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REStat Fellowship Committee:

I am Karla Cordova, a Latina applied microeconomist specializing in labor market topics. My research interest is in labor and public economics, specifically what effects government policies have on labor markets. I am interested in Summer Institute sessions on Labor Studies and Public Economics. I am currently a Visiting Assistant Professor of Economics at Pomona College and part of the Global Labor Organization (GLO) 2021-22 GLO VirtYS Cohort. I received a Ph.D. in Economics from the University of Arizona in August 2021.

I utilize applied econometric methods and public policy changes in my research to identify causal effects on labor market decisions. For example, my work examines the impact of immigration policy on self-employed citizens in the U.S., how unemployment duration behaves after introducing unemployment insurance in Mexico, and how the present value of pensions influences the gender wealth gap. In addition, I am currently working on the effects of COVID-19 pandemic disproportionately on immigrants' health and employment.

In joint work with Eva Sirmienska and Markus Grabka, we examine how the present value of pensions influences the gender wealth gap. Considering the employment characteristics of women and men, we decompose the extent to which the redistributive effect of pension rights reduces the gender wealth gap. The data for our analysis come from the German Socio-Economic Panel (SOEP), one of the few surveys collecting information on wealth and pension entitlements at the individual level. The decomposition results show that including pension wealth reduces the wealth gap substantially in the lower half of the wealth distribution. We are currently incorporating labor market trajectories in the analysis using the panel.

Thank you for your time and consideration for the REStat Fellowship to attend the 2022 NBER Summer Institute. I look forward to your response.

Sincerely,

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RESEARCH AND TEACHING INTEREST

Labor Economics, Public Economics, Applied Econometrics

PROFESSIONAL APPOINMENTS

Visiting Assistant Professor, Pomona College, Claremont CA — July 2021- present
GLO Virtual Young Scholar — November 2021- Present

EDUCATION

Ph.D. in Economics, University of Arizona, Tucson AZ — 2021
M.A. in Economics, University of Arizona, Tucson AZ — 2016
Bachelor of Economics (with Honors), Universidad Autonoma de Nuevo Leon, Monterrey Mexico — 2014

DISSERTATION

Public Policy Effects on Labor Markets: Immigration Enforcement and Unemployment Insurance

TEACHING EXPERIENCE (at Pomona College)

Principles of Macroeconomics — Fall 2021, Spring 2022
Economics of Latin America — Fall 2022

Sole Instructor of Record:(at The University of Arizona)

Basic Economic Issues (Online, 4.18/5 teaching effectiveness) — Summer 2019
Economics of Latin America (In-person, 4.85/5 teaching effectiveness) — Summer 2017 and 2018

Teaching Assistant for:

International Trade Theory ECON 443 with John Drabicki — Fall 2019
Fundamentals of Economics PPEL 301 with John Drabicki — Fall 2018
Public Sector Economics ECON 435 with John Drabicki — Spring 2018 and 2019
Microeconomic Analysis for Business Decisions ECON 300 with Ryan Johnson — 2017 and 2016
and Shariq Mohammed — Fall 2017
Basic Economic Issues ECON 200 with Dirk Mateer — Spring 2016
and Wayne Geerling — Fall 2017
Economic Perspectives ECON 150 with Charity-Joy Acchiardo — Fall 2015

PUBLICATIONS

Aguayo Téllez, E., Cordova Escalante, K. (2017) "El entorno urbano y las aspiraciones de los padres sobre la educación de sus hijos en México," Sobre México. Revista de Economía, Sobre México. Temas en economía, vol. 3(1), pages 34-44

WORKING PAPERS AND RESEARCH IN PROGRESS

Cordova, K., Grabka, M. M., Sierminska, E. (2021). "Pension wealth and the gender wealth gap" (No. 1141). SOEPpapers on Multidisciplinary Panel Data Research.
Cordova, K. (2022) "Effects of Increased Immigration Enforcement on Citizens' Self-employment"
"Unemployment Insurance and Unemployment Duration: Evidence from Mexico City", in progress

RESEARCH EXPERIENCE

Graduate Research Assistant for Dr. Ronald Oaxaca and Dr. Eva Sierminska August 2018 to May 2020
Graduate Research Assistant for Dr. Jessamyn Schaller December 2018
Intern at Mexico's Central Bank Monterrey Regional Delegation August 2013 to December 2013

GRANTS AND AWARDS

Graduate Assistantship, University of Arizona 2015 to 2020
Graduate and Professional Student Council Travel Grant, University of Arizona 2019
Hayek Fund for Scholars, Institute for Humane Studies 2019
CONACYT Fellowship, 2015
Highest Honors at Universidad Autonoma de Nuevo Leon, Monterrey Mexico 2014

PRESENTATIONS

Western Economics Association; VirtYS GLO; ASSA 2022
PAA Annual Meeting; Pomona College 2021
Symposium of Human Capital and Growth, Universidad Autonoma de Nuevo Leon 2020
Southern Economic Association Conference, Fort Lauderdale, FL 2019
University of Arizona Brown Bag Seminar, Tucson, AZ 2018
Centro de Estudios Espinoza Yglesias (CEEY), Mexico City, Mexico 2015

WORKSHOPS

Professional Development Teaching Workshop for Economics hosted by the University of Arizona and W. W. Norton Company, Inc. February 2019

MEMBERSHIPS

American Economic Association, Southern Economic Association, Economic History Association, GLO

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Effects of Increased Immigration Enforcement on Citizens' Self-Employment

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Abstract

The recent increase in interior immigration enforcement has reduced the number of low skilled workers in the U.S. In this paper I study how this decrease in labor supply affects citizens' self-employment. I examine the impact of four immigration enforcement policies; each implemented with a staggered roll-out across the U.S. and different levels of adoption. I find that increased immigration enforcement had a negative effect on male and female citizens' self-employment. This is evidence that undocumented immigrants have a level of complementarity to self-employed citizens. The reduction of citizens' self-employment is concentrated among high school graduate natives. The lower levels of self-employment are not accompanied by an increase in the wage and salary sector, suggesting that there is no switching within sectors happening. The industries that are more affected are construction and wholesale self-employment. However, self-employment among Hispanic citizens' had the opposite effect. To enable comparison with previous studies, I estimate the effects of the immigration enforcement programs on the employment of citizens. I find that E-Verify mandates have a negative effect not accounted for in previous studies.

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1 Introduction

In the past 15 years, the U.S. government has tried to reduce the number of undocumented immigrants by increasing interior immigration enforcement. From 2008 to 2014, over 450,000 people were deported under Secure Communities (SC), a federal level program designed to identify undocumented immigrants arrested by local authorities and prioritize deportation. Local authorities have taken immigration policy actions of their own. Some states mandated the use of an employment verification system for all business, E-Verify, which checks if new hires are eligible to legally work in the U.S. Before SC, a few local authorities had signed 287(g) Memorandums of Agreement (MOA) with the U.S. Department of Immigration and Customs Enforcement (ICE). There were two different types of 287(g) MOAs: task force and jail. The first allowed local law enforcement to carry on federal immigration law and the second focused on processing incarcerated undocumented immigrants.

Studies have found that both police-based enforcement and employment-verification policies have reduced the number of unauthorized immigrants in the U.S. (Bohn et al., 2015, 2014; Hoekstra and Orozco-Aleman, 2017; East et al., 2018). This decrease might have had multiple spillover effects in labor markets but the evidence is mixed. The literature so far has not accounted for all programs together; only a couple have included more than one immigration policy in their analysis [1]. Nor have they considered the full range of employment effects because they excluded the self-employed from their analysis. In this study I focus on the impact of all of the policies while studying self-employed citizens. I estimate the impact of the four programs on employment opportunities for citizens and make comparisons with the results in other studies.

Around 10% of the workforce in the U.S. is self-employed. Self-employment is an important source of job creations. In 2014 3 of every 10 jobs in the U.S. were held by the self-employed and their workers. Self-employment is linked to entrepreneurship and innovation (Faggio and Silva, 2014). Self-employment is particularly high in industries like agriculture (80%) and construction (68%)(Kochhar, 2015). Historically these industries employ a substantial

[1] Amuedo-Dorantes et al. (2018) used all the immigration policies aggregated in an index to study the effects of immigration enforcement on mixed-status families' economic well being.

numbers of unauthorized immigrants. Thus, it is important to understand how labor market shocks from restrictive immigration policies affect self-employment.

Are self-employed workers hurt or benefited by a reduction of unauthorized immigrant labor? This is a puzzling question because unauthorized immigrants could be competing with or working for self-employed citizens. Increased immigration enforcement will have different effects on citizen self-employment if the self-employed and immigrants are complements or substitutes in production. If they are complements, self-employed citizens gain from working with immigrants, likely by employing them. Thus, increased enforcement might reduce opportunities for citizens to become self-employed as it increases hiring costs. As one example, Kostandini et al. (2013) found that increased enforcement, local authorities signed 287(g) MOAs, led to farm labor shortages in ways that potentially harmed self-employed citizens. On the other hand, immigrants might be substitutes for the self-employed in production. Fairlie and Meyer (2003) argue that an influx of self-employed immigrants reduced natives' self-employment from 1980 to 1990. Immigrants have higher entrepreneurship rates than U.S. natives and Fairlie and Lofstrom (2015) document higher business ownership rates and higher rates of business startup activity among immigrants. In that case increased enforcement might lead to an increase in self-employment as self-employed citizens replace deported self-employed immigrants.

To study how immigration policies affected self-employment opportunities for U.S. citizens, I combine data on the timing and location of four immigration enforcement policies with data from the American Community Survey between 2005 and 2014 at the PUMA level (Ruggles et al., 2018). I start by estimating a difference-in-differences model that includes multiple staggered treatments to test how the percentage of the native workforce who are self-employed is affected by increased immigration enforcement. I estimate separately by gender and for Hispanics since there could be affected differently by the policies. I then estimate the model separately for the self-employed by industry to focus more specifically on sectors where immigrants are a large part of the employed workers. To take into account differences based on skill levels, I separately examine opportunities for self-employment for citizens with at most a high school degree and citizens with higher levels of education.

To address issues of difference-in-differences with different times of treatment adoption, I estimate an event-study as an alternative specification. With the event-study, I analyze if there are any dynamics of effects on self-employment and test for pre-event effects. I also analyze what is happening in the labor force, unemployment, and wage employment sector to check if individuals are switching between self-employment and those sectors. In these different specifications, I include control variables for housing prices and the general unemployment rate, to take into account changes in prices and labor demand shocks.

The estimation results suggest that self-employed male citizens and low skilled immigrants are complements. Among the policies, E-Verify mandates have a stronger impact than police-based policies. E-Verify universal mandates have a negative effect on male citizens' self-employment as a share of the male working-age population of -0.5 percent. The immigration policies had a different effect on Hispanic male citizens' self-employment. Self-employed Hispanic male citizens as a percentage of male citizens increased in places with E-Verify universal mandates.

The policies had a mixed effect on self-employment among female citizens. Female citizens' self-employment was 0.198 percentage points lower in PUMAs with SC, -0.208 percentage points lower in areas with E-Verify mandates, and increased with 287(g) Jail MOAs. However, Hispanic female citizens' self-employment increased in areas with E-Verify and SC. When separated by education level, most of the action comes through decreases in self-employment of females citizens with high school education.

I find that the effects in self-employment are not compensated with improvements on wage/salary employment. Workers in the labor force face the choice between wage/salary employment sector or self-employment. There is a substitution between sectors if self-employment decreases as wage employment increases. I find that for male and female citizens' both wage employment and self-employment decrease with the immigration policies. These findings are consistent with results from studies by East and Velasquez (2018a) and East et al. (2018), with the caveat that E-Verify is included in my study and seems to have a stronger effect than SC.

2 Increased Immigration Enforcement Programs: Secure Communities, E-Verify Mandates, and 287(g) Task-Force and Jail Memorandums of Agreement.

Immigrant location choice is an endogenous decision that responds to local economic conditions and unobserved location amenities. The endogeneity complicates the study of the effects of immigrants on the labor market. I exploit temporal and geographical variation in immigration enforcement, using the roll-outs of four programs: SC, 287(g) Jail MOAs, 287(g) Task-force MOAs, and E-Verify mandates. These policies were adopted at different dates and states have adopted them to a varying degree. These policies provide a plausibly exogenous variation in the number of unauthorized immigrants. Many studies have used a similar identification strategy when focusing on individual policies or combining them into an enforcement index (Amuedo-Dorantes and Bansak, 2012; Amuedo-Dorantes et al., 2018; Amuedo-Dorantes and Lozano, 2015; Bohn et al., 2015; Hoekstra and Orozco-Aleman, 2017; East and Velasquez, 2018a; East et al., 2018).

Secure Communities (SC) is a federal program administered by the ICE. It encourages local authority cooperation on immigration enforcement with federal authorities. It started in 2008 and was gradually adopted county-by-county until it covered all of the U.S in 2013. The main objective of SC was to identify undocumented immigrants arrested by local or state law enforcement and prioritize their deportation. The program worked by allowing information sharing between local law enforcement and the FBI and DHS databases. Prior to SC, after a person was arrested, their fingerprints were sent to the FBI but there was no check for the legal status of the person or their eligibility for removal. Under SC, the arrestees' fingerprints were automatically sent to DHS, where they checked the person's immigration status with the Automated Biometric Identification System (IDENT).

The way SC was adopted has several characteristics that make it an attractive setting to study the effects of the policy. First, the staggered adoption of SC generates geographic and time variation of treatment. Figure(1) shows SC adoption by county over the activation period. Early adopters were closer to the border and had signed a previous 287(g) MOAs. Miles and

Cox (2014) argue that the timing of adoption depended on jurisdictions not having a live fingerprint scanning device. Miles and Cox (2014) show that this technological hurdle delay in adoption is not correlated with county unemployment and crime rates while controlling for each county's observable characteristics. East et al. (2018) also show that conditional on county characteristics, the timing of adoption of SC was not related to employment levels. The eventual full adoption of the program nationwide reduced the ability of individuals to migrate to avoid enforcement. In 2011 the ICE remarked that previous sharing information agreements were not necessary for SC to be active. Once the fingerprints of an arrested individual were captured, the information would be shared automatically giving no opt-out option to counties opposing SC.

Prior to SC, some states and counties signed memorandums of agreement (MOAs) with the ICE to facilitate the removal of unauthorized immigrants. The 287(g) MOAs allowed state or local law enforcement officers to carry out certain functions to enforce federal immigration law, including investigating, apprehending, and detaining non-citizens. Local authorities self-selected into signing 287(g) MOAs. They also committed to spending their resources for training, implementation, and enforcing the agreements. Having a preceding MOA may have changed the effects of SC because places with a pre-existing policy against unauthorized immigrants might have been on a different path from places without any other policy (Bohn and Santillano, 2017).

There were two main types of 287(g) MOA: task-force agreements and jail. Task-force agreements allowed local law enforcement to identify and arrest removable immigrants. Jail MOAs allowed officers within correction facilities to check detained non-citizens' information against federal databases and initiate the removal process if applicable. The 287(g) MOAs were first adopted by some cities, counties, and states in 2005. The use of the program decreased after 2010 and then the Department of Homeland Security ended the task force model in 2012. In 2017 an executive order by President Trump again promoted the use of the 287(g) task force model.

Another immigration policy aimed at reducing the employment of unauthorized workers was universal E-Verify mandates. E-Verify is an online verification system created for employers

to check the employment eligibility of their new hires. This system was originally established by the Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (of State Legislatures, 2017). The E-Verify system allows employers to use a worker's name and social security number to determine whether he or she is allowed to work legally in the U.S. There were different levels of adoption of the program. Some states required all employers to use E-Verify to check all their new hires and imposed sanctions on non-compliers. In other states, only employees of state and local agencies or other public employees were subject to verification. Most states did not mandate the use of E-Verify, and some states, like Illinois and California, passed laws blocking local E-Verify mandates. In Figure (2) we can see the variation of adoption and time across states, the darker shades refer to universal mandates, followed by mandates for contractors, public employees mandates, and no mandate. Most of the adoption variation happened during the same years when SC was being adopted. All universal mandates were all established between 2007 and 2011 and there is no variation after 2012. So far there are no event-study analyses that address whether the adoption of E-Verify universal mandates was subject to pre-selection issues. In a study of the effects of E-Verify in one state, Arizona, Bohn et al. (2015) forced pre-event trends to be equal using a synthetic control approach.

2.1 Increased Immigration Enforcement Labor Market Effects

One of the labor market effects of immigration enforcement that has not yet been considered is how does it affect citizens' self-employment. Self-employed workers differ fundamentally from wage/salary employees in the sense that they are both employer and worker at the same time. Their activity could be complemented by the employment of low skilled undocumented immigrants, or immigrants could be self-employed entrepreneurs who compete with and substitute for self-employed citizens. Additionally, some industries and occupations with high levels of self-employment are also immigrant-labor intensive industries.

Previous research focused on how the inflow of immigrants related to natives' self-employment. Fairlie and Meyer (2003) used a general equilibrium model with wage/salary and self-employed people interacting with native and immigrant workers to estimate the effects of an increase of

immigrants on natives' self-employment. Their results suggest that the inflow of self-employed immigrants into the US during the 1980 decade displaced natives from self-employment, but did not change wages. One of the key differences of the framework used in Fairlie and Meyer (2003) from the one used in this paper is that they impose the assumption of perfect substitutes in production between immigrants and natives. Additionally, their analysis covers the change over two decades with only two cross-sectional observations.

Wang (2019) finds that after 9/11 tighter immigration enforcement drove likely unauthorized immigrants towards self-employment. More recently, Unel (2018) exploits the geographical variation of immigrants' location to estimate the effect of immigrant presence on native incorporated self-employed workers and focuses on entry and exit dynamics of self-employment. Unel (2018) finds that immigrant entry might have a negative effect on female entrepreneurship entry. Ghimire (2018) also studied self-employment and used the State Children's Health Insurance Program as a source of variation for immigrant location choice to estimate the impact of immigrant entrepreneurship on native entrepreneurship. Jaeger et al. (2018) suggest there is a problem with using geographic variation in the concentration of immigrants to address the endogeneity of immigrants' location choices, so estimates using this method are unlikely to capture the causal effect. Another way to circumvent the endogeneity of immigrants' location choices is to use policy variation. The sample time used by Ghimire (2018) and Unel (2018) coincides with increased immigration enforcement, which introduces variation in immigrants' location that is not accounted for in their studies.

Recent immigration enforcement policies provide a better setting to study the effects of immigrants on self-employment. Specifically, I can use the variation of policies that lead to removals of low skilled immigrants to test if they change total self-employment, hours worked by self-employed , and self-employed total income. This is the first paper to analyze the impacts on native self-employment of changes in all four enforcement programs which helps reduce omitted variable bias the studies that focused on only one or two programs. So far research concerning recent increases in immigration enforcement has concentrated on the size of the immigrant population, their labor market outcomes, crime rates, and employment outcomes of the receiving country's population. Even though the main objective of SC was

removal of criminal immigrants, Miles and Cox (2014) show that arrested non-citizens had an increased likelihood of being apprehended by ICE and deported from the country, but SC did not have an effect on crime rates.

East et al. (2018) study the effects of SC on labor market outcomes. They exploit the staggered roll-out of SC variation with a two-way fixed effect model to estimate the effects of SC on employment. They find a 3.5 percent decrease in male non-citizens' employment and a negative effect on the employment of male citizens in high-skilled occupations. They argue this negative effect on male citizens' employment is likely due to complementarities in production of low skilled immigrants and native workers. They also show evidence of no pre-intervention effects using an event study specification.

East and Velasquez (2018b) also study the effects of SC on highly educated women. Their results show a lower employment of highly educated women. They suggest that highly educated women are negatively affected because of the decrease in the low educated non-citizens increased the cost of outsourcing household activities. Increased enforcement also had negative spillovers to Hispanic citizens. Alsan and Yang (2018) found evidence of a chilling effect among Hispanic citizens who had lower take-up rates of SNAP and ACA enrollment, even though they were not at risk of deportation.

Local immigration enforcement prior to SC has also been shown to reduce the number of non-citizens. Kostandini et al. (2013) show that counties with 287(g) MOAs had a reduction in the number of non-citizens. Consistent with a farm labor shortage, they find that 287(g) agreements reduced farm labor, output, and profits. The adverse labor supply shock from 287(g) MOAs was not limited to the farming sector. Bohn and Santillano (2017) use data from private employer reports and find there was a 7 to 10 percent decrease in employment in administrative services (i.e. landscaping, janitorial work, and maintenance) after a county adopted a 287(g) compared to bordering counties.

Employment verification policies like the Legal Arizona Workers Act (LAWA) have been also used as policy variation to study the effects of immigrants on labor markets. Arizona was the first state to mandate the universal use of E-Verify. Using a Synthetic Control approach

Bohn et al. (2014) find that LAWA significantly reduced the size of the likely unauthorized population in Arizona. However, this did not improve the labor market outcomes of legal low-skilled workers (Bohn et al., 2015). Orrenius and Zavodny (2016) find that adoption of E-Verify was associated with a decrease of the likely unauthorized population, specifically Hispanic non-citizens with less than a high school education and recent immigrants, and Orrenius et al. (2018) find a reduction in employment and job turnover among Hispanics. However, E-Verify mandates varied with the intensity of who was required to comply and the actual enforcement of sanctions. Amuedo-Dorantes and Bansak (2012) find evidence of differential effects of E-Verify mandates depending on the scope of the mandate. Mandates covering all employers, or universal mandates, significantly decreased the employment likelihood of likely unauthorized male and female workers.

3 Theoretical Framework

How does a decrease in undocumented immigrants affect native workers? Chassamboulli and Peri (2015) developed a model to analyze the effects of different policies aimed at reducing the number of illegal immigrants. Their model provides a richer framework than the canonical labor supply and demand model in which any restrictive immigration policy is taken as a reduction of labor supply. They focused on employment in general, their logic and results apply to self-employment as well.

The model includes two types of workers, low skill and high skill, who are complementary in production. Firms create skill-specific jobs and for this paper, I will consider each self-employed person owns each firm. There are native workers and immigrant workers, who can be either authorized to work in the country or undocumented. Undocumented immigrants are assumed to be low skilled and have the worst outside options and therefore the lowest reservation wages. Authorized immigrants have a higher reservation wage than undocumented immigrants but lower than low skilled natives. High skilled natives have the highest reservation wage. Firms can cut costs by hiring workers with low reservation wages and will post more low skill jobs as a result of cutting costs.

Two of the policies analyzed in the model proposed by Chassamboulli and Peri (2015) are policies that increase the cost that undocumented immigrants face in looking for a job and policies that increase the frequency of deportations. E-Verify mandates are a good example of the first type of policy. E-Verify mandates increase the cost for undocumented immigrants of finding a job since they either have to get fake documentation to pass the verification or are forced to stay in their current job to avoid verification (the mandates apply to new hires only). E-Verify mandates also increase the cost of hiring for firms directly as they impose an additional step on the hiring process. SC is a clear example of the second policy. Under SC both the number and frequency of deportations increased. With 287(g) MOAs local law enforcement was able to carry on federal immigration law, which increased of deportations as well.

In this model, the restrictive immigration policies lead to similar effects. The theoretical effects of a reduction of the number of undocumented immigrants are a reduction of wages and employment of high skill native workers due to complementarity in production and a reduction of firm profits due to the cost reduction effects. The simulation results of Chassamboulli and Peri (2015) suggest that an increase in deportations will increase the unemployment rate of low skilled natives because there is a reduction in low skill job postings. It also causes an increase in unemployment rates of high skill natives and a reduction in native self-employment prospects because of a negative shock on productivity.

4 Empirical Strategy

To test the effect of immigrant removals on citizens' self-employment, I follow a similar empirical strategy to the one in East et al. (2018). The basic specification is a difference-in-differences model, with self-employed citizens as a proportion of the citizen population in PUMA as the dependent variable in the following equation:

$$Selfemp_{pt} = \beta^{SC} SC_{pt} + \beta^{E} EV_{pt} + \beta^{J} MoaJail_{pt} + \beta^{T} MoaTask_{pt} + X'_{pt}\gamma + \eta_p + \eta_t + t\delta_p + \epsilon_{pt} \quad (1)$$

The outcome variable of interest $Selfemp_{pt}$ is the percentage of self-employment in PUMA p at time t for citizens of working-age. For male citizens, $Selfemp_{pt}$ is the percentage of male citizen who are self-employed, and similarly for female citizens and Hispanic citizens. SC_{pt} is a variable between 0 and 1 that indicated the population-weighted treatment intensity adoption of SC in counties within PUMA p. $MoaJail_{pt}$ and $MoaTask_{pt}$ are treatment variables if a jail or task-force 287(g) MOAs were signed within PUMA p. EV is an indicator equal to one when PUMA p is in a state with an active universal E-Verify mandate. The vector X_{pt} includes the PUMA-level time-varying covariates, including the general unemployment rate as a proxy for economic activity and a housing price index for the cost of living. η_p is a set of PUMA fixed effects that absorbs time-invariant differences in observable and unobservable PUMA characteristics, such as distance to the border and the initial level of the immigrant population. η_t is a set of year fixed effects that capture time-varying national shocks. And $t\delta_p$ is a linear PUMA time trend to adjust for different PUMA time trends in self-employment.

The parameters of interest are $\beta^{SC}, \beta^{E}, \beta^{J}$, and β^{T} the effect of exposure to SC, E-Verify, 287(g) Jail MOAs, and 287(g) Task-force MOAs respectively. They are identified from deviations of PUMA-specific averages across time within the same PUMA, while controlling for common year shocks, and observable characteristics. For the design to be valid, the timing of adoption of the policies across counties must be exogenous to the outcomes conditional on controls. To address this I examine pre-trends wising an event-study. I estimate Equation 1 for male citizens using the ACS individual sample weights and clustered standard errors at the PUMA-level.

Industries with a higher concentration of immigrant labor are likely more affected by the decrease in the number of immigrants. For that reason, I also estimate Equation 1 separately for self-employed the share of the working-age population that is self-employed in industries with higher historical immigrant labor concentration: agriculture, construction, and manufacturing.

To check if there are effects on other categories of the labor force as well as in the self-

employment sector I estimate the following variation of Equation 1 for each of the four shares of working-age population,

$$emp_{pt} = \delta^{SC} SC_{pt} + \delta^{E} EV_{pt} + \delta^{J} MoaJail_{pt} + \delta^{T} MoaTask_{pt} + X'_{pt}\phi + \eta_p + \eta_t + t\delta_p + \nu_{pt} \quad (2)$$

The dependent variable emp_{pt} is the percentage of working-age citizens in each group that is either employed, in the labor force, not in the labor force, unemployed, or employed as wage or salary earners in PUMA p and year t. The population groups are male, female, Hispanic males, and Hispanic females.

To examine whether there was pre-policy selection into policies I estimate an alternative specification using a flexible event-study framework (Jacobson et al., 1993),

$$Selfemp_{pt} = \alpha + \sum_{\substack{j=-3 \\ j\neq -1}}^{5} \tau_j D_p 1\{t - T^*_p = j\} + Z'_{pt}\beta + X'_{pt}\gamma + \eta_p + \eta_t + t\delta_p + \epsilon_{pt}. \quad (3)$$

Where $Selfemp_{pt}$ is the percentage of working-age citizens who are self-employed in PUMA p in year t. The event-study, in this case, is for the adoption of Universal E-Verify Mandates. Z_pt includes indicator variables equal to one when 287(g) and SC are active in PUMA p respectively, note that they are time-varying and that all counties have SC after 2013. η_p is a set of PUMA fixed effects that absorbs time-invariant differences in observable and unobservable characteristics and allows consistent estimation of τ even in the presence of differences between treated and untreated locations. η_t is a set of year-specific fixed effects common across PUMAs.

The estimates characterizing the effects of E-Verify Mandates are the coefficients on the interaction of D_p with the event-year dummies, $1\{t - T^*_p = k\}$, which are equal to one when the year of observation is y=-3,-2,..,0,1,..,4 years from $T*_p$ the date when the E-Verify Mandate was established in PUMA p (y=-1 is the omitted category). D_p is a binary indicator of treatment equal to one of the PUMA was treated with a universal E-Verify Mandate.

The point estimates of T_j for $j \leq 0$ describe the evolution of male self-employment in the eventually treated PUMAs before the E-Verify Mandate net of changes in untreated PUMAs after adjusting for model covariates including other immigration programs. Estimates of T_j before treatment allow a direct evaluation of the assumption the there are no location or timing relationships between E-Verify Mandates and changes in self-employment before the adoption of E-Verify. T_j for $j > 0$ describes the divergence in outcomes y years after the E-Verify Mandate net of changes of untreated PUMAs after adjusting for model covariates. These estimates are relative to a year before the E-Verify Mandate ($y = -1$).

5 Data

To estimate the effects of increased immigration enforcement on self-employment, I use several data sources. The American Community Survey (ACS) Integrated Public Use Microdata Series (IPUMS) (Ruggles et al., 2018) from 2005 to 2014 provides employment and population data. The ACS is a series of repeated cross-sectional data sets composed of a 1 percent random sample of the total US population each year. The lowest geographical level of aggregation is the Public Use Microdata Area (PUMA). I aggregate the individual-level data to the PUMA-year level to get the number among citizens of the employed, self-employed, total population, the number of wage/salary workers, and the number of unemployed. Self-employed workers reported working as self-employed on their own business, practice, or farm, whether incorporated or unincorporated.

The second data source is information on policy adoption dates. These data are compiled from US Immigration Customs Enforcement (ICE) reports published on their Freedom of Information Act (FOIA) Library. From those reports, I extract the SC activation date for each county. Data for 287(g) MOAs come from the Urban Institute (2017). Universal E-Verify mandates dates are collected from the National Conference of State Legislatures (2015). And finally, the House Price Index is the annual county house price index from the Federal House Finance Agency.

I use the PUMA with consistent boundaries over time[2] to compare the same geographic areas over time. SC and some 287(g) MOAs were adopted at the county-level. But the smallest consistent geographical area into which the census information can be partitioned is at the PUMA level. A PUMA can cover just a county, contain several counties, or be one part of a county with several PUMAs. Is important to note that PUMAs do not cross state boundaries, so E-Verify treatment will be even among PUMAs within a state. There is a geographic disparity between treatment and outcome data since the treatment is at the county level and the employment data are at the PUMA level. Following East et al. (2018) I construct the following treatment variable. Consider a PUMA containing several counties where some are treated and some are not. Then only the fraction of the PUMA population living in those treated counties is exposed to treatment. So for PUMA p at time t formed by counties c_i for $i \in 1, .., N$,

$$SC_{pt} = \sum_{i=1}^{N} \frac{PopCounty_c}{PopPUMA_p} 1\{SecCom_{it}\} \tag{4}$$

where $SecCom_{it}$ is an indicator equal to one if county i has established SC at time t, or the proportion of the year SC was active. County and PUMA populations are total populations within the area in 2005. Therefore $SC_{pt} \in [0, 1]$ is a continuous treatment variable. SC_{pt} takes values of 0 for those PUMA not treated, between 0 and 1 depending on the proportion of PUMA treated, and 1 when the whole PUMA is fully treated in a given year. Once the PUMA is fully treated SC=1 for the rest of the years. If a PUMA is smaller than a county, i.e. the county is contained in several PUMAs, SC=1 if the county is treated. For now, I include the continuous treatment variable in the estimation.

6 Results

The estimates of Equation 1 are presented in Table 3 . The dependent variable is the self-employed male citizens as a percentage of working-age male citizens. All the estimates pre-

[2]The consistent PUMA variable ConsPUMA0010, is created by IPUMS (Ruggles et al., 2018).

sented include PUMA-specific fixed effects to account for time-invariant differences between PUMAs and the standard errors are clustered at the PUMA level. The estimates in Column (1) of Table 3 are the relationship between SC and the percentage of male citizens self-employed, without the other restrictive immigration policies. In PUMAs with SC the share of male citizens of working-age who were self-employed was -1.38 percentage points lower. To accurately estimate the effect of SC, it is important to include variables to indicate if the PUMA adopted other immigration policies that might be correlated with the SC variable. When I add the indicators for E-Verify mandates, 287(g) jail MOAs, and 287(g) task-force MOAs the coefficient of SC decreases slightly from -1.38 to -1.30. However, when year fixed effects, the unemployment rate, and housing prices are included in specification 4, the coefficient falls to 0.017 and is statistically insignificant.

As is the case for SC in specification 2 with all of the programs but no year fixed effects, the male citizens' self-employment share is lower in PUMAs after they adopt the other three programs. The share was -0.696 percentage points lower in states with E-verify and was lower by -0.468 in PUMAs with the 287(g) Task Force Agreements and 0.33 percentage points lower in PUMAs with the 287(g) Jail MOAs. Once the specification in Column (3) adds the year fixed effects to control for nationwide shocks, the only program that continues to have a statistically significant relationship is the E-Verify mandate. The male citizen's self-employment share is -0.46 percentage points lower in states with E-Verify in column 3 and the effect is slightly stronger at -0.517 percentage points when specification 4 controls for the unemployment rate and housing prices. The E-Verify negative effect falls to -0.134 percentage points and is no longer statistically significant when PUMA specific linear time-trends are added to the specification in column 5.

Many of the immigrants who are removed from the labor market by the immigration enforcement programs are Hispanics and they may have a different relationship with the Hispanic citizen self-employed than they do with the non-Hispanic citizen self-employed. Therefore, I report estimates with self-employed Hispanic citizens as a percentage of all working-age citizens as the dependent variable. The results in specification 1 and 2 in Table 5 show that none of the programs influence the share of Hispanic citizens who are self employed. Specifi-

cations 3 and 4 include only working-age self-employed male Hispanic citizens as a percentage of working-age male citizens. Self-employed Hispanic male citizens as a percentage of male citizens increased with E-Verify universal mandates by 0.043 percentage points; therefore, the negative effects seen in Table 3 are experienced by the non-Hispanic self-employed male citizens. Specifications 5 and 6 include only working-age self-employed female Hispanic citizens as a percentage of working-age female citizens. The share of Hispanic female citizens in self-employment increased by 0.061 percentage points in areas with E-Verify.

The effects of E-Verify on self-employment are strongest for self-employed male citizens with a high school degree and with a college degree or more and female citizens with a high school degree. In Table 6 I separate the sample of self-employed male citizens by education level. The estimates included in Column 1 are the total effects on the percentage of male citizen self-employment, the estimates from Columns 2 through 5 sum to Column 1. E-Verify is associated with a self-employment share among male citizens of working-age of 0.517 fewer percentage points. Nearly half of the effect (-0.215 percentage points) is concentrated on the share of self-employed male citizens with only a high school degree only in Column 3, while another one-fourth (-0.129 percentage points) of the effect is associated with male citizens with a college degree or more education.

The policies had a mixed effect on self-employment among female citizens. The estimates in Table 7 include all self-employed female citizens as a percentage of working-age female citizens in Column 1 and then show the effects on the percentages at different education levels. Self-employment among female citizens was 0.198 percentage points lower in PUMAs with SC, -0.208 percentage points lower in areas with E-Verify mandates. But female citizens' self-employment increased with 287(g) Jail MOAs. When separated by education level, most of the action comes through decreases in self-employment of females citizens with high school education.

To understand the effects of restrictive immigration policies on all types of male labor force opportunities for citizens, I separately estimate the differences-in-differences model for each of the labor force participation alternatives. Each of the columns in Table 8 includes the estimates of different regressions of the percentage of working-age male citizens in each of

the following categories: in the labor force, not in the labor force, unemployed, employed, wage/salary employed, and self-employed. The coefficients in the labor force in Column 1 and not in the labor force in Column 2 sum to zero. The coefficients for the unemployed in Column 3 and employed coefficients in Column 4 sum to the labor force coefficient in Column (1). The coefficients for the employed in Column 4 is the sum of the coefficients for those the employed receiving wage and salaries in Column 5 and the self-employed in Column 6. All specifications in the estimation include PUMA time-invariant fixed effects, year-specific fixed effects, housing prices, and the standard errors are clustered at the PUMA level.

In Table 8 the percentage of male citizens in the labor force is 0.75 percent lower in PUMAs with universal E-Verify mandates in Column 1. All of the reduced labor force participation of E-Verify is driven by a 0.776 percentage point lower share of employed workers. About two-thirds of the lower employment comes from 0.524 percentage point fewer self-employed in the E-Verify PUMAs. Meanwhile, the primary impact of Secure Communities comes lower employment by -0.378 percentage points, which is driven by -0.375 percent points lower wage and salary employment.

In Table 9 the percentage of female citizens in the labor force is 0.75 percentage points lower in PUMAs with universal E-Verify mandates and 0.38 percentage points lower in areas with Secure Communities in Column 1. Most of the reduced labor force participation for both programs comes from lower employment in Column 4 by 0.453 percentage points in PUMAs with Secure Communities and by 0.722 percentage points for areas with E-Verify. When examining the impact among the employed, PUMAs with Secure Communities reduced wage and salary employment by 0.247 percentage points and self-employment by 0.207 percentage points. E-Verify's effect on female citizens was much stronger on Wage and Salary employed than on self-employed, as it was associated with 0.511 percentage points fewer wage and salary employment and -0.211 percentage points fewer self-employed. The only statistically significant relationship for Jail 287(g) programs was higher unemployment by 0.5 percentage points.

The ethnic group most affected by the programs are Hispanics because a large share of the illegal immigrants come from Spanish-speaking countries. Table 10 shows the impact on all

aspects of employment for Hispanic male citizens of the United States, as a percentage of working-age male citizens. PUMAs with Secure Communities had 0.178 percentage points higher unemployment among Hispanic citizens with nearly all of the higher unemployment coming from 0.149 percentage point lower employment. The effect of Secure Communities contrasts with the impact of the 287(g) Jail MOAs, which were associated with an increase of 0.733 percentage points on the percentage of Hispanic male citizens in the labor force. Most of the higher labor force activity came through 0.551 percentage point higher employment, which in turn came from 0.541 percentage point higher Wage and Salary employment. E-Verify had a statistically significant effect on only the self-employment category, but the effect was only a small 0.043 percentage point increase in self-employment.

The estimates across categories for Hispanic female citizens, as a percentage of working-age female citizens, in Table 11 show contradictory effects from the programs. E-Verify mandates were associated with 0.233 percentage points fewer Hispanic female citizens in the labor force. Most of the lower figure is driven by 0.167 percentage points lower employment, which in turn is driven by 0.172 percentage point fewer wage and salary workers. In contrast, the Jail 287(g) MOAs were associated with 0.668 percentage point higher shares in the labor force. Among the new labor force members, the unemployed was a higher share of the working-age population by 0.267 percentage points.

Industries with historically higher employment of immigrants such as agriculture, construction, and manufacturing were likely to be the ones most strongly affected by restrictive immigration policies. To test for differences, I estimate the effects of the immigration policies on the percentage of working-age male citizens that were self-employed in agriculture, construction, and manufacturing. The estimates are presented in Table 12. The percentage of male citizens self-employed in construction was -0.28 percent lower after the E-Verify mandates. The effects on Agriculture and Manufacturing are also negative but substantially smaller.

7 Discussion

Immigration policies are sometimes justified as a tool to improve citizens' employment opportunities by removing unauthorized workers and generating more jobs for citizens. The conclusion that improved job opportunities for citizens follow from restricting or removing unauthorized workers is derived from a simple labor supply and demand model that assumes citizens and non-citizens are perfect substitutes in production. Models like Chassamboulli and Peri (2015) adopt a more flexible framework to think about production interaction between citizens and immigrants. The results in a study by East and Velasquez (2018a) show why the flexibility in the Chassamboulli and Peri (2015) model is important. They show that when reducing the number of immigrants, through the SC policy, citizen workers have lower employment. This paper provides further evidence that citizen workers' employment does not always improve when immigration policy restricts the number of immigrants. I find that male citizens' employment decreases approximately by 1.5 percentage points in places with the most active immigration policies. Additionally, I find that 0.5 percent of the decrease in male citizens' employment is explained by a decrease in self-employment.

In this study I include universal E-Verify mandates in addition to SC, 287(g) Task force, and 287(g) Jail MOAs to capture the entire array of immigration enforcement policies. Even though E-Verify mandates are not a police-based measure that directly removes unauthorized people from the US, Bohn et al. (2015) provide evidence that universal E-Verify mandates decreased the size of likely unauthorized population. I find that universal E-Verify mandates have a larger effect than the SC policy on male citizens' employment. East et al. (2018) find SC decreased employment by 0.5 percent of male citizens, without including E-Verify mandates. I find that by including E-Verify mandates the effect of SC on the employment of male citizens was smaller at -0.34 percent, while E-Verify mandates decreased employment by -0.78 percent.

Alsan and Yang (2018) partial out the effects of E-Verify in their study by using state-by-year fixed effects. In this study, the level of policy variation is also county-by-year and it could be possible to include state-by-year fixed effects in my estimation as well. But

if we are interested in learning what are the labor market effects of reducing the number of unauthorized immigrants the direct effects of E-Verify should be estimated as part of the model. States that mandated the universal use of E-Verify have committed their own resources on enforcing immigration actions.

The decrease of male citizen self-employment is not accompanied by an increase in wage/salary employment, but instead by a decrease in the percentage of male citizens in the labor force. The effects of the policy on wage/salary employment are negative. I find no evidence of workers moving from self-employment towards wage/salary jobs with increased immigration enforcement. I do find evidence of lower labor force participation of male citizens after E-Verify mandates. Other studies on the effects of immigration on citizens' self-employment like Unel (2018) focus on entry and exit from self-employment. My results provide evidence towards citizens exiting self-employment after increased immigration enforcement.

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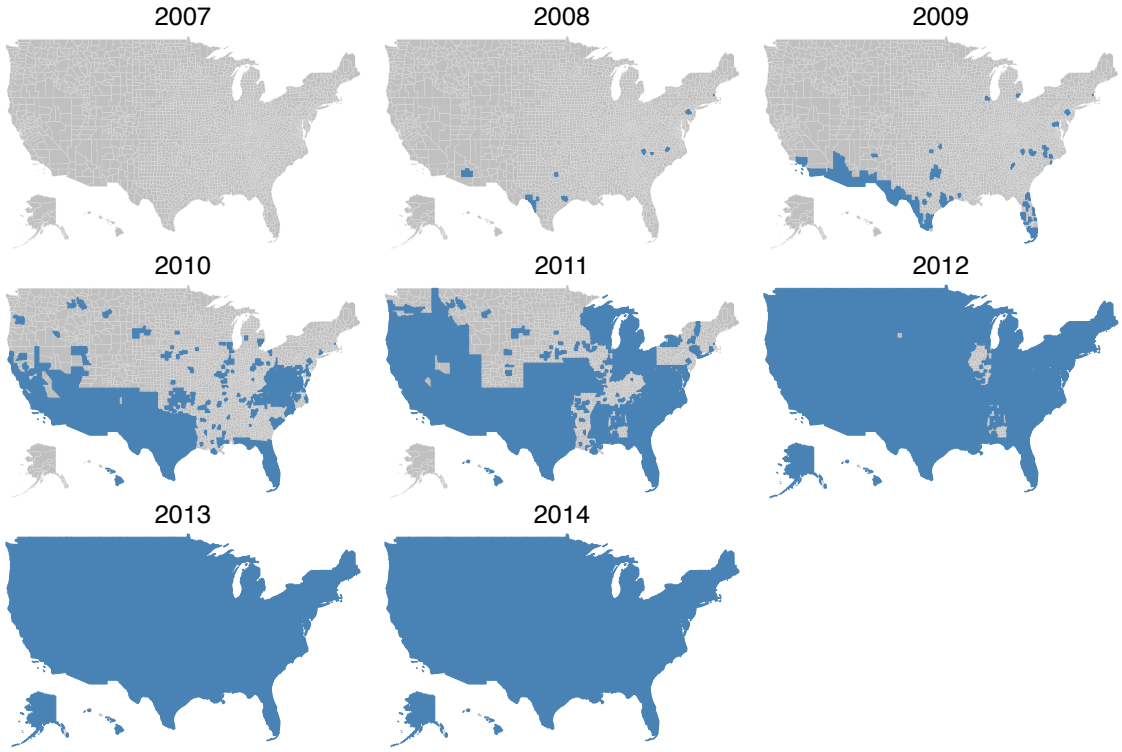
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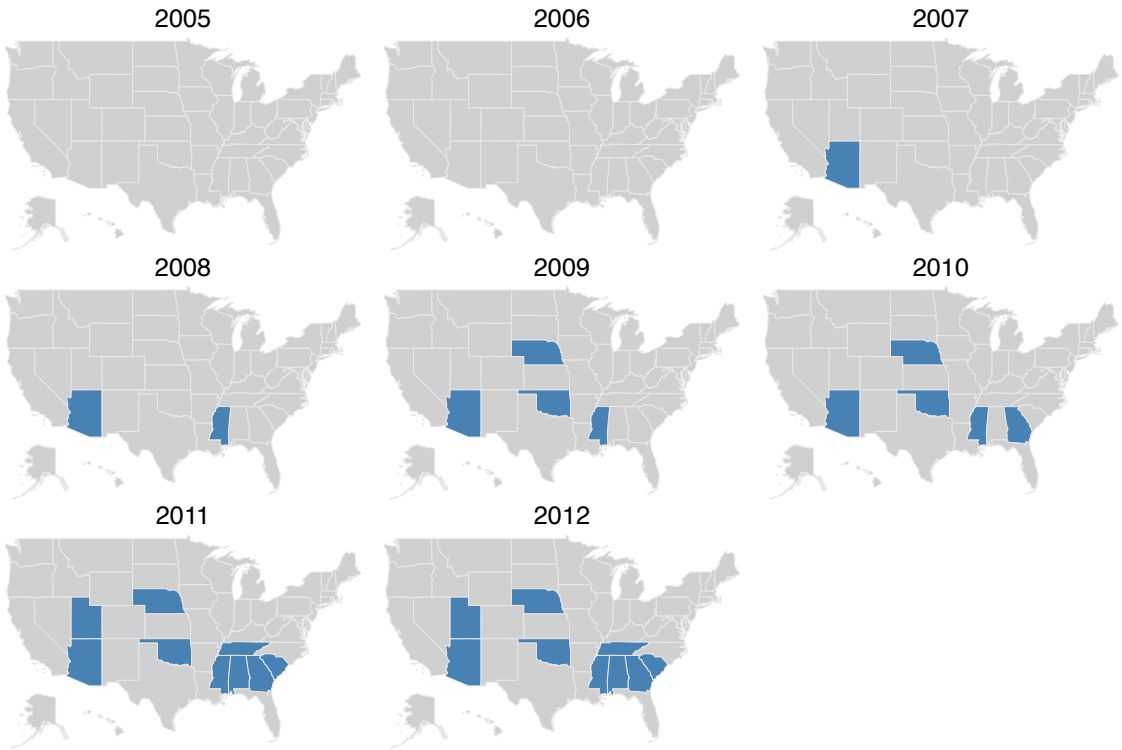
8 Figures

Figure 1: Year by Year County Activation of Secure Communities.



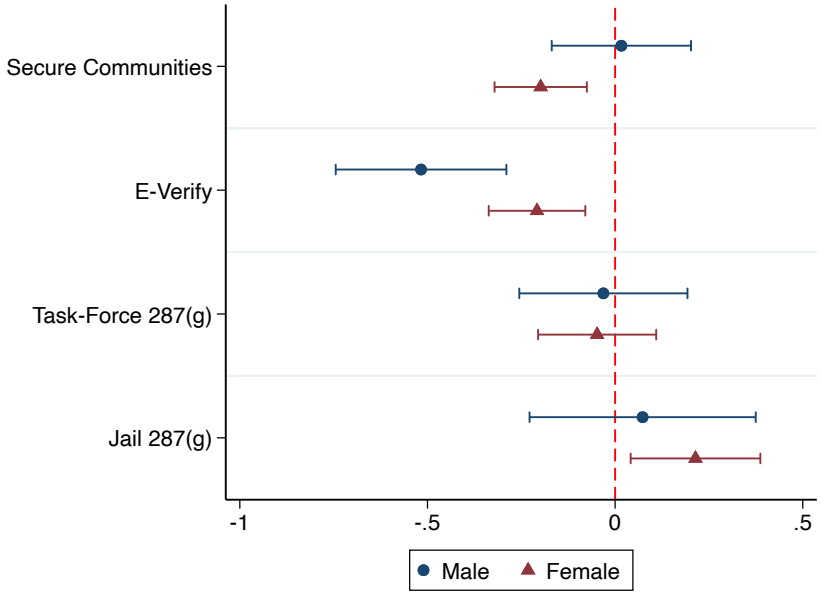
Notes: This figure shows the year by year activation of Secure Communities (SC) among counties in the U.S.. The dark blue shaded areas indicate that SC was active in that county at any given time during that corresponding year. The light gray areas indicate that SC was not active during that year. SC activation started in 2008 in 14 counties. SC eventually was active in all U.S. counties by 2013. The SC program consisted of information sharing between local authorities and ICE, who administered the program. Its main objective was prioritizing deportation of illegal immigrants. The staggered roll-out of this program is used in this paper to identify the effects of immigration enforcement on citizens' self-employment.

Figure 2: Year by Year E-Verify Universal Mandates.



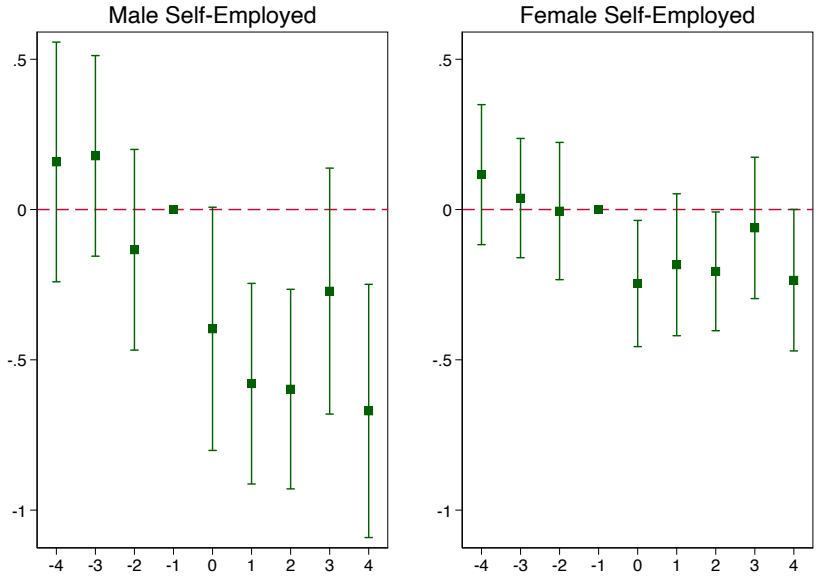
Notes: This figure shows the state by year E-Verify Universal Mandates. Each map is delineated at the state level for the corresponding year. The blue shaded areas indicate an E-verify Universal Mandate was adopted by that state. The light gray shaded areas represent states with no E-Verify Universal mandate. These mandates required the use of a verification system to all employers in the state to check the working eligibility for all their new hires. It is important to point out that some states had more flexible E-Verify mandates, requiring its use to check state employees and contractors; those are not shown in this figure or used in this paper.

Figure 3: Estimates of the Effect of Immigration Enforcement on Citizens' Self-employment.



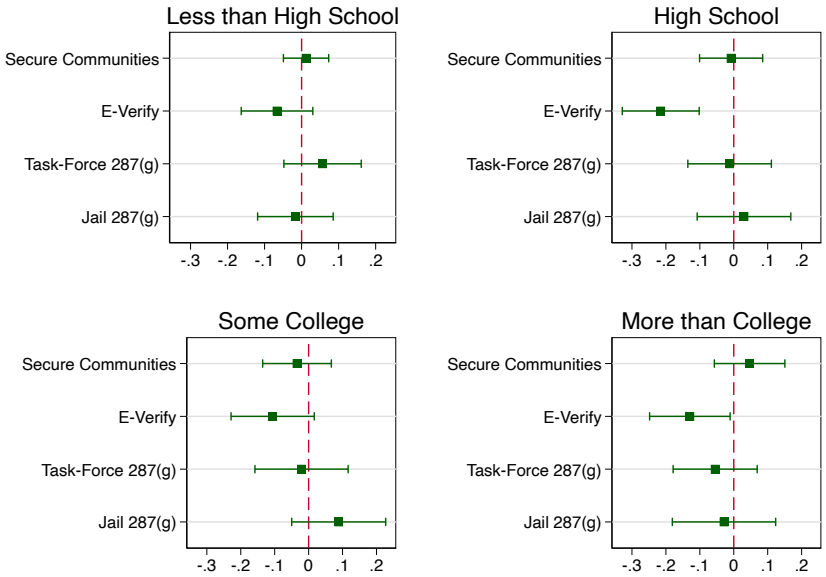
Notes: This figure includes the point estimates of difference-in-differences regressions of the effects of immigration enforcement policies on citizens' self-employment. The vertical axis includes each of the immigration enforcement policies: Secure Communities, E-Verify, 287(g) Task-force MOAs, and 287(g) Jail MOAs. The horizontal axis denotes the size and sign of the effect in percentage points. The blue circles correspond to the estimates of the percentage of male citizens who are self-employed, and the blue line corresponds to the 95% confidence interval for each point estimate. Similarly, the red triangles correspond to the point estimates for the percentage of female citizens who are self-employed. These regressions include as control variables general unemployment rate in each PUMA, housing price index, PUMA specific fixed-effects, and year specific fixed-effects. The standard errors are clustered at the PUMA level. The sample used for these estimates includes working-age (18-65) citizens from 2005 to 2014 from the ACS.

Figure 4: Event-study Citizens' Self-employment.



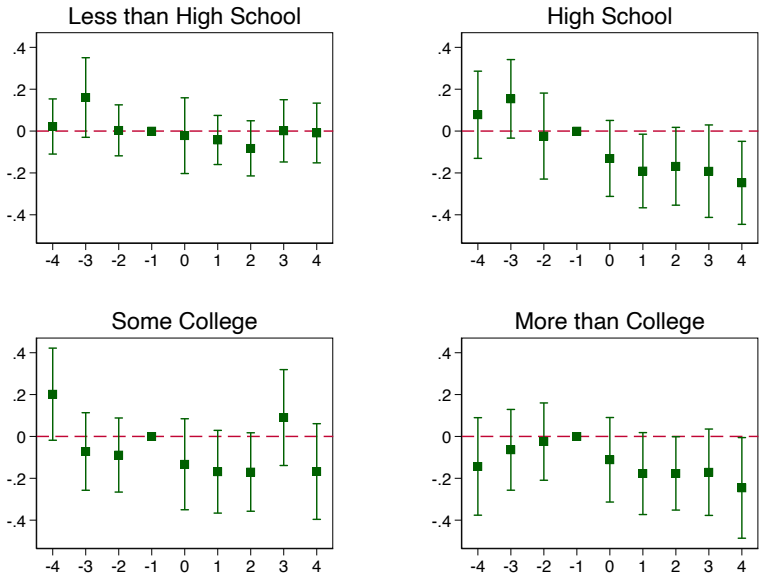
Notes: This figure includes estimates from the event-study specification and their corresponding 95% confidence intervals. The horizontal axis denotes time in years relative to the year of E-Verify mandate and I use t=-1 as base year. The vertical axis denotes the size and sign of the effect in percentage points for each corresponding year. The dependent variable in the left panel is the percentage of working-age male citizens who are self-employed ; and in the right panel the percentage of female citizens who are self-employed. These estimates include the following control variables: general unemployment rate in each PUMA, housing price index, as well as controls for Secure Communities, Jail 287(g) MOAs, and Task Force 287(g). All regressions include PUMA specific fixed-effects, year specific fixed-effects, and standard errors are clustered at the PUMA level. The sample used for these estimates includes working-age (18-65) citizens from 2005 to 2014 from the ACS.

Figure 5: Estimates of the Effect of Immigration Enforcement on Male Self-employment by Education Level.



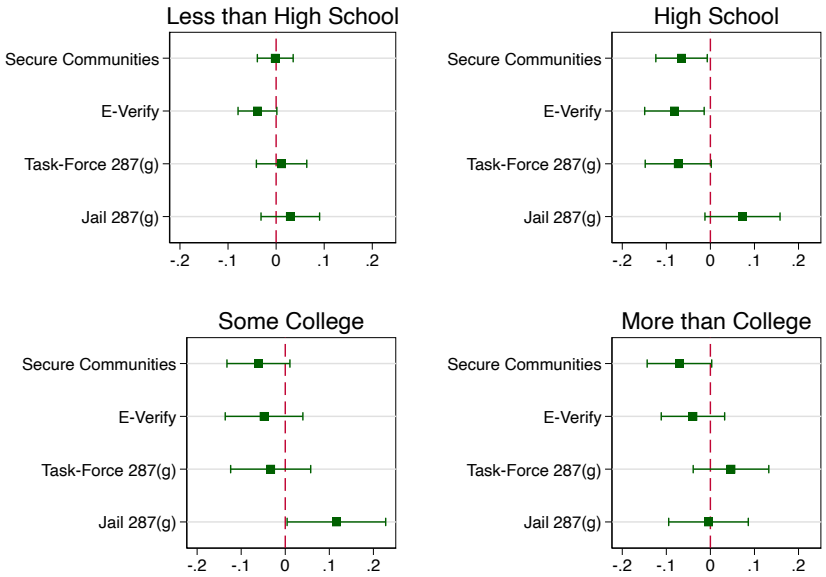
Notes: This figure includes the point estimates of difference-in-differences regressions of the effects of immigration enforcement policies on self-employment for each education level. The vertical axis includes each of the immigration enforcement policies:Secure Communities, E-Verify, 287(g) Task-force MOAs, and 287(g) Jail MOAs. The horizontal axis denotes the size and sign of the effect in percentage points. The green circles correspond to the point estimates effects of each policy on the percentage of male citizens who are self-employed, and the green line corresponds to the 95% confidence interval for each. The top left panel includes individuals with less than high school education, the top right individuals with high school degree, the bottom left individuals with at least some college, and the right bottom college educated individuals or more than college. These regressions include indicators for Secure Communities, E-Verify, 287(g) Task-force MOAs, and 287(g) Jail MOAs. Control variables include general unemployment rate in each PUMA, housing price index, PUMA specific fixed-effects, and year specific fixed-effects. The standard errors are cluster at the PUMA level. The sample used for these estimates includes working-age (18-65) citizens from 2005 to 2014 from the ACS.

Figure 6: Event-study Estimates of E-Verify Universal Mandates on Male's Self-employment.



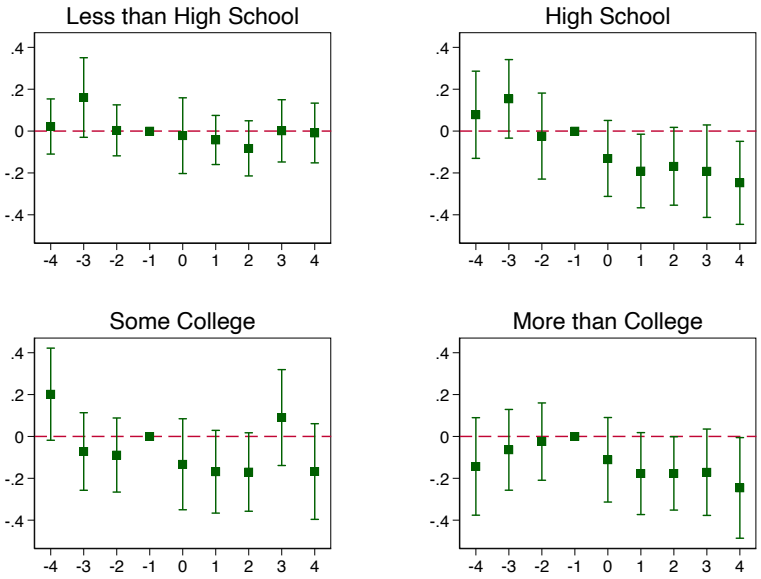
Note: This figure includes the Event-study estimates for E-Verify universal mandates. The horizontal axis denotes time in years relative to the year of E-Verify mandate and I use t=-1 as base year. The vertical axis denotes the size and sign of the effect in percentage points for each corresponding year. The dependent variables are percentage of male citizens who are self-employed with the corresponding educations level. The top left panel includes individuals with less than high school education, the top right individuals with high school degree, the bottom left individuals with at least some college, and the right bottom college educated individuals or more than college. These estimates include the following control variables: general unemployment rate in each PUMA, housing price index, as well as controls for Secure Communities, Jail 287(g) MOAs, and Task Force 287(g). All regressions include PUMA specific fixed-effects, year specific fixed-effects, and standard errors are cluster at the PUMA level. The sample used for these estimates includes working-age (18-65) citizens from 2005 to 2014 from the ACS.

Figure 7: Estimates of the Effects of Immigration Enforcement on Females' Self-employment by Education Level.



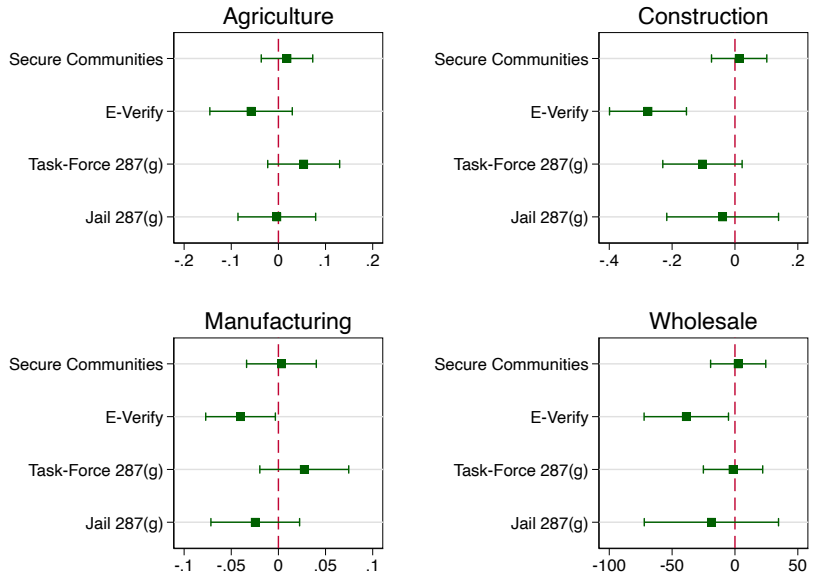
Notes: This figure includes the point estimates of difference-in-differences regressions of the effects of immigration enforcement policies on self-employment for each education level. The vertical axis includes each of the immigration enforcement policies:Secure Communities, E-Verify, 287(g) Task-force MOAs, and 287(g) Jail MOAs. The horizontal axis denotes the size and sign of the effect in percentage points. The green circles correspond to the point estimates effects of each policy on the percentage of male citizens who are self-employed, and the green line corresponds to the 95% confidence interval for each. The top left panel includes individuals with less than high school education, the top right individuals with high school degree, the bottom left individuals with at least some college, and the right bottom college educated individuals or more than college. These regressions include indicators for Secure Communities, E-Verify, 287(g) Task-force MOAs, and 287(g) Jail MOAs. Control variables include general unemployment rate in each PUMA, housing price index, PUMA specific fixed-effects, and year specific fixed-effects. The standard errors are clustered at the PUMA level. The sample used for these estimates includes working-age (18-65) citizens from 2005 to 2014 from the ACS.

Figure 8: Event-study Estimates of E-Verify Universal Mandates on Females' Self-employment .



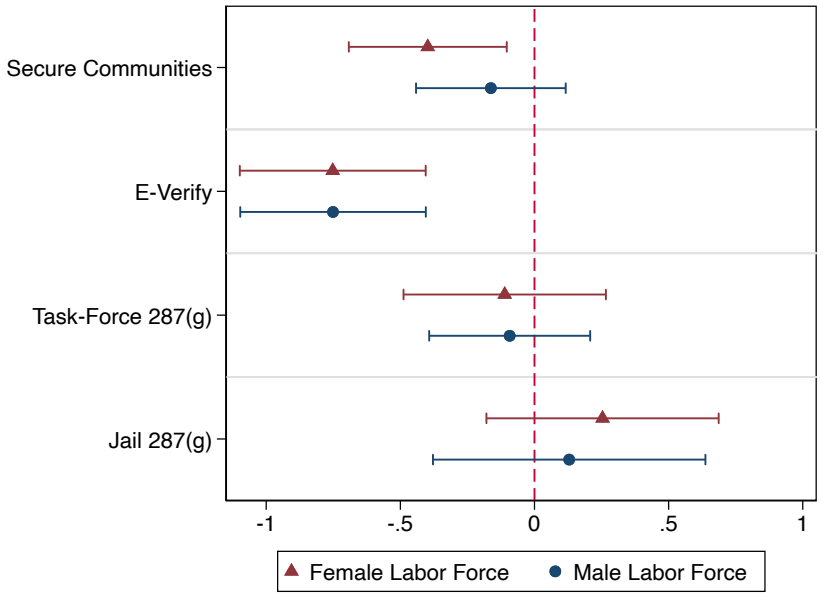
Note: This figure includes the Event-study estimates for E-Verify universal mandates. The horizontal axis denotes time in years relative to the year of E-Verify mandate and I use t=-1 as base year. The vertical axis denotes the size and sign of the effect in percentage points for each corresponding year. The dependent variables are percentage of male citizens who are self-employed with the corresponding educations level. The top left panel includes individuals with less than high school education, the top right individuals with high school degree, the bottom left individuals with at least some college, and the right bottom college educated individuals or more than college. These estimates include the following control variables: general unemployment rate in each PUMA, housing price index, as well as controls for Secure Communities, Jail 287(g) MOAs, and Task Force 287(g). All regressions include PUMA specific fixed-effects, year specific fixed-effects, and standard errors are clustered at the PUMA level.

Figure 9: Estimates of Immigration Enforcement on Male Self-employment by Industry.



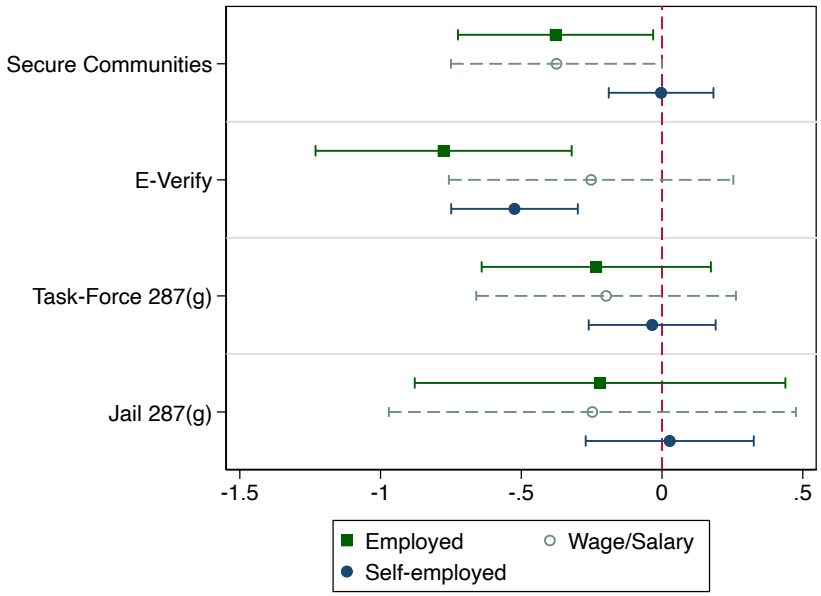
Note: This figure includes the point estimates of difference-in-differences regressions of the effects of immigration enforcement policies on male citizens' self-employment for different industries. The vertical axis includes each of the immigration enforcement policies: Secure Communities, E-Verify, 287(g) Task-force MOAs, and 287(g) Jail MOAs. The horizontal axis denotes the size and sign of the effect in percentage points. These regressions include indicators for Secure Communities, E-Verify, 287(g) Task-force MOAs, and 287(g) Jail MOAs which estimates are included in the figure. Additionally the regressions include control variables include general unemployment rate in each PUMA, housing price index, PUMA specific fixed-effects, and year specific fixed-effects. The standard errors are clustered at the PUMA level. The sample used for these estimates includes working-age (18-65) citizens from 2005 to 2014 from the ACS.

Figure 10: Labor Force Participation.



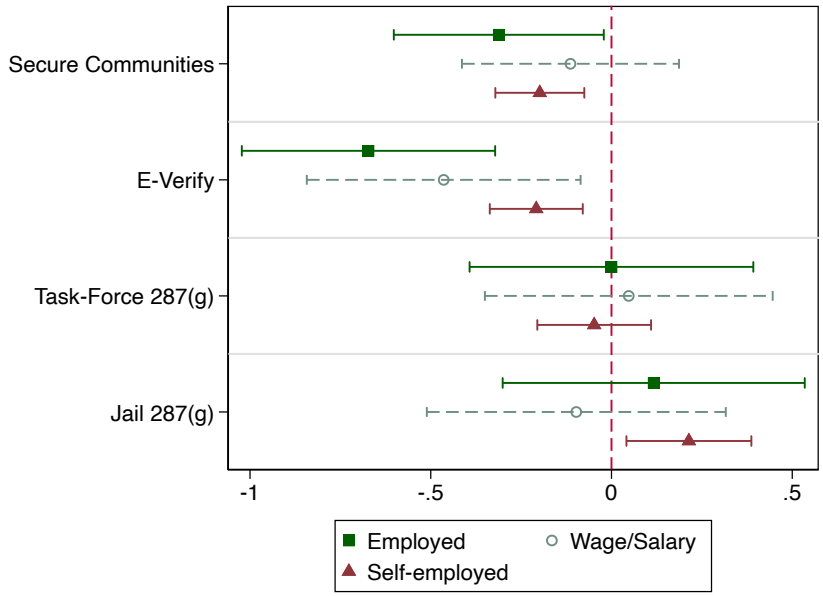
Note: This figure includes the point estimates of difference-in-differences regressions of the effects of immigration enforcement policies on labor force participation. The red triangles are the estimates for percentage female citizens in the labor force, and the red line its corresponding 95% confidence intervals. The dark blue circles are the estimates for percentage male citizens in the labor force, and the blue line its corresponding confidence interval. These regressions include indicators for Secure Communities, E-Verify, 287(g) Task-force MOAs, and 287(g) Jail MOAs which estimates are included in the figure. Additionally the regressions include control variables include general unemployment rate in each PUMA, housing price index, PUMA specific fixed-effects, and year specific fixed-effects. The standard errors are clustered at the PUMA level. The sample used for these estimates includes working-age (18-65) citizens from 2005 to 2014 from the ACS.

Figure 11: Male Employment, Wage or Salary Employment, and Self-employment.



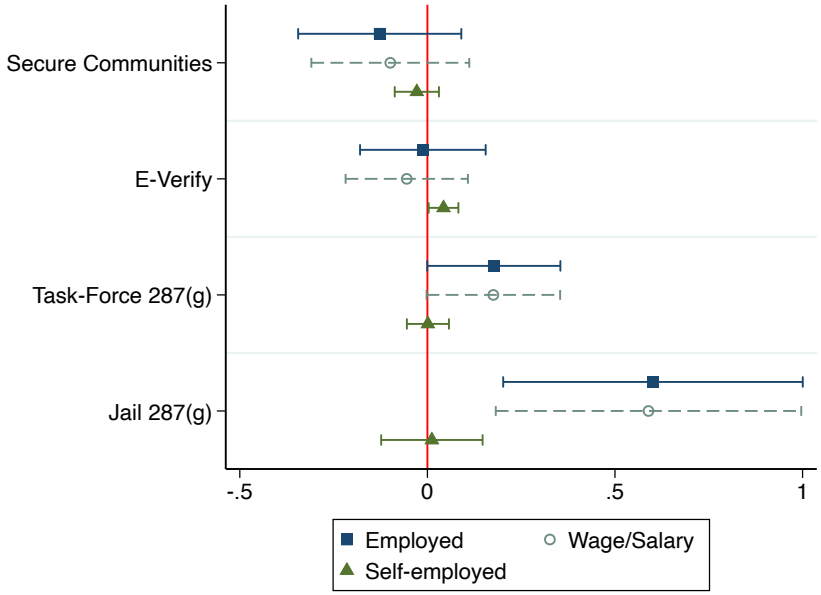
*Note:*This figure includes the point estimates of difference-in-differences regressions of the effects of immigration enforcement policies on employment, wage and salary employment, and self-employment. Male employment is the sum of wage or salary employment and self-employment. The green squares are the estimates for employment, the teal hallow circle correspond to the wage or salary workers, and the blue circles correspond to self-employment. These dependent variables are percentage of male citizens in each category. The vertical axis includes each of the immigration enforcement policies: Secure Communities, E-Verify, 287(g) Task-force MOAs, and 287(g) Jail MOAs. The horizontal axis denotes the size and sign of the effect in percentage points. These regressions include indicators for Secure Communities, E-Verify, 287(g) Task-force MOAs, and 287(g) Jail MOAs which estimates are included in the figure. Additionally the regressions include control variables include general unemployment rate in each PUMA, housing price index, PUMA specific fixed-effects, and year specific fixed-effects. The standard errors are clustered at the PUMA level. The sample used for these estimates includes working-age (18-65) citizens from 2005 to 2014 from the ACS.

Figure 12: Female Employment: Wage/Salary or Self-employed.



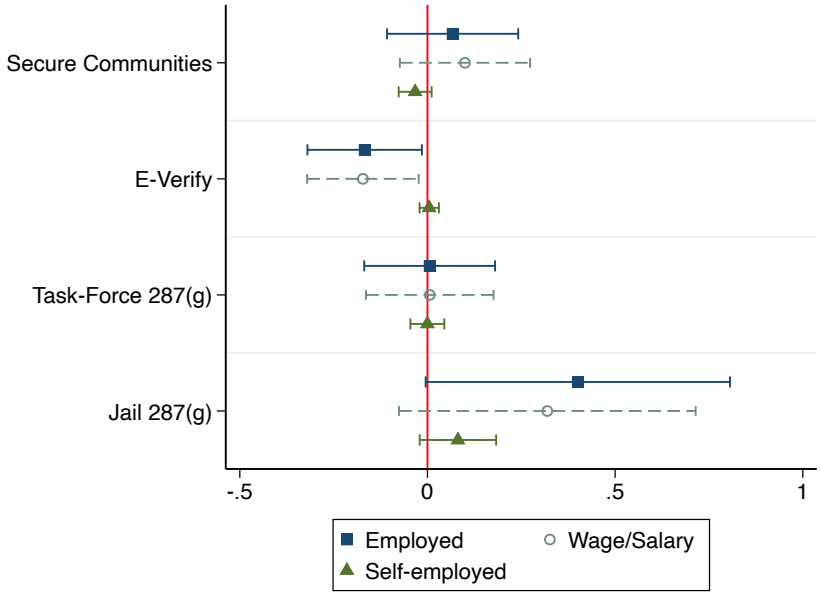
Note:.This figure includes the point estimates of difference-in-differences regressions of the effects of immigration enforcement policies on employment, wage and salary employment, and self-employment. Female employment is the sum of wage or salary employment and self-employment. The green squares are the estimates for employment, the teal hallow circle correspond to the wage or salary workers, and the blue circles correspond to self-employment. These dependent variables are percentage of female citizens in each category. The vertical axis includes each of the immigration enforcement policies: Secure Communities, E-Verify, 287(g) Task-force MOAs, and 287(g) Jail MOAs. The horizontal axis denotes the size and sign of the effect in percentage points. These regressions include indicators for Secure Communities, E-Verify, 287(g) Task-force MOAs, and 287(g) Jail MOAs which estimates are included in the figure. Additionally the regressions include control variables include general unemployment rate in each PUMA, housing price index, PUMA specific fixed-effects, and year specific fixed-effects. The standard errors are clustered at the PUMA level. The sample used for these estimates includes working-age (18-65) citizens from 2005 to 2014 from the ACS.

Figure 13: Hispanic Male Employment, Wage or Salary Employment, and Self-employment.



*Note:*This figure includes the point estimates of difference-in-differences regressions of the effects of immigration enforcement policies on employment, wage and salary employment, and self-employment. Hispanic male employment is the sum of wage or salary employment and self-employment. The blue squares are the estimates for employment, the teal hallow circle correspond to the wage or salary workers, and the green triangles correspond to self-employment. These dependent variables are percentage of male citizens in each category. The vertical axis includes each of the immigration enforcement policies: Secure Communities, E-Verify, 287(g) Task-force MOAs, and 287(g) Jail MOAs. The horizontal axis denotes the size and sign of the effect in percentage points. These regressions include indicators for Secure Communities, E-Verify, 287(g) Task-force MOAs, and 287(g) Jail MOAs which estimates are included in the figure. Additionally the regressions include control variables include general unemployment rate in each PUMA, housing price index, PUMA specific fixed-effects, and year specific fixed-effects. The standard errors are clustered at the PUMA level. The sample used for these estimates includes working-age (18-65) citizens from 2005 to 2014 from the ACS.

Figure 14: Hispanic Female Employment, Wage or Salary Employment, and Self-employment.



*Note:*This figure includes the point estimates of difference-in-differences regressions of the effects of immigration enforcement policies on employment, wage and salary employment, and self-employment. Hispanic female employment is the sum of wage or salary employment and self-employment. The blue squares are the estimates for employment, the teal hallow circle correspond to the wage or salary workers, and the green trianges correspond to self-employment. These dependent variables are percentage of male citizens in each category. The vertical axis includes each of the immigration enforcement policies: Secure Communities, E-Verify, 287(g) Task-force MOAs, and 287(g) Jail MOAs. The horizontal axis denotes the size and sign of the effect in percentage points. These regressions include indicators for Secure Communities, E-Verify, 287(g) Task-force MOAs, and 287(g) Jail MOAs which estimates are included in the figure. Additionally the regressions include control variables include general unemployment rate in each PUMA, housing price index, PUMA specific fixed-effects, and year specific fixed-effects. The standard errors are clustered at the PUMA level. The sample used for these estimates includes working-age (18-65) citizens from 2005 to 2014 from the ACS.

9 Tables

Table 1: Summary Statistics Percentage of Working-Age Male and Female Citizens and Hispanic Citizens.

	Mean
Percentage of Male Citizens	48.8
Percentage of Female Citizens	51.2
Percentage of Hispanic Male Citizens	10.43
Percentage of Hispanic Female Citizens	10.42

Note: The sample used for these estimates includes working-age (18-65) citizens from 2005 to 2014 from the ACS. The percentage of male citizens is the total working-age male citizens over total working-age citizens. The percentage of Hispanic male citizens is total working-age Hispanic male over total male citizens. Similarly for females.

Table 2: Summary Statistics Percentage Male and Female by Labor Force Status.

	Male	Hispanic Male	Female	Hispanic Female
In the Labor Force	82.39	8.56	72.79	7.36
Not in Labor Force	17.6	1.87	27.2	3.06
Unemployed	6.92	0.89	5.35	0.74
Employed	75.47	7.67	67.44	6.62
Wage/Salary	66.65	7.07	62.85	6.29
Self-employed	8.817	0.59	4.58	0.36

Note: The sample used for these estimates includes working-age (18-65) citizens from 2005 to 2014 from the ACS. For each category the variable is the percentage total number in that category over total working-age male or female citizens. For example, the percentage of male citizens in the labor force is the total working-age male citizens in the labor force over total working-age male citizens.

Table 3: Difference-in-Difference Estimates For Percentage Self-Employed Among Adult Male Citizens.

	(1)	(2)	(3)	(4)	(5)
Secure Communities	-1.378***	-1.298***	-0.089	0.017	0.074
	(0.0401)	(0.0421)	(0.0932)	(0.0946)	(0.1025)
E-Verify		-0.696***	-0.465***	-0.517***	-0.134
		(0.1153)	(0.1139)	(0.1159)	(0.1812)
Task-Force 287(g)		-0.468***	-0.010	-0.031	-0.017
		(0.1105)	(0.1142)	(0.1142)	(0.1183)
Jail 287(g)		-0.334*	-0.009	0.073	-0.195
		(0.1569)	(0.1512)	(0.1536)	(0.2191)
Constant	9.344***	9.385***	9.854***	10.003***	-92.960
	(0.0151)	(0.0162)	(0.0521)	(0.2062)	(48.8199)
Observations	10710	10710	10710	10700	10700
R^2	0.127	0.133	0.185	0.192	0.312
Controls	No	No	No	Yes	Yes
PUMA FE	Yes	Yes	Yes	Yes	Yes
Year FE			Yes	Yes	Yes
Time trend					PUMA
Clusters	1071	1071	1071	1071	1071

Notes: Estimation of the effects of immigration policies on male self-employed citizens. The sample used for these estimates includes working-age (18-65) citizens from 2005 to 2014 from the ACS. Standard Errors are clustered at the PUMA level. The dependent variable is the percentage of male citizens who are self-employed among male citizens. E-Verify indicates states with a universal mandate for all business to use E-Verify. Jail287 and Task287 indicate if 287(g) Memorandums of Agreement were signed and active in the PUMA. Time trend indicates a linear year-PUMA specific time trend. Additional PUMA-year control variables include general unemployment rate and housing prices. Significance levels * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 4: Difference-in-Difference Estimates For Percentage Self-Employed Among Adult Male and Female Citizens.

	(1)	(2)	(3)
Secure Communities	-0.001	0.017	-0.198**
	(0.0007)	(0.0946)	(0.0627)
E-Verify	-0.003***	-0.517***	-0.208**
	(0.0008)	(0.1159)	(0.0656)
Task-Force 287(g)	-0.001	-0.031	-0.048
	(0.0007)	(0.1142)	(0.0802)
Jail 287(g)	0.001	0.073	0.214*
	(0.0011)	(0.1536)	(0.0881)
Constant	0.082***	10.003***	5.164***
	(0.0015)	(0.2062)	(0.1486)
Observations	10700	10700	10700
R^2	0.164	0.192	0.050
Controls	Yes	Yes	Yes
PUMA FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Time trend			
Clusters	1071	1071	1071

Notes: Estimation of the effects of immigration policies on male self-employed citizens. Data sample includes years 2005 to 2014 from the ACS. Standard Errors are clustered at the PUMA level. The dependent variables are: the percentage of working-age citizens who are self-employed, the percentage of male citizens who are self-employed, and the percentage of female citizens who are self-employed. E-Verify indicates states with a universal mandate for all business to use E-Verify. Jail287 and Task287 indicate if 287(g) Memorandums of Agreement were signed and active in the PUMA. Time trend indicates a linear year-PUMA specific time trend. Additional PUMA-year control variables include general unemployment rate and housing prices. Significance levels * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 5: Difference-in-Difference Estimates for Percentage Adult Hispanic Citizens Self-Employed Among Citizens.

	(1) Hispanic Citizen	(2) Hispanic Citizen	(3) Hispanic Male	(4) Hispanic Male	(5) Hispanic Female	(6) Hispanic Female
Secure Communities	-0.000	-0.000	-0.028	-0.018	-0.032	-0.022
	(0.0002)	(0.0002)	(0.0300)	(0.0333)	(0.0224)	(0.0246)
E-Verify	0.000	0.000	0.043*	0.011	0.005	0.061**
	(0.0001)	(0.0002)	(0.0202)	(0.0369)	(0.0131)	(0.0222)
Task-Force 287(g)	0.000	-0.000	0.001	-0.009	-0.000	0.003
	(0.0002)	(0.0002)	(0.0286)	(0.0323)	(0.0230)	(0.0247)
Jail 287(g)	0.000	0.001	0.012	0.066	0.084	0.042
	(0.0005)	(0.0008)	(0.0689)	(0.1113)	(0.0520)	(0.0888)
Constant	0.004***	-0.136*	0.496***	4.360	0.372***	-29.565***
	(0.0005)	(0.0662)	(0.0765)	(10.8957)	(0.0514)	(7.0884)
Observations	10700	10700	10700	10700	10700	10700
R^2	0.009	0.121	0.004	0.124	0.009	0.119
Controls	Yes	Yes	Yes	Yes	Yes	Yes
PUMA FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Time trend		PUMA		PUMA		PUMA
Clusters	1071	1071	1071	1071	1071	1071

Notes: Estimation of the effects of immigration policies on Hispanic self-employed citizens. Data sample includes years 2005 to 2014 from the ACS. Standard Errors clustered at the PUMA level.The dependent variables are Hispanic citizen self-employment is the percentage of working-age (18-65) self-employed male or female citizens in the PUMA.E-Verify indicates states with a universal mandate for all business to use E-Verify.Jail287 and Task287 indicate if 287(g) Memorandums of Agreement were signed and active in the PUMA. Time trend indicates a linear PUMA-year specific time trend. Additional PUMA-year control variables include general unemployment rate and housing prices. Significance levels * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 6: Difference-in-Difference Regression Estimates for Self-employed Adult Male Citizens by Education.

	(1) All	(2) Less than High School	(3) High School	(4) Some College	(5) College or more
Secure Communities	0.017	0.012	-0.008	-0.034	0.047
	(0.095)	(0.031)	(0.047)	(0.052)	(0.053)
E-Verify	-0.517***	-0.066	-0.215***	-0.106	-0.129*
	(0.116)	(0.049)	(0.058)	(0.062)	(0.060)
Task-Force 287(g)	-0.031	0.057	-0.012	-0.021	-0.055
	(0.114)	(0.053)	(0.063)	(0.070)	(0.063)
Jail 287(g)	0.073	-0.017	0.030	0.089	-0.029
	(0.154)	(0.052)	(0.070)	(0.071)	(0.078)
Constant	10.003***	1.177***	3.041***	2.624***	3.161***
	(0.206)	(0.072)	(0.105)	(0.108)	(0.121)
Observations	10700	10700	10700	10700	10700
R^2	0.192	0.020	0.173	0.039	0.071
Controls	Yes	Yes	Yes	Yes	Yes
PUMA FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
Clusters	1071	1071	1071	1071	1071

small*Notes:* Estimates of the effects of immigration policies on self-employed male citizens by education level. Data sample includes years 2005 to 2014 from the ACS. Standard Errors clustered at the PUMA level.The dependent variables are percentages of self-employed male citizens at each education level.E-Verify indicates states with a universal mandate for all business to use E-Verify.Jail287 and Task287 indicate if 287(g) Memorandums of Agreement were signed and active in the PUMA. Additional PUMA-year control variables include general unemployment rate and housing prices. Significance levels * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 7: Difference-in-Difference Regression Estimates for Self-Employed Adult Female Citizens by Education.

	(1) All	(2) Less than High School	(3) High School	(4) Some College	(5) College or more
Secure Communities	-0.198**	-0.002	-0.065*	-0.061	-0.070
	(0.063)	(0.019)	(0.030)	(0.036)	(0.037)
E-Verify	-0.208**	-0.039	-0.082*	-0.048	-0.040
	(0.066)	(0.021)	(0.034)	(0.045)	(0.037)
Task-Force 287(g)	-0.048	0.011	-0.073	-0.033	0.047
	(0.080)	(0.027)	(0.038)	(0.046)	(0.044)
Jail 287(g)	0.214*	0.030	0.073	0.116*	-0.004
	(0.088)	(0.031)	(0.043)	(0.057)	(0.046)
Constant	5.164***	0.383***	1.497***	1.527***	1.757***
	(0.149)	(0.045)	(0.062)	(0.072)	(0.096)
Observations	10700	10700	10700	10700	10700
R^2	0.050	0.013	0.087	0.015	0.007
Controls	Yes	Yes	Yes	Yes	Yes
PUMA FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
Clusters	1071	1071	1071	1071	1071

Notes: Estimates of the effects of immigration policies on self-employed female citizens by education level. Data sample includes years 2005 to 2014 from the ACS. Standard Errors clustered at the PUMA level.The dependent variables are percentages of self-employed female citizens at each education level.E-Verify indicates states with a universal mandate for all business to use E-Verify.Jail287 and Task287 indicate if 287(g) Memorandums of Agreement were signed and active in the PUMA. Additional PUMA-year control variables include general unemployment rate and housing prices. Significance levels
sym* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 8: Difference-in-Difference Estimates From Regressions with Percentage Adult Male Citizens in Labor Force, Unemployed, Employed, Employed as Wage and Salary Workers, and Self-Employed as Dependent Variables.

	(1) Labor Force	(2) Not in Labor Force	(3) Unemployed	(4) Employed	(5) Wage/Salary	(6) Self-Employed
Secure Communities	-0.163	0.163	0.216	-0.378*	-0.375	-0.003
	(0.142)	(0.142)	(0.123)	(0.177)	(0.191)	(0.095)
E-Verify	-0.751***	0.751***	0.025	-0.776***	-0.252	-0.524***
	(0.176)	(0.176)	(0.120)	(0.232)	(0.258)	(0.115)
Task-Force 287(g)	-0.093	0.093	0.141	-0.234	-0.199	-0.035
	(0.153)	(0.153)	(0.143)	(0.208)	(0.235)	(0.115)
Jail 287(g)	0.129	-0.129	0.350*	-0.220	-0.248	0.027
	(0.259)	(0.259)	(0.162)	(0.336)	(0.369)	(0.152)
Housing Prices	0.001	-0.001	-0.006***	0.007***	0.005***	0.001***
	(0.001)	(0.001)	(0.000)	(0.001)	(0.001)	(0.000)
Constant	82.150***	17.850***	8.564***	73.586***	64.387***	9.199***
	(0.276)	(0.276)	(0.215)	(0.350)	(0.368)	(0.171)
Observations	10700	10700	10700	10700	10700	10700
R^2	0.120	0.120	0.473	0.375	0.226	0.187
Controls	Yes	Yes	Yes	Yes	Yes	Yes
PUMA FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Clusters	1071	1071	1071	1071	1071	1071

Notes: Estimates of the effects of immigration policies on labor market options for male citizens. Data sample includes years 2005 to 2014 from the ACS. Standard Errors clustered at the PUMA level.The dependent variables are percentages of male citizens in each category.Males in the labor force is the sum of unemployed and employed males. Employed males is the sum of wage/salary and self-employed males.E-Verify indicates states with a universal mandate for all business to use E-Verify.Jail287 and Task287 indicate if 287(g) Memorandums of Agreement were signed and active in the PUMA. Additional PUMA-year control variables include general unemployment rate and housing prices. Significance levels
sym* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 9: Difference-in-Difference Estimates From Regressions with Percentage Adult Female Citizens in Labor Force, Unemployed, Employed, Employed as Wage and Salary Workers, and Self-Employed as Dependent Variables.

	(1) Labor Force	(2) Not in Labor Force	(3) Unemployed	(4) Employed	(5) Wage/Salary	(6) Self-Employed
Secure Communities	-0.398**	0.398**	-0.086	-0.312*	-0.113	-0.198**
	(0.150)	(0.150)	(0.065)	(0.148)	(0.153)	(0.063)
E-Verify	-0.752***	0.752***	-0.080	-0.672***	-0.464*	-0.208**
	(0.177)	(0.177)	(0.063)	(0.179)	(0.193)	(0.066)
Task-Force 287(g)	-0.111	0.111	-0.111	-0.000	0.048	-0.048
	(0.192)	(0.192)	(0.081)	(0.200)	(0.203)	(0.080)
Jail 287(g)	0.254	-0.254	0.137	0.117	-0.097	0.214*
	(0.221)	(0.221)	(0.082)	(0.213)	(0.211)	(0.088)
Constant	71.463***	28.537***	0.769***	70.693***	65.529***	5.164***
	(0.366)	(0.366)	(0.138)	(0.359)	(0.372)	(0.149)
Observations	10700	10700	10700	10700	10700	10700
R^2	0.095	0.095	0.671	0.225	0.188	0.050
Controls	Yes	Yes	Yes	Yes	Yes	Yes
PUMA FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Clusters	1071	1071	1071	1071	1071	1071

Notes: Estimates of the effects of immigration policies on labor market options for female citizens. Data sample includes years 2005 to 2014 from the ACS. Standard Errors clustered at the PUMA level.The dependent variables are percentages of female citizens in each category.Females in the labor force is the sum of unemployed and employed females. Employed females is the sum of wage/salary and self-employed females.E-Verify indicates states with a universal mandate for all business to use E-Verify.Jail287 and Task287 indicate if 287(g) Memorandums of Agreement were signed and active in the PUMA.Additional PUMA-year control variables include general unemployment rate and housing prices. Significance levels * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 10: Difference-in-Difference Estimates From Regressions with Percentage Adult Hispanic Male Citizens in Labor Force, Unemployed, Employed, Employed as Wage and Salary Workers, and Self-Employed as Dependent Variables.

	(1) Labor Force	(2) Not in Labor Force	(3) Unemployed	(4) Employed	(5) Wage/Salary	(6) Self-Employed
Secure Communities	0.019	0.058	0.146**	-0.127	-0.099	-0.028
	(0.110)	(0.056)	(0.055)	(0.111)	(0.107)	(0.030)
E-Verify	-0.063	-0.066	-0.051	-0.012	-0.055	0.043*
	(0.094)	(0.040)	(0.033)	(0.085)	(0.083)	(0.020)
Task-Force 287(g)	0.144	0.123*	-0.033	0.177	0.176	0.001
	(0.093)	(0.054)	(0.047)	(0.090)	(0.091)	(0.029)
Jail 287(g)	0.709**	0.171	0.108	0.601**	0.589**	0.012
	(0.235)	(0.114)	(0.101)	(0.203)	(0.207)	(0.069)
Unemployment rate	4.207**	-1.079	12.859***	-8.652***	-8.321***	-0.331
	(1.369)	(0.760)	(0.892)	(1.294)	(1.284)	(0.348)
Housing Prices	-0.004***	-0.002***	-0.002***	-0.002***	-0.002***	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Constant	9.524***	2.715***	0.999***	8.525***	8.029***	0.496***
	(0.268)	(0.148)	(0.139)	(0.263)	(0.257)	(0.076)
Observations	10700	10700	10700	10700	10700	10700
R^2	0.156	0.067	0.235	0.110	0.110	0.004
Controls	Yes	Yes	Yes	Yes	Yes	Yes
PUMA FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Clusters	1071	1071	1071	1071	1071	1071

Notes: Estimates of the effects of immigration policies on labor market options for Hispanic male citizens. Data sample includes years 2005 to 2014 from the ACS. Standard Errors clustered at the PUMA level.The dependent variables are percentages of Hispanic male citizens in each category.Hispanic male in the labor force is the sum of unemployed and employed Hispanic male. Employed Hispanic male is the sum of wage/salary and self-employed Hispanic males.E-Verify indicates states with a universal mandate for all business to use E-Verify.Jail287 and Task287 indicate if 287(g) Memorandums of Agreement were signed and active in the PUMA. Additional PUMA-year control variables include general unemployment rate and housing prices. Significance levels * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 11: Difference-in-Difference Estimates From Regressions with Percentage Adult Female Hispanic Citizens in Labor Force, Unemployed, Employed, Employed as Wage and Salary Workers, and Self-Employed as Dependent Variables.

	(1) Labor Force	(2) Not in Labor Force	(3) Unemployed	(4) Employed	(5) Wage/Salary	(6) Self-Employed
Secure Communities	0.136	-0.004	0.069	0.067	0.100	-0.033
	(0.094)	(0.060)	(0.043)	(0.089)	(0.088)	(0.022)
E-Verify	-0.233**	-0.041	-0.066**	-0.167*	-0.172*	0.005
	(0.083)	(0.048)	(0.024)	(0.078)	(0.076)	(0.013)
Task-Force 287(g)	-0.078	0.065	-0.084*	0.006	0.006	-0.000
	(0.101)	(0.065)	(0.040)	(0.089)	(0.087)	(0.023)
Jail 287(g)	0.668**	0.415**	0.267**	0.401	0.319	0.081
	(0.225)	(0.128)	(0.082)	(0.207)	(0.201)	(0.052)
Housing Prices	-0.005***	-0.001***	-0.002***	-0.003***	-0.003***	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Constant	8.815***	3.433***	1.752***	7.063***	6.735***	0.328***
	(0.215)	(0.136)	(0.098)	(0.195)	(0.193)	(0.045)
Observations	10700	10700	10700	10700	10700	10700
R^2	0.209	0.057	0.129	0.155	0.149	0.008
Controls	Yes	Yes	Yes	Yes	Yes	Yes
PUMA FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Clusters	1071	1071	1071	1071	1071	1071

Notes: Estimates of the effects of immigration policies on labor market options for Hispanic female citizens. Data sample includes years 2005 to 2014 from the ACS. Standard Errors clustered at the PUMA level. The dependent variables are percentages of Hispanic female citizens in each category. Hispanic female in the labor force is the sum of unemployed and employed Hispanic female. Employed Hispanic female is the sum of wage/salary and self-employed Hispanic females.E-Verify indicates states with a universal mandate for all business to use E-Verify. Jail287 and Task287 indicate if 287(g) Memorandums of Agreement were signed and active in the PUMA. Additional PUMA-year control variables include general unemployment rate and housing prices. Significance levels * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 12: Difference-in-Difference Percentage Adult Male Citizens Self-Employed By Industry.

	(1) Agriculture	(2) Construction	(3) Manufacturing	(4) Wholesale	(5) Retail	(6) Transportation	(7) FIRE	(8) Service
Secure Communities	0.018	0.013	0.003	2.552	-28.404	-31.650*	-21.701	-49.915
	(0.028)	(0.045)	(0.019)	(11.179)	(19.836)	(15.441)	(19.511)	(38.863)
E-Verify	-0.058	-0.277***	-0.040*	-38.713*	-10.748	-57.582**	-75.947*	34.208
	(0.045)	(0.062)	(0.019)	(17.103)	(24.264)	(20.445)	(36.005)	(41.164)
Task-Force 287(g)	0.054	-0.103	0.027	-1.535	31.862	-62.799*	-34.554*	126.315**
	(0.039)	(0.064)	(0.024)	(12.035)	(19.927)	(26.889)	(17.048)	(46.108)
Jail 287(g)	-0.003	-0.039	-0.025	-18.748	49.123	-21.223	-95.785	39.263
	(0.042)	(0.091)	(0.024)	(27.211)	(42.919)	(39.500)	(64.771)	(82.359)
Constant	1.041***	2.554***	0.491***	228.591***	815.718***	483.693***	432.284***	2489.663***
	(0.064)	(0.106)	(0.040)	(24.679)	(41.949)	(34.936)	(50.338)	(77.837)
Observations	10700	10700	10700	10700	10700	10700	10700	10700
R^2	0.008	0.106	0.020	0.041	0.024	0.013	0.064	0.010
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
PUMA FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Clusters	1071	1071	1071	1071	1071	1071	1071	1071

Notes: Estimates of the effects of immigration policies on self-employment of male citizens in each industry. Data sample includes years 2005 to 2014 from the ACS. Standard Errors clustered at the PUMA level. The dependent variables are percentages male citizens in each category. E-Verify indicates states with a universal mandate for all business to use E-Verify. Jail287 and Task287 indicate if 287(g) Memorandums of Agreement were signed and active in the PUMA. Additional PUMA-year control variables include general unemployment rate and housing prices.* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$