Food Security and the California Nutrition Incentive Program

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Introduction

In 2014, 5.3 million Californian adults and 2.3 million Californian children experienced food insecurity. Food insecurity means that someone does not have access to enough food to eat and/or does not have access to nutritionally adequate foods.1 CalFresh (also known as the Supplemental Nutrition Assistance Program or food stamps) aims to reduce food insecurity. In 2015 nearly 4.1 million Californians were enrolled in the program.2

The California Nutrition Incentive Program (CNIP) provides CalFresh shoppers with a dollar-for-dollar match to purchase CA-grown produce at select farmers' markets. CNIP expands upon CalFresh benefits to enhance food security and increase consumption of CA-grown produce. To assess the impact of CNIP, the Nutrition Policy Institute surveyed 387 CalFresh shoppers from 10 farmers markets and 9 supermarkets (for comparison) in summer 2018.

Image: CNIP Tokens at a Farmers Market

Purpose

We aim to assess the association of CNIP use with food security status and determine whether there are differences based on the language in which participants completed the survey (English vs. Spanish). We also aim to assess whether gender, age, language, race, education, use of CNIP, and/or site type are associated with participants' food security.

Methods

A convenience sample of adult, CalFresh shoppers at farmers' markets implementing CNIP, farmers' markets not implementing CNIP, and at supermarkets close to participating farmers' markets were recruited into this study. Each study participant completed a cross-sectional survey at one point in time.
We first descriptively assessed differences in food security by language the survey was conducted in (English vs Spanish). We then ran a multinomial logistic regression to examine how participants' language was associated with their food security status (very low, low, or high food security). Finally, we fit a logistic regression model to the data with a binary food security outcome variable (high food security, low/very low food security) and gender, age, language, race, education, use of CNIP, and site type as a predictor variables.

Results

300 participants completed the survey in English and 87 participants completed the survey in Spanish. Among participants that completed the survey in English, 28% experienced very low food security, 31% experienced low food security and 40% experienced high food security (Fig. 1). For participants that completed the survey in Spanish, 23% experienced very low food security, 37% experienced low food security, and 40% experienced high food security (Fig 1).

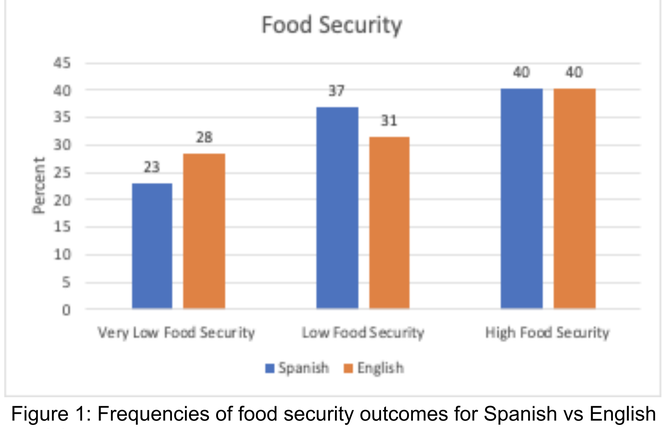
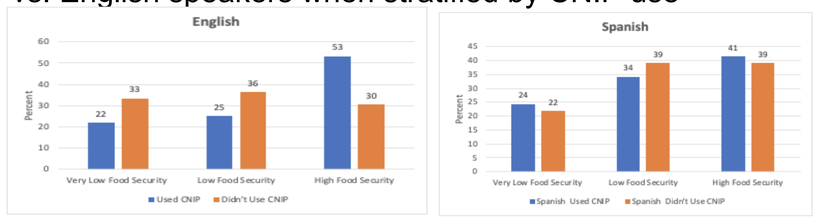


Figure 1: Frequencies of food security outcomes for Spanish vs English participants

Figure 2: Frequencies of food security outcomes for Spanish vs. English speakers when stratified by CNIP use



Neither of the results of our multinomial regression were significant, however they show that the log odds of being in the low food security group compared to being in the very low food security group decrease by 0.439 if moving from English to Spanish. The log odds of being in the high/marginal food security compared to being in the very low food security group decrease by 0.197 if moving from English to Spanish. In the logistic regression model, we found participants' use of CNIP was the only significant predictor of food security. The odds of being food secure were 2.364 times higher for those who used CNIP compared to those who did not use CNIP when all other predictors were adjusted for ($p = 0.04$).

Discussion

Our analysis shows there may be differences in food security between Spanish and English speakers. We also found evidence of an association between food security and the use of the CNIP program after adjusting for the other predictor variables. Further analysis needs to be done to better assess any differences in food security outcomes. NPI will continue to analyze these data, adjusting for clustering by market to more accurately assess these outcomes.

Implications

While more research needs to be done to better understand the effectiveness of CNIP, our study finds that CNIP is related to improved food security. We suggest the program continue to be supported and expanded.

Literature Cited

1. Teresa K. Food Security. Let's Get Healthy California. Published August 19, 2016. Accessed November 9, 2020. https://letsgethealthy.ca.gov/food-security/
2. Why Millions Of Californians Eligible For Food Stamps Don't Get Them. NPR.org. Accessed November 9, 2020. https://www.npr.org/sections/thesalt/2018/05/01/606422692/why-millions-of-californians-eligible-for-food-stamps-dont-get-them
3. Photo from ecology center: https://ecologycenter.org/ebt-simple-guide/

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