

The 2016 Presidential Election, the **Public Charge Rule, and Food and Nutrition Assistance Among Immigrant Households**

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্ঠি See also Bovell-Ammon et al., p. 1735.

Objectives. To investigate whether the 2016 US presidential election and the subsequent leak of a proposed change to the public charge rule reduced immigrant families' participation in food and nutrition assistance programs.

Methods. We used nationally representative data on n = 57808 households in the United States from the 2015-2018 Current Population Survey-Food Security Supplement. We implemented difference-indifference-in-difference analyses to investigate whether the election and proposed rule change produced decreases in immigrant families' participation in food and nutrition assistance programs and whether such decreases varied according to state policy generosity toward immigrants.

Results. Findings indicate significant and large decreases in Supplemental Nutrition Assistance Program, School Breakfast Program, and National School Lunch Program participation among immigrants in moderately generous states but no changes to receipt of food assistance from nongovernmental sources or to household food insecurity.

Conclusions. Both anti-immigrant rhetoric and the perceived threat of policy enactment can be enough to produce chilling effects that have potentially serious implications for the health of immigrant households and thus the health of the nation. (Am | Public Health. 2022;112(12):1738–1746. https:// doi.org/10.2105/AJPH.2022.307011)

nortly after the 2016 US presidential election and following a campaign by Donald Trump characterized by a decidedly hostile tone toward immigrants and their families, 1,2 a draft of a Trump administration executive order was leaked that proposed changes to the public charge rule. For immigrants applying for legal permanent residence, this change would have greatly expanded the number of public assistance programs for which previous receipt of benefits could be counted in determining whether they were likely to

become a future public charge, a designation that could lead to a rejection of their applications.³ In addition to federal cash assistance and public longterm care, which had long been used in the public charge determination, the 2016 proposed change would have included use of programs such as the Supplemental Nutrition Assistance Program (SNAP), Medicaid, and federal housing assistance (although not federal school meals programs).⁴ Early wellpublicized drafts of the rule change also suggested that the participation of

family members such as US-born children would also be newly used in the public charge determination.⁵

Based in part on decreases in participation in public programs that followed the 1996 Personal Responsibility Work Opportunity Reconciliation Act (PRWORA; Pub L No. 104–193),⁶ which eliminated eligibility for public assistance for most legally resident immigrants, both the 2016 election and the proposed rule change generated renewed concern about "chilling effects." In a legal context, this term typically describes "undesirable

discouraging effects or influences." Here we use the term to mean immigrants foregoing public benefits to which they were legally entitled. Indeed, complementing media coverage, researchers found that the leak of the proposed rule changes was associated with sizable decreases in SNAP participation among recent immigrant families with younger children⁹ and Medicaid participation in counties with larger noncitizen populations. When a modified version of the public charge rule change was eventually implemented in December 2018, researchers found that 20% of lowincome immigrant adults reported avoiding a public benefit program because of perceived threats to their residence status. 10 There was also evidence of largescale avoidance of SNAP and Medicaid by immigrant essential workers.¹¹

Unlike in 1996, there were no immediate changes to eligibility for public benefits in the early days of the Trump presidency. Rather, the leaked draft executive order outlined changes to the public charge rule that would create potentially serious consequences for the receipt of federal public assistance. This, coupled with increasingly harsh rhetoric and other executive orders that targeted immigrants, 12 led to renewed fear of decreases in program participation. In addition, misinformation and confusion propagated in part by news media appeared to have added to hesitation about participating in public assistance. 13,14

Nonetheless, an important insight from research on PRWORA is that the experience of chilling effects is likely to vary by the composition of immigrant households.¹⁵ For instance, studies reported that there were pronounced decreases in program participation among mixed status households (those with citizen children and noncitizen

adults),^{16,17} though other research indicated that these decreases may have been because of changing food stamp benefits rates¹⁵ and changes to naturalization.⁷ PRWORA era research also signals the importance of state policies to the potential for chilling effects. In the late 1990s, some states provided benefits to immigrants in response to their loss of eligibility for federal programs, which lead to reductions in program participation.^{18,19}

Building on recent evidence 9-11,14,20 and this previous research, we provide a definitive assessment of the effects of the 2016 election and the leak of the proposed public charge rule change on immigrant families' food insecurity and federal food and nutrition assistance use. To our knowledge, our study is the first to do so using nationally representative data on US households. We consider the effects of the 2016 election and the rule change leak on mixed status households and whether any effects vary by states' generosity in providing benefits to immigrant households.

As with previous research, 7,16,17 we expected to see the strongest chilling effects in mixed status households (i.e., those with noncitizen parents and citizen children) because they might especially fear the serious disruptions an adverse public charge determination would cause. While actual changes in eligibility may have driven behavior after PRWORA, we investigated instead whether an increased climate of antiimmigrant sentiment and a proposed change to policy suppressed participation. Furthermore, we hypothesized that states' generosity toward immigrants in 2016 might have actually encouraged a retreat from federal benefits if immigrant households believed they could switch to a state program in lieu of a federal one.

METHODS

We used data from the Current Population Survey (CPS)–Food Security Supplement (FSS). Each month, the CPS is administered to a national sample of households, which are representative of the noninstitutionalized US population. The FSS is administered each December and contains detailed data on household food expenditures and the use of both governmental and nongovernmental food assistance.

Using the Integrated Public-Use Microdata Series,²¹ we constructed a preliminary analytic sample of n = 150 853 households using data from the 2015 to 2018 waves of the CPS-FFS, a period including the 2 years before the 2016 election (2015–2016) and the first 2 years of Trump's presidency (2017-2018). To focus on those most likely to take advantage of governmental programs and nongovernmental aid, we dropped n = 91213 families with incomes greater than \$40,000 per year. Finally, we dropped n = 1810households in which no members were citizens. Our final analytic sample had n = 57 808 households and subsamples of n = 10.832 and n = 10.811households with school-aged children (aged 5-17 years) in our respective analyses of the National School Lunch Program (NSLP) and the School Breakfast Program (SBP).

Measures

Outcomes. We coded variables indicating participation in multiple federal food and nutrition assistance programs. First, we created a dichotomous measure of participation in SNAP, the largest of the US Department of Agriculture's (USDA's) food and nutrition

assistance programs, 22 coded as 1 for households who had received SNAP benefits since December of the previous calendar year and 0 otherwise. Next, for households with school-aged children, we created additional dichotomous indicators for whether respondents reported that children in the household received free or reducedprice meals from the NSLP or SBP in the past month. We coded receipt of food assistance from nongovernmental sources as 1 if respondents reported that anyone in the household had gotten emergency food from a church, food pantry, or food bank or had eaten at a soup kitchen in the past month. Finally, and based on the 18-item Food Security Module, which is included in the CPS-FFS, we used USDA guidelines²³ to create a 0-1 indicator for household food insecurity over the previous 12 months. We provide full information about the construction of these and other key variables in Appendix A (available as a supplement to the online version of this article at http://www.ajph. org). Table 1 provides descriptive information on all study variables.

Household citizenship status. We assigned CPS-FFS households to 1 of 3 categories: all-citizen, noncitizen, and mixed status households, in which some members were citizens and others were not. However, preliminary analyses showed divergent preelection trends in our outcomes of interest between noncitizen households and the 2 other groups, indicating a violation of a key assumption undergirding our analytic approach.²⁴ For this reason, we elected to drop noncitizen households from our analyses.

State generosity. Based on previous research, 15,19,25 we measured the

TABLE 1— Descriptive Statistics for the Analytic Sample (n = 57808): United States, 2015-2018 Current Population **Survey-Food Security Supplement**

	% (No.) or Mean ±SD	Range
SNAP	20.3 (11 735)	0–1
Nongovernmental food	11.0 (6 359)	0–1
NSLP (n = 10 832)	59.7 (6 471)	0–1
SBP (n = 10811)	51.7 (5 587)	0–1
Food insecurity	22.4 (12 949)	0–1
Mixed status household	6.2 (3 584)	0–1
State policy generosity		ı
Least	26.8 (15 493)	0-1
Moderate	58.9 (34 049)	0-1
Most	14.4 (8 324)	0-1
Respondent race/ethnicity		
Non-Hispanic White	68.1 (39 367)	0–1
Non-Hispanic Black	11.4 (8 093)	0-1
Non-Hispanic American Indian/ Alaska Native	1.6 (925)	0-1
Non-Hispanic Asian	2.4 (1 387)	0–1
Non-Hispanic Hawaiian/Pacific Islander	0.2 (116)	0-1
Non-Hispanic other race	1.5 (867)	0–1
Hispanic any race	12.1 (6 995)	0–1
Respondent in labor force	44.2 (25 551)	0–1
Respondent marital status		
Married, spouse present	28.1 (16 244)	0–1
Married, spouse absent	1.9 (1 098)	0–1
Separated	3.7 (2139)	0–1
Widowed	21.7 (12 544)	0–1
Divorced	18.0 (10 405)	0–1
Never married	26.6 (15 377)	0–1
Respondent education		
< High school	17.1 (9885)	0–1
High school	36.7 (21 216)	0–1
Some college	20.8 (12 024)	0–1
Associate's degree	10.3 (5 954)	0–1
Bachelor's degree or more	15.1 (8729)	0–1
Household size	2.063 ±1.345	1-14
Respondent age	55.08 ±18.09	15-85
Family income (in 2020 US\$)	23 518.5 ±11 463.8	2 589.5-41 258.2
Family income < 185% federal poverty threshold ^a	65.0 (37 575)	0-1
State policy index (lagged 1 y)	0.657 ±0.851	-0.571-2.882

Note. NSLP = National School Lunch Program; SBP = School Breakfast Program; SNAP = Supplemental Nutrition Assistance Program.

^aFederal thresholds defined by the US Census Bureau for 2015–2018.

number of assistance programs (0–3) that states had established for immigrants as of 2017. Specifically, we measured whether immigrants were eligible for (1) state food and nutrition assistance programs (n = 6 states in 2017), (2) state replacement for the federal Supplemental Security Income program (n = 5 states), and (3) state replacementfor the federal Temporary Assistance for Needy Families program (n = 22states). In addition, we coded whether states had chosen to take up the federal option to expand Medicaid and Children's Health Insurance Program coverage to immigrant families who had been in the country for fewer than 5 years (n = 32 states). We coded states as less generous if they had not adopted any of these policies (n = 14), as moderately generous if they had adopted 1 or 2 policies (n = 29), or as most generous if they had adopted 3 or 4 of these policies (n = 7).

Covariates. In all analyses, we controlled for potential confounders, including respondent race/ethnicity, labor force participation, marital status, education level, household size, age, family income, and an indicator for whether household income was below 185% of the US Census Bureau's poverty thresholds in the appropriate survey year (2015–2018). We also included a standardized index $(\alpha = 0.821; mean = 0; SD = 1) of state$ based controls using data from the University of Kentucky Center for Poverty Research National Welfare Database.²⁶ We lagged all measures by 1 year before including them in the index.

Statistical Analysis

We used difference-in-difference-in-difference (DDD) analyses. Difference-in-differences (DD) approach is a commonly

adopted quasiexperimental method used to generate causal estimates of policy changes or other interventions. The central insight of the approach was that we could detect chilling effects by comparing changes in program participation rates for mixed status households before and after the 2016 election (the first difference) while accounting for whatever secular changes occurred in the outcome over the same period among citizen households (the second difference), whose program participation was unlikely to be affected by the election or proposed change to the public charge rule. In our analyses, we extended this basic DD approach by examining whether effects were more or less pronounced among immigrant households living in states with policies that were more generous to immigrants. In these models, our DDD estimates were the difference between the DD for mixed status families in moderate- and highgenerosity states and the DD for mixed status families in low-generosity states. These analyses allowed us to investigate potential chilling effects after accounting for secular trends among citizen households and among mixed status households in the lowest generosity states, whose participation in public programs may have been unaffected by the election and proposed rule change.

We implemented our DDD approach using linear regressions²⁴ that included 3-way interactions between time (0 = 2015/16, 1 = 2017/18), the indicator for household mixed status, and state policy generosity (i.e., less, moderate, most). For all analyses, we included controls for the variables described in the Covariates section, clustered our SEs at the state level, and used probability weights supplied in the CPS-FFS to generate nationally representative estimates. We examined outcome

trends before 2016 and used event study analysis to test the parallel trends assumption for each of our outcomes. We also conducted a series of sensitivity analyses, rerunning our analyses using probit models to assess whether our results varied depending on functional form, and again after including state and year fixed effects as a further check against bias from endogeneity. We completed all analyses using Stata version 16 (StataCorp LP, College Station, TX).

RESULTS

Unweighted descriptive statistics are shown in Table 1. Over the study period, 20.3% of all sample households had received SNAP benefits in the previous calendar year, 11.0% had received some type of nongovernmental food assistance, and 22.4% were food insecure over the previous year. More than half of households with school-aged children reported participation in the NSLP (59.7%) and the SBP (51.7%).

Results from our parallel trends and event study analyses in Appendix B (available as a supplement to the online version of this article at http://www.ajph. org) do not reveal any meaningfully different pre-2016 group trends for any of our outcomes. Weighted results from our DDD models with our analytic sample of CPS-FFS households are presented in Table 2. The table shows parameter estimates for our primary study variables and their interactions. The primary results of interest are the DDD estimates, which we show in the final rows of the table. Full regression results for all models are available on request.

Table 2 shows that the 2016 election and leak of the proposed rule change produced decreases in SNAP participation

TABLE 2— Effects of the 2016 Presidential Election and Leak of the Proposed Public Charge Rule Change: United States, 2015-2018 **Current Population Survey-Food Security Supplement**

		Nongovernmental Food			
	SNAP (n = 57 808), b (95% CI)	Aid (n = 57 808), b (95% CI)	NSLP (n = 11332), b (95% CI)	SBP (n = 11309), b (95% CI)	Past-Year Food Insecurity (n = 57 808), b (95% CI)
Postelection	-0.023 (-0.045, -0.002)	-0.019 (-0.035, -0.004)	0.005 (-0.025, 0.034)	0.0023 (-0.023, 0.068)	-0.025 (-0.038, -0.012)
Mixed status Household	-0.112 (-0.159, -0.065)	-0.025 (-0.060, 0.010)	-0.048 (-0.132, 0.036)	-0.055 (-0.195, 0.085)	-0.029 (-0.070, 0.011)
Least generous (Ref)	0	0	0	0	0
Moderate generosity	0.018 (-0.005, 0.042)	-0.013 (-0.039, 0.013)	-0.010 (-0.049, 0.029)	-0.009 (-0.059, 0.041)	-0.017 (-0.035, 0.002)
Most generous	0.037 (0.003, 0.071)	0.021 (-0.006, 0.048)	-0.021 (-0.064, 0.021)	-0.061 (-0.128, 0.005)	-0.017 (-0.035, 0.001)
Postelection × mixed status	0.071 (0.029, 0.113)	0.013 (-0.030, 0.056)	0.099 (0.007, 0.192)	0.095 (-0.045, 0.234)	0.001 (-0.065, 0.067)
Postelection $ imes$ least generous (Ref)	0	0	0	0	0
Postelection $ imes$ moderate generosity	0.022 (-0.001, 0.044)	0.022 (0.005, 0.039)	0.024 (-0.016, 0.064)	0.012 (-0.044, 0.067)	0.021 (0.003, 0.038)
Postelection × most generous	-0.010 (-0.039, 0.019)	0.004 (-0.012, 0.019)	-0.022 (-0.075, 0.030)	0.019 (-0.031, 0.069)	0.013 (-0.008, 0.034)
Mixed status $ imes$ least generous (Ref)	0	0	0	0	0
Mixed status $ imes$ moderate generosity	0.039 (-0.012, 0.089)	-0.017 (-0.056, 0.022)	0.059 (-0.036, 0.154)	0.069 (-0.078, 0.217)	-0.028 (-0.076, 0.019)
Mixed status × most generous	0.046 (-0.019, 0.111)	-0.023 (-0.057, 0.011)	0.135 (0.042, 0.229)	0.136 (-0.019, 0.291)	0.012 (-0.046, 0.071)
Postelection \times mixed status \times least generous (Ref)	0	0	0	0	0
Postelection \times mixed status \times moderate generosity	-0.073 (-0.128, -0.019)	-0.022 (-0.073, 0.028)	-0.126 (-0.234, -0.019)	-0.160 (-0.311, -0.008)	-0.001 (-0.076, 0.074)
Postelection \times mixed status \times most generous	-0.068 (-0.129, -0.006)	0.011 (-0.038, 0.060)	-0.059 (-0.165, 0.047)	-0.092 (-0.239, 0.055)	-0.039 (-0.125, 0.047)

Note. CI = confidence interval; NSLP = National School Lunch Program; SBP = School Breakfast Program; SNAP = Supplemental Nutrition Assistance Program.

among mixed status households in states with moderately or most generous policies, as hypothesized. The predicted size of these decreases was quite large, 7.3 and 6.8 percentage points, respectively. Similarly, DDD estimates indicated decreases in NSLP participation of 12.6 percentage points and SBP participation of 16.0 percentage points among mixed status households in moderate generosity states. Parameter estimates for NSLP and SBP participation for mixed status households living in the most generous states were negative but not statistically significant.

Notably, despite decreases in participation in 3 national nutrition programs, the 2016 election and leak of the proposed rule change did not result in significant changes to household food insecurity for mixed status households. To assess whether the lack of significant findings was related to our definition of household food insecurity and taking advantage of the 10 adultreferenced and 8 child-referenced guestions in the USDA Food Security Module, we reran our models using past-month and past-year household, adult, and child food insecurity (results available on request). Across all of these models, we found no evidence that the 2016 election or the leak of the proposed rule change had any significant impact on food insecurity. Likewise, we found no evidence of chilling effects for receipt of nongovernmental food aid.

Table 3 presents the results of our sensitivity analyses. For interpretability, the table presents only DDD parameter estimates. For each outcome, the first column presents again the results from our main analyses. Across outcomes, the results shown in the table indicate that our main results are not sensitive to assumptions about functional form and

are not biased because of unobserved characteristics of states or years of measurement. In fact, Table 3 indicates strong consistency of both pattern and magnitude of parameter estimates. The sole exception is minor: the parameter estimate for SNAP participation in the most generous states from the probit model, which just misses the cutoff for statistical significance (P = .054).

DISCUSSION

To our knowledge, this study is the first to use nationally representative data to investigate whether the 2016 presidential election and subsequent leak of a proposed change to the public charge rule resulted in chilling effects in immigrant households' participation in food and nutrition programs. Building on intuition developed in earlier, PRWORA era research, we pooled data from 2 years before and 2 years after the election and used DDD models to assess whether the election and proposed rule change produced changes in household food insecurity and in the receipt of SNAP, school meal programs, and nongovernmental food aid that varied by state policy generosity.

Similar to previous work, 11,14,20 our most consistent findings are for mixed status households living in states that had adopted a moderately generous set of policies toward immigrants. For this group, we found that the combination of the 2016 election and the proposed rule change produced sizable decreases in SNAP participation (-7.3 percentage points), NSLP participation (-12.6 percentage points), and SBP participation (-16.0 percentage points). Compared to participation rates in SNAP (20.3%), NSLP (59.7%), and SBP (51.7%), participation rates in our sample of low-income households, these

estimates represent substantial and serious decreases in participation in 3 of the primary federal programs to fight food insecurity among households with children. It is surprising, then, that our analyses did not find any change in household food insecurity for mixed status households in these states. One explanation might be an increased propensity for immigrant households to receive food assistance from nongovernmental sources. However, our analysis found no change in receipt of food from nongovernmental sources such as churches, food banks, food pantries, or shelters. A further explanation is that mixed status households turned to informal social supports to help meet food needs and thus were able to stave off increases in food insecurity. Unfortunately, the FSS does not collect information on these types of supports, and so we could explicitly test for this possibility.

Even if immigrants turned to such supports, it is unlikely this aid would be consistent enough over time to completely prevent food insecurity if decreases in participation are sustained over time. Furthermore, even if eventual impacts on food insecurity are not realized, decreases in participation in SNAP and the 2 school meal programs are highly concerning in light of a growing body of research finding additional benefits to participation in these programs.^{27–31} Complementing other research on the 2016 election, 9-11,20 our findings point to serious and ongoing negative impacts on public health related to anti-immigrant rhetoric and policy proposals that threaten the security of immigrant households.

Unexpectedly, we found little evidence of chilling effects for mixed status households in the most generous states, where we might have expected

TABLE 3— Effects of the 2016 Presidential Election and Proposed Rule Change: United States, 2015-2018 Current Population Survey-Food Security Supplement

	Main Model, b (95% CI)	Probit Model, b (95% CI)	State Fixed Effects, b (95% CI)	State and Year Fixed Effects, b (95% CI)
SNAP				
Postelection $ imes$ mixed status $ imes$ least generous (Ref)	0	0	0	0
Postelection $ imes$ mixed status $ imes$ moderate generosity	-0.073 (-0.128, -0.019)	-0.296 (-0.503, -0.089)	-0.081 (-0.133, -0.030)	-0.081 (-0.133, -0.030)
Postelection $ imes$ mixed status $ imes$ most generous	-0.068 (-0.129, -0.006)	-0.246 (-0.496, 0.005)	-0.071 (-0.128, -0.015)	-0.071 (-0.128, -0.014)
Nongovernmental food aid				
Postelection $ imes$ mixed status $ imes$ least generous (Ref)	0	0	0	0
Postelection $ imes$ mixed status $ imes$ moderate generosity	-0.022 (-0.073, 0.028)	-0.108 (-0.395, 0.178)	-0.029 (-0.081, 0.024)	-0.029 (-0.081, 0.024)
Postelection $ imes$ mixed status $ imes$ most generous	0.011 (-0.038, 0.060)	0.069 (-0.187, 0.326)	0.010 (-0.041, 0.062)	0.010 (-0.041, 0.062)
NSLP				
Postelection $ imes$ mixed status $ imes$ least generous (Ref)	0	0	0	0
Postelection $ imes$ mixed status $ imes$ moderate generosity	-0.126 (-0.234, -0.019)	-0.389 (-0.697, -0.080)	-0.128 (-0.236, -0.020)	-0.128 (-0.237, -0.020)
Postelection $ imes$ mixed status $ imes$ most generous	-0.059 (-0.165, 0.047)	-0.170 (-0.491, 0.150)	-0.053 (-0.157, 0.052)	-0.054 (-0.159, 0.051)
SBP				
Postelection $ imes$ mixed status $ imes$ least generous (Ref)	0	0	0	0
Postelection $ imes$ mixed status $ imes$ moderate generosity	-0.160 (-0.311, -0.008)	-0.455 (-0.864, -0.047)	-0.164 (-0.315, -0.013)	-0.164 (0.316, -0.013)
Postelection $ imes$ mixed status $ imes$ most generous	-0.092 (-0.239, 0.055)	-0.274 (-0.687, 0.138)	-0.089 (-0.234, 0.055)	-0.090 (-0.236, 0.055)
Past-year food insecurity				
Postelection $ imes$ mixed status $ imes$ least generous (Ref)	0	0	0	0
Postelection $ imes$ mixed status $ imes$ moderate generosity	-0.001 (-0.076, 0.074)	-0.012 (-0.270, 0.245)	-0.006 (-0.081, 0.069)	-0.006 (-0.081, 0.069)
Postelection $ imes$ mixed status $ imes$ most generous	-0.039 (-0.125, 0.047)	-0.122 (-0.413, 0.169)	-0.039 (-0.126, 0.048)	-0.040 (-0.126, 0.047)

Note. CI = confidence interval; NSLP = National School Lunch Program; SBP = School Breakfast Program; SNAP = Supplemental Nutrition Assistance Program.

reductions in participation to be greatest. The only evidence was a significant decrease in SNAP participation of 6.8 percentage points, although post hoc analysis indicated that this effect was not significantly different from the decrease for mixed status households in moderately generous states. Similar post hoc tests indicate that—although not significantly different from zero the predicted decreases in NSLP and SBP participation for the most generous states were also not significantly different from those for moderately generous states. Although derived from previous work, 18,19 it may thus be that our system for classifying state generosity did not meaningfully distinguish between moderately and most generous states. Indeed, when we replicated our analyses by collapsing the moderately and most generous categories into 1 group, the pattern of results (available on request) was largely consistent. Thus, an important implication of this study is the need for policy researchers to continue to explore how the effects of national policy changes (or threats of policy change) interact with state-level policies and behaviors to affect health outcomes.

Limitations

Our study's results must be interpreted in the context of its limitations. Although we implemented a quasiexperimental approach that can control for unobserved heterogeneity, we relied on observational data and thus cannot definitively rule out potential bias. Furthermore, the limitations of survey data for analyzing program participation are well recognized. For this study, a particular additional challenge is the possibility that chilling effects are also realized in immigrant households' responses to

survey questions. That is, immigrants fearing surveillance may have been less likely to report participation in government programs even if their actual behavior did not change. Although we do not consider this possibility very likely, both of these limitations underscore the importance of using administrative data on program participation to replicate the analyses and findings reported here.

Furthermore, we are unaware of any other comparable national data source that contains detailed information on our key study variables that does not rely on survey data. Finally, although we believe that our study design adequately captures the joint effects of the 2016 election and leaked proposed public charge rule change, it may be that other anti-immigrant actions by the Trump administration were responsible for some of the findings reported here.

Public Health Implications

A key implication of our findings is that rhetoric and the perceived threat of policy change are enough to produce chilling effects, prompting serious concern at further recent efforts targeting immigrants, such as eliminating sanctuary cities, family separation, and rescinding the Deferred Action for Childhood Arrivals program. Although most of these policies (including the public charge rule change) were challenged in court and were either not implemented or modified, it may be difficult to definitively determine their impact on immigrant well-being.

In the meantime, immigrant households, especially those with children, continue to experience higher levels of food insecurity. 9,32 Immigrants account for more than a quarter of the US population, and the health of the nation is inextricably linked to their well-being. 33

Absent efforts to systematically counteract the negative effects of rhetoric or policies that protect or restore access to public benefits, the utility of many national public health campaigns will likely be limited.

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D.P. Miller and R.S. John conceptualized the study design and shared primary writing responsibilities. R.S. John led and D.P. Miller, M. Yao, and M. Morris contributed to data preparation and analysis. M. Yao and M. Morris contributed writing. All authors reviewed and approved the final version.

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The authors do not have conflicts of interest from funding or affiliation-related activities.

HUMAN PARTICIPANT PROTECTION

This study used de-identified secondary data, so it was exempt from institutional review board review.

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