

Can CalFresh Cut Costs and Better Serve California's Agricultural Counties?

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Higher rates of employment are associated with more CalFresh caseload terminations, which then increase applications from previous recipients. Reapplications are costly to the state and participants. These effects are largest in California counties with high agricultural employment.

The Supplemental Nutrition Assistance Program (SNAP, previously known as Food Stamps) is the largest domestic hunger safety net program by expenditure and participation. Annually, SNAP provides 42.2 million Americans with food assistance. CalFresh, California's SNAP, accounts for almost 10% of national caseloads and roughly 10.6% of national program spending.

The structure of the SNAP recertification process poses barriers to participation for workers with seasonal employment. SNAP recipients are required to submit proof of income at least semi-annually to continue receiving benefits. This mandatory recertification pushes workers off the program if their recent income is above the SNAP threshold. We find that this results in higher caseload terminations during peak employment months. Additionally, because some terminated households reapply when their incomes fall, we find high rates of "churn" immediately following peaks in terminated cases.

Program churn refers to the exit and subsequent re-entry of a participating household within a short time frame (90 days for this study). Churn is an often-avoidable and costly process for both program administrators and benefit recipients. Mills et al. (2014) found that in six study states, churn accounted for 1–4% of annual state administrative costs. The Alliance

to Transform CalFresh estimates annual CalFresh administrative costs of roughly \$1.85 billion. Given these high administrative costs, reductions in churning can yield meaningful decreases in total program spending.

California counties with high agricultural employment present an ideal opportunity to identify determinants of churning. California farmworkers follow a seasonal employment schedule and tend to have earnings in the SNAP-eligibility range. In this study, we examine differences in CalFresh entry and exit patterns for counties with high, medium, and low percentages of agricultural employment.

Our findings highlight key differences between the three county types in terms of unemployment and SNAP outcomes. We find that, compared with Medium and Low Ag counties, High Ag counties have larger unemployment rates with larger variance, more caseloads per capita, more applications, and higher rates of churn.

We find that increases in the unemployment rate are associated with more applications per capita, fewer cases terminated, and lower rates of program churn. We find that the negative relationship between unemployment and churn is explained by unemployment decreasing cases terminated, which, in turn, decreases churn. We find that terminations result in more subsequent re-applications in High Ag counties relative to other counties. Our results imply that incidence and costs of churn are larger in High Ag counties than in Low and Medium Ag counties. To counteract churn from employment cyclicity, we suggest that counties give program participants the option of reporting quarterly income at the time of recertification.

Unemployment and CalFresh Participation Highest in Agricultural Counties

To categorize California counties based on agricultural employment rates, we utilize county-industry level employment numbers from the California Employment Development Department's (EDD) *Quarterly Census of Employment and Wages*. We categorize counties based on agricultural employment as a percentage of total employment. High Ag counties are those with at least 10% of total employment in agriculture (17 counties). Medium Ag counties are those with 1–10% of total employment in agriculture (21 counties), while Low Ag counties have less than 1% of total employment in agriculture (17 counties). Summary statistics for the grouped counties from 2012 through 2017 are given in Table 1. We do not include three counties because of data restrictions due to their small population sizes.

For county employment and labor force participation by month, we use the EDD's *Local Area Unemployment Statistics*. Because we are interested in examining the role of seasonality in employment on CalFresh program metrics, we first document differences in the unemployment rates between these county types. Shown in Table 1, the High Ag counties have significantly higher average monthly unemployment rates than the Medium and Low Ag counties. Importantly, High Ag counties also have much larger variance (standard deviation) in the unemployment rate than the others.

CalFresh data come from the California Department of Social Services. Table 1 reports the average number of monthly person and household participants per capita for the three county types.

Table 1: Differences in Unemployment and CalFresh Between County Types

Variable	County Ag Type			Difference	
	High Ag	Medium Ag	Low Ag	High-Med	High-Low
# Counties	17	21	17		
% Employment in Ag	10-36%	1-10%	<1%		
Unemployment Rate (%)	11.564 (4.8184)	7.997 (3.0797)	6.621 (2.6978)	3.567***	4.943***
CalFresh Persons per capita	0.151 (.0598)	0.095 (.0425)	0.074 (.0411)	.056***	.077***
CalFresh Households per capita	0.066 (.0247)	0.044 (.0222)	0.037 (.0192)	.022***	.029***
(Household) Applications per capita	0.006 (.0015)	0.005 (.0017)	0.004 (.0015)	.001***	.002***
Recertification Termination Rate	32.141 (11.3190)	34.487 (10.6419)	29.831 (14.2702)	-2.346***	2.31***
90-day Churn Rate	22.779 (7.1667)	20.298 (5.4253)	18.990 (5.2019)	2.481***	3.789***

Alpine, Sierra, and Trinity dropped; Standard errors in parentheses; Difference is a two-sample t-test for difference in means; *p<.05, **p<.01, ***p<.001

Shown in Table 1, High Ag counties have the most monthly applications, CalFresh persons, CalFresh households per capita, and highest percent of applications from individuals receiving CalFresh in the previous 90 days (churn). The higher rates of churn support our hypothesis that seasonality in employment is a driver of programmatic churn. Interestingly, the Medium Ag counties have the highest percentage of unsuccessful recertifications (recertification termination rate). This suggests that county characteristics besides employment seasonality (e.g., average earnings) also affect caseload termination rates.

Unemployment Reduces Terminations, which Reduces Churn

Shown in the top panel of Figure 1, the High Ag counties have the most variation in unemployment and the highest rates of churn. In the High Ag counties, rates of caseload termination and churn are closely related. The peaks in churn follow peaks in terminations, which occur near the low points of the unemployment rate. The relationships between the unemployment rate, terminations, and churn are similar, but less pronounced in the Medium and Low Ag counties.

Table 2: The Unemployment Rate, CalFresh Applications, Terminations and Churn

Predictive Variable	CalFresh Metric (Outcome Variable)		
	(1) Logged Applications per Capita	(2) % of Recertifications Terminated	(3) 90-Day Churn Rate
High Ag Counties			
Unemployment Rate(t)	1.060*** (0.176)	-0.728*** (0.0659)	-0.438*** (0.0554)
Medium Ag Counties			
Unemployment Rate(t)	1.379*** (0.213)	-0.809*** (0.0796)	-0.333*** (0.0669)
Low Ag Counties			
Unemployment Rate(t)	3.139*** (0.272)	-1.742*** (0.102)	-0.228** (0.0855)
County Fixed Effects	Yes	Yes	Yes
Time Trend	Yes	Yes	Yes
R2	0.844	0.832	0.538
Observations	3905	3905	3905

Standard errors in parentheses; *p<.05, **p<.01, ***p<.001

This implies that the proportion of recertifications terminated increases with employment and is followed by higher rates of churn. This result is confirmed by our regressions and is remarkably robust to different modeling choices.

We use a fixed effects regression to analyze the relationship between the unemployment rate and CalFresh metrics of interest. We separate employment effects for High, Medium, and Low Ag employment counties. We include a time trend and county fixed effects so that the regression coefficients reflect de-trended, within-county variation in the unemployment rate and the CalFresh metric of interest. The regression results are presented in Table 2. The estimated coefficients can be interpreted as the percentage change in the outcome variable associated with a 1% increase in the unemployment rate for a given county type.

Presented in column (1) of Table 2, we find that applications per capita increase with the unemployment rate. The magnitude of this relationship is largest in the Low Ag employment counties, and smallest in the High Ag employment counties; a 1% increase in the unemployment rate is associated with a 3% (Low Ag) and 1% (High Ag) increase in applications per capita. This result is intuitive given that employment in low-wage industries (i.e., agriculture) is less likely to push a household past the CalFresh income eligibility threshold than employment in other industries.

Given in column (2), the regression of caseload terminations on the unemployment rate reveals a negative and significant correlation for all county types. This implies that as employment (and thus household income) increases, more households fail recertification applications. Again, the magnitude of the relationship is largest in Low Ag counties and smallest

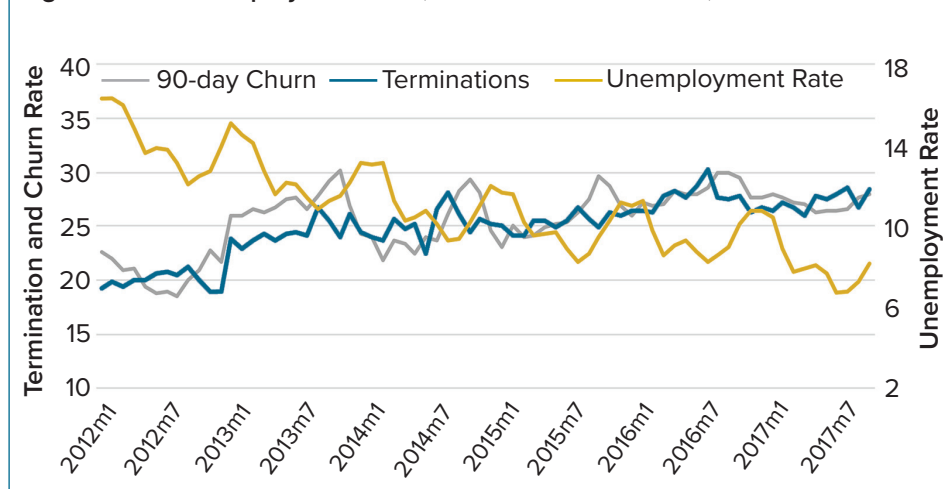
in High Ag counties. We find that a 1% increase in the unemployment rate corresponds with a 1.7% decrease in cases terminated in Low Ag counties and only a 0.7% decrease in High Ag counties. These results are consistent with our expectations because wages are highest in the Low Ag counties, so employment is more likely to result in program ineligibility.

Finally, regression results with churn rate as the outcome variable are given in column (3). Using the unemployment rate as the sole predictor reveals a negative and significant relationship between unemployment and churn that is largest in the High Ag counties and smallest in the Low Ag counties. However, when we include one to three month lagged caseload termination rates as predictors in the model, we find that the significance of the unemployment rate dissipates. This indicates that the unemployment rate only affects churn through caseload terminations.

The positive relationship between terminations and churn is by construction—churning households are defined as terminated cases that reapply within 90 days. The magnitude of the correlation indicates the likelihood that a terminated household reapplies. In High Ag counties, we find that a 1% increase in caseload terminations 3 months, 2 months, and 1-month prior lead to a 0.1, 0.19, and 0.17% increase in churn, respectively. These coefficients are larger than those in Medium and Low Ag counties, indicating that terminated households are most likely to churn in High Ag counties.

The insignificance of the unemployment rate implies that aggregate county employment is not a good predictor of household churn. While the unemployment rate does significantly predict terminations, it does not affect the timing at which households reapply. Particularly in High Ag counties, this suggests that households are

Figure 1: The Unemployment Rate, Caseload Terminations, and Churn



finding ways to regain eligibility even during peak employment.

Policy Implications and Conclusions

We find that county churn rates are ordered by proportion of agricultural employment, indicating that High Ag counties contribute disproportionately to churning costs in CalFresh. Further, we find that the unemployment rate significantly predicts terminations, but it does not affect the timing at which households reapply (churn). Particularly in High Ag counties, this suggests that households are finding ways to regain eligibility even during peak employment months. However, the gap in benefit receipts is costly to the household, and the reapplication process is costly to the state.

As a policy strategy, we suggest that counties allow participants to choose between monthly and quarterly reporting. Monthly reporting determines eligibility exclusively based on reported income for one month, while quarterly reporting uses net quarterly average income. Quarterly reporting would lessen the penalty on seasonally employed households for variation in income. Allowing participants to choose between monthly and quarterly reporting would leave households with steady incomes unaffected. Counties with high proportions of low-wage seasonal workers may even consider

expanding this to six-month or annual average earnings. This would additionally reduce incentives to manipulate income in a particular month.

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For additional information, the authors recommend:

Mills, G., et al. 2014. “Understanding the Rates, Causes, and Costs of Churning in the Supplemental Nutrition Assistance Program (SNAP).” Washington, D.C.: USDA, FNS. <https://www.fns.usda.gov/snap/understanding-rates-causes-and-costs-churning-supplemental-nutrition-assistance-program-snap>

“CalFresh Funding: Top Ten Things to Know,” July 2013. The Alliance to Transform CalFresh. Available at: <http://cafoodbanks.org/sites/default/files/calfresh-funding-factsheet.pdf>