

Proposed changes to immigration rules could cost California jobs, harm public health

Methods

Objective: To estimate the population affected by and economic impact of the proposed change in the public charge rules for California and local areas.

Federal Public Programs: While the proposed public charge rule expands the 1999 rule (currently applied to income support and long term care support) to programs in housing, health care and food and nutrition, we focus on the Medi-Cal (California's Medicaid program) and CalFresh (California's Supplementary Nutrition Assistance Program (SNAP)). Since Medi-Cal administers and brands the Children's Health Insurance Program (CHIP) as Medi-Cal, we include CHIP with the Medi-Cal program even though CHIP is not included in the proposed rule. We focus our Medi-Cal analysis on those eligible for full-scope benefits.

Data source: California Health Interview Survey (CHIS) data (pooled 2015-2016). We used survey weights to accommodate the complex survey design of CHIS. CHIS is a population-based survey of about 20,000 randomly-sampled households per year. Within each randomly selected household, an adult, a minor child and an adolescent is randomly selected if applicable. CHIS 2015-2016 (unlike other CHIS cycles) includes questions on visa type and DACA status to facilitate precise identification of lawfully present immigrants who are not green card holders. These questions, sponsored by the UC multicampus project "California Immigrant Research Institute" (CIRI) (Dr. Ponce is a faculty investigator), are currently embargoed for public access, but were made available to this project with permission from CIRI.

Analysis:

1. Descriptive Population Estimates

We pooled CHIS 2015 and 2016 data and used California Health Interview Survey (CHIS) sampling weights to generate state representative estimates, weighted to the average population of 2015 and 2016. We produced population-based estimates of eligibility and enrollment for CalFresh and for Medi-Cal among noncitizens, and citizen children with a noncitizen parent.

- a) Direct Effect Population: The direct effect includes the population who are 1) eligible and enrolled in CalFresh or Medi-Cal, and 2) who are subject to the proposed public charge rules in that they are lawfully present in the US and eligible to adjust their immigration status to lawful permanent resident (LPR status.) We recognize that participation in CalFresh and/or Medi-Cal is one of the several factors that would be weighed in the totality of circumstances test for public charge if the proposed changes are enacted.

Due to the eligibility rules established by the Personal Responsibility and Work Opportunity Act in 1996, non-green card holders (non-LPR) have limited eligibility for public benefits, including Medicaid or SNAP benefits. PRWORA states only LPRs who have had LPR status for at least 5 years are eligible for public benefits. There are exceptions to the LPR with at least 5 years rule, notably refugees/asylees, however, this group is exempt from the proposed rule, and their disenrollment is not considered a direct effect. Thus, since eligibility for Medi-Cal and CalFresh are already restrictively defined by LPR status and years in the US, the broader population impact will be in

the “chilling effect” population, which is the focus for our analysis and is defined below.

- b) “Chilling Effect” Population: The disenrollment that might occur due to the change in public charge rule would largely be driven by disenrollment due to fear and confusion, otherwise known as the “chilling effect.” For this analysis, the “chilling effect” population is defined as non-citizens who are (1) eligible and enrolled for CalFresh and/or full-scope Medi-Cal with federal funding and (2) may or may not be legally affected by the proposed new rules, but who may be indirectly affected because of confusion or worry over the regulation. The “chilling effect” population also includes citizen children with at least one non-citizen parent.

We focus on those eligible for federally-funded Medi-Cal benefits because the loss of federal dollars is the focus of our economic analysis. Though the “chilling effect” could also apply to Californians eligible for state-funded full-scope Medi-Cal benefits such as non-pregnant LPR adults, adults with DACA, and undocumented children, those groups are not included in our analysis because of our focus on federal benefits.

Specifically, our analytic sample(s) includes Californians with the following immigration/citizenship statuses:

- LPR adults over the 5 year bar
- LPR children and pregnant women under the 5 year bar (because California gets federal funding for these groups)
- Other non-citizens eligible for full benefits
- Citizen children with a non-citizen parent (CHIS is unable to identify citizen adults living in households with a non-citizen, thus this adult group is not included in our “chilling effect” population even though some may disenroll)
- Refugees and asylees who are exempt from the proposed rule, but are likely to also have a “chilling effect” on enrollment

Population estimates were generated for children (ages<18) and adults (ages 18 and older). Estimates were also generated by race/ethnicity. The CHIS variable “racedof” was used to identify race/ethnicity. The “racedof” variable uses California Department of Finance’s race/ethnicity categories: Latino, African-American/Black, Asian, Native Hawaiian or other Pacific Islander, American Indian/Alaska Native White, Other/Multi-race. We aggregated Native Hawaiian or other Pacific Islander, American Indian/Alaska Native, Other/Multi-race in an “Other “ category.

2. Disenrollment Estimate

Research shows there was significant disenrollment in public benefits after the enactment of the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) in 1996 among immigrants who remained eligible of public benefits post-PRWORA. A prominent and highly cited piece of research by Fix et al. (1999)¹ examined immigrant disenrollment over the 1994-1997 period and found that while PRWORA changed immigrant eligibility requirements (i.e. public benefits eligible only to immigrants who have had green cards for at least 5 years), there was still significant disenrollment in public benefits by immigrants who had no change in eligibility and were fully eligible due to fear and confusion. This prior research suggests following disenrollment scenarios are reasonable: 15%, 25%, and 35%. These scenarios have been used in recent analyses on the proposed public charge rule published by the Kaiser Family Foundation², California Health Care Foundation³, and the Fiscal Policy Institute⁴. The disenrollment scenarios were applied to the “chilling effect” population identified using CHIS and described above.

3. Reduced Federal Medi-Cal and CalFresh Benefits Calculations

We multiplied the number of disenrollees from Medi-Cal and Cal-Fresh estimated from CHIS (described above), with the average per member per month federal support for CalFresh and Medi-Cal.

CalFresh

The estimated per-person reduction in CalFresh benefits is based on county-specific data. The California Department of Social Services publishes a data report called the [DFA 256 - Food Stamp Program Participation and Benefit Issuance Report⁵](#), which includes monthly data by county that shows the number of participating individuals, the number of participating households, and the amount of benefits issued, among other metrics. CalFresh benefits are 100% federally-funded.

Medi-Cal

The estimated per-person reduction in federal Medi-Cal dollars is estimated using the following Medi-Cal cost estimates per full-scope enrollee in 2017-2018:

- \$451 per month for ACA Expansion adults
- \$164 for children enrolled in CHIP
- \$220 for all other adults

These are primarily based on budget estimates from the California Department of Health Care Services for 2017-2018,⁶ with some adjustments made to focus on the cost for full-scope enrollees only. In 2018, the federal match rate is 94% for Expansion adults, 88% for CHIP, and 50% for all other adults and children.

This analysis is conservative in that it assumes that none of the Californians who disenroll from Medi-Cal due to the “chilling effect” are enrolled in aged or disabled aid codes or are dually eligible for Medicare and Medi-Cal. Individuals in these groups have higher costs, on average, than individuals in the aid categories described above. It is outside the scope of this analysis to estimate how many aged, disabled, or dual eligible individuals might disenroll from Medi-Cal due to the proposed rule, but they would be likely to have a lower disenrollment rate than non-disabled individuals. (Note, that these individuals are not excluded from this analysis; rather, federal support above and beyond what is spent typically spent for non-elderly non-disabled Medi-Cal enrollees is not included in this analysis.)

These per-person CalFresh and Medi-Cal estimates and Medi-Cal federal match rates were then used in scenarios that assume 15%, 25% and 35% disenrollment among the “chilling effect” population identified in the CHIS analysis.

4. Economic Multiplier Effects from Reductions in Federal Benefits

Using IMPLAN⁷, an industry-standard input-output economic modeling software package, we modeled the reduction in employment, output, and state and local tax revenue due to the reduction in federal benefits under three disenrollment rates scenarios. IMPLAN defines output as the value of industry production.

We focused on the economic impact of the change in federal dollars because these dollars are coming from outside the state’s economy and the changes in federal dollars are relatively predictable. However, we do not include other potential effects on the economy, both positive and negative, that are more difficult to predict and model.

- This analysis does not include the potential economic harm from reduced productivity among workers who would become uninsured or have increased food insecurity as a result of the “chilling effect” on enrollment in Medi-Cal and CalFresh caused by the proposed rule.

- This analysis does not measure the economic effects of any increases in medical debt, medical bankruptcy, or other financial insecurity among households that would disenroll from public programs under the proposed rule.
- Any long-run effects of a projected reduction in the federal deficit under the bill are not included in this analysis.

The economic output multipliers projected using IMPLAN for this analysis is within a similar order-of-magnitude as the multipliers utilized by the Fiscal Policy Institute (FPI) in their national analysis of the economic impacts of the proposed public charge rule. FPI’s multipliers were based on analysis of the economic ripple effects by Josh Bivens of the Economic Policy Institute.⁴

Economic impact estimates are provided for the state, seven CHIS regions, and certain medium and large counties, starting with estimates from the CHIS for the state and its regions and counties. Statewide and regional economic impact estimates are based on analysis conducted using IMPLAN. County estimates are approximated by distributing the regional economic impact estimates according to each county’s proportion of the region’s CalFresh and Medi-Cal “chilling effect” populations.

Note, prior to commencing our work in IMPLAN, we scoped out and considered other economic models, namely the model used by the United States Department of Agriculture (USDA)’s Economic Research Service called the Food Assistance National Input-Output Multiplier (FANIOM) model. This model is used to represent and measure linkages between USDA’s domestic food assistance programs, agriculture, and the U.S. economy. Both IMPLAN and USDA’s FANIOM apply the input-out economic model based on the interdependencies between economic sectors. In choosing between the two, we decided to use IMPAN, given its wider use at the state or county level, whereas the USDA model appeared better poised to examine impacts at the national level.

CalFresh

For this analysis, the reduction in CalFresh benefits is modeled as a reduction in household income. Even though CalFresh benefits are spent solely on food, the receipt of those benefits allows households to shift some of the resources that would otherwise be spent on food towards other basic necessities, yielding a reduction in household spending across a variety of industries. Conversely, when households lose benefits, they generally reduce spending on other basic necessities to shift more household resources towards purchasing food.

Since household spending patterns differ by income level, changes in household income are analyzed in IMPLAN using nine different household income categories. We distributed the reduction in CalFresh benefits across these household income categories based on the distribution of the CalFresh “chilling effect” population across those same income categories, using estimates from the CHIS. The vast majority of individuals in the CalFresh “chilling effect” population are in IMPLAN’s two lowest annual household income categories: less than \$15,000 and \$15,000 to \$30,000.

The impact on employment in food-related industries is calculated as the sum of employment losses in the following food-related IMPLAN sectors, including food retail, food-related agriculture, food manufacturing, and restaurants. We estimated that 18% of the employment reduction related to the reduced CalFresh benefits will be in food-related industries, which is relatively consistent with a USDA summary of the research literature finding that “every dollar of SNAP benefits generates an additional 26 cents of food expenditures, with the rest spent on nonfood goods and services.”⁸

IMPLAN sectors included as food-related industries to categorize employment losses

1 Oilseed farming	76 Non-chocolate confectionery manufacturing	98 Tortilla manufacturing
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2 Grain farming	77 Chocolate and confectionery manufacturing	99 Roasted nuts and peanut butter manufacturing
3 Vegetable and melon farming	78 Confectionery manufacturing from purchased chocolate	100 Other snack food manufacturing
4 Fruit farming	79 Frozen fruits, juices and vegetables manufacturing	101 Coffee and tea manufacturing
5 Tree nut farming	80 Frozen specialties manufacturing	102 Flavoring syrup and concentrate manufacturing
9 Sugarcane and sugar beet farming	81 Canned fruits and vegetables manufacturing	103 Mayonnaise, dressing, and sauce manufacturing
10 All other crop farming	82 Canned specialties	104 Spice and extract manufacturing
11 Beef cattle ranching and farming	83 Dehydrated food products manufacturing	105 All other food manufacturing
12 Dairy cattle and milk production	84 Fluid milk manufacturing	106 Bottled and canned soft drinks & water
13 Poultry and egg production	85 Creamery butter manufacturing	107 Manufactured ice
14 Animal production, except cattle and poultry and eggs	86 Cheese manufacturing	108 Breweries
17 Commercial fishing	87 Dry, condensed, and evaporated dairy product manufacturing	109 Wineries
18 Commercial hunting and trapping	88 Ice cream and frozen dessert manufacturing	110 Distilleries
67 Flour milling	89 Animal, except poultry, slaughtering	400 Retail - Food and beverage stores
68 Rice milling	90 Meat processed from carcasses	401 Retail - Health and personal care stores
69 Malt manufacturing	91 Rendering and meat byproduct processing	405 Retail - General merchandise stores
70 Wet corn milling	92 Poultry processing	501 Full-service restaurants
71 Soybean and other oilseed processing	93 Seafood product preparation and packaging	502 Limited-service restaurants
72 Fats and oils refining and blending	94 Bread and bakery product, except frozen, manufacturing	503 All other food and drinking places
73 Breakfast cereal manufacturing	95 Frozen cakes and other pastries manufacturing	
74 Beet sugar manufacturing	96 Cookie and cracker manufacturing	
75 Sugar cane mills and refining	97 Dry pasta, mixes, and dough manufacturing	

Medi-Cal

The reduction in federal Medi-Cal dollars is modeled as an industry change in IMPLAN.

Eight percent of lost federal health care dollars is allocated to IMPLAN Sector 432 “Insurance Carriers” to reflect administrative costs in Medi-Cal.⁹

Fifteen percent of the non-administrative dollars is removed from the analysis to reflect spending on drugs and durable and non-durable medical equipment,¹⁰ since those types of health care spending are likely to have a smaller economic impact locally compared to other healthcare spending which tends to be more local and pays for services that are more labor-intensive. This is a conservative assumption given that these types of health care spending have some impact on all local economies (supporting pharmacist and pharmacy technician jobs, for example) and that a number of pharmaceutical/biotechnology companies are based in California.

The remaining federal health care dollars are distributed across the following nine IMPLAN sectors according to the relative share of spending in California’s healthcare industry overall, using data from IMPLAN.

IMPLAN sectors to which lost federal Medi-Cal dollars are applied

- 475 Offices of physicians
- 476 Offices of dentists
- 477 Offices of other health practitioners
- 478 Outpatient care centers
- 479 Medical and diagnostic laboratories
- 480 Home health care services
- 481 Other ambulatory health care services
- 482 Hospitals
- 483 Nursing and community care facilities

4. Regional estimates

Each estimate calculated in this analysis, described above, was conducted for 7 CHIS regions:

Northern and Sierra (which includes the following counties: Butte, Humboldt, Mendocino, Tehama, Glenn, Colusa, Yuba, Tuolumne, Calaveras, Amador, Inyo, Mariposa, Mono, Alpine, Shasta, Del Norte, Siskiyou, Lassen, Trinity, Modoc, Plumas, Sierra, Lake, Sutter, Nevada)

Sacramento Area (which includes the following counties: Sacramento, Yolo, Placer, El Dorado),

Bay Area (which includes the following counties: Alameda, San Francisco, San Mateo, Santa Clara, Solano, Sonoma, Contra Costa, Marin, Napa)

San Joaquin Valley (which includes the following counties: Fresno, San Joaquin, Tulare, Kings, Kern, Stanislaus, Merced, Madera)

Central Coast (which includes the following counties: Monterey, Ventura, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz),

Los Angeles County

Other Southern California (which includes the following counties: Imperial, Orange, Riverside, San Bernardino, San Diego)

County estimates

If the sample size for a county is fewer than 5 people, the total is not reported on the county for both the reason of the robustness of the estimate and confidentiality of the reported individuals. Two more criteria (see below) have been applied afterwards for the same reasons:

- 1) The reported p-value for the estimate of the total has to be ≤ 0.2 for a county to be reported on its own. The rationale behind using 0.2 instead of more conventional .05 is that null hypothesis that the total is zero could be easily argued to be irrelevant and it is reasonable to allow high likelihood of Type I error. This crude criterion helps to exclude small subsamples and subsamples with very large variation of sampling weight.

2) The further requirement of weighted total “chilling effect” population has to be ≥ 5000 for CalFresh and $\geq 10,000$ for Medi-Cal will guarantee both confidentiality of the individuals in the data and for stability of additional calculations based on the estimates of the totals. For the smaller county groupings, given the lower risk of disclosure, balanced with the utility of providing estimates for smaller county groups, we relaxed the thresholds criteria to ≥ 3000 for CalFresh and $\geq 10,000$ for Medi-Cal.

Using these inclusion criteria, the following counties and county-groupings were included for each CHIS region:

Northern and Sierra region (no counties met the inclusion thresholds)	San Joaquin region
Sacramento region	Fresno County
Sacramento County	Kern County
El Dorado, Placer and Yolo counties (grouped)	Kings County
Bay Area region	Madera County
Alameda County	Merced County
San Francisco County	San Joaquin County
San Mateo County	Stanislaus County
Santa Clara County	Tulare County
Solano County	Los Angeles County
Sonoma County	Other Southern California region
Contra Costa, Marin and Napa counties (grouped)	Imperial County
Central Coast region	Orange County
Monterey County	Riverside County
Ventura County	San Bernardino County
San Benito, San Luis Obispo, Santa Barbara and Santa Cruz counties (grouped)	San Diego County

5. Health Outcomes and Food Insecurity

We examined the possible impact of disenrollment from Medi-Cal on two variables commonly used to measure health access^{11,12} among adults:

1. Having usual source of care – defined as either doctor’s office or community clinic
2. Having routine preventive care visit in the previous year/12 months

We compared these two outcomes for adult individuals in the “chilling effect” population who are currently enrolled Medi-Cal with those who are eligible for Medi-Cal but who are uninsured, controlling for demographic variables, risk factors and social economic variable.

For CalFresh, we examined the level of food insecurity, defined as lacking consistent access to enough food in the past year, among the “chilling effect” population who are eligible for CalFresh. The US Department of Agriculture (USDA) defines food security as “access by all people at all times to enough food for an active, healthy life”; food insecurity thus is defined as a lack of food security.¹³ CHIS assesses

food insecurity among adults using USDA's U.S. Household Food Security Survey Module: Six-Item Short Form questions:

How often was it true for you and your household in the last 12 months that:

1. "The food that {I/we} bought just didn't last, and {I/we} didn't have money to get more."
2. "{I/We} couldn't afford to eat balanced meals."
3. Please tell me yes or no. In the last 12 months, did you or other adults in your household ever cut the size of your meals or skip meals because there wasn't enough money for food?
4. How often did this happen -- almost every month, some months but not every month, or only in 1 or 2 months?
5. In the last 12 months, did you ever eat less than you felt you should because there wasn't enough money to buy food?
6. In the last 12 months, were you ever hungry but didn't eat because you couldn't afford enough food?

The food insecurity questionnaire module results in one of four mutually exclusive categories: (1) living at or above 200% FPL, (2) food security, (3) food insecurity without hunger, and (4) food insecurity with hunger. For this analysis, we examine the combined category of food insecurity with and without hunger. Given CalFresh is a program for reducing food insecurity, the impact of disenrolling from CalFresh would have the effect of worsening or exacerbating food insecurity for individuals who leave the program.

¹ Fix M.E., Passel J.S. (1999). [Trends in Noncitizens' and Citizens' Use of Public Benefits Following Welfare Reform: 1994 – 1997](#). Washington, D.C.: The Urban Institute.

² Artiga, S, Damico, A., Garfield, R. Potential Effects of Public Charge Changes on Health Coverage for Citizen Children. Kaiser Family Foundation. May 18, 2018. Available at: <https://www.kff.org/disparities-policy/issue-brief/potential-effects-of-public-charge-changes-on-health-coverage-for-citizen-children/>

³ Zallman, L., Finnega, K. Changing Public Charge Immigration Rules: The Potential Impact on Children Who Need Care. California Health Care Foundation. October 23, 2018. Available at: <https://www.chcf.org/publication/changing-public-charge-immigration-rules/>

⁴ Fiscal Policy Institute. "Only Wealthy Immigrants Need Apply" How a Trump Rule's Chilling Effect will Harm the U.S. October 2018. Available at: <http://fiscalpolicy.org/wp-content/uploads/2018/10/US-Impact-of-Public-Charge.pdf>

⁵ California Department of Social Services Data Systems and Survey Design Bureau. Participation and Benefit Issuance Report DFA 256.

⁶ California Department of Health Care Services. [Medi-Cal Estimate](#). November 2017.

⁷ IMPLAN: Economic Impact Analysis for Planning. Available at: www.implan.com

⁸ Hanson K. [The Food Assistance National Input-Output Multiplier \(FANIOM\) Model and Stimulus Effects of SNAP](#). USDA Economic Research Service Economic Research Report Number 103. October 2010.

⁹ California Health Care Foundation. [Medi-Cal Facts and Figures: A Program Transforms](#). May 2013.

¹⁰ Center for Medicare and Medicaid Services, Office of the Actuary. [Health Expenditures by Age and Gender](#), 2012.

¹¹ Rimsza ME1, Butler RJ, Johnson WG. (2007) Impact of Medicaid disenrollment on health care use and cost, *Pediatrics*. 2007 May 119(5)

¹² Tarazi WW, Green TL, Sabik LM. (2017) Medicaid Disenrollment and Disparities in Access to Care: Evidence from Tennessee. *Health Serv Res*. 2017 Jun;52(3):1156-1167. doi: 10.1111/1475-6773.12515.

¹³ Coleman-Jensen, A, Gregory C, Rabbitt M. (2015). "USDA Economic Research Service – Definitions of Food Security." Available at: <http://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/definitions-of-food-security.aspx>