Program Recertification Costs
Evidence from SNAP

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Motivation

- Recertification in government assistance programs is necessary to determine continued eligibility of program recipients and ensure program integrity

  - For example, benefit periods for the Supplemental Nutritional Assistance Program (SNAP) typically last 6 months to a year

- However, onerous application processes may prevent eligible participants from recertifying. This could lead to:

  - Temporary or permanent loss of benefits
  - Administrative costs associated with "churn"

- In this paper, we estimate the impact of one seemingly trivial component of the SNAP recertification process: the recertification interview date

Study Design

- In San Francisco, SNAP (or "CalFresh") participants must complete an interview with a caseworker within their recertification month

- Importantly, the interview date in the appointment letter is *randomly assigned*
    - Participants may reschedule for any time in the month

- While some participants are assigned an initial interview at the beginning of the recertification month, other are assigned a date in the last week

- We compare recertification outcomes of cases with early vs. late initial interviews to determine the effect of interview assignment on recertification, churn, and long-term discontinuances

Preview of Results

- We find that initial interview assignment has a large and significant effect on recertification outcomes

- A one-day delay in the assigned interview date leads to:
  - Recertification:$\Downarrow$ 0.30 percentage points
  - 30-Day Churn:$\Uparrow$ 0.25 percentage points
  - 90+ discontinuance: $\Uparrow$ 0.06 percentage points

- In other words, participants assigned to interview dates on the 28th vs. the 1st are:
  - 8.4ppt less likely to recertify (15% decrease)
  - 7.0ppt more likely to churn (54% increase)
  - 1.7ppt more likely to be discontinued (6% increase)

- Additionally, larger effects of interview dates on churn for households with children and on long-term discontinuances for the homeless

- **SNAP Churn**: occurs when a SNAP case exits the program and then re-enters within four months or less

- Study of six states estimates churn rates between 17 and 28% (USDA, 2014)
  - Largely due to procedural issues

- Costs associated with churn:
  - Loss of benefits among eligible households
  - Client time and expense involved in reentering the program
  - Administrative costs

- **Take-up**: FAFSA _{Bettinger, Long, Oreopoulos, Sanbonmatsu (2012)}, WIC Rossin-Slater (2013), 401(k) Madrian & Shea (2001), EITC Bhargava and Manoli (2015)

- **Targeting**:

  - Neoclassical: application costs reduce applications of least needy Nichols and Zeckhauser (1982), Finkelstein & Notowidigdo (2018)

  - Behavioral: application costs reduce applications of *most* needy Mullainathan and Shafir (2013), Deshpande & Li (2018)

- Note: our context is slightly different because about remaining on the program, not initial applications

SNAP Program Details

- **The Supplemental Nutrition Assistance Program**: the largest nutritional assistance program in the US
  - Provides food vouchers to low-income households via EBT cards
  - Serves over 44 million individuals at an annual cost of $70 billion
  - Average individual benefits of $125 per month (max of $194)
  - San Francisco county: over 50,000 "CalFresh" participants
  - CalFresh income eligibility: gross income below 200% FPL

SNAP Recertification Process

- **Annual recertification process**
  - Complete Recertification, Reauthorization, and Renewal (RRR) form
  - Complete caseworker interview
  - Submit income/expenses verification for all household members

- Note: participants must also complete a semi-annual recertification (SAR-7)

- **Example**: Consider a case with recertification due in June 2016

Example: Recertification Steps for June 2016 Case

- **Second week of May**: recertification cases are *randomly assigned* an interview date in June 2016
  - Note: while initial interview dates can be assigned as early as June 1st or as late as June 28th, recertification is due on June 30th for all cases

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- **Late submission**: recipients must submit new application; benefits are prorated and will not be received until the subsequent month

Data Description

- Administrative data from the San Francisco CalFresh office
  - Recertifications from November 2014 to November 2016
  - Includes only SNAP-only cases
  - 40,981 recertification cases

- Data includes:
  - Recertification forms: dates RRR packet sent/received
  - Interviews: dates and outcomes of all interview appointments
  - Recertification outcome: approved/discontinued
  - CalFresh Applications: reapplication and churn for 90 days post-recertification

- **Recertification Application (CF-37)**: provide information and verification of income and costs for all household members

7. Do you or anyone you buy and prepare food with get income from a job (earned)? (Please Check One) ☐ Yes ☐ No

If yes, complete the section below and attach proof. List each job for each person who works. If you need more space, attach a separate piece of paper and identify which question you are writing about. Examples include babysitting, salary, self-employment, sick pay, tips, etc.

	Job #1	Job #2	Job #3
Name of Person who gets income:			
Employer Name:			
	Self-employed, check ☐	Self-employed, check ☐	Self-employed, check ☐
How often paid:	☐ Weekly ☐ Biweekly ☐ Other ☐ Monthly ☐ Twice Monthly	☐ Weekly ☐ Biweekly ☐ Other ☐ Monthly ☐ Twice Monthly	☐ Weekly ☐ Biweekly ☐ Other ☐ Monthly ☐ Twice Monthly
Monthly Gross Amount of Income:	$	$	$
Hours worked per month:			
Will this income continue?	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No

8. Do you or anyone you buy and prepare food with get income that does not come from a job (unearned)? (Please Check One) ☐ Yes ☐ No

If yes, complete the section below and **attach proof**. Examples include: Social Security, Unemployment Compensation, Veteran's Benefits, State Disability Insurance (SDI), Child/Spousal Support, Worker's Compensation, Loan/Gifts, Earned/Unearned Housing, Utilities, Food, etc.

| Name	Source of Income	One-time or ongoing payment	How much/How often

SNAP Recertification: Interview

- **Recertification Appointment Letter (CF-29C)**: details initial interview with caseworker in-person or via phone
  - May reschedule the assigned appointment at any time

- **Missed interviews**: receive notice of missed interview and voicemail if not completed

Appointment Letter

Missed Interview Letter

- **Initial interview randomization process**:
  - Create list of caseworker appointment availability
  - Recertification cases grouped by case language and type
  - Within group, cases sorted by case ID and date list repeated until all cases are assigned an interview date
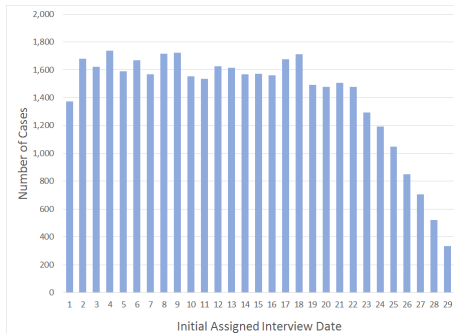
Descriptive Statistics

	Full Sample	Early Interview (1st to 13th)	Late Interview (13th to 29th)	prob>F
Head of Household Demographics				
Female	46.2	46.0	46.4	0.335
Age	42.2	42.2	42.2	0.891
US Citizen	75.9	75.5	76.4	0.035
Non-White	78.9	78.9	79.0	0.913
Household Characteristics				
HH Size	1.55	1.55	1.56	0.933
Any Children	32.2	32.4	31.9	0.302
Non-English Speaking	30.8	31.1	30.4	0.172
Homeless	16.7	16.7	16.7	0.898
Max CalFresh Benefits	63.4	63.3	63.4	0.910
N	40,981	20,998	19,983	

Test for equality of means between early and late interview assignment cases.

Recertification Outcome Means

	Full Sample	Phone Interview	In-Person Interview
Number of Recertifications	40,981	32,011	8,970
Number of Case IDs	31,128		
Recertification Process Outcomes (%)			
Interview Complete	73.1	89.2	15.3
RRR Forms Complete	n/a	53.9	n/a
Recertified	54.5	61.7	29.0
Case Outcome within 30 Days of Recertification (%)			
Reapplied	17.8	16.3	23.3
Churned	15.9	14.6	20.6
Case Outcome within 90 Days of Recertification (%)			
Reapplied	22.0	19.8	29.8
Churned	20.3	18.4	27.1
Not on CalFresh	25.2	19.9	43.9

- We estimate the following model:

$$Y_{it} = \alpha_0 + \alpha_1 InterviewDay_{it} + \alpha_2 RandGroup_{it} + \alpha_3 Demographics_{it} + \gamma_t + \varepsilon_{it}$$

- Y_{it}: recertification outcome for case i in recertification month t
- $InterviewDay_{it}$: calendar day of randomly-assigned initial interview
- Randomization groups: case language, in-person vs. phone interview
- γ_t: recertification month fixed effects
- Controls: case and head-of-household demographics
  - Case-level: HH size, any children, homeless, first CalFresh
  - Head-of-household: sex, ethnicity, age, citizenship, married

Sent Day

- While interview dates are randomly-assigned, the sent date of RRR packets at the discretion of the assigned caseworker
  - Sent date between 13th and 31st of month prior to recertification
  - 72% of packets sent between the 17th and 23rd

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- Correlation between interview date and sent date $\Rightarrow$ additional specification controls for sent date
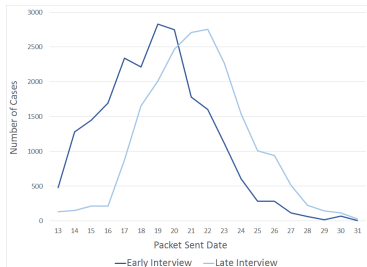
Outcome: Recertification Approved

- **Result**: cases assigned interviews later in the recertification month are 0.3 percentage points less likely to recertify per day

| | Outcome: 0/1 Recertification Approved | | | |
	(1)	(2)	(3)	(4)
Interview Day	-0.0022***	-0.0034***	-0.0031***	-0.0030***
	(0.0003)	(0.0003)	(0.0003)	(0.0004)
Sent Day				-0.0006
				(0.0010)
RRR Month FE		x	x	x
Case Language/Type		x	x	x
Demographics			x	x
Sent Date				x
DV Mean	0.545	0.545	0.545	0.545
N	40,981	40,981	40,981	40,981

Alternative Specification: Recertification Approved

$$Y_{it} = \alpha + \sum_{w=2}^{4} \beta_w \, InterviewWeek_{it} + \delta \, RandGroup_{it} + \eta \, Demographics_{it} + \gamma_t + \varepsilon_{it}$$

	(1)	(2)	(3)	(4)
Interview Week 2	-0.0131**	-0.0212***	-0.0149**	-0.0135**
	(0.0066)	(0.0062)	(0.0061)	(0.0062)
Interview Week 3	-0.0372***	-0.0466***	-0.0373***	-0.0344***
	(0.0067)	(0.0063)	(0.0062)	(0.0068)
Interview Week 4	-0.0366***	-0.0677***	-0.0647***	-0.0608***
	(0.0076)	(0.0072)	(0.0071)	(0.0081)
RRR Month FE		x	x	x
Case Language/Type		x	x	x
Demographics			x	x
Sent Date				x
Week 1 DV Mean	0.566	0.566	0.566	0.566

- Recall three steps to recertify: (1) complete interview, (2) fill out recertification form, and (3) submit income verification
  - We have data on (1) and (2), but not (3)
  - Also, missing data on (2) if submitted in person $\Rightarrow$ only consider phone interviews for this outcome

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- **Result**: interview date impacts likelihood of completing interview, not RRR form completion

	Completed Interview		Submitted Recert Forms	
Interview Day	-0.0023***	-0.0019***	0.0026***	0.0007
	(0.0002)	(0.0002)	(0.0004)	(0.0004)
Sent Day		-0.0022***		0.0093***
		(0.0007)		(0.0012)
DV Mean	0.731	0.731	0.539	0.539
N	40,981	40,981	32,011	32,011

Reapplications, Churn, and Discontinuances

- Cases that fail recertification may reapply and re-enter the program ("churn"), otherwise benefits discontinued
  - We follow these cases for 90 days post-recertification

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- **Result**: majority recertification failure caused by late interview date results in churn with a smaller effect on longer-term discontinuances

	Reapplied (30-day)		Churned (30-Day)		Discontinued (90+ Day)	
Interview Day	0.0027***	0.0026***	0.0025***	0.0025***	0.0006**	0.0005*
	(0.0003)	(0.0003)	(0.0002)	(0.0003)	(0.0003)	(0.0003)
Sent Day		0.0002		0.0003		0.0004
		(0.0009)		(0.0008)		(0.0009)
DV Mean	0.178	0.178	0.159	0.159	0.252	0.252
N	40,981	40,981	40,981	40,981	40,981	40,981

- **Costs of Churn**
  - Administrative costs
  - Prorated benefits and delay of receipt
  - Emotional stress

- **Costs of Discontinuances**
  - Extended loss of benefits
  - . . . but savings for the program if efficient targeting

Costs of Churn

- **Administrative costs**:
  - USDA report estimates costs of $80/churn
  - Churn increases by 0.25ppt per day$\Rightarrow$ $0.20/case per interview day delay
  - Annual cost to CalFresh: $400,000 per interview day

- **Prorated benefits**:
  - $0.11/case per interview day delay in loss of benefits among churners
  - Annual loss for CalFresh recipients: $225,000 per interview day

	# of Days	$ Lost
Interview Day	0.0119**	0.1120***
	(0.0046)	(0.0411)
DV Mean	2.630	20.180
N	40,981	40,975

EDD Data

- We obtain data from the Employment Development Department (EDD) to estimate eligibility of each recertification case
  - Quarterly wage data for all individuals associated with a case
  - Determine eligibility from these earnings and household size based on CalFresh income requirements

- Limitations to eligibility estimation
  - Timing: quarterly vs. monthly data
  - Only includes wage data
  - Misses updates to household composition since semi-annual recertification

- Targeting: application costs may increase or decrease targeting efficiency

- Only 6% of cases appear to be ineligible $\Rightarrow$ main results unchanged when conditioning on eligibility, small decrease in type II error

	Type 1 Error: Eligible but...		Type 2 Error: Ineligible but...	
	Failed Recert	Discontinued	Recertified	Not Discontinued
Interview Day	0.0032***	0.0007***	-0.0003***	-0.0003**
	(0.0003)	(0.0003)	(0.0001)	(0.0001)
DV Mean	0.412	0.217	0.018	0.026
N	40,981	40,981	40,981	40,981

- **Subgroup analyses**: recertification for cases with children more likely to be affected by interview date assignment

	Outcome: 0/1 Recertified			
	Homeless	Any Children	ESL	Max Benefit
	(1)	(2)	(3)	(4)
Interview Day	-0.0032***	-0.0026***	-0.0028***	-0.0031***
	(0.0003)	(0.0004)	(0.0004)	(0.0005)
DayXSubgroup	0.0003	-0.0017***	-0.0009	-0.0000
	(0.0007)	(0.0006)	(0.0006)	(0.0006)
N	40,981	40,981	40,981	40,981

Targeting: Churn/Discontinuance by Subgroup

- While homeless households equally likely to recertify, more likely to be discontinued rather than churn
  - Consistent with a behavioral model of targeting efficiency in which application costs screen out *more* needy households

	Homeless	Any Children	ESL	Max Benefit
Outcome: 0/1 Churned				
Interview Day	0.0029***	0.0022***	0.0022***	0.0027***
	(0.0003)	(0.0003)	(0.0003)	(0.0004)
DayXSubgroup	-0.0021***	0.0011**	0.0012**	-0.0003
	(0.0007)	(0.0005)	(0.0005)	(0.0005)
Outcome: 0/1 Discontinued				
Interview Day	0.0004	0.0006*	0.0008**	0.0003
	(0.0003)	(0.0003)	(0.0003)	(0.0004)
DayXSubgroup	0.0014*	0.0001	-0.0005	0.0005
	(0.0008)	(0.0005)	(0.0005)	(0.0005)
N	40,981	40,981	40,981	40,981

Summary

- This paper finds that application costs associated with recertification lead to large reductions in successful recertification that result in both program churn and long-term discontinuances

- Application costs have higher impact on needier households
  - Higher churn for households with children
  - Higher discontinuances for homeless cases

- Suggests trade-off between program integrity and targeting efficiency

- **Policy implication**: shift recertification interview process earlier

- Estimates suggest starting CalFresh interviews two weeks earlier leads to:
  - Decrease of 70,000 churners
    - $5.5 million decrease in administrative costs of churn
    - $3.2 million decrease in loss of benefits for churners
  - Decrease of 17,000 discontinuances