Early Results from the Virginia Work Requirements Experiment

Timothy Layton
University of Virginia and NBER

Adam Leive
UC-Berkeley and NBER

Adrianna McIntyre
Harvard University

HeeJu Jang-Paulsen
Virginia Department of Social Services

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Abstract

We conduct a large-scale randomized controlled trial (RCT) of work requirements and recertification periods in the Supplemental Nutrition Assistance Program (SNAP). In partnership with the Virginia Department of Social Services, we randomly assigned over 39,000 newly certified SNAP recipients to receive varying lengths of work requirement exemptions and recertification periods. We find that work requirements substantially reduce SNAP enrollment: exemptions from work requirements increase participation by approximately 10 percentage points (33 percent) at seven months after enrollment. Extending the recertification period from 6 to 12 months increases participation by an additional 14 percentage points at six months, but this effect dissipates by 12 months because a required interim report reintroduces administrative burden. Work requirements produce modest positive effects on employment, with exemptions reducing the probability of working by 1 to 2 percentage points relative to a control group employment rate of 46 percent. Employment responses are concentrated among individuals with stronger prior labor force attachment but lower labor supply at SNAP initiation. Work requirements also screen out more vulnerable populations: those retained by exemptions have higher SNAP benefit amounts and less education. Using machine learning methods, we identify a subgroup with large participation responses and limited employment responses that could be targeted with exemptions to improve policy efficiency.

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I. Introduction

A central tension in the design of safety net programs is whether to condition benefits on work. Unconditional transfers may discourage labor supply via an income effect, imposing fiscal costs on government and potentially reducing self-sufficiency. Means-tested transfers further discourage labor supply and impose fiscal externalities via a substitution effect due to the implicit increase in marginal tax rates. Conditioning safety net transfers on a minimum level of work can thus in theory lower fiscal externalities and help individuals transition toward self-sufficiency and eventual program exit.

But conditioning benefits on employment may deny resources to individuals who face genuine barriers to work and who stand to benefit the most from assistance. If those with the steepest barriers to meeting work requirements also have the greatest need for program benefits, then these requirements would worsen program targeting by shifting resources to those who receive less utility from the transfers. However, these requirements could also improve targeting: In an influential theoretical framework, Nichols and Zeckhauser (1982) show that imposing costs on benefit recipients can improve targeting if those who value benefits most are willing to bear the costs while those who value them least are not. Besley and Coate (1992) extend this logic to work requirements, showing that requiring work as a condition of receiving benefits can, in theory, allocate transfers more efficiently. Whether work requirements achieve this in practice is an empirical question that depends on who is screened out and whether the policy induces meaningful increases in employment.

These questions have taken on new urgency as work requirements expand across the U.S. safety net. The 2023 debt ceiling compromise extended SNAP work requirements to older adults, and the One Big Beautiful Bill Act (OBBBA) of 2025 introduced mandatory work requirements

in Medicaid and further broadened SNAP requirements. Despite the scale of these expansions, rigorous causal evidence on work requirements remains limited. Recent quasi-experimental studies consistently find that work requirements reduce SNAP enrollment, but there is mixed evidence on employment, with most failing to find statistically significant effects (Harris 2021, Han 2022, Cuffey, Beatty, and Mykerezi 2021, Gray et al. 2023, Cook and East 2025). A key limitation shared by all prior research is that work requirements typically coincide with more frequent recertification of program eligibility. Since recertification itself is a major source of program exits (Homonoff and Somerville 2021, Gray 2019), it has not been possible to determine whether observed participation declines reflect the cost of the work mandate or the administrative burden of more frequent reporting.

In this paper, we present results from a large-scale randomized controlled trial that separately varies work requirements and recertification periods in SNAP. Partnering with the Virginia Department of Social Services (DSS), we randomly assigned over 39,000 newly certified SNAP recipients classified as able-bodied adults without dependents (ABAWDs) to one of five study arms. The control group faces the status quo policy: a 6-month recertification period with no additional work requirement exemptions beyond the standard three months allowed per 36-month period, effectively resulting in six work-free months of benefits. Four intervention groups received combinations of extended work requirement exemptions (6 or 12 additional months, effectively resulting in 12 or 18 months of work-free benefits, respectively) and longer recertification periods (12 months instead of 6). This design allows us to separately identify the effects of the work mandate from those of the recertification schedule. Our study is the largest RCT of work requirements ever conducted and among the largest randomized experiments on any social policy to date. We link SNAP administrative data to quarterly earnings records from the Virginia

Employment Commission to measure (UI-covered) labor supply and are currently fielding a survey to measure food insecurity, health, housing stability, and financial hardship.

We report three sets of findings. First, work requirements substantially reduce SNAP enrollment. At six months after certification, both short (6-month) and long (12-month) exemptions from work requirements increase the probability of remaining enrolled by approximately 8-10 percentage points, a 33 percent increase over the control group. Extending the recertification period from 6 to 12 months raises participation by an additional 13-14 percentage points at six months. By 12 months, the participation effects of work requirement exemptions persist (4-5 and 6-7 percentage points for the short and long exemption groups, respectively), but the recertification effect fully dissipates. Administrative exit codes show that participants assigned to longer recertification periods are far less likely to lose benefits for missing an interview but far more likely to lose benefits for failing to submit the required interim report (a federal requirement for recertification periods exceeding 6 months). The recertification extension effectively replaced one administrative hurdle with another.

Second, work requirements have positive but modest effects on employment. Granting exemptions reduces the probability of UI-covered employment by 1 to 3 percentage points relative to a control group employment rate of about 46 percent. These magnitudes are similar to those estimated by Gray et al. (2023) using the age-50 discontinuity, but our experimental design provides sufficient precision to distinguish these effects from zero, whereas their estimates were noisier. The effects are small relative to the participation effects and appear concentrated among individuals with stronger prior labor force attachment. Employment effects also appear to be concentrated in the third quarter after SNAP initiation, suggesting the possibility that effects are

driven by the loss of SNAP benefits by those without exemptions rather than incentive effects of work requirements.

Third, treatment effects vary across the population in ways that are informative for policy. Using the causal forest algorithm of Athey and Imbens (2016), we find that employment responses to work requirements are concentrated among those with less prior SNAP enrollment and higher incomes prior to entering SNAP, but also a lower probability of working at entry and higher initial benefit amounts. Work requirements also disproportionately screen out individuals with less education and higher benefit amounts (signaling higher current need). We identify a subgroup that experiences large participation gains from exemptions with limited employment consequences; these individuals tend to be younger and less attached to the labor force, and exemptions could be targeted to this population to improve efficiency.

Our study makes several contributions. We provide the first experimental estimates of the effects of work requirements on safety net participation and employment since the welfare-to-work demonstrations of the 1980s and 1990s (Greenberg, Deitch, and Hamilton 2009), and the first ever in SNAP. Our RCT design advances a quasi-experimental literature that has produced consistent evidence that work requirements reduce program enrollment but mixed results on employment (Harris 2021, Han 2022, Cuffey, Beatty, and Mykerezi 2021, Gray et al. 2023). Our experimental design eliminates identification concerns inherent in these studies, yields population-average treatment effects rather than estimates local to a particular age cutoff or other discontinuity in eligibility, and cleanly separates the work mandate from the administrative burden of recertification. In a related study of SNAP's less stringent general work requirements, Cook and East (2025) use administrative data and point to administrative burdens as central to explaining disenrollment, a finding our design can address directly.

Second, our heterogeneity analysis provides an empirical test of the ordeal mechanism theory introduced early in the literature on optimal targeting (Nichols and Zeckhauser 1982, Besley and Coate 1992). By characterizing the joint distribution of participation and employment responses, we assess whether work requirements screen efficiently and provide actionable guidance for states deciding how to allocate scarce work requirement exemptions under increasingly restrictive federal rules.

The paper proceeds as follows. Section II describes SNAP policy and the Virginia setting. Section III details the experimental design. Section IV describes our empirical methods. Section V presents results on program participation and employment. Section VI examines treatment effect heterogeneity and targeting. Section VII offers discussion and next steps.

II. Setting and Data

A. SNAP and Work Requirements

SNAP is the largest anti-hunger program in the United States, providing monthly food benefits to over 40 million people in recent years. Benefits are delivered via an Electronic Benefits Transfer (EBT) card that can be used at authorized retailers. Eligibility generally requires gross household income below 130 percent of the Federal Poverty Line (FPL) and net income below 100 percent of FPL, with benefits phasing out at a rate of about 24 cents per dollar of earned income after deductions. To retain eligibility, participants must periodically complete a recertification process that involves documenting income, household composition, and deductions.

SNAP's ABAWD work requirement is the focus of this paper. During the period of study enrollment, the requirement targeted childless adults aged 18 to 54 (recently raised to 64 under the OBBBA) who do not have a documented disability or other qualifying exemption. These individuals must work or participate in approved activities (including education, training,

volunteering) for at least 80 hours per month. Those who do not comply are limited to three months of benefits in a 36-month window. The ABAWD rule is distinct from SNAP's general work registration requirement, which applies to a broader age range (16 to 59) and asks relatively little of participants beyond registering for employment and not declining suitable job offers.

B. Institutional Details in Virginia

Virginia administers SNAP through the Virginia Department of Social Services (DSS) using the Virginia Case Management System (VACMS). Each year, the USDA provides states with a pool of discretionary work requirement exemption months, equal to roughly 8 to 12 percent of the ABAWD caseload. Historically, unused exemptions rolled over from one year to the next, and Virginia had accumulated a substantial reserve. In the past, Virginia used three discretionary months per enrollee, giving each ABAWD six months of work-free benefits (three standard federal months plus three discretionary months) and enabling a 6-month recertification interval, lessening the administrative burden for both the enrollees and the state relative to burdens from a shorter 3-month recertification period.

The VACMS eligibility system tracks each ABAWD's work requirement compliance through a "clock." When an ABAWD first certifies for SNAP, the clock is populated with three federally mandated work-free months (designated Y1 in VACMS) and three state discretionary exemption months (designated E9). If the ABAWD works during a given month, that month receives a work code (E1) rather than consuming a Y1 or E9 month. The E1 codes replace E9 months first, then Y1 months, allowing Y1 months to shift to later in the clock. At the 6-month recertification, if the ABAWD has at least one Y1 month remaining, they can be recertified for another period. If all Y1 months have been used and the ABAWD is not meeting the work requirement, they are removed from the program.

Recertification in Virginia takes different forms depending on the certification period length. Those with 6-month periods undergo a full recertification interview, conducted in person or remotely, covering a detailed list of eligibility factors including income, household changes, and work activities. Those with 12-month periods must (per federal rules) instead submit an interim report around month 6, a shorter document that covers basic eligibility questions including work activities but does not require an interview. Prior research has identified the recertification interview as a significant barrier to continued enrollment (Homonoff and Somerville 2021). Less is known about the burdens of the interim report.

C. Data

Our current analysis draws on two administrative data sources. The first is SNAP enrollment records from Virginia DSS, which include demographic information (age, sex, race, education, marital status), locality, benefit amounts, dates of enrollment and disenrollment, exit reason codes, and indicators for monthly SNAP participation. The second is quarterly earnings records from the Virginia Employment Commission (VEC), covering wages in UI-eligible jobs. These records allow us to construct measures of employment and earnings both before and after SNAP certification.

UI wage records do not capture self-employment, some government employment, military service, or informal work. If work requirement exemptions shift individuals toward these uncovered sectors, our employment estimates would understate the true labor supply response. We address this concern with a survey, which is currently in the field, that targets approximately 5,000 study participants and measures employment across all sectors as well as food insecurity, health, housing stability, and financial hardship.

III. Experimental Design

A. Study Arms

We designed the experiment in collaboration with Virginia DSS to test the independent and combined effects of work requirement exemptions and recertification extensions. The study enrolled over 39,000 ABAWDs who were newly certified for SNAP between April 2024 and June 2025. Virginia agreed to deploy a portion of its annual USDA discretionary exemption allocation randomly as part of the trial. The pre-analysis plan is registered in the AEA RCT registry (#0004325).

Participants were randomly assigned with equal probability to one of five study arms. The control group (CG0) receives the status quo: a 6-month recertification period and no additional exemptions beyond the standard three Y1 months. The four intervention groups form a 2-by-2 factorial design. Intervention Groups 1 and 3 (IG1, IG3) receive a short work requirement exemption, implemented by adding three study-specific exemption months (coded S9 in VACMS) that replace the Y1 months in the first 6-month recertification period, effectively granting at least 12 months of work-free benefits. Intervention Groups 2 and 4 (IG2, IG4) receive a long exemption with six additional S9 months that replace the Y1 months in the first *and second* 6-month recertification periods, providing at least 18 months of work-free benefits. IG1 and IG2 maintain the standard 6-month recertification period. IG3 and IG4 receive an extended 12-month recertification period, though they must still submit an interim report around month 7.

Table 1: Study Groups

		Work Requirement Intervention	
		12+ work-free months of benefits	18+ work-free months of benefits
Recertification Intervention	6-month recert	IG1	IG2
	12-month recert	IG3	IG4

B. Randomization and Implementation

Randomization was built directly into VACMS. We pre-assigned every possible 5-digit number to one of the five study groups using simple random sampling. When a new ABAWD certified for SNAP and received a case ID, the last five digits of that ID were automatically crosswalked to the pre-assigned study group. The system then applied the corresponding interventions (S9 months and/or extended recertification date) and displayed the participant's study group on the caseworker's screen. See Appendix Figure A1 for a visual representation of the study implementation.

We invested in communicating the study to caseworkers. We held three recorded training sessions for caseworkers, developed FAQ documents and scripts for answering participant questions, and worked with supervisors to disseminate study details. Importantly, caseworkers were not involved in the implementation of the interventions, as that was fully automated. They were, however, involved in communication of the work requirement exemptions to enrollees, as caseworkers are typically responsible for communication of status quo work requirements to program recipients. In addition to caseworker communication, all participants received mailed notices informing them of the work requirement, and those in the intervention groups were informed of the additional exemptions available to them (Appendix Figure A2).

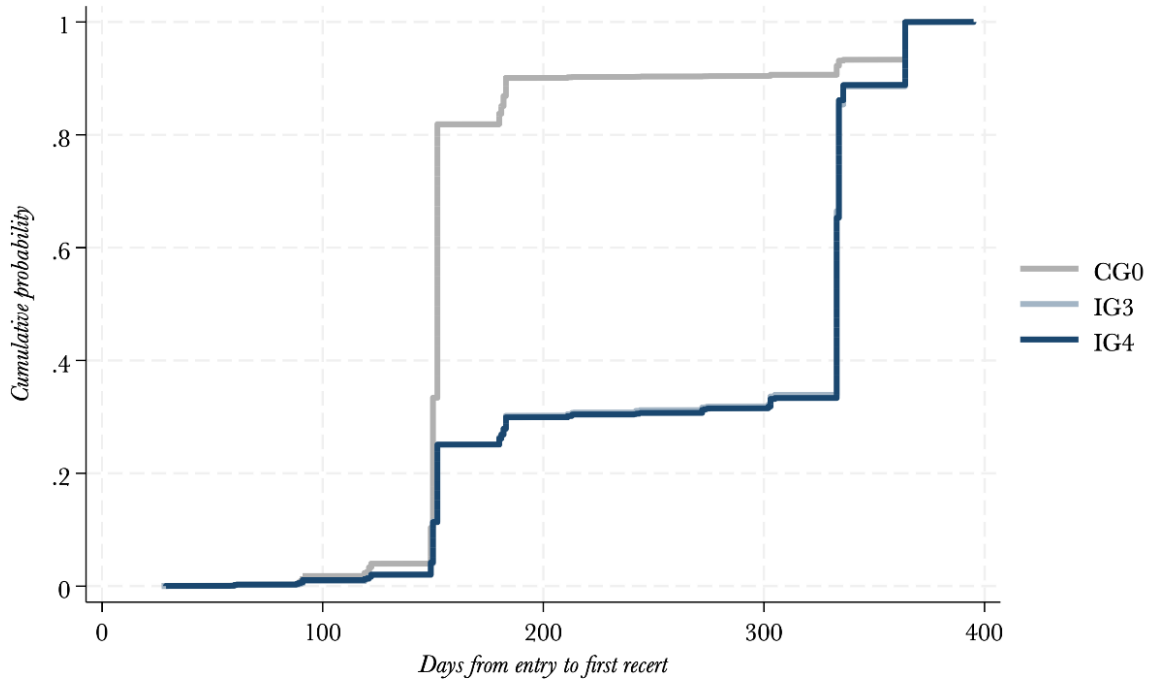
C. Implementation Challenges

Two implementation issues arose despite the automated design and outreach. First, VACMS allows caseworkers to manually override recertification dates. Despite training, some caseworkers reverted the 12-month recertification for IG3 and IG4 participants back to the standard 6-month period. This non-compliance is clear in Figure 1, which presents the CDF of recertification periods for the control group (gray) and the two treatment groups, IG3 and IG4, that were intended to receive 12-month recertification periods. The vast majority of those in the control group receive recertification periods of about 150 days.[1] While the majority of enrollees in the IG3 and IG4 treatment groups receive recertification periods of around 325 days, a sizable portion (around 20%) receive the standard recertification period of 150 days. We address this by reporting intent-to-treat estimates, instrumental variables estimates (instrumenting actual recertification length with IG3/IG4 assignment), and estimates restricted to participants who received the intended recertification length.[2]

Second, a software error in the initial VACMS update caused some treatment group participants in early cohorts (enrolling before October 2024) to receive Y1 months during the first six months when they should have instead received only S9 months, partially undermining the exemption treatment. The error was corrected for participants enrolling from October 2024 onward. We define "compliant cohorts" as those from October 2024 onward and report results for these cohorts and for the full sample separately. For participation outcomes, we focus on the compliant cohorts for whom the treatment operated as designed. For employment outcomes, we report both because the employment response should depend on participants' beliefs about their

[1] Despite technically having a stated 6-month recertification period under status quo policy, caseworkers often include a 150 day/5 month recertification period to ensure that recertification occurs before the 6 month deadline.
[2] Balance on individual characteristics holds in this last subsample.

Figure 1: Recertification Period Length CDF



exemption status (shaped by mailings and caseworker communication) rather than the mechanics of the VACMS clock. Indeed, comparison of employment effects for the compliant and anomaly cohorts can provide suggestive evidence about the role of beliefs versus experience and possibly help disentangle the incentive effects of work requirements from the effects of losing SNAP on employment outcomes.

D. Balance

Study group assignment is balanced on observable characteristics, as expected given the randomization. We compare means across all five study arms for age, sex, race, marital status, initial SNAP benefit amount, income at entry as a percentage of FPL, prior SNAP enrollment, education, and quarterly earnings for each of the five quarters prior to certification. We fail to find statistically significant differences at the 5% level for any of these characteristics in any of our analytic samples.

Table 2: Balance

	Control	Treatment				
	CG0	IG1	IG2	IG3	IG4	p (F-test)
Age	35.6 (9.578) $n = 7940$	35.65 (9.635) $n = 7864$	35.48 (9.661) $n = 7923$	35.6 (9.635) $n = 7789$	35.69 (9.532) $n = 7910$	0.708
Female	0.4078 (0.4915) $n = 7940$	0.4177 (0.4932) $n = 7864$	0.4184 (0.4933) $n = 7923$	0.4088 (0.4916) $n = 7789$	0.4153 (0.4928) $n = 7910$	0.518
Nonwhite	0.5319 (0.499) $n = 7940$	0.5206 (0.4996) $n = 7864$	0.5306 (0.4991) $n = 7923$	0.5309 (0.4991) $n = 7789$	0.534 (0.4989) $n = 7910$	0.49
Marital status unknown	0.00869 (0.09282) $n = 7940$	0.008138 (0.08985) $n = 7864$	0.006185 (0.0784) $n = 7923$	0.006676 (0.08144) $n = 7789$	0.00847 (0.09165) $n = 7910$	0.258
Married	0.0165 (0.1274) $n = 7940$	0.01551 (0.1236) $n = 7864$	0.01641 (0.127) $n = 7923$	0.01631 (0.1267) $n = 7789$	0.01783 (0.1323) $n = 7910$	0.853
Below high school	0.02003 (0.1401) $n = 7940$	0.02352 (0.1516) $n = 7864$	0.02146 (0.1449) $n = 7923$	0.02118 (0.144) $n = 7789$	0.02023 (0.1408) $n = 7910$	0.568
Some college	0.1346 (0.3414) $n = 7940$	0.1343 (0.341) $n = 7864$	0.133 (0.3396) $n = 7923$	0.1324 (0.3389) $n = 7789$	0.1383 (0.3452) $n = 7910$	0.837
Education unknown	0.3181 (0.4658) $n = 7940$	0.3173 (0.4654) $n = 7864$	0.3106 (0.4628) $n = 7923$	0.3131 (0.4638) $n = 7789$	0.3168 (0.4653) $n = 7910$	0.828
Past SNAP enrollment	0.3122 (0.4634) $n = 7940$	0.3211 (0.4669) $n = 7864$	0.3115 (0.4631) $n = 7923$	0.3192 (0.4662) $n = 7789$	0.3173 (0.4655) $n = 7910$	0.623
SNAP benefits amount at entry	252.2 (85.73) $n = 7940$	251.5 (86.79) $n = 7864$	250.8 (86.49) $n = 7923$	248.5 (88.35) $n = 7789$	250.5 (87.77) $n = 7910$	0.0912*
Income at entry (Wages, 1 quarter prior	2177 (3743) $n = 7931$	2217 (4160) $n = 7849$	2149 (3831) $n = 7914$	2267 (4518) $n = 7779$	2155 (3776) $n = 7894$	0.321
Wages, 2 quarters prior	2716 (4650) $n = 7940$	2678 (4517) $n = 7864$	2670 (4514) $n = 7923$	2768 (4665) $n = 7789$	2684 (4330) $n = 7910$	0.651
Wages, 3 quarters prior	2740 (4566) $n = 7940$	2800 (4731) $n = 7864$	2793 (4802) $n = 7923$	2820 (4778) $n = 7789$	2798 (4449) $n = 7910$	0.86
Wages, 4 quarters prior	2791 (4747) $n = 7940$	2810 (4741) $n = 7864$	2800 (5127) $n = 7923$	2803 (4621) $n = 7789$	2842 (4585) $n = 7910$	0.971
Wages, 5 quarters prior	2789 (4701) $n = 7940$	2822 (4783) $n = 7864$	2806 (4577) $n = 7923$	2818 (4661) $n = 7789$	2831 (4489) $n = 7910$	0.985

NOTES: $N = 39426$. Group means, standard deviations (in parentheses), and sizes are presented. Some individuals have marital status and/or education level missing at entry. Income at entry refers to the quarterly wage received in the calendar quarter prior to SNAP enrollment.

IV. Empirical Methods

A. Estimating Equations

Our primary estimating equation takes the form:

$$Y_i = \beta_1 ShortExempt_i + \beta_2 LongExempt_i + \beta_3 LongRecert_i + \delta_{c(i)} + \alpha X_i + \epsilon_i \qquad (1)$$

where Y_i is the outcome for individual i. $ShortExempt_i$ equals one for individuals assigned to IG1 or IG3 (6-month work requirement exemption). $LongExempt_i$ equals one for those assigned to IG2 or IG4 (12-month exemption). $LongRecert_i$ equals one for those assigned to IG3 or IG4 (12-month recertification period). The term $\delta_{c(i)}$ is a full set of enrollment cohort fixed effects. X_i is a vector of individual-level controls. The coefficients β_1 and β_2 capture the total effect of short and long work requirement exemptions relative to the control group; they are not cumulative with each other. The coefficient β_3 captures the incremental effect of a longer recertification period on top of a work requirement exemption.

We report specifications with no controls (aside from cohort fixed effects), basic controls, and enhanced controls. Basic controls include age bins, sex, race indicators, a marriage indicator, initial SNAP benefit amount, income at entry as a share of the federal poverty line (FPL), and an indicator for prior SNAP enrollment. Enhanced controls additionally include locality fixed effects, education indicators, and wages for each of the five quarters preceding certification. Robust standard errors are used throughout. Appendix Table A1 presents estimates of our primary regression specification with each control as the outcome to show that these controls are not endogenous to treatment assignment.

We also estimate a pooled specification that collapses the two exemption indicators into a single "any exemption" indicator to maximize power for detecting work requirement effects. To test for interactions between exemptions and recertification length, we report a fully saturated specification with separate indicators for each of the four intervention groups.

B. Analytic Samples

We define four analytic samples of increasing restrictiveness. The "all participants" sample includes all 39,000 individuals enrolled in the study. Most results will use this sample to ensure

no imbalance is introduced via sample restrictions. The "primary analytic sample" restricts to ages 18 to 50, excludes participants from localities exempt from work requirements, and drops those who used a non-study work-exempt code (e.g., medical exemption) in their first month. The "compliant cohorts" sample further restricts the primary analytic sample to those enrolling from October 2024 onward, for whom the VACMS software error had been resolved. The "likely affected" sample uses a LASSO model to predict whether an individual in the control group exhausts all three Y1 months before their first recertification, then restricts the compliant cohorts to the top half of this predicted distribution. This final sample concentrates on individuals whose enrollment is most sensitive to the work requirement. All four samples pass balance tests.

C. Outcomes

Our primary participation outcome is an indicator for SNAP enrollment at specified months after certification (typically 6 and 12 months, corresponding to the months just after the first and second recertifications in the control group). We also examine cumulative SNAP benefits received and administrative exit reason codes to shed light on the mechanisms of disenrollment.

Our primary employment outcome is an indicator for any UI-covered earnings in a given calendar quarter, measured at the individual level using VEC records. We examine employment in the second and third quarters after SNAP certification, which correspond roughly to months 4 through 9 after enrollment. We also estimate effects on cumulative wages using Poisson regressions, and effects on the wage distribution using unconditional quantile regressions following the recentered influence function method of Firpo, Fortin, and Lemieux (2009).

V. Results

A. Program Participation

Work requirements substantially reduce SNAP enrollment. At six months after certification, in the "all participants" sample both short and long exemptions increase the probability of remaining enrolled by approximately 6-7 percentage points relative to a control group enrollment rate of about 37 percent, a 19 percent increase. Extending the recertification period from 6 to 12 months raises participation by an additional 19 percentage points at the six-month mark. These effects are stable across analytic samples and are not sensitive to the inclusion of controls. Appendix Table A2 shows that effects of work requirement exemptions are generally larger in samples that focus on enrollees more likely to be affected by the intervention, including the primary analytic sample (7pp), the compliant cohort sample (8pp), and the likely affected sample (10pp). Effects of a long recertification period appear substantially larger (33pp versus 13pp) among the compliant cohorts versus the anomaly cohorts, perhaps reflecting an interaction between work requirements and recertification frictions, though we also cannot rule out other factors that may have made recertification extensions more impactful during the initial time period of the study.

Event study estimates reveal informative dynamics. All intervention effects emerge at month 6, when control group participants face their first recertification and potential removal for not meeting the work requirements. Between months 6 and 12, the effects of both exemption lengths are similar and grow slightly. At month 12, the short exemption effect diminishes while the long exemption effect becomes somewhat larger, consistent with the fact that long-exemption participants still have unused S9 months at this point. The short exemption effect does not disappear entirely, likely because some participants in that group preserved unused Y1 months through working or obtained other exemptions.

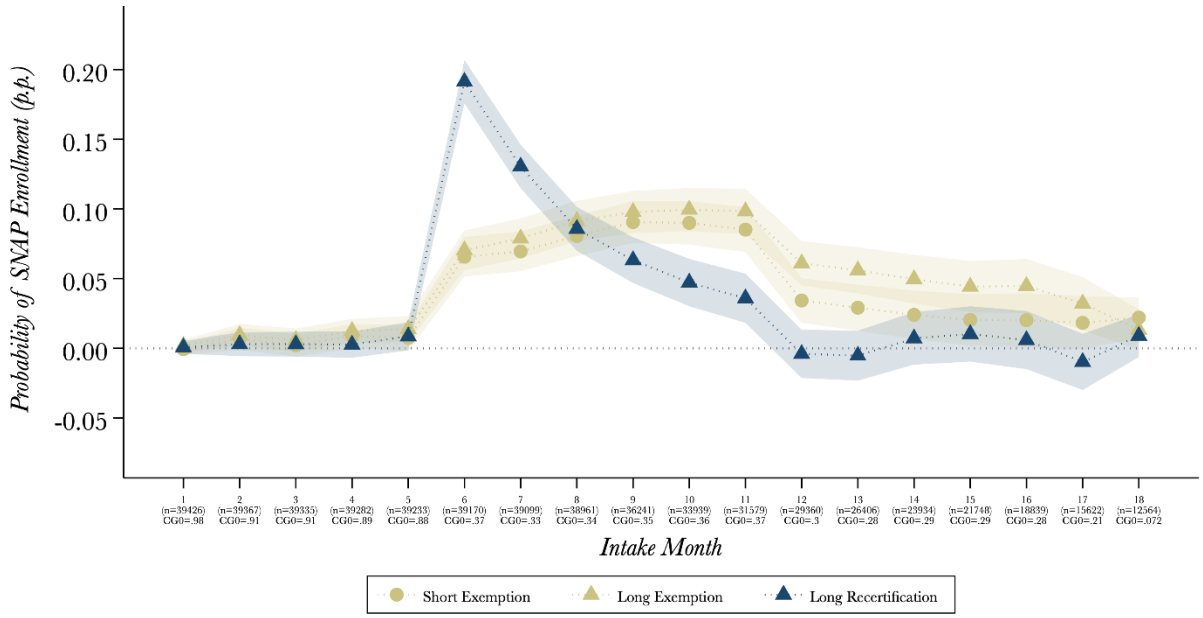
Table 3: Effects of Interventions on SNAP Participation among All Participants Sample

	(1) 6m	(2) 6m	(3) 6m	(4) 6m	(5) 6m	(6) 9m	(7) 9m	(8) 9m	(9) 9m	(10) 9m	(11) 12m	(12) 12m	(13) 12m	(14) 12m	(15) 12m
A: No Controls															
Short Exemption (1)	.066***	.071***	.066***	.132***		.091***	.086***	.091***	.112***		.034***	.034***	.034***	.033***	
	(.007)	(.007)	(.007)	(.007)		(.008)	(.007)	(.008)	(.007)		(.008)	(.008)	(.008)	(.008)	
Long Exemption (2)	.070***	.076***	.070***	.137***		.098***	.093***	.098***	.120***		.061***	.060***	.061***	.060***	
	(.007)	(.007)	(.007)	(.007)		(.008)	(.007)	(.008)	(.007)		(.008)	(.008)	(.008)	(.007)	
Long Recertification (3)	.133***					.044***					-.003				
	(.006)					(.006)					(.006)				
Long Recertification Given (4)		.175***					.076***					-.003			
		(.006)					(.006)					(.006)			
Long Recertification, LATE (5)			.191***					.063***					-.004		
			(.008)					(.008)					(.009)		
Any Exemption (6)					.134***					.116***					.046***
					(.006)					(.006)					(.007)
$p : (1) - (2) = 0$	.376	.395	.399	.362		.208	.212	.211	.208		.000***	.000***	.000***	.000***	
B: Basic Controls															
Short Exemption (1)	.064***	.072***	.064***	.129***		.090***	.086***	.091***	.113***		.035***	.036***	.035***	.034***	
	(.007)	(.007)	(.007)	(.007)		(.008)	(.007)	(.008)	(.007)		(.008)	(.008)	(.008)	(.007)	
Long Exemption (2)	.070***	.078***	.070***	.135***		.098***	.093***	.098***	.120***		.061***	.062***	.061***	.060***	
	(.007)	(.007)	(.007)	(.007)		(.008)	(.007)	(.008)	(.007)		(.008)	(.008)	(.008)	(.007)	
Long Recertification (3)	.131***					.044***					-.003				
	(.005)					(.006)					(.006)				
Long Recertification Given (4)		.167***					.078***					-.007			
		(.006)					(.006)					(.006)			
Long Recertification, LATE (5)			.190***					.064***					-.004		
			(.008)					(.008)					(.009)		
Any Exemption (6)					.132***					.116***					.047***
					(.006)					(.006)					(.007)
$p : (1) - (2) = 0$	.260	.277	.281	.251		.190	.195	.194	.190		.000***	.000***	.000***	.000***	
C: Enhanced Controls															
Short Exemption (1)	.065***	.072***	.066***	.131***		.090***	.087***	.090***	.112***		.034***	.034***	.034***	.032***	
	(.007)	(.007)	(.007)	(.007)		(.008)	(.007)	(.008)	(.007)		(.008)	(.008)	(.008)	(.007)	
Long Exemption (2)	.071***	.077***	.071***	.137***		.098***	.095***	.098***	.119***		.060***	.060***	.060***	.058***	
	(.007)	(.007)	(.007)	(.007)		(.008)	(.007)	(.008)	(.007)		(.008)	(.008)	(.008)	(.007)	
Long Recertification (3)	.132***					.043***					-.003				
	(.006)					(.006)					(.006)				
Long Recertification Given (4)		.172***					.072***					-.006			
		(.006)					(.006)					(.007)			
Long Recertification, LATE (5)			.190***					.063***					-.005		
			(.008)					(.008)					(.009)		
Any Exemption (6)					.134***					.116***					.045***
					(.006)					(.006)					(.007)
$p : (1) - (2) = 0$	.333	.376	.382	.323		.185	.195	.193	.186		.000***	.000***	.000***	.000***	
D: Optimal Controls															
Short Exemption (1)	.064***	.073***	.065***	.130***		.091***	.087***	.091***	.113***		.036***	.037***	.036***	.034***	
	(.007)	(.007)	(.007)	(.007)		(.008)	(.007)	(.008)	(.007)		(.008)	(.008)	(.008)	(.007)	
Long Exemption (2)	.070***	.078***	.070***	.136***		.099***	.094***	.099***	.121***		.061***	.063***	.061***	.060***	
	(.007)	(.007)	(.007)	(.007)		(.008)	(.007)	(.008)	(.007)		(.008)	(.008)	(.008)	(.007)	
Long Recertification (3)	.131***					.044***					-.003				
	(.005)					(.006)					(.006)				
Long Recertification Given (4)		.166***					.076***					-.009			
		(.006)					(.006)					(.006)			
Long Recertification, LATE (5)			.189***					.063***					-.004		
			(.008)					(.008)					(.009)		
Any Exemption (6)					.133***					.117***					.047***
					(.006)					(.006)					(.007)
$p : (1) - (2) = 0$	.273	.307	.314	.261		.187	.202	.200	.188		.000***	.000***	.000***	.000***	
Control Mean	.373	.373	.373	.373	.373	.35	.35	.35	.35	.35	.299	.299	.299	.299	.299
Observations	39170	39170	39170	39170	39170	36241	36241	36241	36241	36241	29360	29360	29360	29360	29360

Notes: Standard errors in parentheses. Outcomes are defined as receiving any SNAP benefits. Coefficient estimates for (1), (2), (3), and (6) represent the Intent to Treat effect, ITT, while (4) is the biased estimate of the effect of receiving a long recertification based on an indicator of IG3 and IG4 participants obtaining a 250+ day recertification period and (5) is the Localized Average Treatment effect for receiving a 250+ day recertification period estimated by using indicators for being assigned IG3 and IG4 as instruments. Variables included in the basic set (panel B) are indicators for age group, sex, race, marital status, previous SNAP enrollment, as well as SNAP benefits and income at program enrollment. Variables included in the enhanced set (panel C) are indicators for residence FIPS, below high school, some college, education unknown, as well as wages for 5 quarters prior to SNAP enrollment. Variables included in the optimal set (panel D) are picked by double LASSO selection from the union of the basic and enhanced set. Coefficients are estimated by OLS with cohort fixed effects. Significance levels * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

The recertification extension produces a very large participation effect at month 6, on the order of 19 percentage points, but the effect declines rapidly and reaches zero by month 12. Appendix Figure A3 shows that administrative exit reason codes illuminate the mechanism:

Figure 2: Event Study of Participation Effects



participants with 12-month recertification periods are far less likely to disenroll for missing a recertification interview but far more likely to disenroll for failing to submit the interim report. The extension thus replaced one form of administrative burden with another, and the interim report proved nearly as consequential a barrier as the full interview.

The participation effects translate into economically meaningful differences in total benefits received. Cumulative SNAP benefits for the exemption groups exceed the control group by $20 to $30 at six months, $130-160 at 12 months, and approximately $200 at 18 months among the all participant sample. The recertification extension adds roughly $45 at six months and $175 at 12 months.

B. Employment

While work requirements reduce enrollment substantially, their effects on employment are modest. Granting either a short or a long work requirement exemption has no statistically or economically significant effect on the probability of UI-covered employment in the first full quarter after SNAP certification (Q2). Indeed, we can rule out reductions larger than 2 percentage points for that

Table 4: Effects on SNAP Benefits, Cumulative

	(1) 6m	(2) 6m	(3) 6m	(4) 6m	(5) 6m	(6) 9m	(7) 9m	(8) 9m	(9) 9m	(10) 9m	(11) 12m	(12) 12m	(13) 12m	(14) 12m	(15) 12m
A: No Controls															
Short Exemption (1)	20**	42***	20**	35***		81***	101***	81***	125***		133***	154***	134***	194***	
	(7.4)	(7.1)	(7.4)	(6.8)		(12)	(11)	(12)	(11)		(18)	(17)	(18)	(17)	
Long Exemption (2)	32***	54***	32***	48***		104***	124***	104***	149***		164***	184***	164***	224***	
	(7.4)	(7.1)	(7.4)	(6.8)		(12)	(11)	(12)	(11)		(18)	(17)	(18)	(17)	
Long Recertification (3)	32***					89***					121***				
	(5.6)					(8.7)					(14)				
Long Recertification Given (4)		-19**					72***					116***			
		(5.9)					(9.2)					(14)			
Long Recertification, LATE (5)			46***					129***					174***		
			(8.1)					(13)					(19)		
Any Exemption (6)					42***					137***					209***
					(6.2)					(9.7)					(15)
$p : (1) - (2) = 0$	.024**	.023**	.025**	.024**		.007***	.007***	.007***	.007***		.025**	.026**	.028**	.024**	
B: Basic Controls															
Short Exemption (1)	23***	36***	24***	42***		87***	97***	87***	134***		140***	150***	140***	203***	
	(6.1)	(5.9)	(6.1)	(5.6)		(10)	(10)	(10)	(9.7)		(17)	(16)	(17)	(16)	
Long Exemption (2)	35***	48***	35***	53***		107***	117***	107***	154***		169***	180***	169***	233***	
	(6)	(5.8)	(6.1)	(5.6)		(10)	(10)	(10)	(9.7)		(17)	(16)	(17)	(16)	
Long Recertification (3)	37***					95***					126***				
	(4.6)					(7.9)					(13)				
Long Recertification Given (4)		16**					107***					151***			
		(4.8)					(8.3)					(13)			
Long Recertification, LATE (5)			53***					137***					182***		
			(6.6)					(11)					(18)		
Any Exemption (6)					48***					144***					218***
					(5.1)					(8.8)					(14)
$p : (1) - (2) = 0$	.012**	.012**	.013**	.012**		.010**	.010**	.010**	.010**		.019**	.021**	.022**	.019**	
								6in							
C: Enhanced Controls															
Short Exemption (1)	20**	45***	20**	36***		81***	105***	81***	125***		134***	159***	134***	193***	
	(7.3)	(7.1)	(7.3)	(6.8)		(11)	(11)	(11)	(11)		(18)	(17)	(18)	(16)	
Long Exemption (2)	32***	57***	32***	48***		104***	128***	104***	148***		163***	188***	163***	223***	
	(7.3)	(7.1)	(7.3)	(6.8)		(11)	(11)	(11)	(11)		(18)	(17)	(18)	(16)	
Long Recertification (3)	32***					88***					119***				
	(5.6)					(8.7)					(13)				
Long Recertification Given (4)		-26***					59***					1.0e+02***			
		(5.9)					(9.2)					(14)			
Long Recertification, LATE (5)			46***					127***					171***		
			(8)					(12)					(19)		
Any Exemption (6)					42***					137***					208***
					(6.2)					(9.6)					(15)
$p : (1) - (2) = 0$	.032**	.030**	.034**	.032**		.007***	.008***	.008***	.008***		.026**	.028**	.030**	.025**	
D: Optimal Controls															
Short Exemption (1)	23***	38***	23***	42***		88***	101***	88***	135***		141***	154***	141***	203***	
	(6)	(5.8)	(6)	(5.6)		(10)	(10)	(10)	(9.6)		(17)	(16)	(17)	(16)	
Long Exemption (2)	35***	50***	35***	53***		108***	121***	108***	155***		170***	184***	170***	233***	
	(6)	(5.8)	(6)	(5.6)		(10)	(10)	(10)	(9.6)		(17)	(16)	(17)	(16)	
Long Recertification (3)	37***					94***					126***				
	(4.6)					(7.9)					(13)				
Long Recertification Given (4)		9.1*					97***					140***			
		(4.9)					(8.4)					(13)			
Long Recertification, LATE (5)			53***					135***					179***		
			(6.6)					(11)					(18)		
Any Exemption (6)					48***					145***					218***
					(5.1)					(8.8)					(14)
$p : (1) - (2) = 0$	.012**	.011**	.012**	.011**		.009***	.010**	.010**	.009***		.019**	.021**	.022**	.018**	
Control Mean	1303	1303	1303	1303	1303	1554	1554	1554	1554	1554	1807	1807	1807	1807	1807
Observations	39170	39170	39170	39170	39170	36241	36241	36241	36241	36241	29360	29360	29360	29360	29360

Notes: Standard errors in parentheses. Coefficient estimates for (1), (2), (3), and (6) represent the Intent to Treat effect, ITT, while (4) is the biased estimate of the effect of receiving a long recertification based on an indicator of IG3 and IG4 participants obtaining a 250+ day recertification period and (5) is the Localized Average Treatment effect for receiving a 250+ day recertification period estimated by using indicators for being assigned IG3 and IG4 as instruments. Variables included in the basic set (panel B) are indicators for age group, sex, race, marital status, previous SNAP enrollment, as well as SNAP benefits and income at program enrollment. Variables included in the enhanced set (panel C) are indicators for residence FIPS, below high school, some college, education unknown, as well as wages for 5 quarters prior to SNAP enrollment. Variables included in the optimal set (panel D) are picked by double LASSO selection from the union of the basic and enhanced set. Coefficients are estimated by OLS with cohort fixed effects. Significance levels * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

quarter. In the second full quarter, we do detect statistically significant reductions in employment from a short work requirement exemption, but effects remain modest, on the order of 1-2 percentage points relative to a baseline employment rate of 46 percent in the control group (see

Table 5: Effect on Employment among All Participant Sample

	(1) Q2	(2) Q2	(3) Q2	(4) Q2	(5) Q2	(6) Q3	(7) Q3	(8) Q3	(9) Q3	(10) Q3	(11) Q4	(12) Q4	(13) Q4	(14) Q4	(15) Q4
A: No Controls															
Short Exemption (1)	-.007	-.010	-.007	-.003		-.014*	-.015*	-.014*	-.008		-.004	-.005	-.004	-.001	
	(.007)	(.007)	(.007)	(.007)		(.008)	(.008)	(.008)	(.008)		(.010)	(.009)	(.009)	(.009)	
Long Exemption (2)	.000	-.003	.000	.003		-.011	-.012	-.011	-.005		.002	.001	.002	.005	
	(.007)	(.007)	(.007)	(.007)		(.008)	(.008)	(.008)	(.008)		(.009)	(.009)	(.009)	(.009)	
Long Recertification (3)	.007					.012*					.006				
	(.006)					(.006)					(.007)				
Long Recertification Given (4)		.020***					.020**					.011			
		(.006)					(.007)					(.008)			
Long Recertification, LATE (5)			.010					.017*					.008		
			(.008)					(.009)					(.010)		
Any Exemption (6)					.000					-.006					.002
					(.006)					(.007)					(.008)
$p : (1) - (2) = 0$	.219	.222	.220	.219		.634	.636	.636	.633		.375	.378	.377	.374	
B: Basic Controls															
Short Exemption (1)	-.009	-.011	-.009	-.006		-.018**	-.016**	-.018**	-.012		-.009	-.008	-.009	-.007	
	(.007)	(.007)	(.007)	(.007)		(.008)	(.008)	(.008)	(.007)		(.009)	(.009)	(.009)	(.008)	
Long Exemption (2)	-.001	-.002	-.001	.002		-.013	-.011	-.013	-.007		.000	.001	.000	.002	
	(.007)	(.007)	(.007)	(.007)		(.008)	(.008)	(.008)	(.007)		(.009)	(.009)	(.009)	(.008)	
Long Recertification (3)	.006					.012**					.005				
	(.005)					(.006)					(.007)				
Long Recertification Given (4)		.012**					.014**					.004			
		(.006)					(.006)					(.007)			
Long Recertification, LATE (5)			.008					.017**					.007		
			(.008)					(.009)					(.010)		
Any Exemption (6)					-.002					-.009					-.002
					(.006)					(.007)					(.008)
$p : (1) - (2) = 0$	.097*	.098*	.097*	.097*		.398	.399	.399	.397		.172	.173	.173	.172	
C: Enhanced Controls															
Short Exemption (1)	-.007	-.010	-.007	-.003		-.015*	-.015**	-.015*	-.009		-.008	-.008	-.008	-.005	
	(.007)	(.007)	(.007)	(.007)		(.008)	(.008)	(.008)	(.007)		(.009)	(.009)	(.009)	(.008)	
Long Exemption (2)	.002	-.001	.002	.005		-.011	-.011	-.011	-.004		.001	.001	.001	.004	
	(.007)	(.007)	(.007)	(.007)		(.008)	(.008)	(.008)	(.007)		(.009)	(.009)	(.009)	(.008)	
Long Recertification (3)	.006					.012**					.006				
	(.005)					(.006)					(.007)				
Long Recertification Given (4)		.019***					.020**					.009			
		(.006)					(.006)					(.007)			
Long Recertification, LATE (5)			.009					.018**					.008		
			(.008)					(.009)					(.010)		
Any Exemption (6)					.001					-.006					-.000
					(.006)					(.007)					(.008)
$p : (1) - (2) = 0$	.097*	.100	.098*	.097*		.482	.487	.485	.480		.212	.215	.214	.211	
D: Optimal Controls															
Short Exemption (1)	-.009	-.010	-.009	-.006		-.018**	-.016**	-.018**	-.012*		-.011	-.009	-.011	-.008	
	(.007)	(.007)	(.007)	(.006)		(.008)	(.008)	(.008)	(.007)		(.009)	(.009)	(.009)	(.008)	
Long Exemption (2)	-.001	-.001	-.000	.002		-.014*	-.011	-.013*	-.008		-.003	-.001	-.002	-.000	
	(.007)	(.007)	(.007)	(.006)		(.008)	(.008)	(.008)	(.007)		(.009)	(.009)	(.009)	(.008)	
Long Recertification (3)	.006					.012**					.005				
	(.005)					(.006)					(.007)				
Long Recertification Given (4)		.011**					.013**					.003			
		(.006)					(.006)					(.007)			
Long Recertification, LATE (5)			.009					.018**					.008		
			(.008)					(.008)					(.010)		
Any Exemption (6)					-.002					-.010					-.004
					(.006)					(.007)					(.008)
$p : (1) - (2) = 0$	.111	.109	.108	.111		.474	.457	.457	.472		.217	.198	.199	.216	
Control Mean	.454	.454	.454	.454	.454	.46	.46	.46	.46	.46	.447	.447	.447	.447	.447
Observations	38961	38961	38961	38961	38961	31579	31579	31579	31579	31579	23934	23934	23934	23934	23934

Notes: Standard errors in parentheses. Outcomes are defined as any positive wages. Coefficient estimates for (1), (2), (3), and (6) represent the Intent to Treat effect, ITT, while (4) is the biased estimate of the effect of receiving a long recertification based on an indicator of IG3 and IG4 participants obtaining a 250+ day recertification period and (5) is the Localized Average Treatment effect for receiving a 250+ day recertification period estimated by using indicators for being assigned IG3 and IG4 as instruments. Variables included in the basic set (panel B) are indicators for age group, sex, race, marital status, previous SNAP enrollment, as well as SNAP benefits and income at program enrollment. Variables included in the enhanced set (panel C) are indicators for residence FIPS, below high school, some college, education unknown, as well as wages for 5 quarters prior to SNAP enrollment. Variables included in the optimal set (panel D) are picked by double LASSO selection from the union of the basic and enhanced set. Coefficients are estimated by OLS with cohort fixed effects. Significance levels * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Appendix Figure A4 for a full event study of employment effects). Effects of the long exemption are generally similar to those of a short exemption, but rarely statistically significantly different from zero. The employment estimates are robust across samples and to the inclusion of controls,

with somewhat larger point estimates in the likely affected sample (3pp reduction in employment). See Appendix Table A3 for details.

These experimental estimates provide a useful benchmark for prior quasi-experimental work. Gray et al. (2023) estimated an employment effect of 1.0 percentage point (SE = 1.3) using the age-50 regression discontinuity. Our RCT point estimates of 1 to 2 percentage points fall within their confidence interval but are estimated with substantially greater precision, allowing us to distinguish small effects from null effects.

Interestingly, we find offsetting positive effects of longer recertification periods on employment. Again, however, the effect sizes are modest. IV specifications suggest that a long recertification period increases employment by almost 2 percentage points, and these effects are generally statistically significant across samples. This positive effect may be driven by reduced administrative burdens that allow more time for job search or because involuntary disenrollment from missed interviews disrupts ongoing employment. Importantly, given that there are real effects on enrollment in Q3, this pushes against the explanation that employment effects of work requirements are due to loss of SNAP benefits rather than incentive effects of the work requirements themselves.

D. Interpreting the Participation-Employment Gap

The large difference between participation and employment effects is one of the central empirical findings of this paper. Work requirements reduce enrollment by approximately 10 percentage points at seven months while increasing employment by 1 to 3 percentage points. For every individual induced to work, several additional individuals lose benefits without a corresponding increase in labor supply. One interpretation is that many SNAP recipients face structural barriers to employment, such as unstable housing, health conditions, or limited transportation, that work

requirements do not address. For such individuals, the work requirement functions less as an incentive and more as an administrative barrier. An alternative interpretation is that some individuals are working in jobs not captured by the UI system or are engaged in informal employment. Finally, another alternative interpretation is that many SNAP enrollees simply do not understand the work requirement. Unawareness of the link between employment and eligibility could be true under the status quo policy but could also be true for our intervention: those in the intervention groups may not have understood that they were actually exempt from the work requirements. While we attempted to communicate this to them via the letters and via caseworker trainings, many recipients may still not have fully internalized their own exemptions. The survey data, once available, will help distinguish between these explanations.

VI. Heterogeneity and Targeting

A. Methods

We begin by examining how work requirements change the composition of the SNAP enrollment pool, following the approach in Gray et al. (2023). We re-estimate our main specification restricted to individuals enrolled at a given point in time, with pre-certification individual characteristics as the dependent variable. The coefficients on the treatment indicators capture how the composition of the enrolled pool differs across study arms. Changes in the composition of the enrolled pool reveal the characteristics of marginal enrollees: those who remain enrolled when exempted from work requirements but who exit under the status quo. These analyses will help shed light on the targeting effects of work requirements, in the spirit of Nichols and Zeckhauser (1982) and Besley and Coate (1992).

We then characterize treatment effect heterogeneity by estimating conditional average treatment effects (CATEs) using the causal forest algorithm of Athey and Imbens (2016). Inputs

include age, prior SNAP enrollment, race, sex, marital status, education, locality, initial SNAP benefit amount, and wages in each of the five quarters before certification. We estimate separate models for participation and employment outcomes, then examine the joint distribution of predicted effects across the two dimensions to identify individuals for whom exemptions produce the greatest net benefit.

B. Screening

Table 6 reports results of our screening regressions. Coefficients describe the change in the average level of each characteristic among the marginal enrollees due to each treatment – short and long exemptions and long recertification period. Positive (negative) coefficients imply that the marginal enrollees have higher (lower) levels of the characteristic than inframarginal enrollees.

We find that work requirement exemptions cause the enrolled pool to shift toward individuals with lower rates of prior SNAP enrollment, but (marginally) higher benefit amounts at SNAP entry and more likely to have less than a high school education. There is also some weak evidence that marginal enrollees have less prior work and earnings history. Evidence on the vulnerability of marginal enrollees is thus mixed. On the one hand, less prior SNAP enrollment suggests less vulnerability. On the other hand, higher benefit amounts, less education, and the weak evidence of less prior work and earnings history suggests the possibility of more vulnerability. Better measures of vulnerability from our ongoing survey should shed more light on this question.

Curiously, we generally find no detectable change in the characteristics of the pool of enrollees due to recertification period extensions, as coefficients are generally quite small for this treatment. The large group of individuals whose SNAP enrollment at 6 months is marginal to the administrative burdens associated with recertification interviews thus seems to be somewhat

Table 6: Effects of Interventions on Composition of SNAP Enrollees, 6 Months

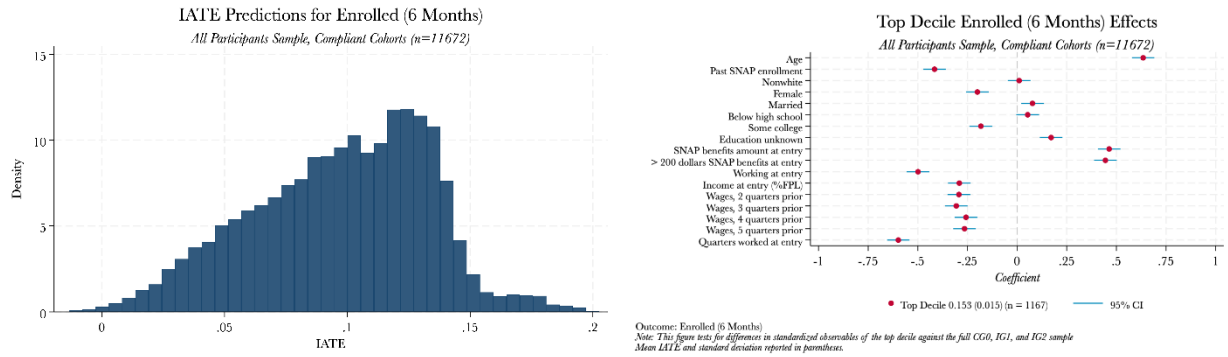
	(1) Long Recertification	(2) Short Exemption	(3) Long Exemption	(4) N
Age	-0.0379 (0.0266)	0.0319 (0.0282)	0.0462 (0.0282)	12769
Past SNAP enrollment	-0.0302 (0.0277)	-0.0524* (0.0295)	-0.0707** (0.0294)	12769
Nonwhite	0.00849 (0.0265)	-0.0153 (0.0281)	0.00422 (0.0281)	12769
Female	-0.0436 (0.0266)	-0.0147 (0.0283)	-0.00536 (0.0282)	12769
Married	0.0129 (0.0238)	-0.00310 (0.0253)	0.00894 (0.0252)	12769
Below high school	-0.0165 (0.0275)	0.0624** (0.0292)	0.0416 (0.0291)	12769
Some college	0.0419 (0.0261)	-0.00912 (0.0278)	0.0161 (0.0277)	12769
Education unknown	-0.0202 (0.0262)	0.0216 (0.0279)	-0.000325 (0.0278)	12769
SNAP benefits amount at entry	0.00416 (0.0271)	0.0927** (0.0288)	0.120*** (0.0288)	12769
Working at entry	0.0179 (0.0264)	-0.0391 (0.0281)	-0.0896** (0.0280)	12769
Income at entry (%FPL)	-0.0102 (0.0243)	0.00590 (0.0258)	-0.0336 (0.0258)	12769
Wages, 2 quarters prior	-0.00564 (0.0251)	-0.00110 (0.0267)	-0.0396 (0.0266)	12769
Wages, 3 quarters prior	-0.0129 (0.0246)	0.00598 (0.0262)	-0.0193 (0.0261)	12769
Wages, 4 quarters prior	-0.0153 (0.0260)	0.00757 (0.0276)	-0.0136 (0.0276)	12769
Wages, 5 quarters prior	-0.00672 (0.0245)	0.0331 (0.0260)	0.00129 (0.0260)	12769
Quarters worked at entry	-0.00383 (0.0263)	-0.0200 (0.0279)	-0.0692** (0.0279)	12769

Standardized observables. Standard errors in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

randomly selected (at least on the set of observable characteristics we analyze) from the full group of potential SNAP enrollees.

These findings bear on the theoretical predictions of Nichols and Zeckhauser (1982) and Besley and Coate (1992). If work requirements function as an efficient ordeal mechanism, they should screen out individuals with the lowest marginal utility of benefits. Our evidence is mixed on this prediction. Work requirements do screen: the composition of the enrolled pool changes meaningfully across treatment arms. But the direction of screening appears unfavorable, with more vulnerable individuals bearing a disproportionate share of the exits. This is consistent with Gray et al. (2023), who find that work requirements disproportionately affect homeless individuals, and with Homonoff, Lee, and Meckel (2025), who link SNAP administrative records to credit bureau data in California and find that households denied SNAP access due to administrative barriers experience increases in debt and delinquencies and decreases in credit scores. Together, these findings indicate that the marginal participants screened out by work requirements are not those

Figure 3: Heterogeneity in Effects of Exemptions on Participation



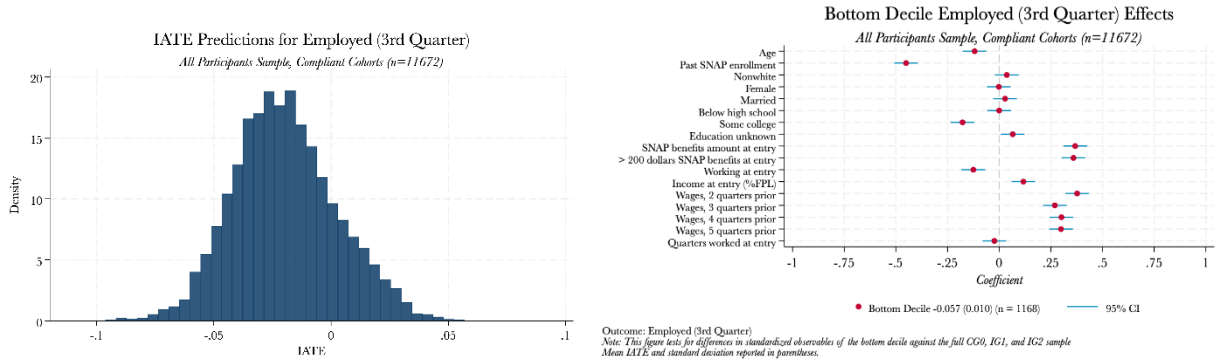
who derive the least value from the program. The fact that those screened out by more frequent eligibility recertifications do not appear better off than inframarginal enrollees also suggests that the targeting properties of these recertifications are not necessarily positive or negative, but somewhat neutral in nature.

C. Treatment Effect Heterogeneity

Figure 3 describes heterogeneity in the effects of work requirement exemptions (IG1 and IG2) on the SNAP participation outcome. The modal enrollee has a participation treatment effect around 12 percentage points, and there is modest variation in treatment effects across the study sample. The largest effects of exemptions on participation are found among individuals who are older, have less prior SNAP enrollment, are non-white, receive higher initial SNAP benefits, and have less current and prior work history and earnings.

Figure 4 describes heterogeneity in the effect of exemptions on employment in the third quarter after SNAP initiation. The model enrollee has an employment effect of around a 2 percentage point reduction in the probability of working, and there is modest variation in effects across the study sample. Those with the largest employment responses to work requirements (the most negative exemption effects on employment) tend to have less prior SNAP enrollment and

Figure 4: Heterogeneity in Effects of Exemptions on (Q3) Employment



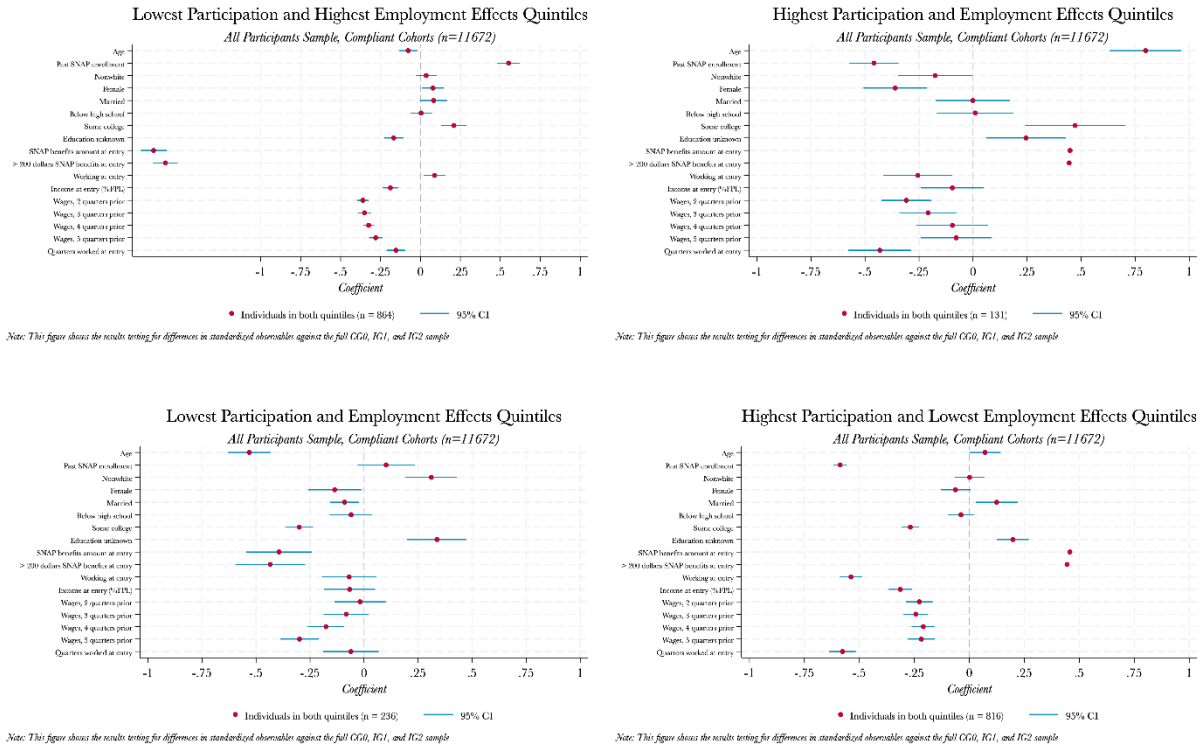
higher incomes prior to joining SNAP but also receive higher SNAP benefits at entry are less likely to be working at the time they enter SNAP..

D. Joint Distribution and Targeting Implications

Figure 5 describes the joint distribution of participation and employment CATEs. Each panel of the figure describes the differences in observable characteristics for the group with a particular combination of employment and participation effects versus the characteristics of the average individual in the sample. Panel (a) describes the group with the smallest employment effects and the smallest participation effects; Panel (b) describes the group with the smallest employment effects and the largest participation effects; Panel (c) describes the group with the smallest participation effects and the largest (negative) employment effects; and Panel (d) describes the group with the largest participation effects and the largest employment effects.

Panel (b) is the group of primary interest: This group had the largest effects of work requirement exemptions on SNAP participation and the least negative (highest) effects of exemptions on work. This is the group that can be exempted from work requirements with very limited labor supply consequences or fiscal externalities, but it is also the group most likely to be screened out of SNAP by work requirements. Thus, states may wish to target this group with their (scarce) work requirement exemptions. These individuals are older, have less prior SNAP

Figure 7: Joint Distribution of Employment and Participation Treatment Effects



enrollment, are more likely to be male, have lower prior earnings and less work history, are less likely to be currently working, and have higher initial SNAP benefits. In many ways, this group appears highly vulnerable, a good target for work requirement exemptions.

VII. Discussion and Next Steps

Work requirements are expanding across the American safety net at an unprecedented pace. The OBBBA introduces mandatory work requirements in Medicaid, shortens recertification periods, and broadens them in SNAP. The quasi-experimental literature has consistently found that work requirements reduce SNAP enrollment, but evidence on employment effects has been inconclusive. This paper provides the first randomized experimental evidence on these questions in over three decades.

Our results confirm that work requirements reduce enrollment substantially, by approximately 8-10 percentage points at six months, while producing small positive effects on employment of 1 to 2 percentage points. These employment magnitudes are similar to those from Gray et al. (2023), but our experimental design allows us to statistically distinguish them from zero. The marginal participants screened out by work requirements appear more vulnerable along several dimensions, and for every person induced to work by the requirement, several others lose food assistance without increasing their employment. Further, the timing of the employment effects suggests the possibility that effects stem from the loss of SNAP benefits (due to failing to meet the requirements) rather than actual incentive effects of the work requirements (though offsetting positive effects of recertification period extensions on employment push against this explanation).

These findings speak directly to the OBBBA. The expansion of SNAP work requirements to ages 55 through 64 and the elimination of exemptions for veterans and homeless individuals will likely produce substantial enrollment declines, consistent with the CBO's projection of 2.4 million fewer monthly enrollees (CBO 2025). The new 6-month Medicaid recertification period, replacing the 12-month standard in most states, may produce coverage losses that rival those of work requirements: our estimates indicate that shortening the recertification interval from 12 to 6 months reduces enrollment by 14 to 15 percentage points at 6 months. Our finding that the recertification extension effect is fully offset by the interim report requirement underscores the importance of administrative design. In Medicaid, recertification does not typically involve interviews like in SNAP but instead involves filling out and returning forms, similar to the interim report requirement in SNAP. Our results suggest that while the interim report does not impact recertification rates as much as interviews, the impact is still substantial. Even modest reporting

requirements can generate large coverage losses, implying that simplifying compliance verification could increase program take-up without affecting work incentives. Indeed, if anything, our treatment group that received longer recertification periods and was thus subject to paper forms rather than burdensome interviews had *higher* employment rates than groups with more frequent, interview-based recertification.,

Our heterogeneity analysis shows that the effects of work requirements are not uniform and provides a framework for targeting scarce exemptions. Employment responses are concentrated among those with stronger prior labor force attachment, while those with weaker attachment gain little from the incentive but bear the cost of losing benefits. As the pool of discretionary exemptions shrinks under recent legislative changes, states should consider prioritizing exemptions for younger individuals with lower pre-SNAP incomes and less prior SNAP enrollment, who experience large participation effects with limited employment consequences.

Several extensions of this work are planned or already in progress. We will analyze survey data (currently in the field) on food insecurity, health, housing stability, and financial hardship to assess the welfare consequences of work requirements beyond participation and employment. We will extend our analysis to longer follow-up periods as later cohorts accumulate post-enrollment data. We also plan to purchase credit reports for study participants to examine effects on financial distress, building on recent work linking SNAP participation to credit outcomes (Homonoff, Lee, and Meckel 2025).

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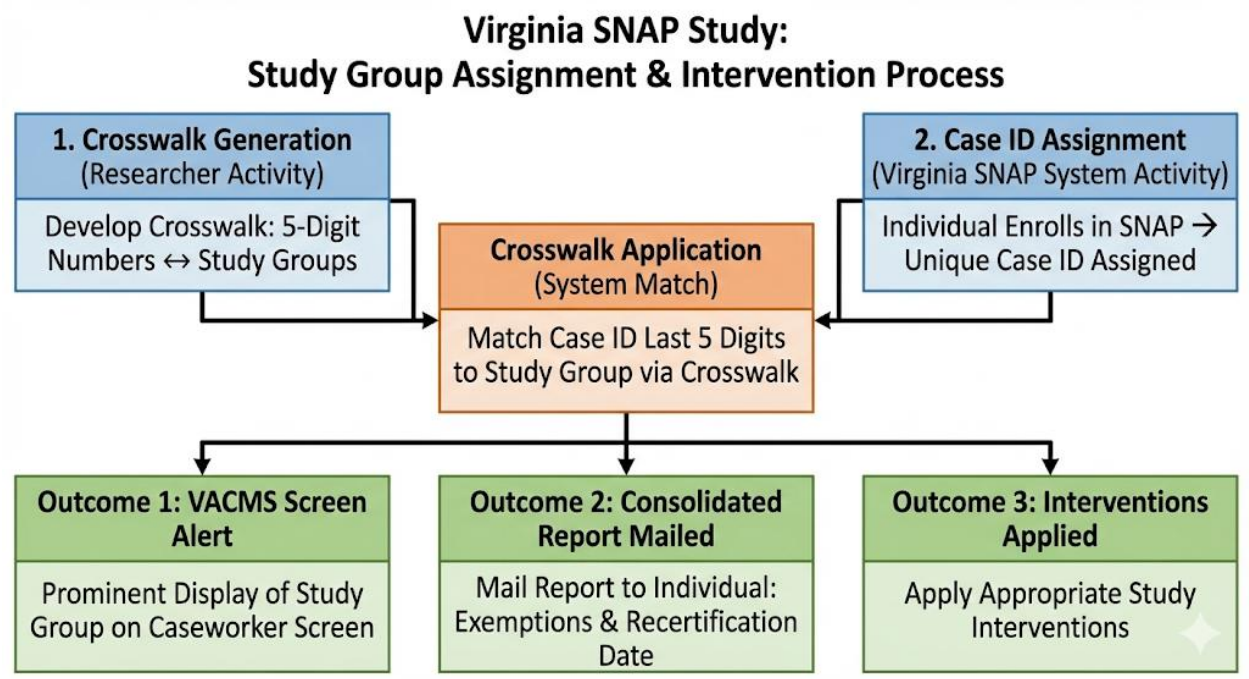
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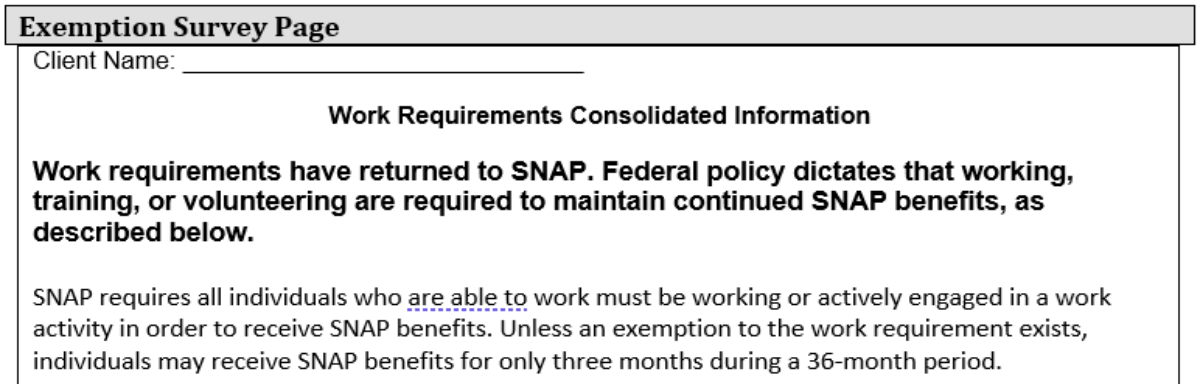
Online Appendix for "Early Results from The Virginia Work Requirements Experiment"

Appendix Figure A1: Study Implementation Flow Chart



Appendix Figure A2: "Consolidated Reports"/Letters to Enrollees

Status quo (CG0):



Exemption Survey Page

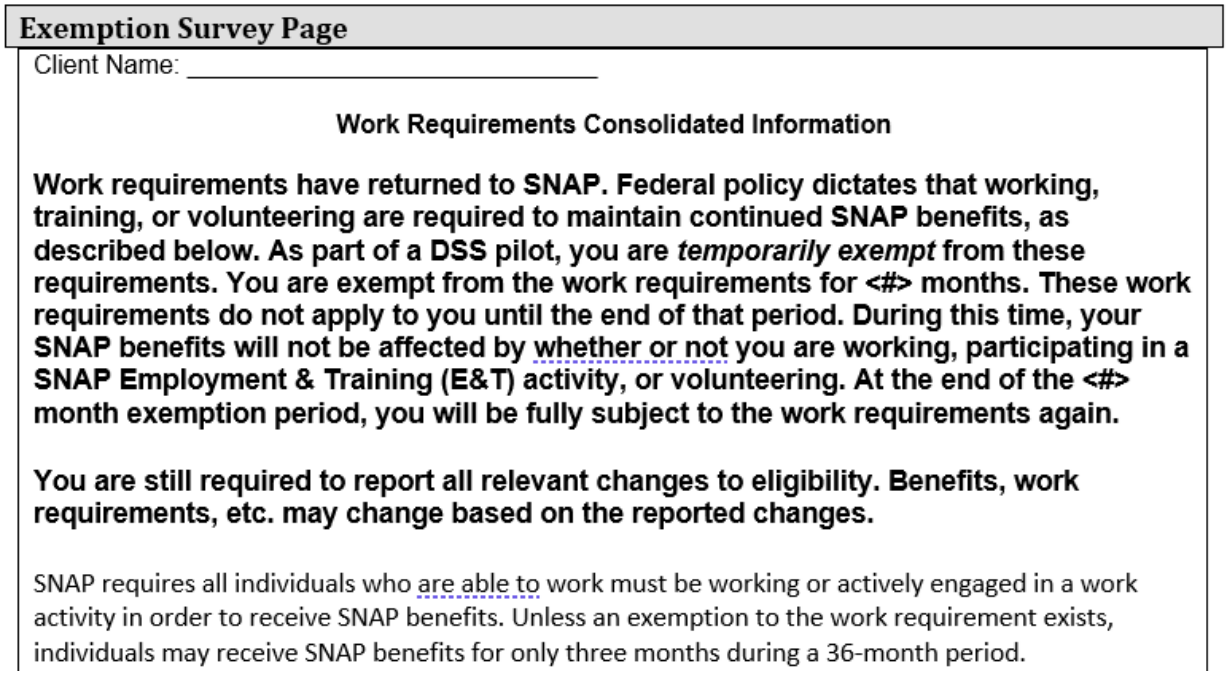
Client Name: _____

Work Requirements Consolidated Information

Work requirements have returned to SNAP. Federal policy dictates that working, training, or volunteering are required to maintain continued SNAP benefits, as described below.

SNAP requires all individuals who are able to work must be working or actively engaged in a work activity in order to receive SNAP benefits. Unless an exemption to the work requirement exists, individuals may receive SNAP benefits for only three months during a 36-month period.

Intervention Groups:



Exemption Survey Page

Client Name: _____

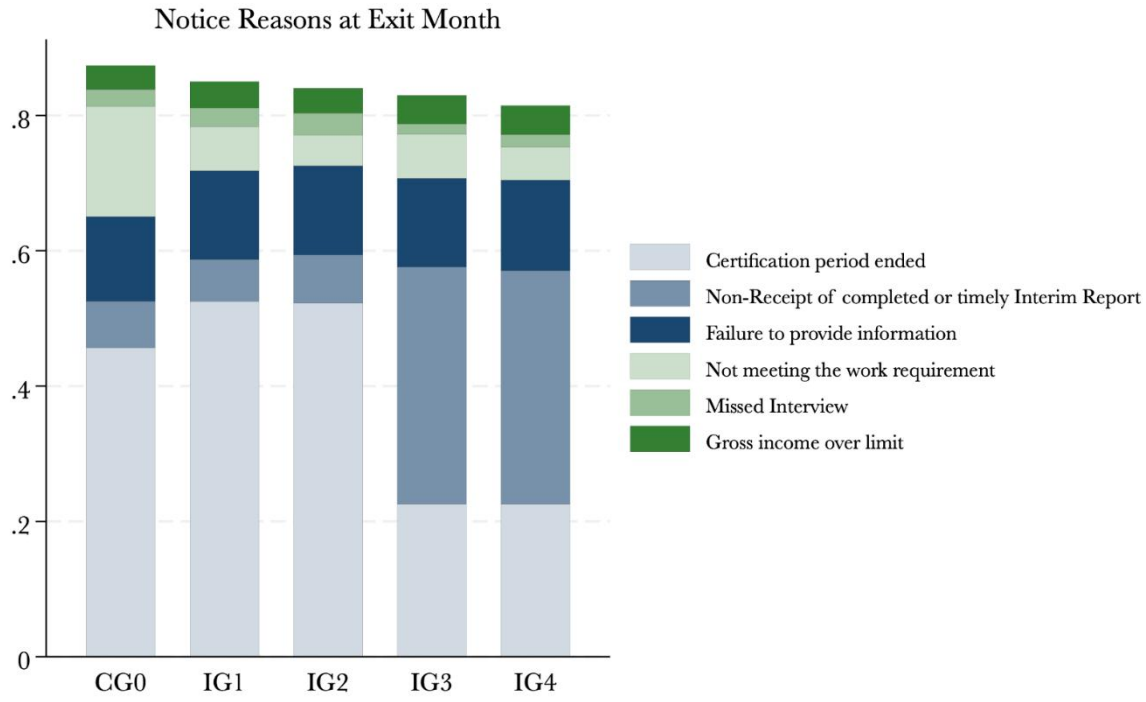
Work Requirements Consolidated Information

Work requirements have returned to SNAP. Federal policy dictates that working, training, or volunteering are required to maintain continued SNAP benefits, as described below. As part of a DSS pilot, you are *temporarily exempt* from these requirements. You are exempt from the work requirements for <#> months. These work requirements do not apply to you until the end of that period. During this time, your SNAP benefits will not be affected by whether or not you are working, participating in a SNAP Employment & Training (E&T) activity, or volunteering. At the end of the <#> month exemption period, you will be fully subject to the work requirements again.

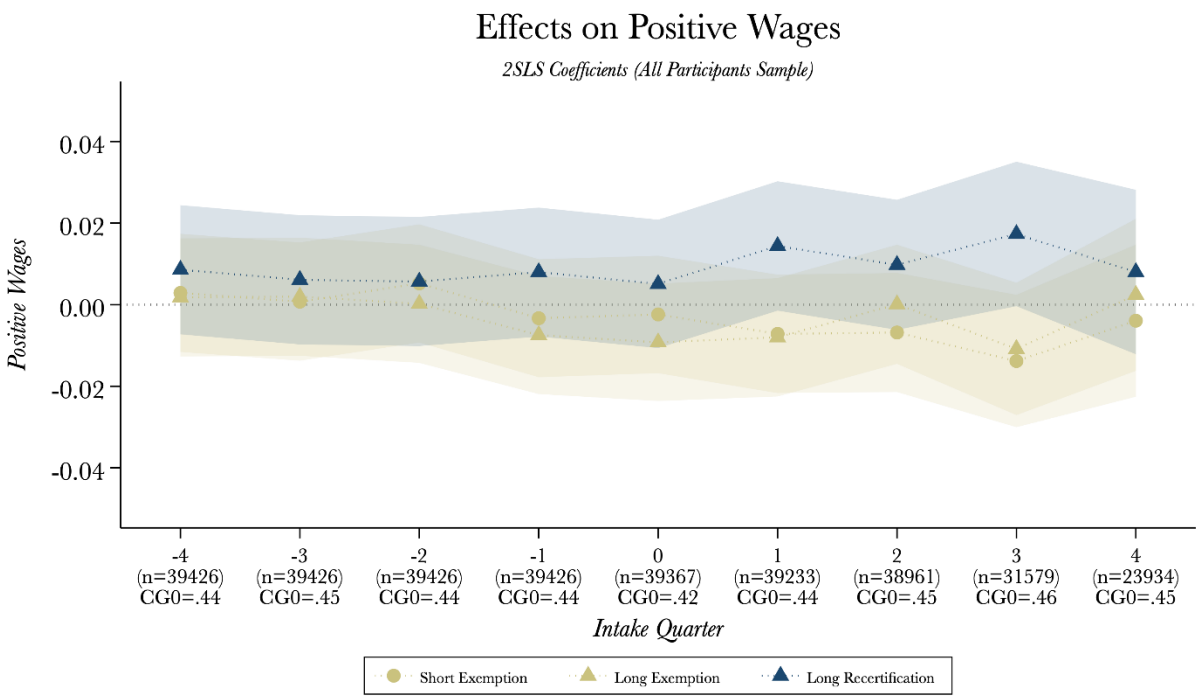
You are still required to report all relevant changes to eligibility. Benefits, work requirements, etc. may change based on the reported changes.

SNAP requires all individuals who are able to work must be working or actively engaged in a work activity in order to receive SNAP benefits. Unless an exemption to the work requirement exists, individuals may receive SNAP benefits for only three months during a 36-month period.

Appendix Figure A3: Exit Reason Codes by Study Group



Appendix Figure A4: Event Study of Employment Effects



Appendix Table A1: Tests for Endogenous Controls

	(1) Age 18-24	(2) Age 25-29	(3) Age 30-34	(4) Age 35-39	(5) Age 40-44	(6) Age 45-49	(7) Female	(8) Nonwhite	(9) Married	(10) Marital status unknown
Short exemption (6m)	0.003	0.002	0.005	-0.007	-0.005	-0.000	0.008	-0.010	-0.001	-0.001
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.004)	(0.007)	(0.007)	(0.002)	(0.001)
Long exemption (12m)	0.004	0.005	0.006	-0.008	-0.004	-0.002	0.011	-0.004	0.000	-0.002
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.004)	(0.007)	(0.007)	(0.002)	(0.001)
Long recertification (12m)	-0.007*	0.005	-0.004	-0.001	0.005	0.003	-0.006	0.007	0.001	0.000
	(0.004)	(0.004)	(0.004)	(0.004)	(0.003)	(0.003)	(0.006)	(0.006)	(0.001)	(0.001)
Observations	39426	39426	39426	39426	39426	39426	39426	39426	39426	39426

	(1) SNAP benefits amount at entry	(2) Income at entry (%FPL)	(3) Past SNAP enrollment
Short exemption (6m)	-1.080	0.015	0.007
	(1.260)	(0.019)	(0.007)
Long exemption (12m)	-0.427	-0.014	0.001
	(1.258)	(0.018)	(0.007)
Long recertification (12m)	-1.697*	0.009	0.002
	(0.955)	(0.014)	(0.005)
Observations	39426	39367	39426

	(1) Below high school	(2) Some college	(3) Education unknown
Short exemption (6m)	0.003	-0.002	-0.004
	(0.002)	(0.005)	(0.007)
Long exemption (12m)	0.002	0.000	-0.005
	(0.002)	(0.005)	(0.007)
Long recertification (12m)	-0.002	0.002	0.002
	(0.002)	(0.004)	(0.005)
Observations	39426	39426	39426

Appendix Table A2

Effects on SNAP Enrollment Under Sample Restrictions

	(1) All	(2) Primary	(3) Compliant	(4) Anomaly	(5) Likely
A: Enrolled (6 Months)					
Short Exemption (1)	.0657***	.0687***	.083***	.0292**	.0974***
	(.00725)	(.00729)	(.00874)	(.0129)	(.00992)
Long Exemption (2)	.0703***	.0738***	.0844***	.0406**	.102***
	(.00724)	(.00728)	(.00873)	(.0129)	(.00991)
Long Recertification, LATE (3)	.191***	.192***	.127***	.329***	.219***
	(.00792)	(.00795)	(.0097)	(.0136)	(.0112)
$p:(1)-(2)=0$	.399	.347	.838	.244	.527
Observations	39170	38876	27059	12111	19957
Cohorts	17	17	13	4	17
CG0 Mean	.373	.37	.371	.376	.27
B: Enrolled (12 Months)					
Short Exemption (1)	.0342***	.0378***	.0392***	.0269**	.0411***
	(.0081)	(.00812)	(.0105)	(.0128)	(.0107)
Long Exemption (2)	.061***	.0648***	.0699***	.048***	.0611***
	(.0081)	(.00813)	(.0105)	(.0128)	(.0107)
Long Recertification, LATE (3)	-.00406	-.00452	-.00553	-.00223	.00323
	(.00883)	(.00884)	(.0117)	(.0135)	(.0121)
$p:(1)-(2)=0$	.000***	.000***	.000***	.0278**	.0134**
Observations	29360	29233	17249	12111	15017
Cohorts	11	11	7	4	11
CG0 Mean	.299	.295	.288	.314	.233

Notes: This table reports coefficient estimates under different sample restrictions. Column (1), All, refers to the restriction of individuals between ages 18 and 54 who resided in FIPs subject to work requirements at entry. Column (2), Primary, imposes an additional restriction upon (1) that individuals did not use codes that suggests they are exempt from work requirements for personal reasons (E3, E4, E5, E7, E8, EF, EH, ET) in the first month. Column (3), Compliant, restricts to cohorts from (1) that did not experience implementation issues where the work exemption treatment was not given. Column (4), Anomaly, restricts to cohorts from (1) that experienced implementation issues where the work exemption treatment was not given. Estimated by OLS with cohort fixed effects. Standard error in parentheses. Significance levels * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Appendix Table A3

Effects on Employment Under Sample Restrictions

	(1) All	(2) Primary	(3) Compliant	(4) Anomaly	(5) Likely
A: Employed (2nd Quarter)					
Short Exemption (1)	-.00681	-.0078	-.0097	-.000257	-.00973
	(.00744)	(.00748)	(.00894)	(.0134)	(.0104)
Long Exemption (2)	.000104	-.00134	-.0027	.00649	.00131
	(.00744)	(.00747)	(.00893)	(.0134)	(.0103)
Long Recertification, LATE (3)	.00977	.00943	.00948	.0105	.0129
	(.00813)	(.00815)	(.00991)	(.0142)	(.0117)
$p: (1) - (2) = 0$	.22	.254	.304	.504	.161
Observations	38961	38700	26850	12111	19931
Cohorts	15	15	11	4	15
CG0 Mean	.454	.457	.452	.46	.442
B: Employed (3rd Quarter)					
Short Exemption (1)	-.0138*	-.016*	-.022**	-.000623	-.0322**
	(.00827)	(.0083)	(.0105)	(.0134)	(.0115)
Long Exemption (2)	-.0108	-.0132	-.0147	-.00461	-.0269**
	(.00827)	(.0083)	(.0105)	(.0134)	(.0115)
Long Recertification, LATE (3)	.0174*	.0175*	.0246**	.00632	.0188
	(.00903)	(.00905)	(.0117)	(.0142)	(.013)
$p: (1) - (2) = 0$	.636	.65	.357	.693	.545
Observations	31579	31437	19468	12111	16158
Cohorts	12	12	8	4	12
CG0 Mean	.46	.463	.463	.455	.462

Notes: This table reports coefficient estimates under different sample restrictions. Column (1), All, refers to the restriction of individuals between ages 18 and 54 who resided in FIPs subject to work requirements at entry. Column (2), Primary, imposes an additional restriction upon (1) that individuals did not use codes that suggests they are exempt from work requirements for personal reasons (E3, E4, E5, E7, E8, EF, EH, ET) in the first month. Column (3), Compliant, restricts to cohorts from (1) that did not experience implementation issues where the work exemption treatment was not given. Column (4), Anomaly, restricts to cohorts from (1) that experienced implementation issues where the work exemption treatment was not given. Estimated by OLS with cohort fixed effects. Standard error in parentheses. Significance levels * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$