Fear and the Safety Net: Evidence from Secure Communities

Data and Institutional Appendix

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I. Data Appendix

A. Data Sources

American Community Survey: We use American Community Survey (ACS) data both in aggregate and microdata form. We download the ACS five-year (2005–2009) summary file using the Census Bureau’s DataFerrett or American FactFinder tools. The estimates include counts of foreign born by country of origin, citizenship and other sociodemographic characteristics by county of residence. We also use annual (from 2006 to 2016) microdata from the Integrated Public Use Microdata Series (IPUMS) website compiled by the University of Minnesota. These data are publicly available at the Public Use Microdata Area (PUMA) level — areas with at least 100,000 people. Variables of interest include food stamps use, race, Hispanic ethnicity, family size, education, number of children, poverty, and citizenship status.

Census Bureau Gazetteer Files: Distance from each county to the Mexican border is created using the 2010 Census Gazetteer Files. These files include the latitude and longitude coordinates for the centroid of each county. Mexican border shapefiles are available from the Homeland Infrastructure Foundation-Level Data via the Department of Homeland Security.

Census Bureau Population Estimates: We use data from the Census Bureau’s Population Estimates Program to estimate county-level population data for different races. This data — reported by county, age, sex, race, and Hispanic ethnicity — is publicly available and formatted by the National Bureau of Economic Research (NBER).

Census Bureau Summary Files: Census Bureau Summary File tables are available via the IPUMS National Historical Geographic Information System. We use the 1990 Census Summary files to construct shares of foreign born Hispanic county.

Centers for Medicare and Medicaid Services: The Centers for Medicare and Medicaid Services (CMS) provides data on the ACA Program for the 37 states using the federal health insurance exchange. CMS reports ACA enrollment at the county-level by race, ethnicity, consumer type, household income level, and age. CMS estimates the number of uninsured persons eligible for the ACA at the PUMA-level disaggregated by various characteristics. They exclude estimated undocumented individuals using a methodology produced by Jeffrey Passel and Rebecca Clark, both formerly of the Urban Institute. CMS Reports are used to construct the number of ACA navigator organizations per county.

Current Population Survey: We construct a race-specific proxy for Great Recession severity using data from the Current Population Survey from IPUMS. The finest level of geography publicly available is the state. The proxy we use is the change in employment rates for each group between 2007
Federal Bureau of Immigration: The Federal Bureau of Investigation (FBI) Uniform Crime Reporting (UCR) database includes information on the number of index crimes (murder, rape, robbery, burglary, assault, vehicle theft, and larceny) by county. UCR is available via the Inter-University Consortium for Political and Social Research (ICPSR), from the Institute for Social Research at the University of Michigan.

Google Trends: The relative popularity of search terms relating to deportation from 2006 to 2015. Google Trends terms are ranked on a scale of 1 to 100 for each Nielsen Designated Market Area (DMA), with 1 representing the lowest relative search for that DMA and time period; and 100 representing the highest relative search per DMA/time period. The terms we tabulate include both English and Spanish spellings — specifically, we include the terms undocumented, immigration, deported, immigration lawyers, deportation and their Spanish translations: indocumentado, inmigracion, deportacion, and abogados de inmigracion. Furthermore, we assess their relativity by including popular terms in the Hispanic community including deportes and telenovelas.

Health Resources and Services Administration: The Health Resources and Services Administration (HRSA) tracks a yearly list of HRSA-funded health centers by location. We use the 2016 Health Center Grantees list to construct a measure of community health centers by county. Separated by state, the HRSA data includes the name of the health center, the city, the number of patients, and the percentage of patients served of different racial and age groupings.

Immigration and Customs Enforcement:

Immigration and Customs Enforcement (ICE) provides a list of jurisdictions that “have enacted policies which limit cooperation with ICE,” which have come to be known as sanctuary jurisdictions, in a February 4–February 10, 2017, “Weekly Declined Detainer Outcome Report.” The report lists the jurisdiction (city, county, or state), the policy enactment date, type of policy, and the criteria for not honoring an ICE detainer. We denote a county as a sanctuary if the county enacted a sanctuary policy or encompasses a city that did. In robustness checks (available on request) we use two alternative definitions of sanctuary cities based on data that predate Secure Communities activation and, as with the ICE list, and find similar results. See Appendix A of Gardner (2008) and the online appendix of Lasch et al. (2008) for the alternative lists of sanctuary cities.

Data on Secure Communities was obtained in three ways. First, publicly available data were obtained on Congressional Quarterly Reports, the Task Force on Secure Communities, and from the ICE website. In addition, the authors submitted a Freedom of Information Act (FOIA) request for

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1By 2006, over 70% of U.S. adults used the internet, though this was likely uneven across race and ethnicity which is why we normalize by telenovelas and deportes as described in the text (Pew Research Center, 2018).
statistical data on Secure Communities activities. ICE responded to the FOIA request on November 28, 2016. Third, the authors obtained additional data from a third-party that had conducted their own FOIA via a data use agreement. Together, these three data sources provide information on the date of SC activation in every county as well as the universe of detainers issued before and during SC. This includes almost 2 million detainers issued between 2002 and 2015 — including the country of origin, sex and age of the arrestee, location detainer issued, date detainer issued, a description of the offense, and the most serious criminal conviction (MSCC) level. These data also include the universe of removals under the SC program between 2008 and 2014. In addition, data on all fingerprint submissions and ICE matches with the IDENT database from 2008 to 2014 are available by year at the county-level.

Migration Policy Institute: The names of law enforcement agencies with a 287(g) policy is published in “Delegation and Divergence: A Study of 287(g) State and Local Immigration Enforcement,” (Migration Policy Institute 2011). Section 287(g) of the U.S. Immigration and Nationality Act allowed law enforcement agencies to assist with immigration enforcement under the direction of ICE, prior to Secure Communities. The Migration Policy Institute report includes the law enforcement agency, the type of 287(g) agreement (i.e., jail enforcement), and the date of enactment.

Panel Study of Income Dynamics: The Panel Study of Income Dynamics is household-level panel survey data, managed by the Institute for Social Research at the University of Michigan. Much of the data is publicly available, but we also obtain restricted access for counties of current residence and for counties where individuals were born. The PSID data contain information on whether households received food stamps benefits in the last year. In addition, the dataset includes variables on race, Hispanic ethnicity, age, education, and gender for individuals within a household. For our analysis, we focus on years 2005–2015.

Pew Research Surveys on Hispanic Communities: The 2010 Pew Research Survey of Latinos and the 2013 Survey of Hispanics contain questions on immigration enforcement. The data are public available, though we obtain restricted state of residence geographic identifiers for the 2010 survey via a data use agreement. The specific questions we use in the study are: “Regardless of your own immigration or citizenship status, how much, if at all, do you worry that you, a family member, or a close friend could be deported?” and also “Do you personally know someone who has been deported or detained by the federal government for immigration reasons in the last 12 months?”

B. Variable Definitions

Black: In all analysis, we define black individuals as those who identify their race as black but do not identify as Hispanic ethnicity.
Border Counties: The border counties we exclude from all analysis are as follows: San Diego County, CA; Imperial County, CA; Yuma County, AZ; Pima County, AZ; Santa Cruz County, AZ; Cochise County, AZ; Hidalgo County, NM; Luna County, NM; Dona Ana County, NM; El Paso County, TX; Hudspeth County, TX; Jeff Davis County, TX; Presidio County, TX; Brewster County, TX; Terrell County, TX; Val Verde County, TX; Kinney County, TX; Maverick County, TX; Webb County, TX; Zapata County, TX; Starr County, TX; Hidalgo County, TX; Cameron County, TX.

Crime Rate: The 2014-2015 average of per capita index crimes in the UCR.

Deportation Fear: Deportation fear, created using Pew survey data, is equal to one for a respondent if they answer “A lot” or “Some” to the question: Regardless of your own immigration or citizenship status, how much, if at all, do you worry that you, a family member, or a close friend could be deported? The change in deportation fear is the difference in fear between the 2013 and the 2010 surveys for each Census division.

Deportation Related Searches: The following search terms were used to generate the Deportation Related Search variable: deportado, abogados de inmigracion, deportacion, deportation, immigration, inmigracion, immigration lawyer, indocumentado, and undocumented. The following search terms were used to normalize the aforementioned for internet access: deportes (sports) and telenovelas (soap operas). The sum of deportation related searches was divided by searches for soap operas and sports. The data are available at the Nielsen media market level (DMA).

Distance to the Mexico Border: The number of kilometers from each county’s centroid, using Census Gazetteer Files, to the closest point on the Mexico border, defined from the Homeland Infrastructure Foundation-Level Data.

Estimate of Unauthorized Hispanic Population: We estimate the unauthorized Hispanic population as the difference between the Hispanic foreign-born population and the naturalized Hispanic population from the 2005-2009 county-level ACS.

Family Size: The annual average family size in the ACS per each county and race group.

Great Recession Severity: The employment decline during the Great Recession using monthly CPS data. The severity measure is the percent decline in employment from December 2007 to June 2009 at the state by race level.

Hispanic: For the ACS and PSID, individuals are considered Hispanic if they self-identify as Hispanic. Based on the cross-tab between those who self-identify as Hispanic and country of origin in
the ACS, Hispanic in the detainer data is ascribed to arrestees from the following countries: Argentina, Bolivia, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, El Salvador, Ecuador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, Venezuela. Two countries, Haiti and Brazil, were not defined as Hispanic based on low self-identification as Hispanic in the ACS (less than 4 percent in both cases). While the majority of respondents from Spain identify as Hispanic, we focus on countries in Latin America and thus exclude them. For the ACA analysis, CMS provides information on the eligible Latino population and the number of Latinos that sign up, again via self-identification.

**Index Crime Percentile:** The decile of total index crimes at the county by year level, using the UCR Crime Reports.

**Mixed Status Households:** An indicator equal to 1 for a family if one member self-identifies as a Hispanic non-citizen, but other members do not. This is not applicable if the household head is the non-citizen, as all analysis focuses on citizen heads.

**Number of Children:** The annual average number of children in the ACS per each county and race group.

**Population Weights:** The total number of people in each race category and county in 2005, using Census Bureau Population Estimates.

**Post:** An indicator variable equal to one if the year of food stamps receipt is after a county’s Secure Communities activation year.

**Post Recession:** An indicator variable equal to one if the year of food stamps receipt is after 2008.

**Poverty Level:** The annual average poverty level in the ACS per each county and race group.

**Predicted Estimate of Unauthorized Hispanic Population:** The predicted unauthorized Hispanic population is the estimated fraction of unauthorized Hispanics in the 1990 Census multiplied by the Hispanic foreign-born population from the 2005–09 ACS. We define the fraction of 1990 unauthorized Hispanics as a ratio of the 1990 foreign-born Hispanic non-citizens to the 1990 Hispanic foreign-born.

**Presidential Vote Margin 2008:** The share of votes for Obama versus McCain in the 2008 presidential election.

**Ratio of Offenses:** The ratio of total Level 3 to Level 1 crimes among Hispanic arrestees in the SC
data. For specific categorization of crimes, see Institutional Appendix below. This ratio is used in tests of heterogeneity for the SNAP results.

**Share Bartik Detainers:** The predicted number of Hispanic detainers issued using a Bartik shift-share instrument, defined as:

\[ Z_c = \frac{\sum_o I_{co}^{1990} \cdot (D_{-co})}{UH_c} \]

where \( c \) represents county, \( o \) represents Hispanic country of origin (e.g. Mexico). \( I_{co}^{1990} \) represents the number of Hispanic immigrants in county \( c \) born from country of origin \( o \) relative to the total number of Hispanic immigrants born from country \( o \) across the United States. These shares are constructed using the 100 percent 1990 Census and sum to one across the United States. These baseline country-of-origin county shares are then multiplied by the cumulative leave-county-out number of national detainers issued from 2008 to 2013, \( D_{-co} \). Finally, we normalize this predicted number of detainers by the predicted number of unauthorized Hispanics, \( \hat{UH}_c \), calculated as the estimated fraction of unauthorized Hispanics from the 1990 Census multiplied by the total number of foreign-born Hispanics in the 2005-2009 ACS. See above for the description of the Predicted Estimate of Unauthorized Hispanic Population.

**Share Black ACA Sign-Ups:** The average number of black ACA sign-ups for 2015–2016 over the estimated black uninsured population from the CMS.

**Share Food Stamp:** The share of household heads for each race in the yearly ACS data reporting household food stamp usage in the past 12 months.

**Share Hispanic Detainers:** ICE detainers of Hispanics as a share of the Estimate of Unauthorized Hispanic Population (see above).

**Share Hispanic Males:** The number of male Hispanics divided by the total number of all males using averages from the 2014–2015 Census Population Estimates.

**Share of Hispanics in Poverty:** The number of Hispanics below the poverty line divided by the total number of Hispanics in the 2005–2009 ACS data.

**Share Hispanic Removals:** ICE removals of Hispanics as a share of the Estimate of Unauthorized Hispanic Population (see above).

**Share Latino ACA Sign-Ups:** The average number of Latino ACA sign-ups for 2015–2016 over the estimated Latino uninsured population from the CMS.
**Share White ACA Sign-Ups:** The average number of white ACA sign-ups for 2015–2016 over the estimated white uninsured population from the CMS.

**Share Working Age:** The CMS estimates of the uninsured population ages 19–54 as a share of the uninsured population ages 0–64.

**Unemployment Rate:** The unemployment rate by county from the Bureau of Labor Statistics (2014 - 2015).

**White:** We define white individuals as those who identify their race as white but do not identify as Hispanic ethnicity.
II. Institutional Appendix

A. Secure Communities and Immigration Reform

Immigration Enforcement Prior to Secure Communities: In the United States, the federal government has virtually unlimited authority to decide who to admit and deport, with detailed rules governing admissibility and removability described in the Immigration and Nationality Act (INA). In the past decades, however, the federal government has increasingly worked with state and local governments to help enforce federal immigration law. The most prominent example of this cooperative federal-state relationship is the delegation of federal immigration enforcement powers to state and local agents under 287(g) of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (IIRIRA). Known colloquially as “287(g) agreements,” these agreements typically allow local law enforcement agents to screen arrestees for potential violations of immigration laws and issue detainers. Formally, state and local agencies enter into a Memorandum of Agreement (MOA) with ICE pursuant to which law enforcement officers become deputized immigration enforcement officers. However, 287(g) agreements were wholly voluntary and as of 2013, ICE had only entered into 69 active 287(g) agreements in 24 states.\(^2\)

In addition to 287(g) agreements, ICE initiated several other cooperative programs with state and local agencies, focused on apprehending alien fugitives (“Future Operations Team”) and absconders (“Operation Absconder”). See Chacón (2010) for an overview of these programs. One of the best known cooperative programs prior to SC was called the Criminal Alien Program (CAP), with the goal of identifying “criminal aliens incarcerated in federal, state and local prisons and jails throughout the United States, preventing their release into the general public by securing a final order of removal prior to the termination of their sentences.” Under CAP, ICE officials physically or electronically (through telephone) gained access to local and state jails to interview and identify immigrants who could be removed. Through CAP, ICE created a risk assessment of all federal, state and local prisons, classifying the facilities into four tiers of risk, with Tier 1 indicating a facility with the highest risk to security. CAP prioritized screening the higher tier facilities. In March 2008, ICE reported that all federal and state facilities were part of CAP, but only about 10 percent of local jails were screened through CAP. CAP remains the primary way in which ICE conducts immigration enforcement in the United States. Between two-thirds and three-quarters of individuals ICE removes from the interior of the United States are removed through CAP.

Secure Communities represented a significant expansion of these federal-state cooperative programs, relying on instantaneous information sharing between local jails, ICE, and the FBI. While each of the above programs (287(g), CAP) is separate, they often overlap and can operate simultaneously in the same jurisdiction.

Interoperability Deployment – Rollout of Secure Communities: Secure Communities was started following the appropriation of $200 million USD by Congress in Fiscal Year (FY) 2008 to ICE in

order to “improve and modernize efforts to identify aliens convicted of a crime ... and remove them from the United States.” In FY 2009, Congress appropriated an additional $150 million USD funding and instructed ICE to use $850 million in other funding to the priority, which expanded to include identifying “individuals illegally present in the United States who have criminal records whether incarcerated or at-large, and to remove those aliens once they have been judged deportable in an immigration court.” In FY 2010, Congress instructed ICE to allocate $1.5 billion to the same goal.

At the time of deployment, it was estimated that there were more than 53,000 arresting and booking locations in 3,100 jurisdictions across the United States. ICE stated in reports to Congress that it coordinated with federal, state, and local partners to deploy “Interoperability,” another term for SC, based on a “risk-based prioritization approach.” The evaluation included ensuring adequate resources for ICE field offices and local enforcement agencies (LEAs). In addition, deployments were determined by utilizing data provided by the SC Program Management Office (PMO) Criminal Alien Population Projection which factors in data such as crimes committed by non-citizens and census data to examine foreign-born populations.

As found by Cox and Miles (2013), the roll-out of SC did not seem to be predicted by crime levels, though ICE was specifically targeting crimes committed by non-citizens. Instead, using a hazard model, Cox and Miles (2013) find that the strongest predictors of early activation were whether a county was on the southern border with Mexico, the fraction of the population Hispanic, and whether a local government has a 287(g) cooperative enforcement agreement with the federal government. Their analysis, combined with the ICE documentation, motivates our approach to predict activation dates using distance from the Mexican border, estimated unauthorized population, crime, presence of a 287(g) agreement, and higher order terms/interactions.

Risk-Based Prioritization under SC: SC used a risk-based approach to decide which individuals should be removed. The risk basis for determining the threat to community safety relies on a three-level hierarchy of aggravated felonies and other serious offenses, building off of risk assessment used under the CAP program. The SC risk-based approach classifies aliens convicted of a criminal offense into three levels, starting with those who present the greatest threat:

Level 1: Offenses include threats to national security, violent crimes such as murder, manslaughter, rape, robbery and kidnapping; and drug offenses resulting in sentences greater than 1 year.
Level 2: Offenses include minor drug offenses and property offenses such as burglary, larceny, fraud and money laundering.
Level 3: Offenses consist of less severe criminal offenses.

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After the roll-out of SC, many reported concerns regarding racial profiling among arrests. For example, Kohli, Markowitz, and Chavez (2011) find that Latinos comprise 93 percent of individuals arrested through SC although they comprise only 77 percent of the undocumented U.S. population. In addition, many argued that SC was not targeting dangerous criminal noncitizens as it claimed to do, but was in fact removing many noncitizens charged with minor offenses. For example, a New York Times article claimed that “government records show[ ] that since President Obama took office, two-thirds of the nearly two million deportation cases involve people who had committed minor infractions, including traffic violations, or had no criminal record at all. Twenty percent—or about 394,000—of the cases involved people convicted of serious crimes, including drug-related offenses ....”

In 2011, a Task Force on Secure Communities was created as a subcommittee of the Homeland Security Advisory Council (HSAC) and was comprised of leaders from the government, private sector, academia, and local enforcement agencies. The goal of the Task Force was to address some concerns about potential racial profiling and to focus on individuals that were a “true threat” to public safety or national security.

The Task Force held four information gathering sessions where groups and local agencies could express their opinion on SC. According to the Task Force Final Report, “By a very significant margin, most speakers criticized or expressed concern about Secure Communities. Many speakers commented that the program is resulting in the deportation of persons arrested for only minor offenses as well as victims of crime, that such deportations split families apart, and that Secure Communities makes people afraid to call their local police when they are victims or witnesses to crime. A few speakers stated that the program had a positive impact, particularly in identifying and removing serious criminals or providing information useful to local law enforcement that would not always be available from the FBI database alone.”

Resistance to SC: When SC was first activated, Secretary of Homeland Security Janet Napolitano described the program as follows: “Secure Communities gives ICE the ability to work with our state and local law enforcement partners to identify criminal aliens who are already in their custody, expediting their removal and keeping our communities safer.” SC was also described as a partnership between ICE and each state’s State Identification Bureau, requiring a memorandum of agreement (MOA) between the ICE acting director and State Identification Bureau officials.

However, in the spring of 2011, governors in Massachusetts, New York, and Illinois ended their respective MOAs with DHS. The three states alleged that the program was not exclusively targeting the most violent offenders and was hindering community policing. ICE subsequently determined...
and clarified that the MOAs were "not required to activate or operate Secure Communities in any jurisdiction."\(^9\)

Shortly thereafter, John Morton, former Director of ICE, terminated all MOAs in August 201, stating they had led to "substantial confusion" and that "ICE has determined that an MOA is not required to activate or operate SC for any jurisdiction ... Once a state or local law enforcement agency voluntarily submits fingerprint data to the federal government, no agreement with the state is legally necessary for one part of the federal government to share it with another part."\(^10\) Secretary Napolitano also weighed in, claiming that "This whole opt-in, opt-out thing was a misunderstanding from the get-go ... and we have tried to correct that," clarifying that local governments cannot decline to participate\(^11\).

Beginning in late 2012, a growing number of states and counties began resisting detainer requests, or setting conditions on their responses to federal requests. For example, Cook County passed an ordinance in 2011 seeking opt-out from SC. States like California, Connecticut, Illinois, Rhode Island, and Washington, D.C. enacted state legislation restricting cooperation with federal officials. See Chen (2016) for an extensive discussion of these approaches.

These states, counties, and cities are collectively known as "sanctuary cities." The term "sanctuary city" derives from the 1980s when faith groups offered services to Central American refugees denied asylum to the U.S. (see Villazor 2008 and Paik 2017). In the 21st century context of deportation, a sanctuary city does not provide refuge to undocumented immigrants. Rather, it refers to specific policies that limit cooperation with federal immigration enforcement agents, which can vary widely. For an extensive discussion of the range of policies associated with sanctuary cities, see Villazor (2008).

Ultimately, SC was deactivated on November 20, 2014, in part due to resistance from the sanctuary cities. In a memorandum issuing the discontinuance of the program, Secretary Jeh Charles Johnson noted that SC had "attracted a great deal of criticism, is widely misunderstood, and is embroiled in litigation. Its very name has become a symbol for general hostility toward the enforcement of our immigration laws."\(^12\)

**Other Immigration Reform and Executive Actions During the Obama Administration:** As commentators have noted, Obama’s presidency exhibited very different immigration policies during his two terms. During his first term, interior removals increased dramatically under SC, but in his later term, he introduced progressive immigration reforms while decreasing the use of detainers and interior removals. Some have noted that his stance on SC may have reflected a political gamble that more aggressive enforcement in the interior might lead to a bi-partisan compromise on immigration reform.

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Other than SC, one of the best known policies of the Obama Administration is the “Deferred Action for Immigrant Youth” (DACA) initiative, announced on June 15, 2012. Under DACA, DHS uses its discretion to defer deportation proceedings temporarily for qualified individuals who were brought to the United States illegally when they were children. The program also gives those who are approved work authorization, and relatively Social Security numbers and driver’s licenses in some states. DACA was announced after Congress failed to pass the DREAM Act, which would have provided a path to citizenship for undocumented children. According to Obama, DACA was “a temporary stopgap measure that lets us focus our resources wisely while giving a degree of relief and hope to talented, driven, patriotic young people.” According to the U.S. Citizenship and Immigration Services, as of September 2017, there were 689,800 DACA recipients with the largest concentration of approved recipients from California and Texas. In September 2017, the Trump administration announced a “wind-down” of the DACA program.

Another piece of reform, which ultimately did not pass, was the 2013 “Border Security, Economic Opportunity, and Immigration Modernization Act,” also known as S.744. S.744 represented an extensive proposal for reforming the U.S. immigration system written by a bipartisan group of eight Senators known as the “Gang of Eight.” The bill was passed in the Senate but was not taken up by Congress and expired. The bill provided a comprehensive approach to providing a pathway to citizenship for unauthorized immigrants, updated the legal visa system, and increased border enforcement by allocating funding for border security.

We note that both DACA and the Senate passage of S.744 may have affected perceptions of immigration enforcement, and thus deportation fear. However, since both DACA and S.774 were enacted at the federal level and affected the entirety of the United States once announced, our state-by-year fixed effects in our triple-differences specifications non-parametrically control for the effects of these other reforms.

B. Safety Net Programs

Designation of Public Charge: The passage of the 1996 Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) limited immigrant eligibility for federal public assistance programs, such as SNAP. Prior to PRWORA, immigrants had similar eligibility to natives; after, immigrants who obtained legal status were barred from means-tested programs for five years or more.13

As part of the 1996 welfare reform, states could deny entry for individuals trying to immigrate into the U.S. or not upgrade an individual’s immigration status if the government deemed an individual as reliant on assistance programs, known as a “public charge.” Specifically, the U.S. Customs and Immigration Services (USCIS) defines a public charge as an “individual who is likely to become primarily dependent on the government for subsistence, as demonstrated by either the receipt of public cash assistance for income maintenance, or institutionalization for long-term care

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at government expense. In 1999, USCIS clarified that non-cash benefits (i.e., food stamps) do not apply to public charge determinations. However, research suggests immigrants are still fearful of signing up for SNAP as a result (Thomas and Collette 2017, Johnson 1995).

**Fraud in Public Programs:** If an individual is caught misusing SNAP benefits or lying on their application in order to receive benefits, states can invoke penalties ranging from disqualification from the program to a fine or jail time. Many states promote specific ways to contact government departments in order to report suspected welfare fraud. The Governor Accountability Office (GAO) finds that 3.7 percent of SNAP benefits were improperly paid in 2014, down from 5.8 percent roughly a decade earlier. SNAP fraud often occurs in the form of trafficking, whereby individuals or retailers sell food stamps benefits for cash. The United States Department of Agriculture (USDA) cites that unlawful possession of benefits via trafficking of $100 or more is a felony; improperly possessing less than $100 is a misdemeanor. In 2012, the USDA barred 1,400 stores from future participation for program violations.

In terms of the Affordable Care Act, lying on an application can result in a penalty ranging from $25,000 to $250,000. Research from the GAO suggests that the health insurance marketplaces are vulnerable to fraud, accepting applications that do not meet eligibility qualifications. Likewise, the Department of Health and Human Services reports indicate high rates of ineligible sign-ups in state Medicaid expansions, although it is unclear what percentage is intentional misuse.

### C. The Great Recession

**The Great Recession:** The Great Recession commenced in December 2007 and continued over the time period of our analysis with several important effects. The Great Recession likely increased eligibility for safety net programs since many households fell into poverty. Specifically, we note that white families’ wealth fell 26.2 percent during the Great Recession, while the wealth of black families and Hispanic families fell by 47.6 and 44.3 percent, respectively (McKernan et al. 2014). To account with the differential effects of the Great Recession on poverty and thus safety net eligibility, we use data from the CPS to create race/ethnicity specific recession effects at the state level by calculating the percent change in employment from December 2007 to June 2009. All our main results control for these race-specific state-level recession effects, such that our results on SC activation are likely not explained by differential trends due to the Great Recession. Furthermore, when we limit our main triple-differences specification to black and Hispanic heads of household — two groups that
on average were more adversely affected by the Great Recession than non-Hispanic whites — we obtain similar estimates in both the PSID and ACS data. See Appendix Table A4.

D. The Affordable Care Act

Media reports indicated that Hispanics in particular were slow to sign-up for the ACA. Outreach efforts were designed to increase enrollment for certain target populations, including for Spanish speakers. The Centers for Medicare and Medicaid Services, for example, fund outreach efforts through “Navigator” organizations, which assist individuals and provide counseling during the enrollment process. These organizations target individual states or counties, often by specific racial or ethnic groups.

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III. Model Extension

In our main model, the head of household is an authorized individual. We now consider an extension of that model where we let the head be an unauthorized individual. This alternative model captures the direct treatment effect of immigration enforcement as measured in papers like Watson (2014) and Vargas and Pirog (2016).

Household Head is Unauthorized: Recall from our main model that household \( j \) with head of household \( i \) is comprised of a set of authorized members \( A \) and unauthorized members \( U \) where \( A + U = N \). Let the expected utility of head \( i \) in household \( j \) in location \( l \) be given by:

\[
EU_{ijl} = \lambda_i \cdot \left( \frac{Y_j}{N} + p_{ij} \mathbb{1}_{i \in A} \cdot (B_i) \right) + \lambda_a \cdot \left( \frac{Y_j}{N} + \frac{p_{ij} B_{j,-i}}{A - \mathbb{1}_{i \in A} \cdot 1} \right) + \lambda_u \cdot \left( \frac{Y_j}{N} - \pi_{jl}(p_{ij}) \right)
\]

where \( Y_j \) is household income (split among all \( N \) members, authorized or unauthorized), \( p_{ij} \) is the decision to participate (made by the head of household \( i \)), \( B_i \) is the per capita benefit to \( i \) from participation if \( i \) is authorized, and \( B_{j,-i} \) is the total benefit to other authorized members of the household. \( \pi_{jl} \) is the subjective probability of deportation (i.e. fear) and is an increasing function of program participation, \( p_{ij} \). Recall that \( \lambda_i \), \( \lambda_a \), and \( \lambda_u \) represent welfare weights that head \( i \) gives to his own utility, and the utility of other authorized and unauthorized household members, respectively, where \( \lambda_i + \lambda_a + \lambda_u = 1 \).

Now, let head of household \( i \) be unauthorized such that \( \mathbb{1}_{i \notin A} \). Under our model, an unauthorized head can sign up for benefits for other authorized members of the household but is not eligible himself. We can rewrite the expected utility function as:

\[
EU_{ijl} = \frac{Y_j}{N} + \lambda_a \cdot \left( \frac{p_{ij} B_j}{A} \right) - (\lambda_i + \lambda_u) \cdot \pi_{jl}(p_{ij})
\]

In this framework, immigration enforcement affects the household participation decision because the head incurs a direct private cost of deportation, capturing a direct treatment effect. Note that unlike the main model, the unauthorized head does not forgo a private benefit by choosing not to participate.

In this version of the model, household \( j \) will participate if and only if:

\[
\frac{Y_j}{N} + \lambda_a \cdot \left( \frac{B_j}{A} \right) - (\lambda_i + \lambda_u) \cdot \pi_{jl}(1) > \frac{Y_j}{N} - (\lambda_i + \lambda_u) \cdot \pi_{jl}(0)
\]

where the participation threshold is \( \frac{\lambda_a \left( \frac{B_j}{A} \right)}{\lambda_i + \lambda_u} = \kappa_j \). Let \( \kappa \sim G(.) \) such that within each location \( l \), the average \( \kappa_j \) be equal to \( \bar{\kappa} \). Then, aggregating over households \( j \) in a given location \( l \), the share

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26If instead we modeled the decision to participate as the outcome of Nash bargaining (McElroy 1990), enforcement could be characterized as increasing the threat point of the authorized spouse (i.e. since he/she does not have to engage in costly concealment of an unauthorized partner). Such bargaining could lead to relative increases in the demand for welfare benefits intended for the authorized only.
not participating is given by:

\[ s_l = 1 - F(\kappa_l - \beta_1 \cdot D_l) \]

This non-participation share, \( s_l \), is decreasing in the size of the program benefit (\( B_j \)), increasing in the utility weight given to unauthorized individuals (\( \lambda_u \)), and increasing in the local intensity of immigration enforcement (\( D_l \)). Unlike the main model, however, the non-participation share is \textit{increasing} (versus decreasing) in the utility weight given to the head himself (\( \lambda_i \)) because participation imposes a private cost on the household head.
References


