County- and state-level immigration policies are associated with Supplemental Nutrition Assistance Program (SNAP) participation among Latino households

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Abstract

The purpose of this study was to investigate the association between county- and state-level immigrant criminalizing and integrating policies and Latino household participation in the largest safety net program against food insecurity in the U.S., the Supplemental Nutrition Assistance Program (SNAP). Our outcome, county-level proportion of SNAP-participating Latino households, and county-level covariates were obtained from the American Community Survey 1-year county files (N=675 counties) for 13 years (2007–2019). Our exposures were county-level presence of sanctuary policies and a state-level immigrant friendliness score, created based on 19 immigrant criminalizing and integrating state-level policies obtained from the Urban Institute's State Immigration Policies Resource. We classified every county in the sample as 1) *sanctuary policy + immigrant friendly state, 2) sanctuary policy + immigrant unfriendly state, 3) no sanctuary policy + immigrant friendly state, and 4) no sanctuary policy + immigrant unfriendly state*. Using multivariable generalized linear models that adjusted for poverty levels and other social composition characteristics of counties, we found that county-level SNAP participation among Latino households was 1.1 percentage-point higher in counties with sanctuary policies (B=1.12, 95%CI=0.26–1.98), compared to counties with no sanctuary policies, and 1.6 percentage-point higher in counties with sanctuary policies in immigrant friendly states (B=1.59, 95%CI=0.33–2.84), compared to counties with no sanctuary policy in immigrant unfriendly states.

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Declaration of interests: None.

Local and state immigration policy, even when unrelated to SNAP eligibility, may influence SNAP participation among Latino households. Jurisdictions which lack sanctuary policies or have more criminalizing and less integrating policies should consider adopting targeted outreach strategies to increase SNAP enrollment among Latino households.

Keywords

Supplemental Nutrition Assistance Program; food insecurity; immigration; policy; Latino

Introduction

The Supplemental Nutrition Assistance Program (SNAP) is the largest safety net program against food insecurity in the U.S. In 2021, SNAP served more than 41 million low-income households monthly, providing them with financial assistance for food purchases, averaging US$217 per person per month (U.S. Department of Agriculture & Food and Nutrition Service, 2022). Research shows that participation in SNAP reduces food insecurity (Gundersen et al., 2017; Kreider et al., 2012; Mabli & Ohls, 2015; Ratcliffe et al., 2011) and that loss of SNAP benefits is associated with an increase in food insecurity among households with children (de Cuba et al., 2019). Beyond benefiting eligible households, SNAP participation is also positive for the local economy, as every US$1 increase in government spending on SNAP increases economic activity between US$0.80 and US$1.50, primarily because recipient households spend additional money on food and durable goods (Canning & Morrison, 2019). Decreases in food insecurity prevalence may also result in reduced strain on the charitable food system (e.g., food banks), reduced health care spending (Berkowitz et al., 2018), and improved social and economic outcomes (e.g., school performance, work productivity) (Shepard et al., 2011).

Despite having a higher prevalence of food insecurity (16.2% in 2021), when compared to the national average (10.2%) and their non-Latino (NL) White counterparts (7.0%) (Coleman-Jensen et al., 2022), only 62% of eligible Latino households participated in SNAP in 2018 (Macartney & Ghertner, 2021). Within Latino households, SNAP participation is lower for eligible non-US citizens and mixed-status (i.e., with citizen and non-citizen members) households, compared to Latino households in which all members are U.S. citizens (Bitler et al., 2021; Kaushal et al., 2014).

Immigration status may be a barrier for SNAP participation. Prior to the 1996 passing of the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA), most documented immigrants were eligible for SNAP (U.S. Department of Agriculture, 2011). The passing of PRWORA, however, allowed states to restrict SNAP eligibility for most categories of immigrants and, as a consequence, SNAP enrollment among foreign-born individuals declined by 21% (Fix & Passel, 1999). SNAP eligibility for some documented immigrants was restored by the U.S. Congress in the 2002 Farm Bill, extending SNAP eligibility to legal permanent residents and other qualified aliens who have lived in the U.S. for at least 5 years, are children <18 years, or are individuals on disability benefits (U.S. Department of Agriculture, 2011). While low-income, mixed-status households have

always been eligible to participate in SNAP via the citizen household member, confusion and misinformation associated with the eligibility of immigrant households have played a negative role in participation rates (Pino, 2020). Other barriers for SNAP participation among Latino households include language barriers and stigma or fear of discrimination (Bleich et al., 2020a; Payan et al., 2021).

In addition to SNAP eligibility rules, wider immigration policies and rhetoric may influence SNAP participation. In 2018, the Trump administration proposed to add SNAP to the list of programs used in determining whether non-citizens are a "public charge." A public charge determination – which had previously included a narrow set of primarily cash assistance programs – prevents non-citizens from obtaining U.S. citizenship due to their likelihood of becoming dependent of government subsidies (Batalova et al., 2018). Trump-era proposed changes to the public charge determination – as well as public discussions regarding this, other anti-immigrant policies, and broader anti-immigrant rhetoric – may have contributed to a "chilling effect" on SNAP participation among immigrants and those with immigrants in their social networks or communities, including Latino households (Barofsky et al., 2020; Batalova et al., 2018; Bernstein et al., 2019; Bleich & Fleischhacker, 2019).

Studies have found associations between state-level immigrant policies and SNAP participation (Alsan & Yang, 2019; Skinner, 2012). Skinner (2012) examined the association between state-level policies expanding or restricting immigrants' rights and SNAP participation among mixed-status households including a U.S. citizen child, reporting that exposure to restrictive immigrant policies was associated with reduced SNAP participation. Further, the roll-out of Secure Communities – a federal program that institutionalized information sharing between the Federal Bureau of Investigation (FBI), which often runs background checks on detainees for local law enforcement, and the U.S. Immigration and Customs Enforcement (ICE) – has been linked to reduced SNAP participation among Latino households, even Latino U.S. citizen households, who would not be subject to deportation by ICE (Alsan & Yang, 2019). Presumably, the chilling effect among citizens is due to fear that program enrollment risks revealing family members, friends, or others who are at risk of deportation.

More proximal immigration-related policies, such as those occurring at the city or county level, have rarely been evaluated in relation to Latino households' SNAP participation (Philbin et al., 2017). In particular, sanctuary policies could buffer the negative effects of national- or state-level anti-immigrant policies on SNAP participation. Sanctuary policies are pro-immigrant policies which most commonly deal with preventing collaborations between law enforcement agencies and ICE, for example, by restricting information sharing and agreements between ICE and local enforcement agencies and jails, or by limiting fulfillment of detention requests or entering into detention contracts in which ICE pays jails to hold immigrants during immigration trials (Immigrant Legal Resource Center, 2018). These policies are usually implemented at the local (city or county) level but can also be implemented at the state level. Evidence that it is important to assess policies at multiple levels is provided by Alsan & Yang (2019), who found that the identified chilling effect of the Secure Communities program on Latino SNAP participation was not present for those living in so-called "Sanctuary Cities."

Conceptual framework

Figure 1 displays our conceptual framework, informed by previous scholarship exploring how policy environments impact immigrant households in the U.S. (Wallace et al., 2019; Philbin et al., 2018; Young & Wallace, 2019), and how SNAP participation may be influenced by policy (Bleich et al., 2020a). Policies at different levels – including at the federal, state, and local (city, county) jurisdiction levels – influence the likelihood an immigrant household or a household with immigrants within their networks (e.g., Latino households) will apply for public benefits, such as SNAP. Integrating policies create an inclusive environment that enables immigrant households or those with close ties to immigrants to integrate into their local communities. For example, state-level integrating policies include those that allow income-eligible immigrant households to apply for public benefits. On the other hand, criminalizing policies are those that actively prevent immigrants from integrating into their local communities. Prominent examples include policies or agreements that enable or mandate local or state law enforcement cooperation with ICE, which increases deportation risk for undocumented immigrants and contributes to a culture of fear (Berk & Schur, 2011; Salas et al., 2013; Hardy et al., 2012). This culture of fear can prevent eligible households from applying for public benefits to avoid exposing themselves or people in their networks to this enforcement risk.

An important aspect of the framework is that integrating and criminalizing policies encompass a range of domains that can be affected by policies and actions at the federal, state, and local levels. For example, criminalizing policies and actions related to enforcement risk faced by immigrants can be passed at the federal (e.g., Secure Communities, ICE raids), state (e.g., E-verify mandates, agreements between ICE and state law enforcement agencies), and local (e.g., ICE agreements with local agencies) levels. Furthermore, the collective policy environment can be concordant (e.g., a county can have a sanctuary policy in a state that bans use of E-Verify) or discordant (e.g., a county can have a sanctuary policy while state police have an agreement with ICE to enforce federal immigration laws). Immigrants must navigate these mixed policy environments, making decisions regarding whether to participate in public programs or engage in other actions that may affect their perceived risk (Wallace et al., 2019; Young & Wallace, 2019).

The objectives of this study were to investigate 1) the independent and combined effect of county- and state-level immigration-related policies on county-level SNAP participation among Latino households between 2007 and 2019, including exploring whether the concordance or discordance of county- and state-level policies had differential impacts on SNAP participation, and 2) if state-level SNAP policies – which reflect SNAP accessibility for states' residents based on eligibility criteria, certification and recertification procedures, etc. – moderated the association between immigration policies and SNAP participation among Latino households. We hypothesized that the proportion of Latino households who participate in SNAP would be higher in counties with more county- and state-level favorable immigration policies, and that SNAP policies at the state level would moderate this association.

Material and Methods

Study design and data

This ecologic study used the U.S. Census American Community Survey (ACS) 1-year county files for 2007 to 2019, as well as policy data at the city, county, and state level from other sources. There were 3,221 counties in the U.S. during our study period; of these, 845 (26%) were in the ACS 1-year file, which is restricted to counties with ⩾65,000 people. Further, the census suppresses tables if at least one-half of the estimates are not statistically different from zero, at a 90% confidence level. Our study excluded counties not represented in the policy database (Puerto Rico counties, N=13), who had populations below 65,000 for at least one year (N=59), and counties without Latino populations (N=98), for a final analytic sample size of 675 counties, or 80% of all counties in the ACS file and 21% of all U.S. counties.

Outcome variable

Our outcome was the proportion of Latino households participating in SNAP at the county level ([Number of Latino households participating in SNAP/all Latino households]*100%) for each year between 2007 and 2019, obtained from ACS. The U.S. Census Bureau defines "Hispanic or Latino" as a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin regardless of race (U.S. Census Bureau, 2022). A household consists of all the people who occupy a housing unit (U.S. Census Bureau, 2021). Latino households participating in SNAP is defined as a SNAP participating household with at least one Latino/a/e occupant. We were unable to estimate the county-level proportion of *low-income* Latino households participating in SNAP because poverty by race/ethnicity is reported for individuals in the ACS 1-year files, whereas SNAP participation by race/ethnicity is reported for households (i.e., the unit of the numerator is different than the unit of the denominator). Similarly, we were unable to use low-income Latino households (i.e., those potentially eligible for SNAP) as the denominator for the same reason. We were also unable to identify subgroups of Latino households participating in SNAP (e.g., foreign-born vs. U.S. born) as country-of-origin data is available at the individual level.

Exposure variables

Exposure variables and their respective operationalization and data sources are summarized in Supplementary Table 1. Data on immigrant-integrating or supportive policies enacted by towns, cities, counties, or states were obtained from a 2018 legal mapping study (Lasch et al., 2018). Lasch et al. (2018) cataloged documents issued between 1979 and 2017 across the U.S. that related in some way to residents who were foreign-born and/or undocumented. Documents ranged from those affirming the human rights of foreign-born residents (e.g., in response to the Patriot Act, first passed in 2001) to those that were explicit legal guidelines prohibiting local law enforcement from a specific type of activity (e.g., against sharing information about undocumented residents with ICE). Based on the language used by Lasch et al. (2018) and previous work by others (Ortiz et al., 2021), we refer to these policy documents as 'sanctuary policies,' even though some of the included policies may be broader in scope than some lay uses of the term, particularly those that refer to

'sanctuary policies' narrowly as policies explicitly prohibiting state or local officials from cooperating with ICE or otherwise protect immigrants against ICE enforcement. Still, 91% of the policies included in Lasch et al. (2018) that were enacted between 2009 and 2017 – encompassing almost our entire observation period – include explicit language related to immigration enforcement (Ortiz et al., 2021).

Once a sanctuary policy was enacted within a year, it was assumed to be active for all subsequent years. We aggregated policies at the county level to create a binary county-level sanctuary policy exposure variable. For each county-year, this variable was defined as '1' if the county had a policy in a prior or current year, and '0' otherwise. We also defined counties as '1' if >50% of the county population lived in sub-county jurisdictions (e.g., cities) with a sanctuary policy, to reflect a policy that would have affected most county residents. For sanctuary policies enacted at the state level, we defined all counties within the state as '1'.

State-level immigrant-related policies for years 2007–2019 were obtained from the Urban Institute's State Immigration Policies Resource (Bernstein et al., 2022). This database groups 24 state policies into three domains which are hypothesized to have significant impact on the lives of both documented and undocumented immigrants and their children: *public benefits* (eligibility for food assistance, medical care, etc.), *enforcement* (deportation threats, e-verify mandates, etc.), and *integration* (funding for education, driver's license regulations, etc.). In previous work, the selected state policies within these three domains have been found to affect the material hardship of low-income immigrant households with children, using household-level data from the Survey of Income and Program Participation 2005 and 2010 (Gelatt et al., 2017; Koball et al., 2021).For our analyses, we dropped five out of the 24 policies in the State Immigration Policies Resource: the Omnibus Immigration policy due to incomplete data in some of the years of study, and the deportation threat policies (n=4) to avoid overlap with the county-level sanctuary policies variable included in the study (Supplementary Table 2). We standardized the data so that higher values would indicate more favorable policies toward immigrants, with policies being coded as present ('+1' or '-1') vs. not ('0'). Within the three domains, we grouped policies into sub-categories based on similar themes and then averaged the policies within each sub-category. Items were not grouped if the correlation between sub-categories was <0.50 (e.g., within the public benefits domain, policies for cash/food/Social Security Income assistance were separated from health insurance policies because the correlation between these was 0.42). Thus, at the end we created a state-level 'immigrant-friendliness score,' ranging from −1 to +1.

In addition, we created a 3-level time-varying categorical variable based on the distribution of the immigrant friendliness score at baseline (2007), using tertiles. As such, all counties in one-third of states were categorized as *least immigrant friendly* (bottom 33% of the immigrant-friendliness score distribution in 2007), *less immigrant friendly* (33–67% score distribution), and *most immigrant friendly* (top 33% score distribution). The decision of using tertiles as opposed to other categorization cut-off point was data-driven, based on our sample size and the distribution of the immigrant friendliness score.

Further, we created a 4-level time-varying categorical variable combining county- and state-level immigration policies, with each county-year being classified as: 1) *sanctuary policy + immigrant friendly state*, if the county was covered by sanctuary policy and was located in a state classified as *'most immigrant friendly'*; 2) *sanctuary policy + immigrant unfriendly state*, , if the county was covered by sanctuary policy and was located in a state classified as either '*least…*' or '*less immigrant friendly*'; 3) *no sanctuary policy + immigrant friendly state*, if the county was not covered by sanctuary policy and was located in a state classified as '*most immigrant friendly*'; and 4) *no sanctuary policy + immigrant unfriendly state*, if the county was not covered by sanctuary policy and was located in a state classified as either '*least…*' or '*less immigrant friendly*'.

Covariates

We used the following county-level covariates from ACS, all of which were log-transformed to approximate a normal distribution: total population, county size (in sq Km), number of Latino individuals, number of non-NL White individuals, number of Latino individuals living in poverty (<100% federal poverty level), number of NL White individuals living in poverty, and number of NL White households participating in SNAP. Also obtained at the county-level from ACS but not log-transformed: inflation-adjusted (to 2007 US$) per capita income, proportion of individuals aged 60, and proportion of 16–64-year-old individuals in the labor force who are unemployed. Further, to account for county-level urbanicity, we used the USDA Economic Research Services' rural-urban continuum codes (U.S. Department of Agriculture & Economic Research Service, 2020), and recoded them into four categories: metro area with population 1 million, metro area with population 250,000–1 million, metro area with population <250,000, and non-metro area. Finally, to adjust for national economic trends, we used the annual seasonally adjusted rate of unemployed males in the civilian labor force aged 16–64 years; this measure came from the Current Population Survey (U.S. Bureau of Labor Statistics, 2022).

Moderator

SNAP policies at the state level were considered a potential moderator of the relationship between county-level SNAP participation among Latino households and county/state immigration-related policies. SNAP policies at the state level reflect the level of accessibility to SNAP, regulating eligibility criteria, certification and recertification periods, application modality (in-person vs. online), among other procedures. We derived a state-level SNAP Policy Index from the USDA Economic Research Service's SNAP Policy Database (U.S. Department of Agriculture & Economic Research Service, 2022a), including data from 2007 until 2015. The SNAP Policy Database includes policies for all 50 states and the District of Columbia for each month between 1998 and 2016; we dropped 2016 from our analyses due to being incomplete and copied-forward all values from 2015 to 2016–2019. The derived SNAP Policy Index adhered to the unweighted policy index designed by Stacy et al. (2018), in which items from the SNAP Policy Database were selected based on conceptual and empirical rationale. The items fit Currie (2006)'s conceptual framework regarding barriers and facilitators of SNAP enrollment (Supplementary Table 3), with the items successfully predicting SNAP caseloads in previous research (Klerman & Danielson, 2011). Note that the SNAP Policy Database only reflects state-level policies, so it does not capture SNAP policy

changes during the study period which were enacted at the federal level (e.g., Keith-Jennings & Rosenbaum, 2015; U.S. Department of Agriculture & Food and Nutrition Service, 2019). The SNAP Policy Index is a continuous variable ranging from 0 to 9, representing the following domains: eligibility (4 items), transaction costs (3 items), and stigma (2 items). Since towards the end of the observation period most states converged on the SNAP Policy Index score – with 85% of counties having a score ≥8.8 by 2019 (Table 1) – we categorized this variable into states having a SNAP Policy Index score <8.8 in 2019 vs. SNAP Policy Index score ≥8.8 for moderation analyses.

Statistical analysis

We used graphs and descriptive statistics to describe the characteristics of the sample and the prevalence and trends in immigration-related policies at the county- and state-levels. For these descriptive analyses, we retained only counties with complete data on all variables of interest for the 13-year period (N=343 counties).

To test the primary hypothesis that the county proportion of Latino households participating in SNAP would be higher in counties and states with more favorable immigration-related policies, we used generalized linear models; a random intercept was included for state, which accounted for geographic nesting of counties within states and allowed the counties within a state to have their own intercept. After evaluation of fit statistics, we specified the variance-covariance matrix as a first-order autoregressive (AR(1)) process to account for the correlation between counties over time (where the correlation between residuals declined exponentially with each year). We used a mixed-effects repeated measures framework (*proc mixed*) which allowed us to retain N=675 counties (counties present in all years but which could have missing values on a given variable for a given year).

We fitted three models with three different predictors; all models had the same outcome (county-level % Latino households participating in SNAP) and covariates (all the ones listed above): 1) Model 1, with county-level sanctuary policies (yes/no) as a predictor; 2) Model 2, with the state-level immigrant-friendliness score (continuous) as a predictor; and 3) Model 3, using the 4-level categorical variable combining county-level sanctuary policies and state-level immigrant friendliness as a predictor. For Model 2, we standardized the state-level immigrant friendliness score such that a one-unit increase is equal to an increase of one standard deviation (which was 0.2 units in the original −1 to +1 scale based on our data). We did this because a one-unit increase in the original scale is extremely large and the original units did not have a specific meaning. To test moderation by the state-level SNAP policy environment, we ran an additional model (Model 4) with the same predictor as Model 3 but stratified based on the SNAP Policy Index categorical variable in 2019 (SNAP Policy Index <8.8 vs. SNAP Policy Index ≥8.8). All statistical analyses were carried out with SAS v9.4 (SAS Institute Inc., Cary, NC, USA).

Results

Table 1 displays the characteristics of the stable sample of counties for 2007, 2013, and 2019, the first, middle, and last year of our study period, respectively. The proportion of Latino individuals in the included counties ranged between 12% and 15% across time,

with the corresponding numbers for NL White individuals being 62–69%; the proportion of NL White individuals decreased over time. Poverty was higher among Latino households compared to NL White households throughout the study period, as was SNAP participation. In terms of SNAP participation trends for both Latino and NL White households, there was an increase in SNAP participation in 2009, coinciding with the Great Recession, with a leveling down towards the end of the observation period (Figure 2). Fifteen percent of counties were in the Midwest region, 19% in the Northeast, 39% in the South, and 27% in the West; 47% of counties were classified as metro area with 1 million inhabitants, 35% as metro area with 250,000–1 million inhabitants, 16% as metro area with <250,000 inhabitants, and 2% as non-metro areas (data not shown).

The proportion of counties in which a city-, county-, or state-level sanctuary policy had been enacted increased from 17% in 2007 to 51% in 2019 (Table 1). States immigrant friendliness scores decreased in 2019, when compared to 2007 and 2013, as did the proportion of counties in states classified as 'most immigrant friendly' (from 54% in 2007 to 39% in 2019). When combining county-level sanctuary policies and states' immigrant friendliness, we observed an increase in the proportion of counties that had a sanctuary policy and were in an immigrant friendly state, from 13% in 2007 to 36% in 2019 (Table 1 and Figure 3). The SNAP Policy Index also increased across time, with about 85% of counties located in a state with a SNAP Policy Index 8.8 by 2019 (Table 1).

Table 2 displays the results of the fully adjusted generalized linear models predicting county-level SNAP participation among Latino households. SNAP participation among Latino households was, on average, 1.1 percentage point higher in counties with sanctuary policies, compared to counties without sanctuary policies (Model 1). On the other hand, the state immigrant friendliness score was not statistically significantly associated with county-level SNAP participation among Latino households (Model 2). Looking at county- and state-level immigrant friendliness combined, we found that counties with sanctuary policies located in an immigrant-friendly state had county-level SNAP participation rates among Latino households that were, on average, 1.6 percentage points higher when compared to county-level participation rates in counties without sanctuary policies in immigrant-unfriendly states (Model 3). While county-level SNAP participation among Latino households was 1.1 percentage point higher in counties with sanctuary policies in immigrant-unfriendly states, compared to participation in counties without sanctuary policies in immigrant-unfriendly states, this association did not reach statistical significance. These associations between county/state immigrant friendliness and county-level SNAP participation among Latino households remained once the sample was stratified by the SNAP Policy Index for counties in states with a SNAP Policy Index 8.8 (most favorable, Model 4b. For counties in states with a SNAP Policy Index <8.8 (less favorable, Model 4a), we found a stronger association between SNAP participation among Latino households and county/state immigrant friendliness in terms of magnitude (B=4.5), but the degree of uncertainty was high (95%CI=−3.53, 12.45) and the association was not statistically significant.

Discussion

In this ecological study using ACS data 2007–2019, we found that county-level SNAP participation among Latino households was higher in counties and states with immigrant-friendly policies. In particular, we found that county-level SNAP participation among Latino households was 1) 1-percentage point higher in counties with sanctuary policies, compared to counties without sanctuary policies, and 2) 1.6-percentage point higher in counties with sanctuary policies in immigrant friendly states, compared to counties without sanctuary policies in immigrant unfriendly states. For context, a 2-percentage point increase in participation is approximately the SNAP participation increase observed during the COVID-19 pandemic (U.S. Department of Agriculture, Economic Research Service, 2022b).

While the association was only borderline statistically significant, we found that county-level SNAP participation among Latino households was ~1 percentage-point higher in counties with sanctuary policies in immigrant unfriendly states, compared to counties without sanctuary policies in immigrant unfriendly states. This finding, along with the lack of an association between county-level SNAP participation among Latino households and state immigrant friendliness, suggests that the presence of a sanctuary policy may be more influential on Latino households' decision to enroll in SNAP than the presence of other state policies. State policies included in the state immigrant friendliness score are related to providing financial support to immigrants and making it easier for them to navigate the system and access resources. Still, in mixed environments in which both integrating and criminalizing policies co-exist, the fear of deportation may trump any state integration efforts (Young and Wallace, 2019).

We found some evidence that the SNAP policy environment moderated the association between county-level SNAP participation among Latino households and county/state immigrant friendliness. There were relatively few counties in states with a SNAP Policy Index <8.8 (less favorable SNAP environment) which were also categorized as *sanctuary policy + immigrant friendly state*, therefore, there is a high degree of uncertainty in our results related to the SNAP policy environment. Still, the results provide some evidence that the combination of sanctuary policies and immigrant-friendly state policies may have an important role to play in states with unfavorable SNAP policies, an issue which should be further explored in future studies with more adequate data.

Similar to our findings, Alsan & Yang (2019) reported that SNAP participation among Latino families was reduced by 2.1 percentage points after the roll-out of Secure Communities, a federal program that institutionalized collaborations between the FBI and ICE, with stronger effects in counties with higher proportions of non-citizens or mixed-status Latino households, and null effects in places with sanctuary policies. Among Mexican-origin adolescent mothers, the passage of Arizona's SB 1070 – allowing the police to detain anybody who could not provide proof of U.S. citizenship – was associated with a reduction in the use of public assistance (Toomey et al., 2014). Further, a nationally representative survey conducted in December 2018 revealed that 21% of nonelderly adults living in low-income immigrant families reported that they or a family member did not participate in noncash government benefit programs (including SNAP) for fear of risking

their future legal residency status; Latino adults living in immigrant families were about twice as likely to report these chilling effects when compared to NL White or NL non-White adults living in immigrant households (Bernstein et al., 2019). Similar findings have been reported in terms of Latino immigrants' avoidance of Medicaid enrollment due to the public charge rule (Bustamante et al., 2022).

While not focused on program participation, other research highlights the negative impact of immigration-related policies on the health and nutrition outcomes of Latinos. For example, the implementation of section 287(g) – which authorizes ICE to collaborate with state and local law enforcement – has been associated with an increase in food insecurity among Mexican non-citizen households with children (Potochnick et al., 2017) and with late and inadequate prenatal care among Latina mothers (Rhodes et al., 2015), while the passage of Arizona's SB 1070 has been linked to a reduction in the use of preventive care among Mexican-origin adolescent mothers (Toomey et al., 2014). Even though it is not discussed by Potochnick et al. (2017), the increase in food insecurity among Mexican non-citizen households with children associated with the implementation of section 287(g) may have been due to an avoidance to enroll in SNAP, as SNAP has been found to alleviate food insecurity (de Cuba et al., 2019; Gundersen et al., 2017). Immigrant-unfriendly policies at the state level have also been linked to poor mental health outcomes among Latinos (Hatzenbuehler et al., 2017).

Collectively, the results of this study and other studies cited above have implications for federal, state, and local policymakers interested in increasing SNAP enrollment among eligible Latino households. The first and most clear implication is that sanctuary policies can yield small but meaningful population-level increases in SNAP enrollment among this vulnerable population with high levels of food insecurity. Thus, states and localities should weigh the benefits of avoiding the chilling effect on public program participation when considering adoption of sanctuary policies, in addition to the benefit of avoiding use of state and local resources to enforce federal immigration law. Second, areas that lack sanctuary policies or have fewer integrating and more criminalizing policy environments should adopt focused strategies to increase SNAP enrollment among Latinos. An example model program is *Comprando Rico y Sano*, a multi-pronged national program intent on reducing food insecurity among Latinos (UnidosUS, 2018). One aspect of the program is increasing SNAP enrollment assistance, including by partnering with community-based organizations (CBOs) in 15 low-income rural and urban communities and using community health workers (CHWs) to provide SNAP education and enrollment assistance to eligible Latinos, to demystify misconceptions about the program (e.g., related to public charge), and to review the application process (e.g., eligibility requirements, necessary documentation). The participating CBOs enrolled over 25,000 eligible Latinos in SNAP during the last year of the program's implementation, exceeding the program's goal by >40%. One strategy that USDA and/or states and localities in areas that lack sanctuary policies should consider is partnering with local CBOs and using CHWs or other tailored, culturally appropriate strategies to counter chilling effects on enrollment.

This study has strengths and limitations. Strengths include the availability of 13 years of national data to model the association between exposure to immigrant (un)friendly policies

and SNAP participation among Latino households. The availability of immigrant-related policies at the state and county levels is another strength. Limitations include the ecological nature of the study and lack of detailed data to adjust for individual level confounders. For example, we were unable to estimate the percent of county-level *income-eligible* Latino SNAP participating households because of data limitations. Inability to use income-eligible Latino SNAP participating households as the denominator in our outcome estimation may lead to an underestimation of our results. To minimize the impact of this limitation, we adjusted our analysis by the county-level number of Latino individuals living in poverty, number of NL White individuals living in poverty, and proportion of NL White households participating in SNAP. The authors would like to emphasize that the selection of county-level proportion of SNAP participation among Latino households as the outcome was due to data limitations, and we do not mean to imply that all Latinos live in poverty nor that all need SNAP benefits.

Additional limitations relate to the precision of measures of intensity of policy exposure and unobserved assumptions about policy implementation, both of which reflect limitations in extant literature and data and represent areas for future research. In terms of measurement of policy exposure, a limitation of the sanctuary policies relates to exposure being operationalized as a dichotomous variable despite sanctuary policies differing in their design and potential to have impacts on Latino families, particularly those with immigrant members (Ortiz et al., 2021). Further, we assumed that sanctuary policies would remain in effect across time without accounting for any sizable counter-policy that could have been passed and would negate the original purpose of the sanctuary policy, nor did we account for a lag period between enactment and implementation. It is also important to note the existence of different data sources for sanctuary policies (e.g., Alsan & Yang (2019)) and a variety of indices measuring state's policy environments as they relate to immigrants (e.g., Hatzenbuehler et al., 2017; Samari et al., 2021; Young & Wallace, 2019); we cannot discard the possibility of our results being different if these different data sources would have been used. In the absence of a 'gold standard' measure of state immigrant friendliness, however, we chose the Urban Institute State Immigration Policy Resource because it was the most comprehensive tool available, including many years of policy data to match our 13-year observation period.

Although fairly consistent with similar immigration policy index measures (Hatzenbuehler et al., 2017), a limitation of the state-level immigrant-related policy measure is that the presence of each policy provided equal weight to the index, despite the fact that the policies presumably vary in the extent to which they may impact Latino households' participation in SNAP. Future research which assesses the amount of variance in outcomes of interest that is explained by specific sanctuary and immigrant-related policies and policy provisions could inform more nuanced and precise policy measurement approaches. These policy measurement limitations of the study, however, are in part offset by a policy measurement strength: that the study accounted for two types of policies at multiple levels of governance (i.e., local and state). This is a recommended analytic approach but used relatively rarely in health policy research (Schnake-Mahl et al., 2022).

Another limitation relates to uncertainty about the extent to which the policies "on the books," which served as independent variables, were implemented in practice. For nearly a century, public administration scholars have documented how policy implementation is often hindered by factors such as ambiguity in, or complete absence of, policy implementation guidance, insufficient resources (e.g., finance, workforce), and lack of meaningful penalties for policy non-adherence (McGinty et al., 2022; Nilsen et al., 2013). Such issues related to policy implementation are increasingly recognized as important in public health (Bleich et al., 2020b; Emmons & Chambers, 2021; Shelton & Lee, 2019), and measures and methods for policy implementation research are emerging in the field and can be integrated into future work (Allen et al., 2020; Pilar et al., 2022).

Conclusion

This study adds to existing evidence suggesting that immigrant-integrating and criminalizing policies – which are not directly related to program eligibility – are associated with public assistance program enrollment among Latino households in the U.S. Our results suggest that SNAP enrollment among Latino households may be affected by policies at multiple levels, including state-level immigrant policies and sanctuary policies that can be enacted at the state, county, or sub-county level. Collectively, this body of evidence implies that enrollment outreach and assistance targeted towards Latino households and other groups with close social ties to immigrants should be increased in jurisdictions that lack integrating policies.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

Acknowledgements:

References

Allen P, Pilar M, Walsh-Bailey C, Hooley C, Mazzucca S, Lewis CC, Mettert KD, Dorsey CN, Purtle J, Kepper MM, Baumann AA, & Brownson RC (2020). Quantitative measures of health policy implementation determinants and outcomes: a systematic review. Implement Sci, 15(1), 47. 10.1186/s13012-020-01007-w [PubMed: 32560661]

Alsan M, & Yang C (2019). Fear and the safety net: Evidence from Secure Communities. NBER Working Paper Series, Working paper No. 24731, https://www.nber.org/system/files/working_papers/w24731/w24731.pdf (accessed 5 december 2022).

Barofsky J, Vargas A, Rodriguez D, & Barrows A (2020). Spreading fear: The announcement of the public charge rule reduced enrollment in child safety-net programs. Health Aff, 39(10), 1752–1761. 10.1377/hlthaff.2020.00763.

Batalova J, Fix M, & Greenberg M (2018). Chilling effects: The expected public charge rule and its impact on legal immigrant families' public benefits use. Migration Policy Institute, https://www.migrationpolicy.org/sites/default/files/publications/ProposedPublicChargeRule-Final-Web.pdf (accessed 5 december 2022).

Berk ML & Schur CL (2001) The effect of fear on access to care among undocumented Latino immigrants. J Immigr Health, 3(3), 151–156. 10.1023/A:1011389105821. [PubMed: 16228780]

Berkowitz SA, Seligman HK, Meigs JB, & Basu S (2018) Food insecurity, healthcare utilization, and high cost: a longitudinal cohort study. Am J Manag Care, 24(9), 399–404. [PubMed: 30222918]

[dataset] Bernstein H, Echave P, Koball H, Stinson J, & Martinez S (2022). State Immigration Policy Resource, https://www.urban.org/features/state-immigration-policy-resource (accessed 10 july 2022).

Bernstein H, Gonzalez D, Karpman M, & Zuckerman S (2019). One in seven adults in immigrant families reported avoiding public benefit programs in 2018. Urban Institute, https://www.urban.org/sites/default/files/publication/100270/one_in_seven_adults_in_immigrant_families_reported_avoiding_publi_2.pdf (accessed 5 december 2022).

Bitler M, Gennetian LA, Gibson-Davis C, & Rangel MA (2021). Means-tested safety net programs and Hispanic families: Evidence from Medicaid, SNAP, and WIC. Ann Am Acad Polit Soc Sci, 696(1), 274–305. 10.1177/00027162211046591

Bleich SN, & Fleischhacker S (2019). Hunger or deportation: Implications of the Trump administration's proposed public charge rule. J Nutr Educ Behav, 51(4), 505–509. 10.1016/j.jneb.2019.01.019. [PubMed: 30819655]

Bleich SN, Moran AJ, Vercammen KA, Frelier JM, Dunn CG, Zhong A, Fleischhacker SE (2020a). Strengthening the public health impacts of the Supplemental Nutrition Assistance Program through policy. Ann Rev Public Health, 41, 453–480.10.1146/annurev-publhealth-040119-094143. [PubMed: 32237988]

Bleich SN, Chriqui J, & Ng SW (2020b). Implementation science is important for understanding and advancing beverage taxes. Am J Public Health, 110(9), 1266–1267. 10.2105/ajph.2020.305840 [PubMed: 32783741]

Bustamante AV, Félix-Beltrán L, Nwadiuko J, & Ortega AN (2022). Avoiding Medicaid enrollment after the reversal of the changes in the public charge rule among Latino and Asian immigrants. Health Serv Res, 57(S2), 195–203. https://doi.org/10.1111/1475-6773.14020 [PubMed: 35775930]

Canning P & Morrison RM (2019). Quantifying the impact of SNAP benefits on the U.S. economy and jobs. U.S. Department of Agriculture, Economic research Service. Amber Waves, July 18, 2019, https://www.ers.usda.gov/amber-waves/2019/july/quantifying-the-impact-of-snap-benefits-on-the-u-s-economy-and-jobs/ (accessed 15 may 2023).

Coleman-Jensen A, Rabbitt MP, Gregory CA, & Singh A (2022). Household Food Security in the United States, 2021. U.S. Deparment of Agriculture, Economic Research Service. Economic Research Report No. 309, https://www.ers.usda.gov/webdocs/publications/104656/err-309.pdf (accessed 5 december 2022).

Currie J (2006). The take-up of social benefits. In Auerbach A, Card D, & Quigley J (Eds.), Poverty, the Distribution of Income, and Public Policy (pp. 80–148). Russell Sage Press.

de Cuba SE, Chilton M, Bovell-Ammon A, Knowles M, Coleman SM, Black MM, Cook JT, Cutts DB, Casey PH, Heeren TC, & Frank DA (2019). Loss of SNAP is associated with food insecurity and poor health in working families with young children. Health Aff, 38(5), 765–773. 10.1377/hlthaff.2018.05265

Emmons KM, & Chambers DA (2021). Policy implementation science - An unexplored strategy to address social determinants of health. Ethn Dis, 31(1), 133–138. 10.18865/ed.31.1.133 [PubMed: 33519163]

Fix ME, & Passel JS (1999). Trends in Noncitizens' and Citizens' Use of Public Benefits Following Welfare Reform 1994–97. Urban Institute, https://www.urban.org/research/publication/trends-noncitizens-and-citizens-use-publicbenefits-following-welfare-reform (accessed 13 january 2023).

Gelatt J, Koball H Bernstein H, Runes C, Pratt E (2017). State immigration enforcement policies. How they impact low-income households. Urban Institute, https://www.urban.org/sites/default/files/publication/90091/state-immigration-enforcement-policies.pdf (accessed 10 may 2023).

Gundersen C, Kreider B, & Pepper JV (2017). Partial identification methods for evaluating food assistance programs: A case study of the causal impact of SNAP on food insecurity. Am J Agr Econ, 99(4), 875–893. https://doi.org/10.1093/ajae/aax026

Hardy LJ, Getrich CM, Quezada JC, Guay A, Michalowski RJ, & Henley E (2012). A call for further research on the impact of state-level immigration policies on public health. Am J Public Health, 102, 1250–1253. 10.2105/AJPH.2011.300541. [PubMed: 22594736]

Hatzenbuehler ML, Prins SJ, Flake M, Philbin M, Frazer MS, Hagen D, & Hirsch J (2017). Immigration policies and mental health morbidity among Latinos: A state-level analysis. Soc Sci Med, 174, 169–178. https://doi.org/10.1016/j.socscimed.2016.11.040 [PubMed: 28043019]

Immigrant Legal Resource Center (ILRC). (2018). The rise of sanctuary. Getting local officers out of the business of deportations in the Trump era. https://www.ilrc.org/sites/default/files/resources/rise_of_sanctuary-lg-20180201.pdf (accessed 13 january 2023).

Kaushal N, Waldfogel J, & Wight V (2014). Food insecurity and SNAP participation in Mexican immigrant families: The impact of the outreach initiative. B E J Econom Anal Policy, 14(1), 203–240. 10.1515/bejeap-2013-0083 [PubMed: 27570576]

Keith-Jennings B, & Rosenbaum D (2015). SNAP Benefit Boost in 2009 Recovery Act Provided Economic Stimulus and Reduced Hardship. Center on Budget and Policy Priorities, https://www.cbpp.org/sites/default/files/atoms/files/3-31-15fa.pdf (acessed 13 january 2023).

Klerman JA, & Danielson C (2011). The transformation of the Supplemental Nutrition Assistance Program. J Pol Anal Manag, 30(4), 863–888. http://www.jstor.org/stable/23019007

Kreider B, Pepper JV, Gundersen C, & Jolliffe D (2012). Identifying the effects of SNAP (food stamps) on child health outcomes when participation is endogenous and misreported. J Am Stat Assoc, 107(499), 958–975. 10.1080/01621459.2012.682828

Koball H, Stinson J, Martinez S (2021). State immigration database, technical appendix. National Center for Children in Poverty, https://www.nccp.org/wpcontent/uploads/2021/08/State_Immigration_Database_Technical_Appendix_2021.pdf (accessed 10 may 2023).

Lasch CN, Chan RL, Eagly IV, Haynes DF, Lai A, McCormick EM, & Stumpf JP (2018). Understanding "Sanctuary Cities". Boston College Law Review, 59(5), 1703–1774.

Mabli J, & Ohls J (2015). Supplemental Nutrition Assistance Program participation is associated with an increase in household food security in a national evaluation. J Nutr, 145(2), 344–351. 10.3945/jn.114.198697 [PubMed: 25644357]

Macartney S, & Ghertner R (2021). Participation in the U.S. social safety net: Coverage of low-income families, 2018. U.S. Department of Health & Human Services, Office of the Assistant Secretary for Planning & Evaluation, https://aspe.hhs.gov/sites/default/files/documents/244cb564593e7b2f995df55bde0aecdd/program-eligibility-participation-brief-december-2021.pdf (accessed 13 january 2023).

McGinty EE, Seewald NJ, Bandara S, Cerdá M, Daumit GL, Eisenberg MD, Griffin BA, Igusa T, Jackson JW, Kennedy-Hendricks A, Marsteller J, Miech EJ, Purtle J, Schmid I, Schuler MS, Yuan CT, & Stuart EA (2022). Scaling interventions to manage chronic disease: innovative methods at the intersection of health policy research and implementation science. Prev Sci, 10.1007/s11121-022-01427-8

Nilsen P, Ståhl C, Roback K, & Cairney P (2013). Never the twain shall meet? - a comparison of implementation science and policy implementation research. Implement Sci, 8(1), 63. 10.1186/1748-5908-8-63 [PubMed: 23758952]

Ortiz R, Farrell-Bryan D, Gutierrez G, Boen C, Tam V, Yun K, Venkataramani AS, & Montoya-Williams D (2021). A content analysis of US sanctuary immigration policies: Implications for research in social determinants of health. Health Aff, 40(7), 1145–1153. 10.1377/hlthaff.2021.00097

Payan DD, Diaz Rios LK, Ramirez AS, & Young MEDT (2021). Structural barriers influencing food insecurity, malnutrition, and health among Latinas during and after COVID-19: Considerations and recommendations. J Acad Nutr Diet, 121(5), 837–843. 10.1016/j.jand.2021.01.005. [PubMed: 33568334]

Pilar M, Jost E, Walsh-Bailey C, Powell BJ, Mazzucca S, Eyler A, Purtle J, Allen P, & Brownson RC (2022). Quantitative measures used in empirical evaluations of mental health policy implementation: A systematic review. Implement Res Pract, 3, 26334895221141116. 10.1177/26334895221141116

Pino LJ (2020). Immigration policy and perception impacts on SNAP access and eligibility: a view from the field. Renew Agric Food Syst, 35(4), 416–419. 10.1017/S1742170519000449

Philbin MM, Flake M, Hatzenbuehler ML, Hirsch JS (2018). State-level immigration and immigrant-focused policies as drivers of Latino health disparities in the United States. Soc Sci Med, 199, 29–38. 10.1016/j.socscimed.2017.04.007. [PubMed: 28410759]

Potochnick S, Chen JH, & Perreira K (2017). Local-level immigration enforcement and food insecurity risk among Hispanic immigrant families with children: National-level evidence. J Immigr Minor Health, 19(5), 1042–1049. 10.1007/s10903-016-0464-5 [PubMed: 27435475]

Ratcliffe C, McKernan SM, & Zhang S (2011). How much does the Supplemental Nutrition Assistance Program reduce food insecurity? Am J Agric Econ, 93(4), 1082–1098. 10.1093/ajae/aar026 [PubMed: 25197100]

Rhodes SD, Mann L, Simán FM, Song E, Alonzo J, Downs M, Lawlor E, Martinez O, Sun CJ, O'Brien MC, Reboussin BA, & Hall MA (2015). The impact of local immigration enforcement policies on the health of immigrant Hispanics/Latinos in the United States. Am J Public Health, 105(2), 329–337. 10.2105/ajph.2014.302218 [PubMed: 25521886]

Salas LM, Ayon C, & Gurrola M (2013). Estamos traumados: The effect of anti-immigrant sentiment and policies on the mental health of Mexican immigrant families. J Community Psychol, 41, 1005–1020. 10.1002/jcop.21589.

Samari G, Nagle A, & Coleman-Minahan K (2021). Measuring structural xenophobia: US state immigration policy climates over ten years. SSM Popul Health, 16, 100938. 10.1016/j.ssmph.2021.100938. [PubMed: 34660879]

Schnake-Mahl AS, Jahn JL, Purtle J, & Bilal U (2022). Considering multiple governance levels in epidemiologic analysis of public policies. Soc Sci Med, 314, 115444. 10.1016/j.socscimed.2022.115444 [PubMed: 36274459]

Shelton RC, & Lee M (2019). Sustaining evidence-based interventions and policies: Recent innovations and future directions in implementation science. Am J Public Health, 109(S2), S132–s134. 10.2105/ajph.2018.304913 [PubMed: 30785794]

Shepard DS, Setren E, & Cooper D (2011). Hunger in America: Suffering we all pay for. Center for American Progress, https://www.americanprogress.org/article/hunger-in-america/ (accessed 15 may 2023).

Skinner C (2012). State immigration legislation and SNAP take-up among immigrant families with children. J Econ Iss, 46(3), 661–682. 10.2753/JEI0021-3624460304

Stacy B, Tiehen L, & Marquardt. (2018). Using a policy index to capture trends and differences in state administration of USDA's Supplemental Nutrition Assistance Program. U.S. Department of Agriculture, Economic Research Service, Economic Research Report No. 244, https://www.ers.usda.gov/webdocs/publications/87096/err-244.pdf?v=5547.1 (acessed 13 january 2023).

Toomey RB, Umaña-Taylor AJ, Williams DR, Harvey-Mendoza E, Jahromi LB, & Updegraff KA (2014). Impact of Arizona's SB 1070 immigration law on utilization of health care and public assistance among Mexican-origin adolescent mothers and their mother figures. Am J Public Health, 104(S1), S28–S34. 10.2105/ajph.2013.301655 [PubMed: 24354823]

UnidosUS (2018). Community-driven strategies to reduce food insecurity and hunger among Latinos, https://unidosus.org/wp-content/uploads/2021/07/ib29_comprandoricoysano_53018.pdf (accessed 15 may 2023).

U.S. Bureau of Labor Statistics. (2022). Labor Force Statistics from the Current Population Survey, Employment status of the civilian noninstitutional population by age, sex, and race. https://www.bls.gov/cps/tables.htm (accessed 16 july 2022).

U.S. Census Bureau. (2022). About the Hispanic population and its origin. https://www.census.gov/topics/population/hispanic-origin/about.html (accessed 17 february 2023).

U.S. Census Bureau. (2021). Subject definitions. https://www.census.gov/programs-surveys/cps/technical-documentation/subject-definitions.html#household (accessed 17 february 2023).

U.S. Department of Agriculture, Food and Nutrition Service. (2022). SNAP Data Tables. https://www.fns.usda.gov/pd/supplemental-nutrition-assistance-program-snap (accessed 5 january 2023).

U.S. Department of Agriculture, Economic Research Service. (2022a). SNAP Policy Data Sets https://www.ers.usda.gov/data-products/snap-policy-data-sets/ (accessed 16 july 2022).

U.S. Department of Agriculture, Economic Research Service. (2022b). SNAP participation varied across States from 2019 to 2021. https://www.ers.usda.gov/data-products/chart-gallery/gallery/chart-detail/?chartId=105123 (accessed 17 february 2023).

U.S. Department of Agriculture, & Economic Research Service. (2020). Rural-Urban Continuum Codes. https://www.ers.usda.gov/data-products/rural-urban-continuum-codes/ (accessed 16 july 2022).

U.S. Department of Agriculture, & Food and Nutrition Service. (2019). Supplemental Nutrition Assistance Program: Requirements for Able-Bodied Adults Without Dependents. Retrieved from https://www.govinfo.gov/content/pkg/FR-2019-12-05/pdf/2019-26044.pdf (accessed 12 december 2022).

U.S. Department of Agriculture, & Food and Nutrition Service. (2011). Supplemental Nutrition Assistance Program. Guidance on non-citizen eligibility. https://fns-prod.azureedge.us/sites/default/files/resource-files/Non-Citizen%20Guidance_6-30-2011.pdf (accessed 5 january 2023).

Wallace SP, Young MEDT, Rodriguez MA, Brindis CD (2019). A social determinants framework identifying state-level immigrant policies and their influence on health. SSM Popul Health. 7, 100316. 10.1016/j.ssmph.2018.10.016. [PubMed: 30581960]

Young DTME, Wallace SP (2019). Included, but deportable: A new public health approach to policies that criminalize and integrate immigrants. Am J Public Health, 109(9), 1171–1176. 10.2105/AJPH.2019.305171. [PubMed: 31318585]

Highlights

- Eligible Latino households under-enroll in food assistance programs.

- County sanctuary policies promote Latino households' food assistance enrollment.

- Local and state immigrant policies impact food assistance enrollment among Latinos.
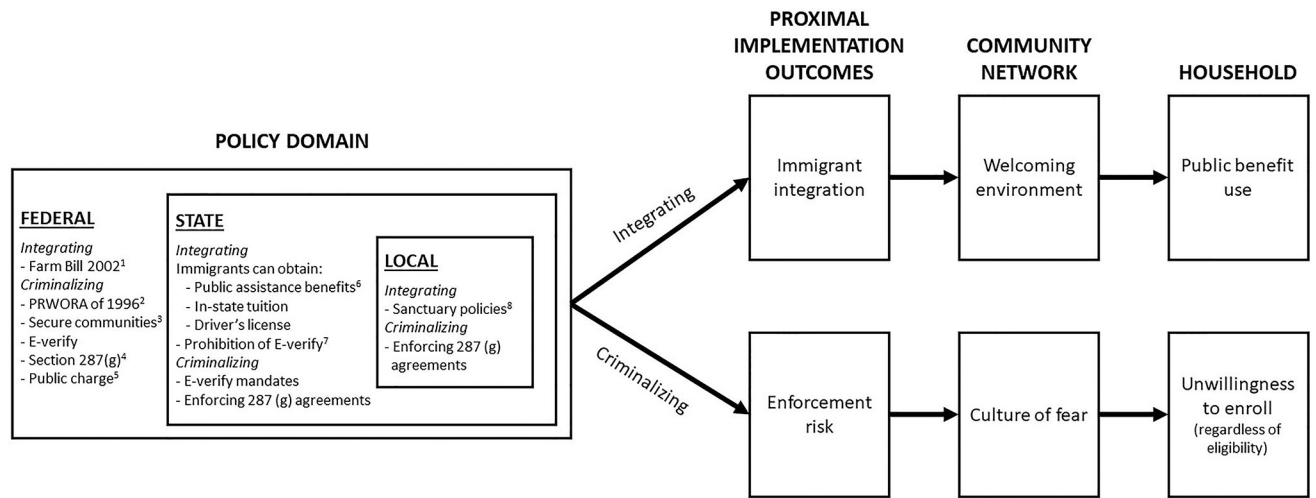
Figure 1:

Conceptual framework linking the federal, state, and local policy domains to public benefits use among immigrants in the U.S.

[1]Expanded Supplemental Nutrition Assistance Program (SNAP) eligibility to most documented immigrants.

[2]Personal Responsibility and Work Opportunity Reconciliation Act, which allowed states to restrict eligibility to SNAP for most documented immigrants.

[3]Institutionalized information sharing between the Federal Bureau of Investigations (FBI), which receives information from local law enforcement regarding people in their custody (e.g., fingerprints), with the Immigration and Customs Enforcement (ICE); in place in 2013–2014, and 2017-present.

[4]Authorizes ICE to collaborate with state and local law enforcement.

[5]Ground for inadmissibility into the U.S. – or inadmissibility for change in immigration status – due to perceived high risk of future dependance on public benefits.

[6]Including cash, food, and healthcare assistance.

[7]System that checks for employment eligibility in the U.S., by comparing employee information against data from the Social Security Administration and U.S. Department of Homeland Security.

[8]Limits cooperation between local law enforcement and ICE. Most sanctuary policies are enacted at the city or county level; however, they may also be enacted by states.
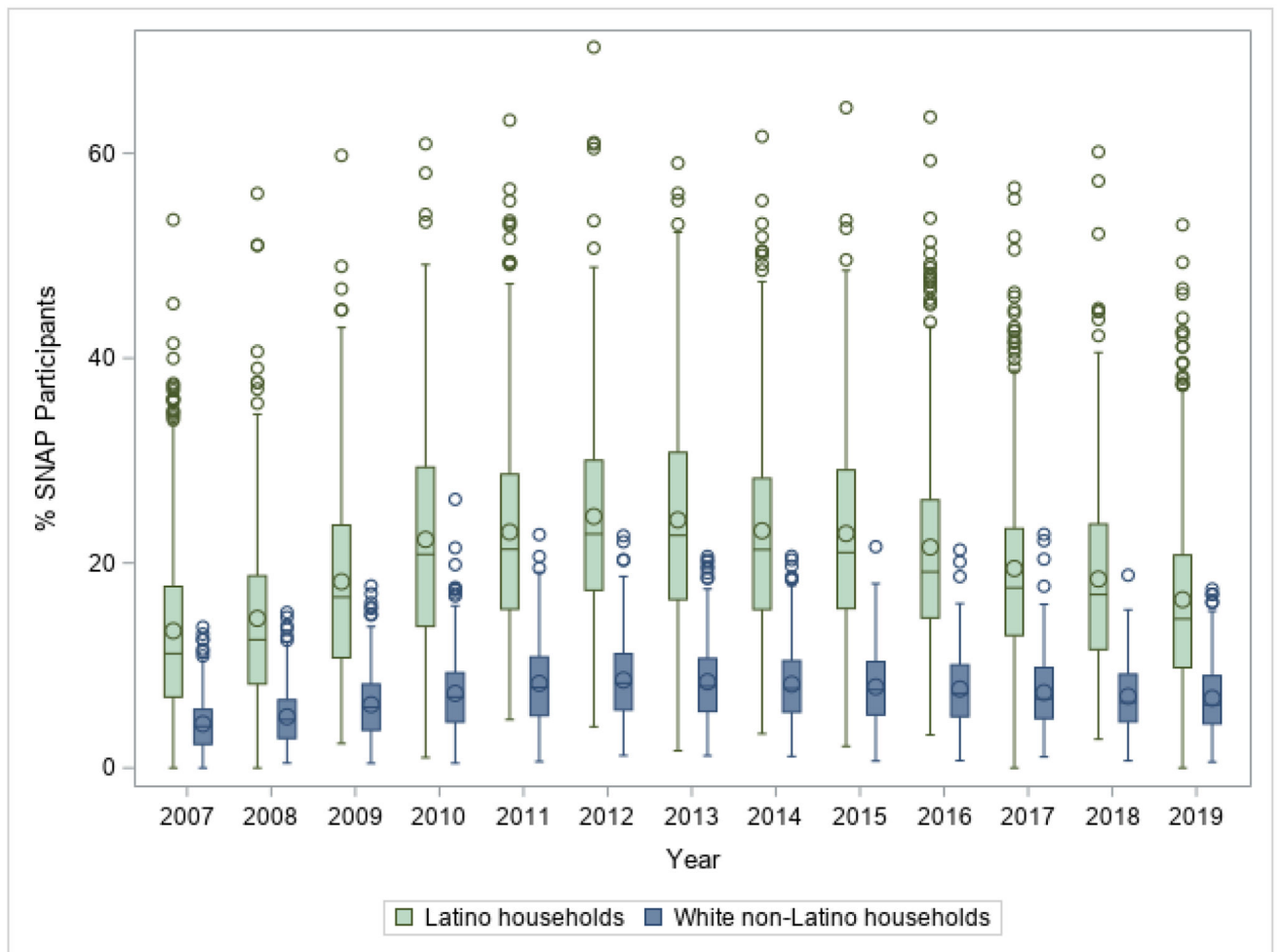
Figure 2:
County-level SNAP participation among Latino and non-Latino White households in the
sample of stable counties (n=343), 2007–2019

NL = non-Latino, SNAP = Supplemental Nutrition Assistance Program.
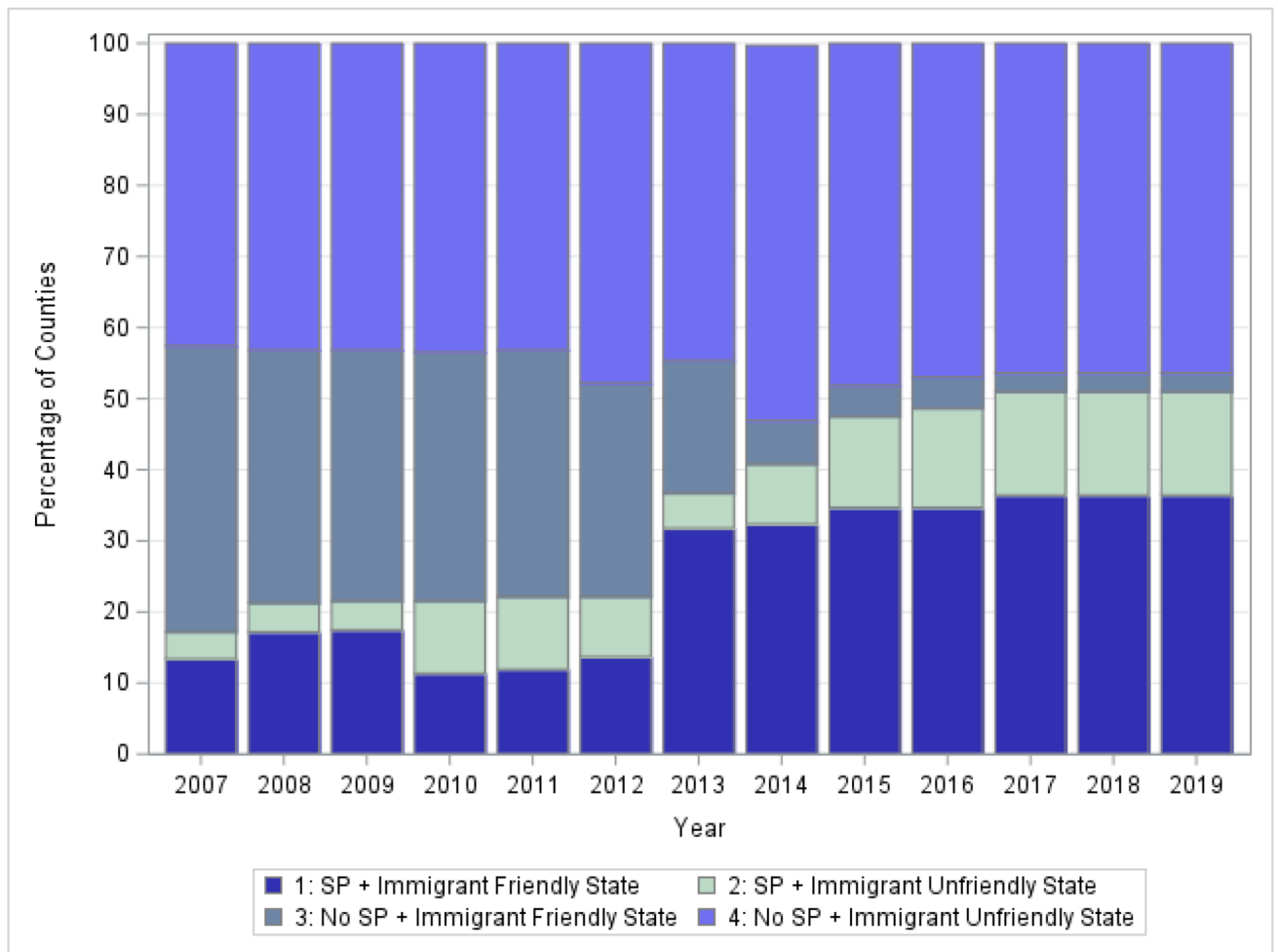
Figure 3:
Distribution of counties categorized based on sanctuary policies operationalized at the county level and state-level immigrant friendliness, stable county sample (n=343), 2007–2019

SP = sanctuary policy.

Table 1:

Characteristics of the stable sample of counties (n= 343) for the first, middle, and last year of the study period (2007–2019)

	2007	2013	2019
SNAP participation			
% SNAP participation among Latino, median (IQR)[1]	11.16 (10.78)	22.70 (14.37)	14.55 (10.98)
% SNAP participation among NL Whites, median (IQR)[2]	4.05 (3.41)	7.97 (5.18)	6.16 (4.67)
% Latino population, median (IQR)	11.64 (15.49)	13.81 (16.02)	15.04 (16.34)
Demographics			
% NL White population, median (IQR)	68.84 (25.24)	64.76 (26.44)	61.53 (27.45)
% Population 60 years or above, median (IQR)	16.88 (4.38)	19.15 (4.53)	22.23 (5.39)
Population density (# inhabitants/ sq Km), median (IQR)[3]	182.44 (395.17)	195.47 (415.80)	207.14 (436.40)
Per capita income (US$), median (IQR)[3]	25,908 (7,089)	23,823 (7,196)	27,094 (8,250)
% Poverty among Latinos, median (IQR)[4]	20.58 (11.67)	25.71 (11.96)	17.09 (9.74)
Income, poverty, & unemployment			
% Poverty among NL White, median (IQR)[5]	7.99 (3.77)	10.46 (4.88)	8.31 (4.16)
% Unemployment (16–64 years), median (IQR)[6]	6.15 (2.31)	8.47 (3.32)	4.45 (1.80)
% Male unemployment, median (IQR)[7]	4.78 (0)	7.76 (0)	3.78 (0)
Counties with sanctuary policies, N (%)	59 (17.2)	126 (36.7)	175 (51.0)
State immigrant friendliness score, median (IQR)[8]	0.26 (0.25)	0.26 (0.38)	0.16 (0.35)
State immigrant friendliness, N (%)			
Least friendly	109 (32.8)	106 (30.9)	95 (27.7)
Less friendly	50 (14.6)	64 (18.7)	114 (33.2)
Most friendly	184 (53.6)	173 (50.4)	134 (39.1)
Policy variables			
Sanctuary policies + state immigrant friendliness, N (%)			
Sanctuary policy + immigrant friendly state	46 (13.4)	109 (31.8)	125 (36.4)
Sanctuary policy + immigrant unfriendly state	13 (3.8)	17 (5.0)	50 (14.6)
No sanctuary policy + immigrant friendly state	138 (40.2)	64 (1837)	9 (2.6)
No sanctuary policy + immigrant unfriendly state	146 (42.6)	153 (44.6)	159 (46.4)
SNAP policy index, median (IQR)[9]	7.00 (0.69)	8.98 (1.00)	9.00 (0.01)
SNAP policy index, score 8.8, N (%)	23 (6.7)	182 (53.1)	293 (85.4)

IQR = interquantile range; NL = non-Latino; SNAP = Supplemental Nutrition Assistance Program.

[1]Denominator all Latino households

[2] Denominator all NL White households

[3] Inflation-adjusted to 2007 US$

[4] At or below 100% of the federal poverty level (FPL), denominator all Latino individuals.

[5] 100% FPL, denominator all NL White individuals.

[6] At county-level, denominator all civilian labor force 16–64 years of age

[7] At country-level, seasonally adjusted, denominator total labor force

[8] Range from -1 (least immigrant friendly) to +1 (most immigrant friendly)

[9] Range 0–9

Table 2:

Generalized linear models predicting county-level Supplemental Nutrition Assistance Program (SNAP) participation percentage among Latino households at the county level (n=6,309 county-years)[1]

Model #	Independent variable(s)	Estimate	95% CI	p-value
1	Sanctuary policy in county (yes vs. no)	1.12	0.26, 1.98	0.0105
2	State immigrant friendliness score[2]	0.45	−0.31, 1.21	0.2423
3	Sanctuary policies + state immigrant friendliness			
	Sanctuary policy + immigrant friendly state	1.59[3]	0.33, 2.84	0.0130
	Sanctuary policy + immigrant unfriendly state	1.07	−0.06, 2.19	0.0626
	No sanctuary policy + immigrant friendly state	0.47	−0.62, 1.57	0.3964
	No sanctuary policy + immigrant unfriendly state	0	.	.
4a	**SNAP Policy Index<8.8 in 2019 (n=1053)**			
	Sanctuary policies + state immigrant friendliness			
	Sanctuary policy + immigrant friendly state	4.46	−3.53, 12.45	0.2605
	Sanctuary policy + immigrant unfriendly state	−1.30	−3.96, 1.36	0.3353
	No sanctuary policy + immigrant friendly state	1.51	−3.40, 6.42	0.5407
	No sanctuary policy + immigrant unfriendly state	0	.	.
4b	**SNAP Policy Index ≥ 8.8 in 2019 (n=5256)**			
	Sanctuary policies + state immigrant friendliness			
	Sanctuary policy + immigrant friendly state	1.53	0.22, 2.84	0.0218
	Sanctuary policy + immigrant unfriendly state	1.25	0.03, 2.48	0.0454
	No sanctuary policy + immigrant friendly state	0.64	−0.51, 1.78	0.2761
	No sanctuary policy + immigrant unfriendly state	0	.	.

[1] Adjusted by time, male unemployment (seasonally adjusted) at the country-level, and the following county-level variables: total population, county size (in sq Km), number of Latino individuals, number of non-Latino (NL) White individuals, number of Latino households living in poverty (<100% federal poverty level), number of NL White households living in poverty, number of NL White households participating in SNAP, per capita income (inflation adjusted 2007 US$), % population 60+ years, unemployment, and urbanicity.

[2] Rescaled to be interpreted as the change in the outcome associated with an increase of 1 SD in the state immigrant friendliness score.

[3] Estimates derived from linear models where the outcome is the continuous county-level percentage participation in SNAP among Latino households.