avg.=791]	13 (15)	16 (21)	1 (25)
	24,439	10,710	9,782

Notes: Each cell in this table reports estimates of β from separate regressions of Equation (1) using the outcome variable specified in the row label. Standard errors (in parentheses) are clustered by case. Columns are estimates run on the full sample or samples that are likely subject to or exempt from E&T. The full sample is restricted to case-recertification combinations between 2012 and 2020, to cases with a single adult where the head of the case is receiving benefits at baseline, we can observe age-in-months for all children on the case, and the head of the case is not exempt from General Work Requirements by being too old/young, having a disability or caring for someone with a disability, or receiving TANF at baseline. Sample is further limited to current SNAP recipients during the given quarter. * $p<0.10$, ** $p<0.05$, *** $p<0.01$

Table A8: Effects of Work Requirements on Labor Market Outcomes by Baseline Earnings

	Above-Median Annual Baseline Earnings	Below-Median Annual Baseline Earnings	No Annual Baseline Earnings
One Quarter After Recert.			
Employed [Base Avg.= 0.603]	0.105* (0.056)	-0.058 (0.039)	0.002 (0.013)
Real Quarterly Earnings [Base Avg.= 1,668]	181 (341)	-6 (151)	3.430 (46.982)
Two Quarters After Recert.			
Employed [Base Avg.= 0.603]	0.082 (0.056)	-0.045 (0.039)	0.008 (0.013)
Real Quarterly Earnings [Base Avg.= 1,668]	370 (341)	-10 (151)	-8.146 (46.982)
Three Quarters After Recert.			
Employed [Base Avg.= 0.603]	0.069 (0.055)	-0.025 (0.039)	-0.012 (0.013)
Real Quarterly Earnings [Base Avg.= 1,668]	11 (346)	202 (168)	-29.932 (54.330)
	1,260	2,619	7,619

Notes: Each cell in this table reports estimates of β from separate regressions of Equation (1) using the outcome variable specified in the row label. Standard errors (in parentheses) are clustered by case. Columns are estimates run on the full sample or samples that are likely subject to or exempt from E&T. Table panels provide estimates for labor supply outcomes measured two quarters (panel (a)) or three quarters (panel (b)) after the focal recertification. Columns present estimates split by whether the case had UI earnings of 0 or above/below the sample median during the year prior to the focal recertification. * $p<0.10$, ** $p<0.05$, *** $p<0.01$

B Empirical Support for Including Second Difference

This section provides an empirical rationale for why our preferred regression model includes a second difference that nets out differences in outcomes between cases narrowly on either side of the placebo age-5-at-recertification cutoff. To begin, Figure B1 replicates Figure 2, but simply compares cases with children narrowly above and below the age-6 cutoff—there are no controls in the regression and no placebo age-5 comparison group incorporated into this analysis. Estimates are nearly identical to those of Figure 2. Reassuringly, this shows that the above/below age-6 comparisons provide the bulk of the identifying variation of our analyses in the main text.

Next, we explore the contribution of the placebo comparison group in more detail. Panels (a) through (c) of Appendix Figures B2 through B4 show unadjusted raw means of various SNAP benefit receipt outcomes for cases with a youngest child within 5 months (excluding those whose birth month is the same as the recertification month) of various placebo age cutoffs. Panel (d) shows the same but for the treatment age cutoff (age 6).

Notice that for the outcomes: "whether the head is on SNAP" (Figure B2) and "whether anyone on the case is receiving SNAP" (Figure B3), there is a gap that appears in period $t + 1$ across the placebo ages 3 through 5. This is picking up the smooth negative relationship between age and SNAP receipt—cases with older children tend to have lower SNAP participation rates following recertifications. By simply comparing outcomes between cases with new 6-year-olds against cases with almost 6-year-olds, we would include these age effects, biasing estimates towards more negative effects on program receipt outcomes. Panel (e) of the figures provides the regression-adjusted versions of these plots that removes these age effects using the age-5 placebo cutoff from Equation (1). For instance, Panel (e) of Figure B3 shows that after adjusting for these age effects, there is no detectable impact of work requirements on any benefit receipt in the case.

These figures also highlight the relative importance of the first and second differences in the validity of the empirical design. Comparing panels (d) and (e) of Figure B2, for instance, it is clear that the first difference (i.e., comparing just above and below the age-6 cutoff) provides the key identifying variation for the design, while netting out the age-5 effect is only a minor correction.

In Table B1, we perform a similar exercise with labor market outcomes one quarter after the recertification. Here, we compare the mean outcomes of cases where the youngest child is within 5 months of the given age-at-recertification cutoff by regressing the given outcome on an indicator equal to one if the case is above the age cutoff at recertification. There are no statistically or economically meaningful differences in labor market outcomes across various age cutoffs, including age 6 when work requirements begin. As a result, the correction for the age effects are not as important for labor market outcomes, but we include them nonetheless for consistency.

**Figure B1:** Effects of Work Requirements on SNAP Outcomes – **Full Sample, Single Difference, No Controls**
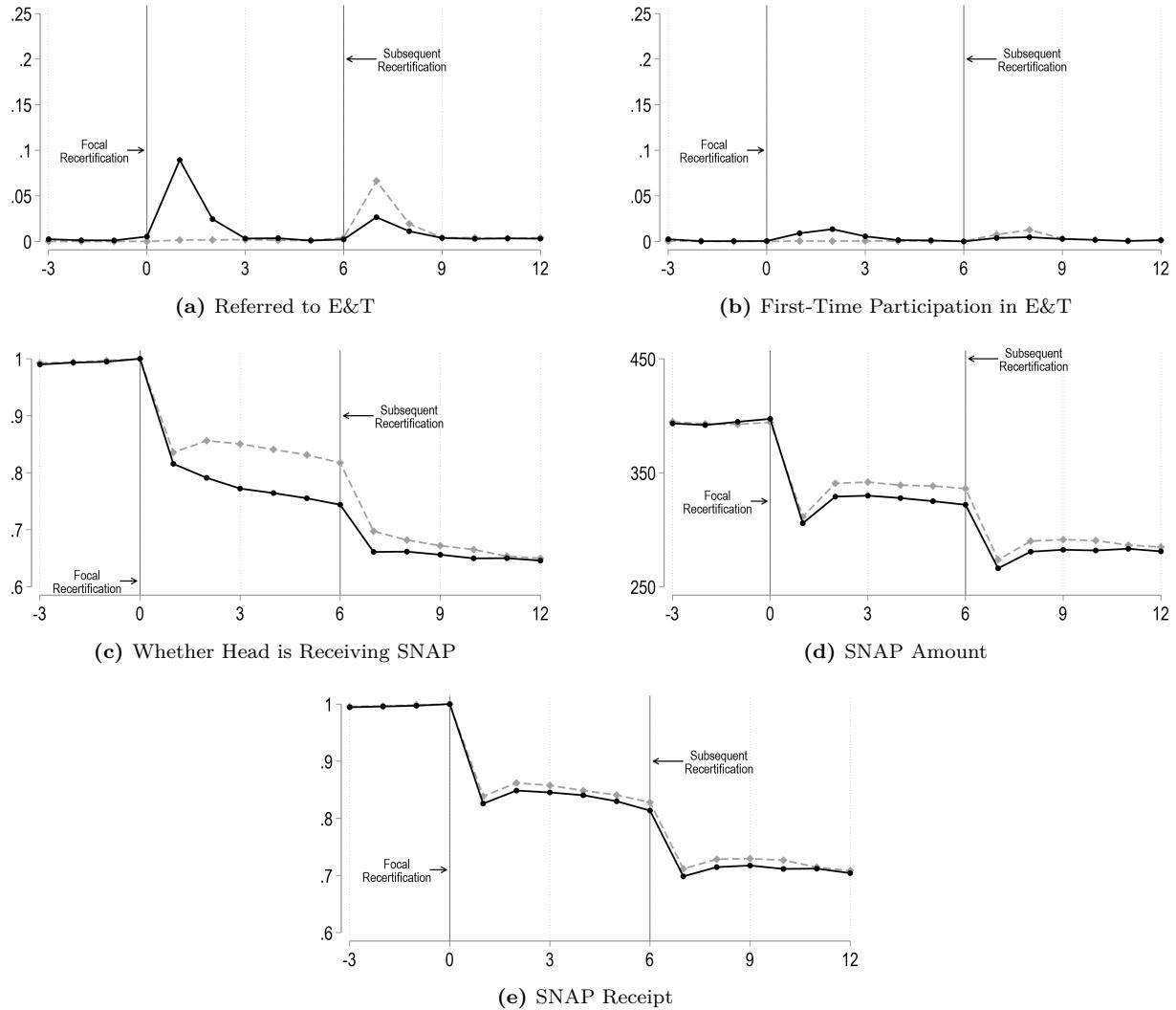
(a) Referred to E&T

(b) First-Time Participation in E&T

(c) Whether Head is Receiving SNAP

(d) SNAP Amount

(e) SNAP Receipt

Months Surrounding Focal Recertification

- ● Youngest Child 6y1m to 6y5m at Focal Recertification
- ◆ Youngest Child 5y7m to 5y11m at Focal Recertification

Notes: Figure displays simple averages of the given outcome for cases with a youngest child narrowly older than 6 at recertification (the solid black line) and younger than 6 (the dashed grey line). These lines use no regression adjustment for neither covariates, nor the placebo age-5 comparison group. The x-axis is months relative to the focal recertification in period 0. For cases still on SNAP, the subsequent recertification occurs in period 6. The full sample is restricted to case-recertification combinations between 2012 and 2020, to cases with a single adult where the head of the case is receiving benefits at baseline, we can observe age-in-months for all children on the case, and the head of the case is not exempt from General Work Requirements by being too old/young, having a disability or caring for someone with a disability, or receiving TANF at baseline.

Figure B2: Effects of Narrowly Passing Various Age Cutoffs on Whether Head is Receiving SNAP – **Full Sample**

(a) Age-3 Cutoff

(b) Age-4 Cutoff

(c) Age-5 Cutoff

(d) Age-6 Cutoff

**(e)** DD-corrected Averages (using age-5 counterfactual)

Months Surrounding Focal Recertification

● Just above cutoff   ◆ Just below cutoff

Notes: Panels (a) through (d) display raw averages of the given outcome for cases with a youngest child narrowly older than the given age cutoff at recertification (the solid black line) and younger than the given age cutoff (the dashed grey line). The x-axis is months relative to the focal recertification in period 0. For cases still on SNAP, the subsequent recertification occurs in period 6. Panel (e) displays regression-adjusted averages of the given outcome for cases with a youngest child narrowly older than 6 at recertification (the solid black line) and younger than 6 (the dashed grey line). Panel (e) averages remove placebo estimates for cases with the youngest child narrowly turning 5 at recertification using the method described in Section 4. The full sample is restricted to case-recertification combinations between 2012 and 2020, to cases with a single adult where the head of the case is receiving benefits at baseline, we can observe age-in-months for all children on the case, and the head of the case is not exempt from General Work Requirements by being too old/young, having a disability or caring for someone with a disability, or receiving TANF at baseline.

Figure B3: Effects of Narrowly Passing Various Age Cutoffs on SNAP Receipt – **Full Sample**

(a) Age-3 Cutoff

(b) Age-4 Cutoff

(c) Age-5 Cutoff

(d) Age-6 Cutoff

**(e)** DD-corrected Averages (using age-5 counterfactual)

Months Surrounding Focal Recertification

Just above cutoff   Just below cutoff

Notes: Panels (a) through (d) display raw averages of the given outcome for cases with a youngest child narrowly older than the given age cutoff at recertification (the solid black line) and younger than the given age cutoff (the dashed grey line). The x-axis is months relative to the focal recertification in period 0. For cases still on SNAP, the subsequent recertification occurs in period 6. Panel (e) displays regression-adjusted averages of the given outcome for cases with a youngest child narrowly older than 6 at recertification (the solid black line) and younger than 6 (the dashed grey line). Panel (e) averages remove placebo estimates for cases with the youngest child narrowly turning 5 at recertification using the method described in Section 4. The full sample is restricted to case-recertification combinations between 2012 and 2020, to cases with a single adult where the head of the case is receiving benefits at baseline, we can observe age-in-months for all children on the case, and the head of the case is not exempt from General Work Requirements by being too old/young, having a disability or caring for someone with a disability, or receiving TANF at baseline.

Figure B4: Effects of Narrowly Passing Various Age Cutoffs on Whether Head is Referred to E&T – **Full Sample**

(a) Age-3 Cutoff

(b) Age-4 Cutoff

(c) Age-5 Cutoff

(d) Age-6 Cutoff

(e) DD-corrected Averages (using age-5 counterfactual)

Months Surrounding Focal Recertification

—●— Just above cutoff   —◆— Just below cutoff

Notes: Panels (a) through (d) display raw averages of the given outcome for cases with a youngest child narrowly older than the given age cutoff at recertification (the solid black line) and younger than the given age cutoff (the dashed grey line). The x-axis is months relative to the focal recertification in period 0. For cases still on SNAP, the subsequent recertification occurs in period 6. Panel (e) displays regression-adjusted averages of the given outcome for cases with a youngest child narrowly older than 6 at recertification (the solid black line) and younger than 6 (the dashed grey line). Panel (e) averages remove placebo estimates for cases with the youngest child narrowly turning 5 at recertification using the method described in Section 4. The full sample is restricted to case-recertification combinations between 2012 and 2020, to cases with a single adult where the head of the case is receiving benefits at baseline, we can observe age-in-months for all children on the case, and the head of the case is not exempt from General Work Requirements by being too old/young, having a disability or caring for someone with a disability, or receiving TANF at baseline.

Table B1: Effects of Narrowly being Above Given Age Cutoff on Labor Market Outcomes

	Placebo Cutoffs			Treatment Cutoff
	Age 3	Age 4	Age 5	Age 6
Employed	-0.000	0.010*	0.006	0.004
	(0.006)	(0.006)	(0.006)	(0.006)
	[0.404]	[0.407]	[0.407]	[0.412]
Real Quarterly Earnings	33.0	48.2*	-18.5	7.1
	(26.8)	(28.9)	(30.0)	(31.6)
	[1,419.8]	[1,489.6]	[1,505.5]	[1,506.1]
N	16,443	15,398	14,198	12,849

Notes: Each cell in this table reports estimates from separate regressions of the outcome variable specified in the row label onto an indicator equal to one if the youngest in the case is older than the age in the column header. Standard errors (in parentheses) are clustered by case. Baseline averages of the outcome for cases below the given cutoff are in brackets. The full sample is restricted to case-recertification combinations between 2012 and 2020, to cases with a single adult where the head of the case is receiving benefits at baseline, we can observe age-in-months for all children on the case, and the head of the case is not exempt from General Work Requirements by being too old/young, having a disability or caring for someone with a disability, or receiving TANF at baseline. * $p<0.10$, ** $p<0.05$, *** $p<0.01$

C   Details of MVPF Calculation

The MVPF of eliminating the E&T Program is given by the formula $MVPF = \frac{WTP}{C+FE}$, where WTP is the willingness to pay, C is the cost of operating the program, and FE is any fiscal externalities resulting from changes in behavior of marginal recipients. An MVPF greater than 1 indicates that the benefit of eliminating E&T to beneficiaries is greater than the cost of eliminating the program to the government; and, conversely, an MVPF less than 1 indicates that the cost of eliminating the requirement outweighs the benefits.

We assume the willingness of potential E&T participants to pay for the elimination of E&T is equivalent to the change in SNAP benefit amounts if E&T were eliminated. Since we do not find that E&T helps individuals find jobs or higher-quality jobs, we assume the value of the E&T Program itself to participants is zero. We use the IV-estimated change in benefit amounts resulting from being referred to E&T requirements. This is a $669 decrease over a 6-month period, or $111.50 per month on average. We ignore individuals' willingness to pay to avoid the ordeal itself, which means our MVPF estimate is conservative.

To calculate the denominator, we need to estimate the change in government costs associated with eliminating the E&T Program. This will include the increase in cost because of more SNAP benefits paid out, the decrease in administrative costs from the costs of operating E&T, and any fiscal externalities.

Starting with the cost of benefits themselves, we use the change in SNAP benefits paid due to E&T, which is $111.50, as described above. Next, we estimate how administrative costs would change if the E&T Program were to be eliminated. Each year states are required to submit a state plan to the Food and Nutrition Service, which lays out what E&T Program components they plan to provide, whether the program will be mandatory or voluntary, how many participants they expect to have, how much various components of the program are estimated to cost, and other details about the program. While this plan is an estimate of what the state expects the program to look like over the coming year, we believe it is the best, state-specific, source for estimating administrative costs of E&T. However, we show that using other sources to estimate this costs leads to even higher estimates of the cost.

We use the mountain-plains state's plan from 2024. The state estimates $315,000 for the supervised job search component and $63,600 for participant reimbursements. For the projected 2,478 E&T participants, this comes out to $12.73 per E&T participant per month, or $11.32 after adjusting to 2021 dollars. We note that this estimate does not include other costs that might be associated with running an E&T Program, such as some staffing, so this is likely an underestimate.[35]

We lastly consider any fiscal externalities of eliminating the E&T Program. This includes any changes in income taxes paid as a result of labor supply changes. For those likely subject to E&T, we estimated an insignificant $37 dollar increase in real quarterly earnings (in Table 3), and the IV estimate is similarly insignificant. Thus, we argue that there will be no substantial change in government revenue.

Putting this all together, the monthly MVPF of eliminating E&T is $MVPF = 111.50/(111.50 - 11.32) = 1.11$.

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[35]Furthermore, using national E&T spending and participation numbers from (U.S. Government Accountability Office, 2018), we estimate that the cost of running an E&T Program is $140.41 per month per E&T participant nationwide. We thus treat our estimate of $11.32 per E&T participant per month as a conservative estimate.