Title: **Mortality and Immigration Enforcement: The case of Secure Communities**

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Abstract

This study examines the impact of immigration enforcement laws on mortality rates among Hispanics and immigrants from 2000 to 2014. We focus on Omnibus Immigration Laws, E-Verify, 287g agreements, and Secure Communities. Immigration policy changes can influence external death rates by affecting mental health or promoting a "cooling effect" where people avoid certain activities to avoid detection. The variation in enforcement measures has diverse effects on the mental health and mortality of both Americans and immigrants. We utilize NCHS Mortality data to assess how Secure Communities and other types of immigration enforcement impact suicide, accidental deaths, and homicides, particularly among minority groups. Our findings suggest that E-Verify and Secure Communities reduce accidental deaths and workplace injuries among Hispanics, particularly those of Mexican origin, especially among foreign-born individuals. However, there is limited evidence of immigration laws affecting suicide or homicides for any group, with minimal impact on Cubans and Puerto Ricans, who are less likely to be influenced by these laws.

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Introduction

Immigration laws have been used to discourage immigration by undocumented individuals as well as encourage the removal of these individuals from the United States. These laws have been shown to affect infant health (Amuedo-Dorantes, Churchill, and Song, 2022), mental health (Luo and Escalante, 2021; Luo and Kostandini, 2023), labor market outcomes (Amuedo-Dorantes and Bansak, 2014; Churchill 2021), and crime (Orozco-Aleman, and Gonzalez-Lozano, 2020). In this paper, we consider if these same laws have an effect on external causes of death such as suicide, homicide, and accidental deaths. If these immigration laws have

a causal effect on mental health, crime, and employment, then potentially these effects could spill over into suicide, homicide, and accidental deaths at work respectively.

Prior to the COVID-19 pandemic, unintentional injuries was the 4th leading cause of death in the US; suicide was the 9th leading cause; and homicide was the 20th leading cause (Heron 2021). In 2021, unintentional injuries was the leading cause of death followed by suicide, COVID-19, and homicide for individuals 44 years old or younger.[1] Hispanics have the highest rate of work-related injury deaths at 4.3 per 100,000 full-time workers. The same rate for Black workers is 3.7 and white workers is 2.7. [2] In Figure 1, we show that foreign born Hispanics deaths at work have out-paced native-US Hispanics. However, the figure also indicates that the total number of work-related injury deaths for Hispanics decreased between 2007 to 2014, which was the period covered by Secure Communities.

We use restricted access mortality data from the National Vital Statistics System to disaggregate external cause deaths by race/ethnicity, death type, and state. We pair these data with policy changes in Omnibus immigration laws, E-verify adoptions, 287g agreements, and percentage of state counties covered by secure communities. We find evidence that both E-verify adoption and secure communities enforcement reduces the number of accidental deaths among Hispanics. E-verify adoption is associated with 12.7 fewer Hispanic deaths per 100,000 individuals. We disaggregated Hispanics into Mexicans, Cuban, Puerto Ricans, and other Hispanics. Puerto Ricans are US citizens by birthright and should not experience a direct effect of these policies. Much of the Cuban population arrived as refugees and are provided protected

[1] "Injuries and Violence Are Leading Causes of Death" CDC https://www.cdc.gov/injury/wisqars/animated-leading-causes.html (accessed 11/8/2023)
[2] Reduce deaths from work-related injuries – OSH-01 https://health.gov/healthypeople/objectives-and-data/browse-objectives/workplace/reduce-deaths-work-related-injuries-osh-01 (accessed 11/8/2023)

status. We should not expect either of these groups to be affected by immigration reform. Mexicans experience 16 fewer deaths per 100,000 due to E-verify a 2 fewer deaths for every 10 percentage point increase in secure community coverage. No statistically significant effects were found for Cubans and Puerto Rican. When we disaggregate Mexicans between US and foreign born the results persist, but are stronger among foreign born Mexicans.

Next, we consider how these laws affect fatal injuries at work. If more intensive enforcement reduces the labor supply of undocumented workers and/or Hispanics, then we should also see a decrease in injuries at work. We find E-verify adoption is associated with a 31.2 reduction per 100,000 Mexicans workers. We also observe some protective effects for Black workers via E-verify and White workers through secure communities. We find no statistically distinguishable effects of immigration laws associated with suicide. We find weak evidence that Omnibus Laws reduce the number of homicides among Hispanics, but these results do not hold after disaggregation.

Mortality and Accidental Injuries

Accidental/unintended injuries consist of death by drunk driving, impact with an object or another person, falls, drug overdose, and other unintentional injuries not related to a job. Accidental deaths represent a leading cause of death in the US, but it has not been widely studied like other causes of death. A study finds that the individual's social context and socioeconomic status affect the likelihood of death by accidents. Isolated and low-income individuals are more likely to die of unintended injuries compared to non-Hispanic whites (Denney and He, 2014).

By 2018, death by Unintentional Injuries was the number 4 leading cause of death for male Hispanics in the US for all ages (5th place for female Hispanics of all ages) and the first

cause of death for those younger than 45 years old regardless of sex and representing more than 36% and 25% of the deaths among Hispanic males and females, respectively, in this age group (Heron, 2021). Despite the relevance of this cause of death, little has been investigated on the underlying causes behind this trend and the effect that undocumented immigration deterrence could potentially have on this measure. Light et al. (2017) is one of the few papers that evaluates descriptively the relationship between undocumented immigration fatalities due to DUI and drug overdoses. They find that in the period 1990-2014, the increase of undocumented immigrants in a state was associated with a reduction in drug overdose deaths and no significant relationship with DUI deaths. Although their measures use total population death rates, the association they find contrasts with the political discourse backing up immigration enforcement policies.

Limited research on immigrants and suicide rates connects the impact of stress and isolation among immigrants/Hispanics and mental health outcomes (Luo and Kostandini, 2021). The adverse immigrants' cognitive load coming from the negative attitudes toward immigrants, confusion arising from the stringent immigration laws and enforcement, and general fear of deportation and social exclusions have detrimental effects on their mental health and other health outcomes (Luo and Kostandini, 2023; Bruzelius and Baum, 2019; Luo and Escalante, 2021; Wang and Kaushal; 2019). For aggregated numbers, there is one research that intends to connect recent immigration flows to changes in suicide rates among natives and established immigrants and finds a reduction in suicide rates among natives associated with higher recent immigration, while no significant effect among foreign-born suicide rates (Krivo and Phillips, 2018). Aggregate analyses are sensitive to changes in the population. Although these studies do not evaluate changes after policy changes, the mobility or local perception of immigrants is expected to create a social context that could be detrimental or beneficial to people already residing there.

However, the research seems only to find some associations in the positive direction for natives that do not clearly define the mechanisms of these associations. The impact of the social support among immigrant communities and the observed immigrant geographic concentration that facilitates this community support are highlighted in this research. However, this line of research does not address the role of population changes due to immigrant arrivals or changes in the local attitudes toward immigrants.

The research on accidental deaths and immigrants has focused on migrant mortality – people's deaths while on their migration journey or at the border crossing (Eschbach, Hagan, and Rodriguez, 2003). The research on accidental deaths in the US focuses on Hispanics as another racial/ethnic group (Mallone, 2003; Denney and He, 2014). To our knowledge, there is no research focused on immigrants' accidental deaths within the US territory, nor research connecting this death rate to immigration enforcement policies.

Immigration Enforcement and Local Changes

Immigration policies and enforcement have received the attention of several immigration researchers. The main policies highlighted in the literature include E-Verify, Omnibus Policy (Omnibus), 287g, and the Secure Community Program (SC). Although all these policies are likely to affect the immigrant population through either an increase in deportations or an increase in fear of deportation (chilling effects), their implementations and impact mechanisms are very different.

The Omnibus represented a series of immigration laws that directly targeted undocumented individuals' access to work, health care, and mobility. The bill included the "Show Me Your Papers" laws, employment eligibility verification mandates (E-Verify), and the

ban on access to public services to undocumented individuals. All laws were based on the certification of immigration status. This verification process doesn't necessarily connect to the commitment of a crime. Meanwhile, the 287g agreements and the Secure Community Program are implemented within the local law enforcement agencies' jails or correction facilities. The 287g grants local law enforcement offices the power to act as immigration agents and place immigration detainers on individuals who are thought to be subject to deportation. On the other hand, the SC provides a more expedited implementation of immigration enforcement locally because the suspect's fingerprints are directly sent to the US Immigration and Customs Enforcement's (ICE) biometric system to verify immigration status.

Given the significant connotation of criminality and the portrait of immigrants as an undesirable population behind all current enforcement policies, researchers have been trying to identify whether immigrants and immigration increase crime. In the US, most of the studies find no significant changes in violent and non-violent crime and death rates due to crime after or due to immigration flows or immigrant legalization (Moehling and Piehl, 2009; Baker, 2015; Collingwood and Gonzalez O'Brien, 2019; Gonzalez O'Brien et al., 2019; Green 2016; Light et al., 2017; Pinotti, 2017; Meterson and Yasenov, 2021). Immigration laws and enforcement could also play a role in crime rates in two ways. On the one hand, enforcement may reduce crime because of the immigrant selectivity due to stricter immigration rules (Orozco-Aleman and Gonzalez-Lozano, 2020). On the other hand, it may reduce crime reporting among immigrants and increase death by crime committed by immigrants. Evidence on domestic violence (Amuedo-Dorantes and Arenas-Arroyo, 2022; Amuedo-Dorantes and Deza, 2022) shows that secure communities increase the reporting and protective action toward immigrant women in SC. Kang and Song (2022) find that SC decreases overall crime in an area if other nearby geographic

areas are also SC. However, the implementation of SC in an area may show spillover effects in the crime rates of non-SC nearby areas. The underlying assumption in this study is that policy-targeted migrants (undocumented migrants) are moving from a SC area to a nearby non-SC area.

A vast number of economic research has linked immigration enforcement to immigrants' selection and labor outcomes. Because immigration enforcement laws are implemented at local levels, there is an expectation that the target population would avoid or leave areas where harsher immigration policies exist. From the increase in restrictions and stricter border policies since 1986, Lozano and Lopez (2013) find a change in the skill and gender composition of immigrants. The increase in the cost of migration due to stricter US border policy increases the selectivity of those able to migrate. The increase in the risk of border crossing also creates gender selectivity. The group facing higher positive selectivity, highly skilled immigrant women, show higher earnings and employment in the US. Research on local enforcement finds a similar positive selection among migrants, and a reduction of low-skilled undocumented immigrants. Although local immigration enforcement mandates like E-Verify do reduce employment among undocumented immigrants (Amuedo-Dorantes and Bansak, 2014; East et al., 2023), in areas with higher enforcement, employment among immigrants is higher and crime rates are lower (Orozco-Aleman and Gonzalez-Lozano, 2020). East et al. (2023) directly discuss the mechanisms behind the employment findings, which are driven by deportations and by the chilling effect affecting the undocumented immigrants still residing in the area.

Overall, the immigration enforcement policies at the local level are creating two different population changes. One, the targeted population moves away from stricter immigration enforcement areas, or it is removed from those areas via deportation, causing a decrease in the proportion of the immigrant population that is undocumented. Two, the chilling effect may also

drive authorized immigrants to move away from these areas, or react to the stricter policies by positively selecting themselves. In our case, the mobility and selectivity of immigrants due to local immigration enforcement can affect Hispanic mortality estimates. According to these immigration enforcement and labor market outcomes and crime studies, if enforcement is causing low-skill, low-income immigrants to move away to the restricted area, we should expect accidental mortality to go down among Hispanics, especially among immigrant Hispanics who are more likely to be composed of undocumented immigrants. Even more, these population movement changes may affect the local mortality estimates among Hispanics.

Data

In this paper, we use mortality data from the National Center for Health Statistics (NCHS) restricted vital statistics data published by the Centers for Disease Control and Prevention (CDC) from 2000 to 2016. The dataset includes information on accidental deaths, suicides, and homicides that occurred in the United States. The dataset allows us to identify the race, Hispanic origin, and place of birth of the deceased, as well as the county and state where the death occurred. In the data, we can also identify deaths due to injuries sustained on the job.

Population and employment data is from the American Community Survey (ACS) from the Integrated Public Use Microdata Series (IPUMS). Table 1 shows mean rates per 100,000 inhabitants. External causes of death include intentional and unintentional injury, poisoning (including overdose), and complications of medical or surgical care. Accidents include all unintentional deaths, suicides are caused by injuring oneself with the intent to die, and work injuries are work-related deaths.

Table 1 shows that while Hispanics have lower rates of external deaths, accidents, and suicides than non-Hispanic whites and the average population, they have higher rates of homicides and job-related deaths. When we look at Hispanics by county or origin, Hispanics of Mexican origin have the lowest rate of external deaths, accidents, and suicides; they have the highest rates of work-related deaths. In contrast, Puerto Ricans have the highest rates in almost all the categories (external deaths, accidents, suicides, and homicides), while Cubans have rates closer to those observed among the White non-Hispanic population.

To measure immigration enforcement, we will use different programs that have been implemented at the state and county levels intended to regulate activities related to immigrants. We use the mandate to use E-Verify to confirm the identity and employment authorization of immigrants. 287(g) agreements, signed by states and counties with Immigration and Customs Enforcement (ICE) to receive training in and authority for immigration enforcement within their jurisdictions. We also use Secure Communities, which allows data-sharing between federal, state, and local law enforcement agencies. This program allowed ICE officers to take custody of individuals who were being detained by local police and whose fingerprints matched the Department of Homeland Security (DHS) Automated Biometric Identification System (IDENT).

Finally, we used omnibus immigration laws regulating state activities related to immigrants, including their access to public benefits or directives for police departments to check the legal status of individuals suspected of being undocumented. State-level data on enactment dates of E-Verify mandates and omnibus laws come from the National Conference of State Legislatures. Data on 287(g) agreements are from the ICE 287(g) Fact Sheet website. Data on the program Secure Communities is from the Department of Homeland Security (DHS). Figure 2 shows the proportion of the states/counties that have enacted one of the different immigration

enforcement policies. Additionally, we construct an index by state over time. The Internal Enforcement Index starts at zero and increases by one unit if a state has signed an omnibus immigration law, a 287(g) agreement, or if E-Verify was enforced during that year.

Methodology

To empirically analyze the effect of immigration enforcement on death rates, we exploit the geographic and temporal variation of the Enforcement Index. We run the analysis at both the state and county level because the Enforcement Index is comprised of state policies and Secure Communities is a county specific policy. We estimate the following two fixed-effect regressions:

$$State\ Level: O_{st} = \gamma_0 + \gamma_1 PctSC_{st} + \gamma_2 Enforcement\ Index_{st} + \delta_s + \sigma_t + \varepsilon_{st}$$

$$County\ Level: F(O_{ct}) = \gamma_0 + \gamma_1 SC_{ct} + \delta_c + \sigma_t + \varepsilon_{ct}$$

where s indexes states, c indexes county, t indexes year, ε_{st} is an error term, and O is the outcome of interest (external death, accidental death, suicide, homicide, and work-related death rates). The term PctSC_{st} is a continuous variable indicating the degree of exposure to Secure Communities by residents of each state in the state specification. To construct it, we assign a value of one if Secure Communities was implemented in a county in a given year - or the proportion of the year in which the policy was enforced in that county- and then average this variable by state by year weighting the average by county population. The county equation uses an indicator variable equal to 1 if Secure Communities was implemented in county c during year t. The regressions include fixed effects by state (δ_s) or county (δ_c) as well as year (σ_t), and estimate robust standard errors cluster by state or county depending on the specification.

County level counts of accidental deaths, suicides, homicides, and work-related deaths suffer from a large number of zeros. This mass of zeros can lead to biased estimates when using

linear regression. We transform the dependent variable in the county specification using the Inverse Hyperbolic Sine (IHS) function : $f(x) = \ln\left(x + \sqrt{x^2 + 1}\right)$. The IHS function has the nice properties that it accepts zero as an argument while still reducing the effect of large outliers and providing interpretations similar to the ln(x).

Additionally, we estimate regressions by race, Hispanic origin, foreign-born status, and when possible country of origin. Fernandez, Garcia-Perez, and Orozco-Aleman (2023) demonstrate the importance of disaggregating Hispanics into subgroups. In this analysis, it is important to highlight that Puerto Rican and Cubans enjoy different levels of immigration protection relative Mexicans. Puerto Ricans are US citizens by birth right. Cubans immigrated to the U.S. as political refugees and are often granted asylum. Immigration laws should have little to no direct effect on these groups in comparison to other Hispanic groups. Therefore, it is important to disaggregate Hispanics into subgroups when doing this analysis. These two groups of Hispanics also serve as a falsification test that we are not picking up something other than immigration enforcement in our estimates.

Staggered Difference-in-Difference estimation with multiple treatment effects

In the previous section, we introduced a two-way fixed effects (TWFE) model to estimate the impact of immigration enforcement policies. However, this approach is not suitable in our context because these policies were adopted at different times across states and counties—a staggered treatment design. TWFE has been found to produce biased results in this context because linear regression methods include always treated/previously treated observations as part of the counter-factual. Therefore, alternative methods that account for variation in treatment timing and intensity are necessary to obtain reliable results.

A growing body of literature, including works by Goodman-Bacon (2021) and Borusyak, Jaravel, and Spiess (2021), has demonstrated this bias, highlighting the need for more robust methodologies to respond to these inherent flaws. The existing solutions that attempt to correct these biases often fall short when it comes to accounting for multiple treatment dummies. Additionally, only a few new methodologies can account for "dose" effects, where different groups experience varying intensities of treatment. While these approaches offer a more nuanced understanding of the effects of staggered treatments, they still face limitations in fully capturing the dynamics at play.

To address the staggered policy roll out, we employ the two-stage difference-in-differences (DiD) estimator proposed by Gardner (2021). This estimator consists of two stages: In the first stage, we estimate a two-way fixed effects model using only the non-treated observations. The estimated effects are used to predict "counter factual" estimates for all observations. We calculate the residuals as the difference between the observed values and the predicted counter factual values. In the second stage, we run a regression on the residuals and the treatment dummies assuming no constant. This method directly eliminates the concern that the counterfactuals are contaminated by previously treated units. Further, the specification is flexible enough to account for dose effects and multiple treatment options.

We define the Enforcement Index as the sum of the individual policy variables:

$$Enforcement\ Index_{it} = Omnibus\ Laws_{it} + E_Verify_{it} + 287(g)_{it}$$

In this index, *Omnibus Laws,* E_Verify, and 287(g) are indicator variables representing the presence of the respective policies in state *i* at time *t*. The index captures the sum of these indicators, reflecting the total number of policies implemented in a given state at a specific time.

The value of the index ranges from 0, indicating no policies, to 3, indicating the presence of all four policies.

While the use of the Enforcement Index addresses concerns related to multiple treatment effects, it still has some limitations. For example, not all Omnibus Laws are created equal, meaning the impact of different laws may vary significantly. Additionally, the order of the laws could matter, as the timing and sequence of policy implementation might influence their combined effects. Furthermore, the marginal effects are likely heterogeneous due to the mix of laws, with different combinations of policies potentially producing varying effects on the outcomes of interest.

State Level Results

An increase in interior enforcement can impact immigrants and Hispanics in different ways. Immigrants can move to other locations where enforcement has increased. Also, these laws can impact immigrant behavior, causing anxiety and stress, psychological distress (Pinedo and Valdez, 2020).[3] These factors have been associated with increases in depression, suicide, and risky behaviors among Hispanic immigrants (Peña et al 2008).[4] In this paper, we study the effect of immigration enforcement on deaths and job-related deaths between 2000 and 2014.

Tables 2 through 7 show the effects of immigration enforcement at the state level on several types of external death rates by race, Hispanic origin, and country of origin. All rates in

[3] Pinedo M, Valdez CR. Immigration Enforcement Policies and the Mental Health of US Citizens: Findings from a Comparative Analysis. Am J Community Psychol. 2020 Sep;66(1-2):119-129. doi: 10.1002/ajcp.12464. PMID: 32935882; PMCID: PMC7944641.

[4] Peña JB, Wyman PA, Brown CH, Matthieu MM, Olivares TE, Hartel D, Zayas LH. Immigration generation status and its association with suicide attempts, substance use, and depressive symptoms among Latino adolescents in the USA. Prev Sci. 2008 Dec;9(4):299-310. doi: 10.1007/s11121-008-0105-x. Epub 2008 Oct 15. PMID: 18855139; PMCID: PMC2662363.

our results table are per 10,000 people and all coefficients are estimated using two-state difference and differences. Motor Vehicle deaths among Hispanics decrease as the enforcement index increases. Hispanics as a whole experience 3.2 fewer deaths per 1 million people. The effect is strongest among Mexicans and Other Hispanics, which includes individuals from Central America and South America. These groups are most likely to contain undocumented individuals. However, we do not find statistically significant effects for Puerto Ricans, Cubans, Blacks, or Whites with respect to the Enforcement Index. Although, Whites and Blacks do have negative and statistically significant coefficients with the aggregated Secure Communities variable. When we consider Other types of Accidental death, we again find a decrease among Mexicans and Other Hispanics associated with the Enforcement Index. These coefficients are statistically significant at the 10 percent level. We do not have a significant relationship among the immigration policies and other groups with respect to accidents. We do not find any evidence of the enforcement index having an effect of the suicide rate for any group. We observe decreases in homicide rates for Hispanics as a whole and Mexicans specifically when the enforcement rate increases. We find 1.9 fewer deaths per 1 million Hispanics and 1.3 fewer deaths per 1 million Mexicans.

The state level results offer a clear relationship between the Enforcement Index and Hispanic groups that are most likely affected by immigration policies. In none of the specifications do we find a statistically significant estimates of the immigration policies and either Puerto Ricans or Cubans. This result serves as a good falsification test that estimates we are observing are associated with immigration enforcement and not an alternative policy. While the state level results experience fewer zeros, the number of observations is more limited and the secure community variable is more diluted as any given state can have both treated and untreated

counties during a given year. The county level specification will greatly increase the number of observations and can better pin down the effectiveness of the Secure Communities program. However, the county-level data contains many more zeros as small counties may be unlikely to experience a suicide, homicide, or injury at work death in general and particularly among the groups of interest.

County-Level Results

We provide county level estimates using both the standard TWFE model as well as the Gardner method. There are several important differences between these results and the state-level results. Each type of death rate is transformed used the IHS method. Therefore, coefficients should be interpreted as percent changes in the rate. Secondly, we cannot disaggregate the Hispanic population into sub-groups by nationality as we did in the state-analysis. As such, the Hispanic population in the county will be used as the denominator in the rate for Hispanics, Mexicans, and Foreign Borns when calculating rate. Lastly, we used deaths based on the residence of the deceased rather than the place of occurrence. We believe that individuals will be more sensitive to the laws where they live. Further, these counts will coincide more with the county populations we are using.

In Table 7, we find that Secure Communities is associated with statistically significant reductions in motor vehicle death rates across all racial and ethnic groups, with the largest effects observed among Hispanics and Mexican-origin individuals. For the overall population, enforcement policies are linked to a 9.8% to 11.6% reduction in motor vehicle deaths, depending on the model specification. Among Hispanics, the estimated reductions range from 6.1% to 9.8%, while for Mexicans, the decline is even more pronounced—6.7% to 10.3%. Foreign-born Mexicans experience reductions between 5.7% and 8.4%, suggesting that the policies disproportionately

affect subgroups most likely to be undocumented or directly impacted by enforcement. White and Black populations also show significant declines. Motor vehicle death rates fall by 9.1% to 9.7% for Whites and 2.9% to 6.3% for Blacks. These findings suggest that immigration enforcement may have broader spillover effects beyond the targeted populations, potentially through changes in labor market composition, mobility patterns, or behavioral responses to enforcement. These reported estimates survive the inclusion of state by year fixed effects (Model 2), which theoretically should account for contemporaneous state policies like E-Verify or Omnibus Laws.

The estimates for Other Accidental deaths are less conclusive than those for motor vehicle deaths. The rate of Other Accidental deaths increases by 8.9 percent across all groups. This result is primarily driven by an increase of 9.5 percent among Whites and 3.2 percent among Hispanics as a whole group. In contrast, Foreign-Born Individuals as a whole experience a 7 percent decrease in other accidental deaths. Foreign-Born Mexicans are less sensitive with a 2.8 to 3.3 percent decrease, which seems to be driven by state immigration policies as the coefficients lose their significance in Model 2.

Secure Communities is associated with a 10.3% increase in suicide rates among Whites and an 8.3% increase for the overall population, both statistically significant (Table 9). Black individuals also experienced a 4.1% increase, while effects for Hispanics and Mexicans were small and not significant. Foreign-born groups, including Mexicans, showed no meaningful change. These findings suggest that enforcement policies may elevate suicide risk primarily among native-born populations.

In contrast, the Homicide results found in Table 10 indicate that Secure Communities is associated with statistically significant reductions in homicide rates among Hispanics,

particularly those of Mexican origin and foreign-born Mexicans. Homicide rates declined by 3.9% for Hispanics, 2.8% for Mexicans, and 2.4% for foreign-born Mexicans, suggesting that enforcement policies may reduce exposure to violent crime or alter behavioral patterns within these communities. Native-born populations—Whites and Blacks—show no significant change in homicide rates, with coefficients close to zero. These findings imply that immigration enforcement may have a targeted effect on reducing homicides among immigrant and Hispanic subgroups, while leaving native-born populations largely unaffected.

Secure Communities is associated with declines in work-related injury death rates, but the magnitude and statistical significance of these effects differ between Model 1 and Model 2 (Table 11).

In Model 1, which includes county and year fixed effects, the results are consistently negative and statistically significant across most groups. The overall population sees a 3.7% reduction, Whites a 4.1% decrease, and foreign-born Mexicans a 1.2% drop. These findings suggest that enforcement policies may reduce exposure to hazardous work environments, particularly among groups more likely to be undocumented or employed in high-risk sectors. In contrast, Model 2, which adds state-by-year fixed effects to control for broader state-level policy changes, shows attenuated and less consistent effects. While the overall population and Whites still experience significant reductions (2.5% and 2.7%, respectively), the effects for Hispanics, Mexicans, and foreign-born Mexicans are no longer statistically significant. This suggests that part of the observed impact in Model 1 may be confounded by concurrent state-level policies such as E-Verify or Omnibus laws.

As a robustness measure, we perform event studies on our county level specifications. The parallel trends assumption of the difference in difference model assumes that the treated

groups would have followed the same path as the control had they never been treated. While this assumption cannot be tested directly, event study analysis allows us to check for pre-trend differences between the control treated groups. We plot the event studies in Figures 3 – 7 for each dependent variable including separate figures for the overall effect, the Mexican sample, and the Foreign-Born Mexican subsample. No pre-trend violations are found across the different event studies. A consistent theme throughout the event studies is that when there is a significant result among the Mexican population the magnitude of the effect is larger in the Foreign-Born Mexican population.

Conclusion

Immigration enforcement laws have been associated with adverse physical and mental health outcomes. This paper extends the literature to see if these negative health outcomes extend to higher rates of mortality, particularly among Hispanic populations that are most likely to be affect by these laws. We have examined the multifaceted impact of immigration laws on various external causes of death in the United States, specifically focusing on suicide, homicide, and accidental deaths. Our analysis has delved into the nuanced consequences of immigration enforcement policies, such as E-Verify adoption, Secure Communities implementation, 287(g) agreements, and Omnibus immigration laws.

Our findings reveal a complex relationship between immigration enforcement and mortality outcomes, particularly for the Hispanic population. Notably, the implementation of state policies such as E-Verify is associated with a significant reduction in external death rates among Hispanics, primarily driven by a decrease in accidental deaths, with a pronounced effect observed among the Mexican population. Secure Communities enforcement is also linked to a decrease in homicide death rates, particularly for Mexicans. However, we do not find a strong

relationship between immigration enforcement policies and external deaths among Cubans and Puerto Ricans. Which serves as a good falsification test as these groups are not likely to be subjected to immigration enforcement due to US Citizenship or asylum status. This test also serves as a good reminder that Hispanics are not a monolithic group and their results should be disaggregated when possible.

References

Amuedo-Dorantes, Catalina, and Esther Arenas-Arroyo. 2022. "Police Trust and Domestic Violence among Immigrants: Evidence from VAWA Self-Petitions." *Journal of Economic Geography* 22 (2): 395–422.

Amuedo-Dorantes, Catalina, Jose R. Bucheli, and Ana P. Martinez-Donate. 2022. "Parental Deportation, Safe-Zone Schools, and the Socio-Emotional and Behavioral Health of Children Left Behind." *AEA Papers and Proceedings* 112 (May): 396–401. https://doi.org/10.1257/pandp.20221026.

Amuedo-Dorantes, Catalina, Brandyn Churchill, and Yang Song. 2022. "Immigration Enforcement and Infant Health." *American Journal of Health Economics* 8 (3): 323–58.

Amuedo-Dorantes, Catalina, and Monica Deza. 2022. "Can Sanctuary Policies Reduce Domestic Violence?" *American Law and Economics Review* 24 (1): 116–70.

Arroyo, John. 2021. "Facades of Fear: Anti-Immigrant Housing Ordinances and Mexican Rental Housing Preference in the Suburban New Latinx South." *Cityscape: A Journal of Policy Development and Research* 23 (2): 181–206.

Baker, Scott R. 2015. "Effects of Immigrant Legalization on Crime." *American Economic Review* 105 (5): 210–13. https://doi.org/10.1257/aer.p20151041.

Brownell, Peter. 2017. "Employer Sanctions and the Wages of Mexican Immigrants." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 3 (4): 70–96.

Chalfin, Aaron. 2015. "The Long-Run Effect of Mexican Immigration on Crime in US Cities: Evidence from Variation in Mexican Fertility Rates." *American Economic Review* 105 (5): 220–25. https://doi.org/10.1257/aer.p20151043.

Chloe N. East, Annie L. Hines, Philip Luck, Hani Mansour, and Andea Velásquez. 2023. "The Labor Market Effects of Immigration Enforcement." *Journal of Labor Economics*, 957–96.

Churchill, B., 2021. E-Verify mandates and unauthorized immigrants' health insurance coverage. *Southern Economic Journal*, *88*(2), pp.487-526.

Collingwood, Loren, and Benjamin Gonzalez O'Brien. 2019. "Public Opposition to Sanctuary Cities in Texas: Criminal Threat or Immigration Threat?" *Social Science Quarterly* 100 (4): 1182–96.

Cruz Nichols, Vanessa, Alana M. W. LeBron, and Francisco I. Pedraza. 2018. "Spillover Effects: Immigrant Policing and Government Skepticism in Matters of Health for Latinos." *Public Administration Review* 78 (3): 432–43.

Curtin, Sally, and Jiaquan Xu. 2022. "Death Rates for Leading Causes of Death for People Aged 25–44 Among the Three Largest Race and Ethnicity Groups: United States, 2000–2020." National Center for Health Statistics (US). https://doi.org/10.15620/cdc:121796.

Denney, Justin T., and Monica He. 2014. "The Social Side of Accidental Death." *Social Science Research* 43 (January): 92–107. https://doi.org/10.1016/j.ssresearch.2013.09.004.

Eschbach, Karl, Jacqueline Hagan, and Nestor Rodríguez. 2003. "Deaths During Undocumented Migration: Trends and Policy Implications in the New Era of Homeland Security." *In Defense of the Alien* 26: 37–52.

Fernandez, José, Mónica García-Pérez, and Sandra Orozco-Aleman. 2023. "Unraveling the Hispanic Health Paradox." *Journal of Economic Perspectives*, 37 (1): 145-68**.**

Gonzalez O'Brien, Benjamin, Loren Collingwood, and Stephen Omar El-Khatib. 2019. "The Politics of Refuge: Sanctuary Cities, Crime, and Undocumented Immigration." *Urban Affairs Review* 55 (1): 3–40.

Green, David. 2016. “The Trump Hypothesis: Testing Immigrant Populations as a Determinant of Violent and Drug-Related Crime in the United States.” *Social Science Quarterly* 97 (3): 506–24.
Gunadi, Christian. 2021. “On the Association between Undocumented Immigration and Crime in the United States.” *Oxford Economic Papers* 73 (1): 200–224.
Hamilton, Erin R., Pedro P. Orraca-Romano, and Eunice Vargas Valle. 2023. “Legal Status, Deportation, and the Health of Returned Migrants from the USA to Mexico.” *Population Research and Policy Review* 42 (2). https://doi.org/10.1007/s11113-023-09745-7.
Heron, Melonie. 2021. “Deaths: Leading Causes for 2018.” National Vital Statistics Reports Volume 70, Number 4.
Heron M. Deaths: Leading causes for 2019. National Vital Statistics Reports; vol 70 no 9. Hyattsville, MD: National Center for Health Statistics. 2021. DOI: https://dx.doi. org/10.15620/cdc:107021.
Kang, Songman, and B. K. Song. 2022. “Did Secure Communities Lead to Safer Communities? Immigration Enforcement, Crime Deterrence, and Geographical Externalities.” *Journal of Law, Economics, and Organization* 38 (2): 345–85.
Krivo, Lauren J., and Julie A. Phillips. 2018. “How Does Immigration Affect Suicide? An Analysis of US Metropolitan Areas.” *Social Science Quarterly* 99 (4): 1510–21.
Light, Michael T., Ty Miller, and Brian C. Kelly. 2017. “Undocumented Immigration, Drug Problems, and Driving Under the Influence in the United States, 1990–2014.” *American Journal of Public Health* 107 (9): 1448–54. https://doi.org/10.2105/AJPH.2017.303884.
Lozano, Fernando A., and Mary J. Lopez. 2013. “Border Enforcement and Selection of Mexican Immigrants in the United States.” *Feminist Economics* 19 (1): 76–110.
Luo, Tianyuan, and Cesar L. Escalante. 2021. “Stringent Immigration Enforcement and the Mental Health and Health-Risk Behaviors of Hispanic Adolescent Students in Arizona.” *Health Economics* 30 (1): 86–103.
Luo, Tianyuan, and Genti Kostandini. 2023. “Omnibus or Ominous Immigration Laws? Immigration Policy and Mental Health of the Hispanic Population.” *Health Economics* 32 (1): 90–106. https://doi.org/10.1002/hec.4611.
Mallonee, Sue. n.d. “Injuries among Hispanics in the United States: Implications for Research.” Accessed November 5, 2023. https://doi.org/10.1177/1043659603014003008.
Manning, Dale T., and Jesse Burkhardt. 2022. “The Local Effects of Federal Law Enforcement Policies: Evidence from Sanctuary Jurisdictions and Crime.” *Contemporary Economic Policy* 40 (3): 423–38.
Mariani, Fabio, and Marion Mercier. 2021. “Immigration and Crime: The Role of Self-Selection and Institutions.” *Journal of Economic Behavior and Organization* 185 (May): 538–64. https://doi.org/10.1016/j.jebo.2021.03.011.
Masterson, Daniel, and Vasil Yasenov. 2021. “Does Halting Refugee Resettlement Reduce Crime? Evidence from the US Refugee Ban.” *American Political Science Review* 115 (3): 1066–73.
Moehling, Carolyn, and Anne Morrison Piehl. 2009. “Immigration, Crime, and Incarceration in Early Twentieth-Century America.” *Demography* 46 (4): 739–63.
———. 2011. “Immigration, Crime, and Incarceration in Early Twentieth-Century America: Erratum.” *Demography* 48 (2): 813–14.
Muchow, Ashley N., and Catalina Amuedo-Dorantes. 2020. “Immigration Enforcement Awareness and Community Engagement with Police: Evidence from Domestic Violence Calls in Los Angeles.” *Journal of Urban Economics* 117 (May). https://doi.org/10.1016/j.jue.2020.103253.
Nunziata, Luca. 2015. “Immigration and Crime: Evidence from Victimization Data.” *Journal of Population Economics* 28 (3): 697–736. https://doi.org/10.1007/s00148-015-0543-2.

Orozco-Aleman, Sandra, and Heriberto Gonzalez-Lozano. 2020. "Immigration Enforcement, Deterrence, and Crime." *AEA Papers and Proceedings* 110 (May): 430–35. https://doi.org/10.1257/pandp.20201115.

Otsu, Yuki. 2021. "Sanctuary Cities and Crime." *Journal of Economic Behavior and Organization* 192 (December): 600–615. https://doi.org/10.1016/j.jebo.2021.10.020.

Pedraza, Franciso I., Vanessa Cruz Nichols, and Alana M. W. LeBron. 2017. "Cautious Citizenship: The Deterring Effect of Immigration Issue Salience on Health Care Use and Bureaucratic Interactions among Latino US Citizens." *Journal of Health Politics, Policy and Law* 42 (5): 925–60.

Pinedo, M. and Valdez, C.R., 2020. Immigration enforcement policies and the mental health of US citizens: findings from a comparative analysis. *American journal of community psychology*, *66*(1-2), pp.119-129.

Pinotti, Paolo. 2017. "Clicking on Heaven's Door: The Effect of Immigrant Legalization on Crime." *American Economic Review* 107 (1): 138–68. https://doi.org/10.1257/aer.20150355.

Ruggles, Steven, Sarah Flood, Ronald Goeken, Megan Schouweiler and Matthew Sobek. 2022. "IPUMS USA: Version 12.0 [dataset]." IPUMS, Minneapolis, MN. https://doi.org/10.18128/D010.V12.0.

Saadi, Altaf, Maria-Elena De Trinidad Young, Caitlin Patler, Jeremias Leonel Estrada, and Homer Venters. 2020. "Understanding US Immigration Detention: Reaffirming Rights and Addressing Social-Structural Determinants of Health." *Health and Human Rights* 22 (1): 187–98.

Santillano, Robert, Stephanie Potochnick, and Jade Jenkins. 2020. "Do Immigration Raids Deter Head Start Enrollment?" *AEA Papers and Proceedings* 110 (May): 419–23. https://doi.org/10.1257/pandp.20201113.

Strully, Kate W., Robert Bozick, Ying Huang, and Lane F. Burgette. 2020. "Employer Verification Mandates and Infant Health." *Population Research and Policy Review* 39 (6): 1143–84. https://doi.org/10.1007/s11113-019-09545-y.

Vargas, Edward D., Gabriel R. Sanchez, and Melina Juarez. 2017. "Fear by Association: Perceptions of Anti-Immigrant Policy and Health Outcomes." *Journal of Health Politics, Policy and Law* 42 (3): 459–83.

Vinogradova, Alexandra. 2016. "Illegal Immigration, Deportation Policy, and the Optimal Timing of Return." *Journal of Population Economics* 29 (3): 781–816. https://doi.org/10.1007/s00148-016-0586-z.

Watson, Tara. 2014. "Inside the Refrigerator: Immigration Enforcement and Chilling Effects in Medicaid Participation." *American Economic Journal: Economic Policy* 6 (3): 313–38. https://doi.org/10.1257/pol.6.3.313.

Tables

Table 1: Mean Rates per 10,000

	N	External Deaths	Accidents	Suicides	Homicide	Work Injury
All	867	7.52	5.1	1.49	0.69	0.44
White	867	8.27	5.81	1.85	0.33	0.44
Black	867	7.88	4.47	0.88	2.22	0.50
Hispanic	867	6.21	4.35	0.92	1.07	0.74
Mexican	867	5.69	3.77	0.72	0.98	0.86
Puerto Rican	865	19.8	13.27	2.51	3.38	0.64
Cuban	834	7.37	4.33	1.81	0.88	0.56

Source: Authors' estimates using data from the National Center for Health Statistics (NCHS) restricted vital statistics data and ACS population from IPUMS. Observations are at the state-by-year level

Table 2: Motor Vehicle Death rate per 10,000 - State

Dep. Var. Group	Enforcement Index		Pct Secure Communities		Obs.
	Coef.	(SE)	Coef.	(SE)	
Hispanic	-0.322**	(0.138)	-0.282	(0.399)	765
Mexican	-0.477**	(0.192)	-0.465	(0.367)	765
Puerto Rican	-0.895	(0.741)	1.763	(2.258)	763
Cuban	-0.336	(0.904)	-2.429	(1.635)	734
Other Hispanics	-0.779*	(0.410)	-0.342	(0.702)	765
Black	0.0612	(0.0786)	-0.390**	(0.158)	765
White	-0.0246	(0.0190)	-0.281***	(0.107)	765

Notes: Asterisks (*) indicate statistical significance: $p < 0.01$ (***), $p < 0.05$ (**), and $p < 0.1$ (*). Robust Standard Errors Clustered by State are found in parentheses.

Table 3: Other Accidents rate per 10,000 - State

Dep. Var. Group	Enforcement Index		Pct Secure Communities		Obs.
	Coef.	(SE)	Coef.	(SE)	
Hispanic	-0.536	(0.348)	1.418	(1.286)	765
Mexican	-0.524*	(0.276)	0.536	(0.845)	765
Puerto Rican	-6.271	(5.631)	9.881	(9.671)	763
Cuban	0.427	(0.468)	-1.220	(1.900)	734
Other Hispanics	-0.790*	(0.447)	1.812	(1.420)	765
Black	-0.0274	(0.0854)	0.219	(0.309)	765
White	-0.145	(0.151)	2.200***	(0.598)	765

Notes: Asterisks (*) indicate statistical significance: $p < 0.01$ (***), $p < 0.05$ (**), and $p < 0.1$ (*). Robust Standard Errors Clustered by State are found in parentheses.

Table 4: Suicide rate per 10,000 - State

Dep. Var. Group	Enforcement Index		Pct Secure Communities		Obs.
	Coef.	(SE)	Coef.	(SE)	
Hispanic	-0.209	(0.202)	0.260	(0.351)	765
Mexican	-0.0658	(0.0542)	0.0136	(0.201)	765
Puerto Rican	-2.397	(2.155)	1.403	(1.923)	763
Cuban	-2.129	(1.330)	-0.360	(2.192)	734
Other Hispanics	-0.242	(0.292)	0.701	(0.678)	765
Black	-0.0853	(0.0586)	-0.0112	(0.142)	765
White	-0.0662	(0.0587)	0.696***	(0.250)	765

Notes: Asterisks (*) indicate statistical significance: $p < 0.01$ (***), $p < 0.05$ (**), and $p < 0.1$ (*). Robust Standard Errors Clustered by State are found in parentheses.

Table 5: Homicide rate per 10,000 - State

Dep. Var. Group	Enforcement Index		Pct Secure Communities		Obs.
	Coef.	(SE)	Coef.	(SE)	
Hispanic	-0.196*	(0.115)	0.0608	(0.333)	765
Mexican	-0.130**	(0.0613)	0.160	(0.358)	765
Puerto Rican	-2.630	(2.367)	1.277	(2.086)	763
Cuban	0.118	(0.229)	-0.590	(0.817)	734
Other Hispanics	-0.0912	(0.101)	-0.250	(0.417)	765
Black	0.0294	(0.0910)	-0.266	(0.193)	765
White	0.00343	(0.00919)	-0.00409	(0.0235)	765

Notes: Asterisks (*) indicate statistical significance: $p < 0.01$ (***), $p < 0.05$ (**), and $p < 0.1$ (*). Robust Standard Errors Clustered by State are found in parentheses.

Table 6: Injury at Work Death Rate per 10,000 - State

Dep. Var. Group	Enforcement Index		Pct Secure Communities		Obs.
	Coef.	(SE)	Coef.	(SE)	
Hispanic	-0.0937**	(0.0476)	0.0599	(0.175)	765
Mexican	-0.144*	(0.0777)	0.182	(0.309)	764
Puerto Rican	-0.104	(0.0846)	0.546	(0.436)	759
Cuban	0.0997	(0.131)	-0.0172	(0.439)	717
Other Hispanics	-0.0286	(0.0576)	0.0919	(0.138)	765
Black	-0.0127	(0.0324)	-0.0862	(0.0656)	765
White	0.000519	(0.0115)	-0.0714	(0.0456)	765

Notes: Asterisks (*) indicate statistical significance: $p < 0.01$ (***), $p < 0.05$ (**), and $p < 0.1$ (*). Robust Standard Errors Clustered by State are found in parentheses.

Table 7: Motor Vehicle Death Rate – County

	TWFE		Gardner	
Dependent Var. Group	**Model 1**	**Model 2**	**Model 1**	**Model 2**
All	-0.0184	-0.0158	-0.116***	-0.0981***
	(0.0153)	(0.0202)	(0.0143)	(0.0123)
White	-0.00452	-0.00841	-0.0972***	-0.0915***
	(0.0167)	(0.0237)	(0.0169)	(0.0140)
Black	-0.0391*	-0.0477	-0.0625***	-0.0291*
	(0.0202)	(0.0325)	(0.0170)	(0.0161)
Hispanic	-0.0894***	-0.0702*	-0.0979***	-0.0614***
	(0.0238)	(0.0400)	(0.0251)	(0.0199)
Mexican	-0.0963***	-0.0570	-0.103***	-0.0674***
	(0.0214)	(0.0362)	(0.0247)	(0.0181)
Foreign Born Mexican	-0.0574***	-0.0471	-0.0839***	-0.0572***
	(0.0160)	(0.0287)	(0.0177)	(0.0137)
Foreign Born All	-0.0200***	-0.00210	-0.0179***	-0.0774***
	(0.00597)	(0.00945)	(0.00494)	(0.00703)
County FE	Y	Y	Y	Y
Year FE	Y	N	Y	N
State x Year FE	N	Y	N	Y

Notes: Asterisks (*) indicate statistical significance: $p < 0.01$ (***), $p < 0.05$ (**), and $p < 0.1$ (*). Robust Standard Errors Clustered by County are found in parentheses.

Table 8: Other Accidents Rate – County

	TWFE		Gardner	
Dependent Var. Group	**Model 1**	**Model 2**	**Model 1**	**Model 2**
All	0.00713	0.0199	0.205***	0.0889***
	(0.0136)	(0.0188)	(0.0148)	(0.0111)
White	0.0208	0.00534	0.245***	0.0946***
	(0.0157)	(0.0234)	(0.0167)	(0.0125)
Black	0.0158	0.0452	0.0892***	0.0112
	(0.0214)	(0.0377)	(0.0183)	(0.0186)
Hispanic	0.00504	0.0465	0.0317	0.0356**
	(0.0218)	(0.0372)	(0.0267)	(0.0169)
Mexican	-0.0194	0.0196	-0.0158	0.00720
	(0.0187)	(0.0317)	(0.0219)	(0.0146)
Foreign Born Mexican	-0.0278**	-0.0127	-0.0327**	-0.0107
	(0.0131)	(0.0240)	(0.0153)	(0.0104)
Foreign Born All	-0.00856	-0.0111	0.0102**	-0.0797***
	(0.00551)	(0.00813)	(0.00455)	(0.00837)
County FE	Y	Y	Y	Y
Year FE	Y	N	Y	N
State x Year FE	N	Y	N	Y

Notes: Asterisks (*) indicate statistical significance: $p < 0.01$ (***), $p < 0.05$ (**), and $p < 0.1$ (*). Robust Standard Errors Clustered by County are found in parentheses.

Table 9: Suicide Rate – County

	TWFE		Gardner	
Dependent Var. Group	**Model 1**	**Model 2**	**Model 1**	**Model 2**
All	-0.00784	0.00533	0.118***	0.0831***
	(0.0136)	(0.0203)	(0.0146)	(0.0113)
White	0.0111	0.0379	0.156***	0.103***
	(0.0157)	(0.0249)	(0.0163)	(0.0129)
Black	0.0186	0.0138	0.0130	0.0408***
	(0.0149)	(0.0278)	(0.0128)	(0.0110)
Hispanic	-0.0205	-0.0156	0.0338**	0.0142
	(0.0156)	(0.0252)	(0.0139)	(0.0124)
Mexican	-0.00267	-0.00361	0.0205*	0.0164
	(0.0128)	(0.0213)	(0.0120)	(0.0101)
Foreign Born Mexican	0.00375	0.00744	0.00462	0.00720
	(0.00787)	(0.0127)	(0.00625)	(0.00597)
Foreign Born All	0.000830	0.000976	0.00719**	-0.0363***
	(0.00360)	(0.00533)	(0.00344)	(0.00525)
County FE	Y	Y	Y	Y
Year FE	Y	N	Y	N
State x Year FE	N	Y	N	Y

Notes: Asterisks (*) indicate statistical significance: $p < 0.01$ (***), $p < 0.05$ (**), and $p < 0.1$ (*). Robust Standard Errors Clustered by County are found in parentheses.

Table 10: Homicide Rate – County

	TWFE		Gardner	
Dependent Var. Group	**Model 1**	**Model 2**	**Model 1**	**Model 2**
All	0.00183	-0.0183	-0.0115	0.000112
	(0.00933)	(0.0136)	(0.0103)	(0.00770)
White	-0.00388	-0.0357**	-0.00438	0.000225
	(0.00924)	(0.0142)	(0.0104)	(0.00796)
Black	-0.0162	-0.0249	-0.00891	0.00677
	(0.0149)	(0.0277)	(0.0166)	(0.0127)
Hispanic	-0.0317***	-0.0602***	-0.0402***	-0.0392***
	(0.0120)	(0.0213)	(0.0152)	(0.0110)
Mexican	-0.0244**	-0.0609***	-0.0397***	-0.0276***
	(0.0102)	(0.0191)	(0.0146)	(0.00955)
Foreign Born Mexican	-0.0246***	-0.0371**	-0.0440***	-0.0237***
	(0.00777)	(0.0151)	(0.0137)	(0.00684)
Foreign Born All	-0.00637***	-0.00661*	-0.0123***	-0.0318***
	(0.00242)	(0.00394)	(0.00386)	(0.00329)
County FE	Y	Y	Y	Y
Year FE	Y	N	Y	N
State x Year FE	N	Y	N	Y

Notes: Asterisks (*) indicate statistical significance: $p < 0.01$ (***), $p < 0.05$ (**), and $p < 0.1$ (*). Robust Standard Errors Clustered by County are found in parentheses.

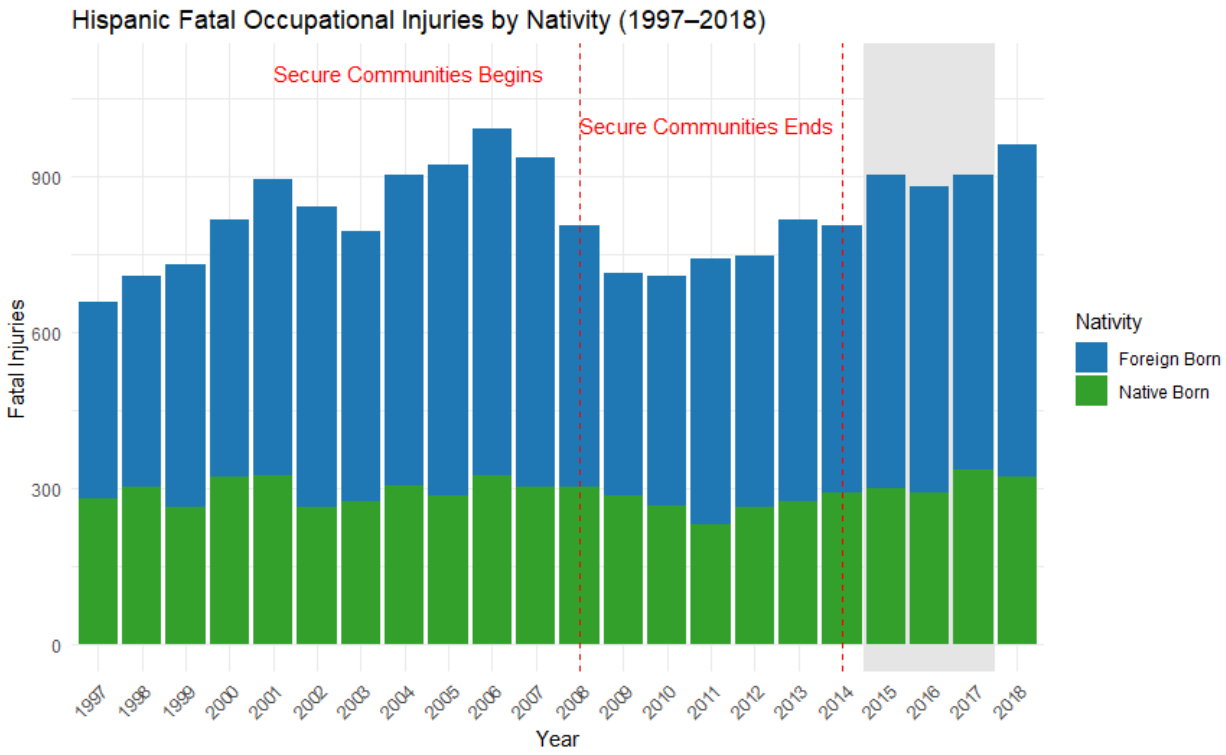
Table 11: Injury at Work Death Rate – County

	TWFE		Gardner	
Dependent Var. Group	**Model 1**	**Model 2**	**Model 1**	**Model 2**
All	-0.0173* (0.00938)	0.0170 (0.0130)	-0.0365*** (0.00947)	-0.0254*** (0.00758)
White	-0.0155 (0.0101)	0.0167 (0.0129)	-0.0411*** (0.0110)	-0.0267*** (0.00820)
Black	-0.00785 (0.00714)	0.0104 (0.0157)	-0.00406 (0.00542)	-0.00170 (0.00586)
Hispanic	-0.0202** (0.00964)	-0.00474 (0.0186)	-0.0106 (0.00713)	-0.000580 (0.00813)
Mexican	-0.0189** (0.00909)	-0.00253 (0.0170)	-0.0144** (0.00670)	-0.00169 (0.00727)
Foreign Born Mexican	-0.0214*** (0.00709)	-0.0118 (0.0141)	-0.0117** (0.00522)	-0.00765 (0.00661)
Foreign Born All	-0.00713*** (0.00244)	-0.00130 (0.00342)	-0.00251 (0.00255)	-0.00604** (0.00255)
County FE	Y	Y	Y	Y
Year FE	Y	N	Y	N
State x Year FE	N	Y	N	Y

Notes: Asterisks (*) indicate statistical significance: $p < 0.01$ (***), $p < 0.05$ (**), and $p < 0.1$ (*). Robust Standard Errors Clustered by County are found in parentheses.

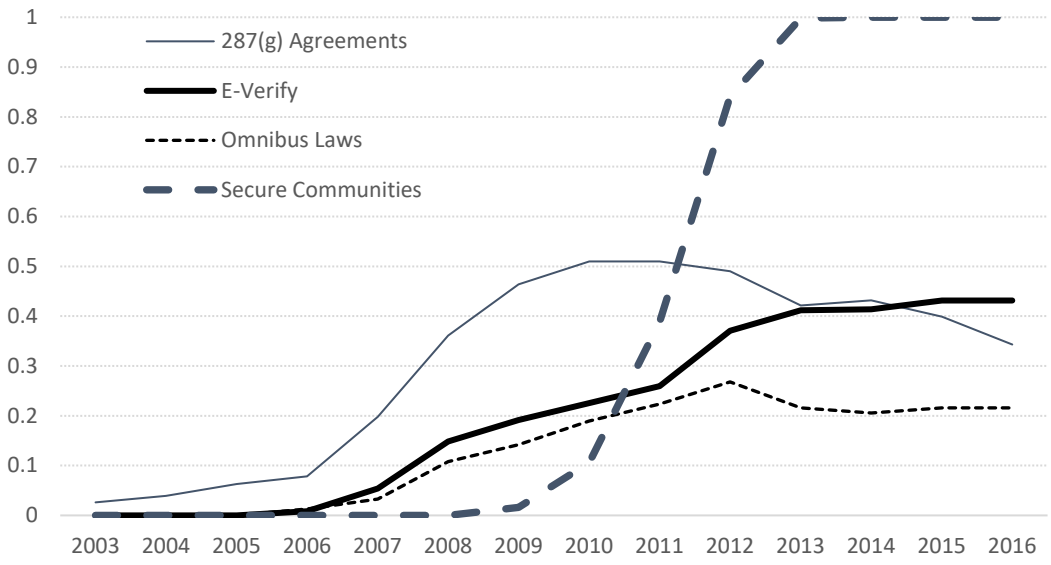
Figures

Figure 1. Work-related Injury Deaths



Source: Authors' calculations. Data source is Census of Fatal Occupational Injuries (CFOI), Bureau of Labor Statistics

Figure 2. Immigration Enforcement Measures



Source: National Conference of State Legislatures, ICE 287(g) Fact Sheet website, and Department of Homeland Security. The figure shows the proportion of states/counties that enacted the enforcement measures by year.

Figure 3a. Motor Vehicle Event Study – County

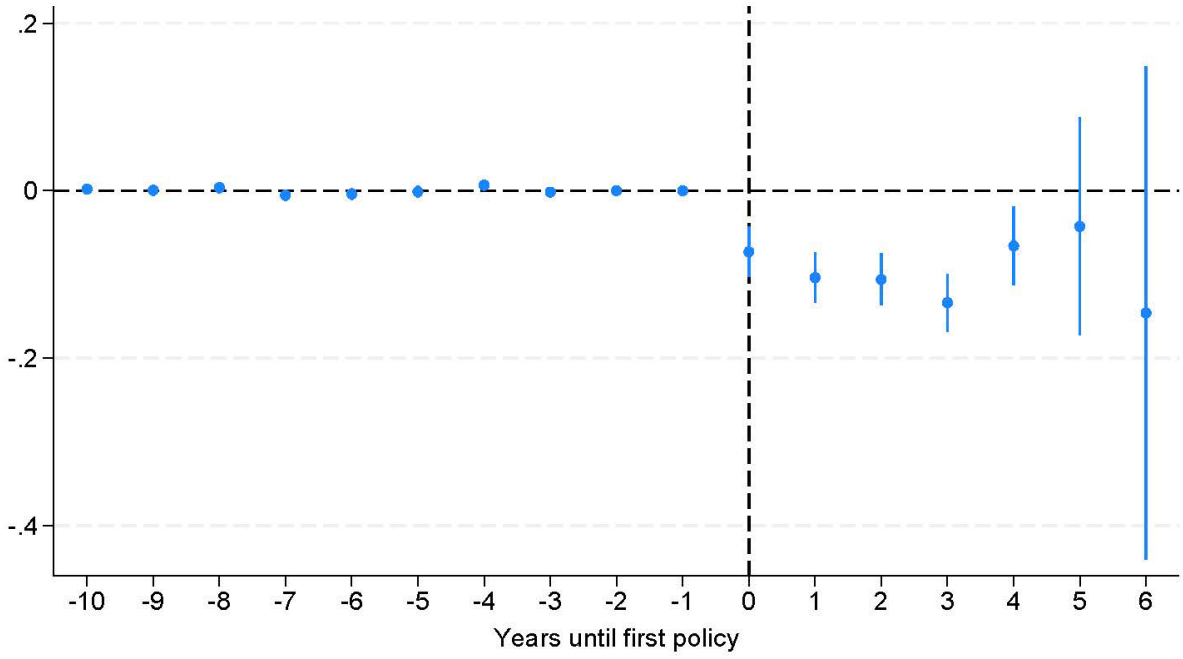


Figure 3b. Motor Vehicle Event Study – County – All Mexican

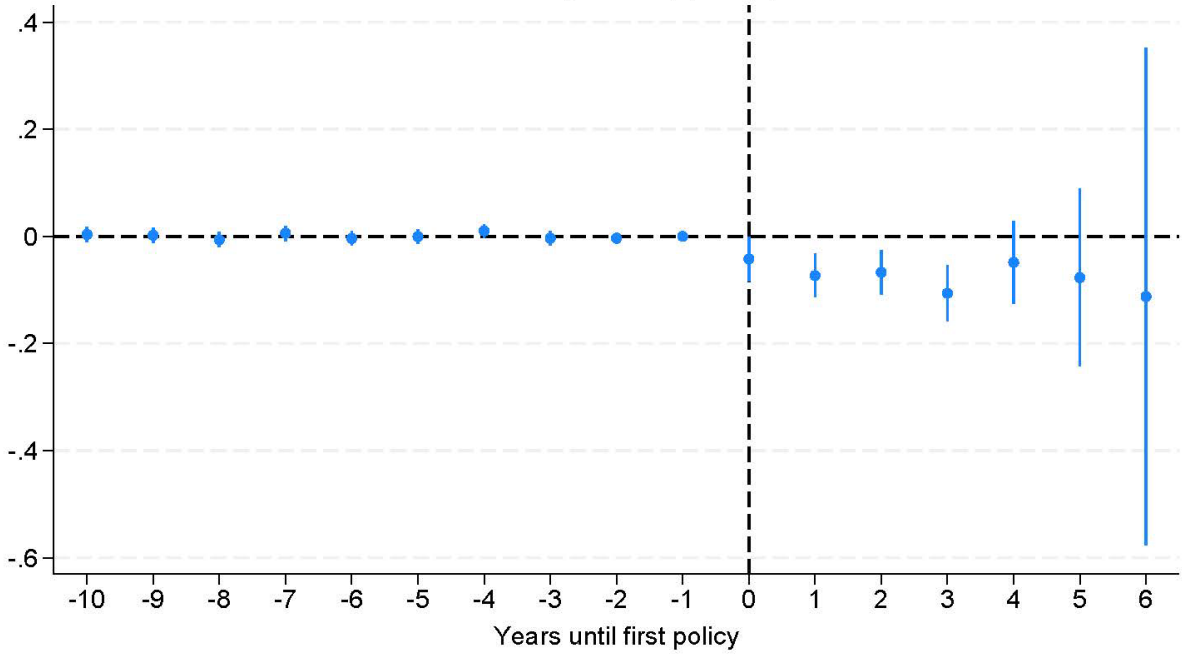


Figure 3c. Motor Vehicle Event Study – County – Foreign Born Mexican

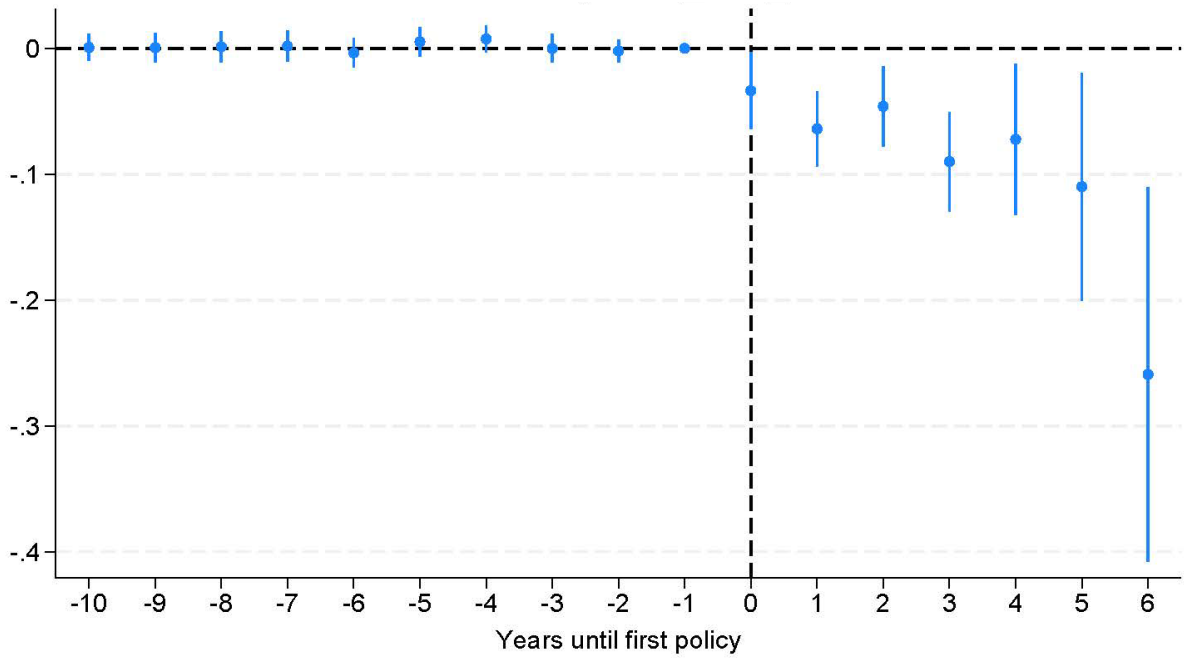


Figure 4. Other Accidents Event Study – County

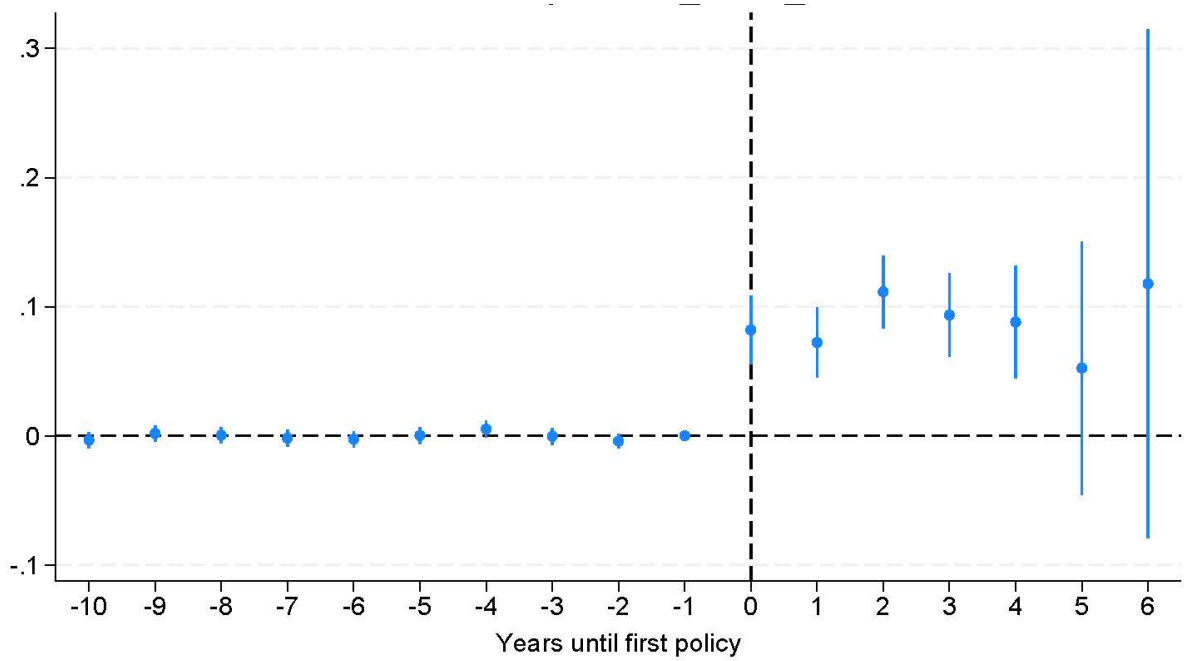


Figure 4. Other Accidents Event Study – County – All Mexicans

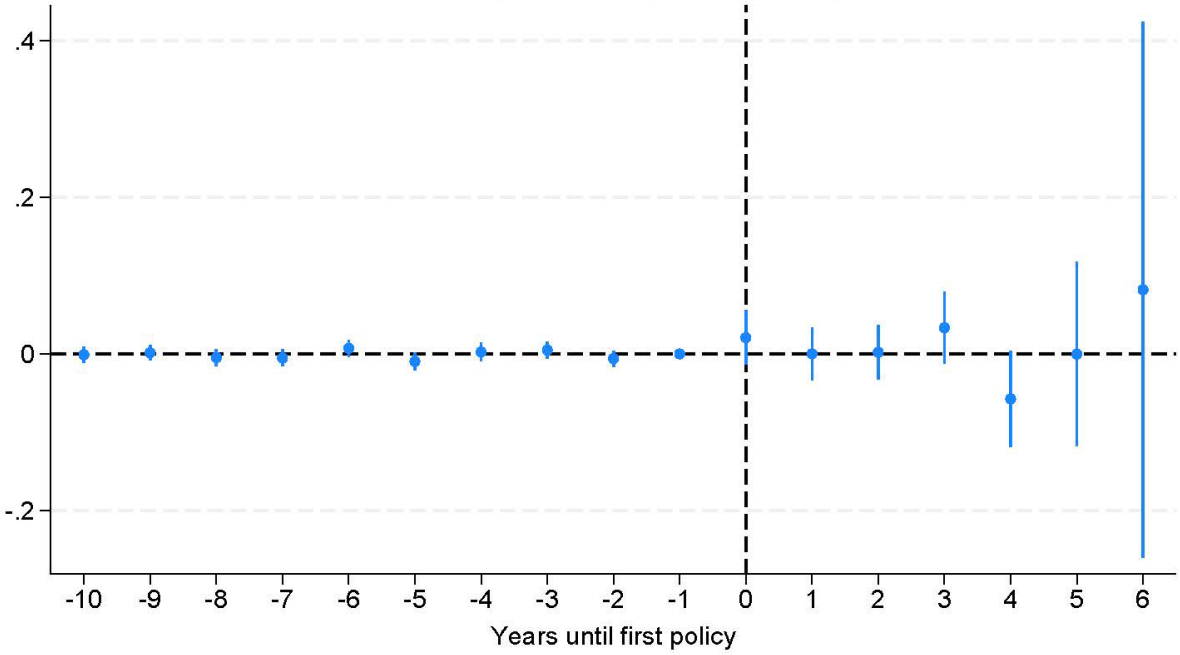


Figure 4. Other Accidents Event Study – County – Foreign Born Mexicans

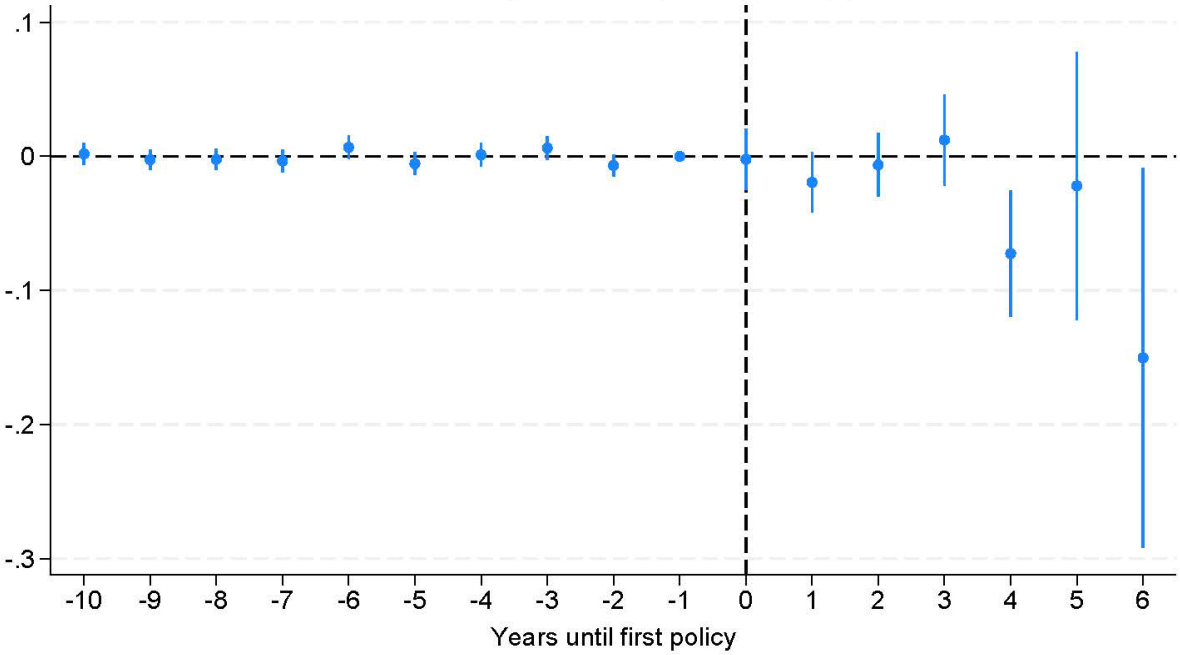


Figure 5. Suicide Event Study – County

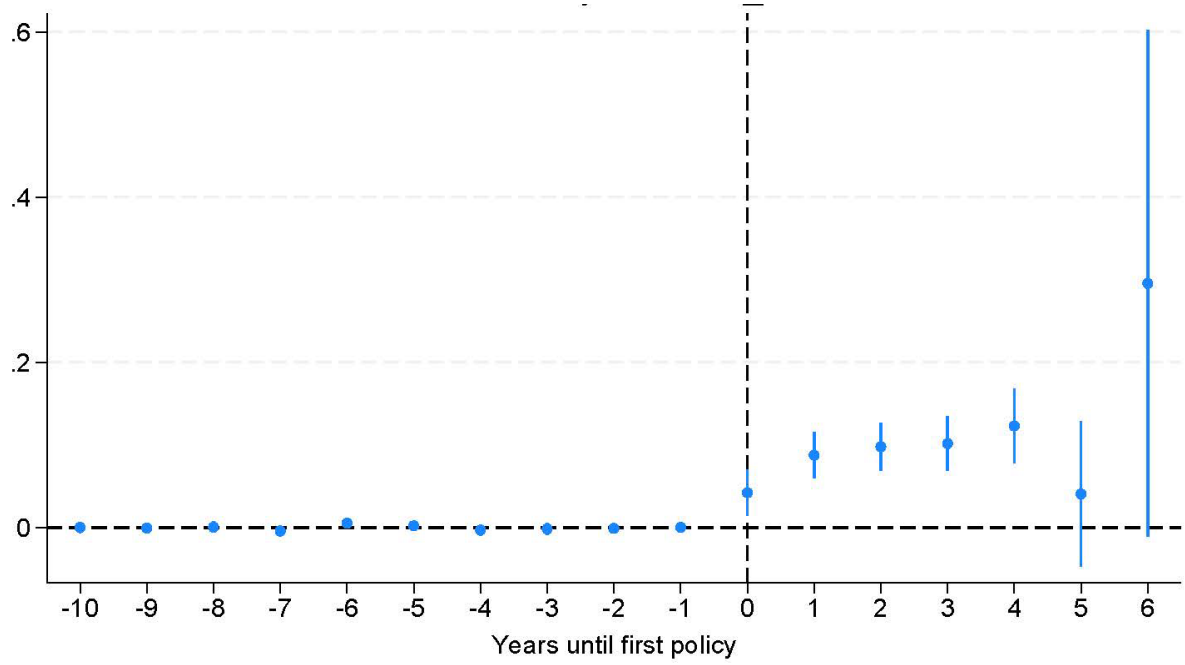


Figure 5. Suicide Event Study – County – All Mexicans

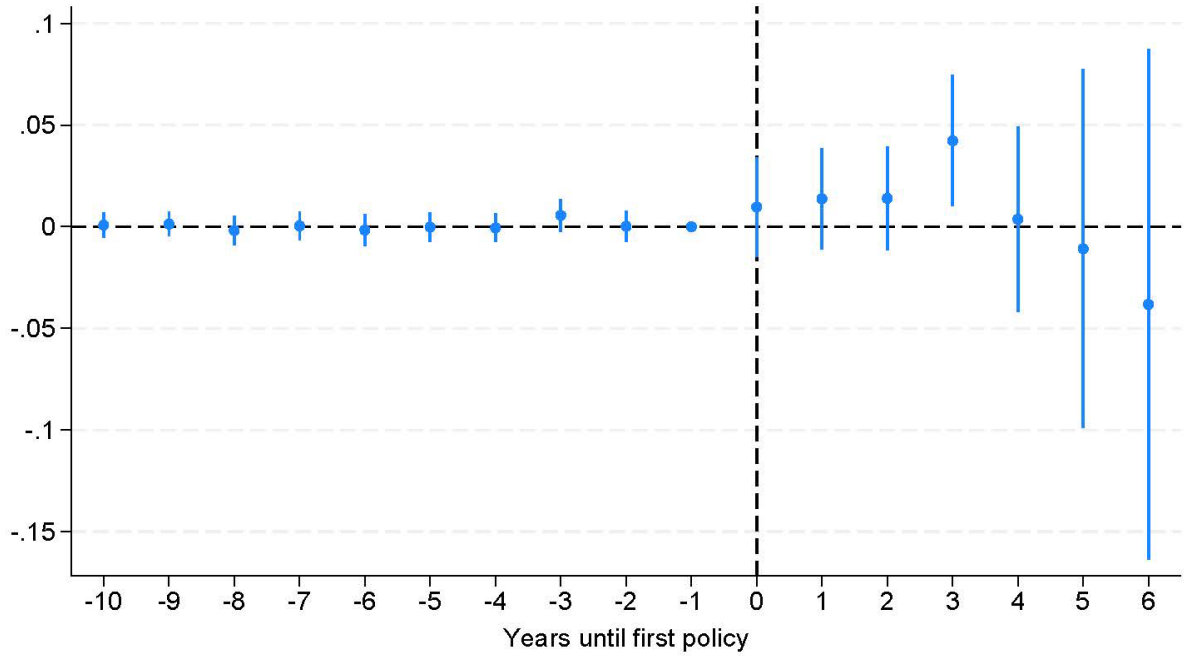


Figure 5. Suicide Event Study – County – Foreign Born Mexicans

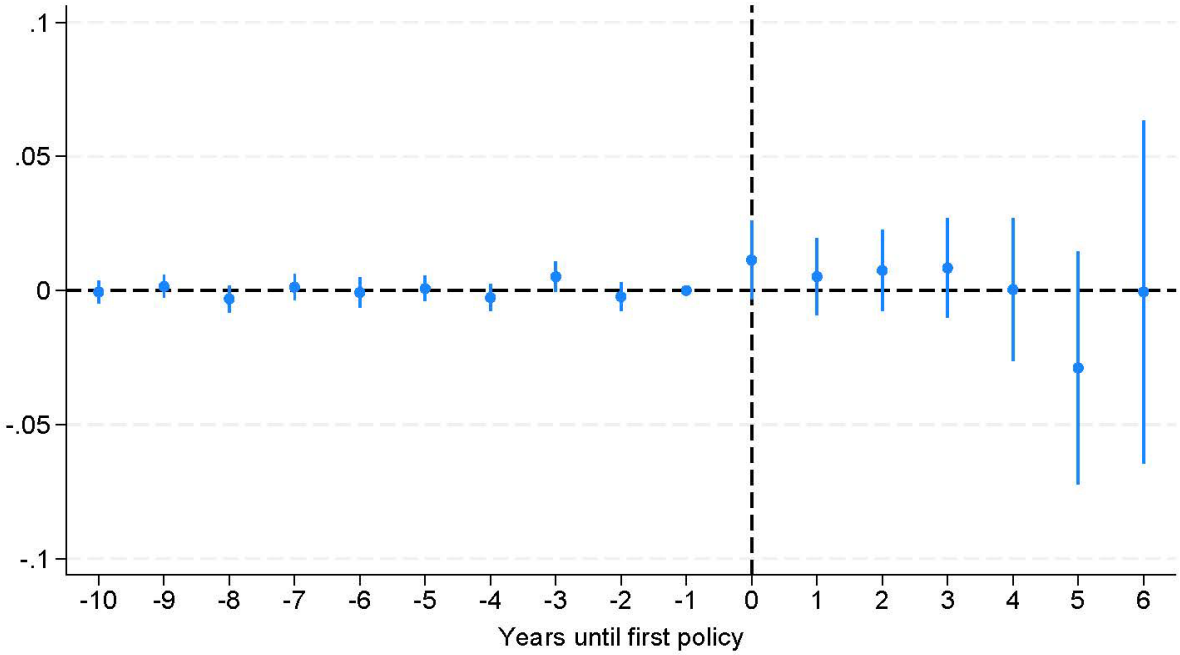


Figure 6. Homicide Event Study – County

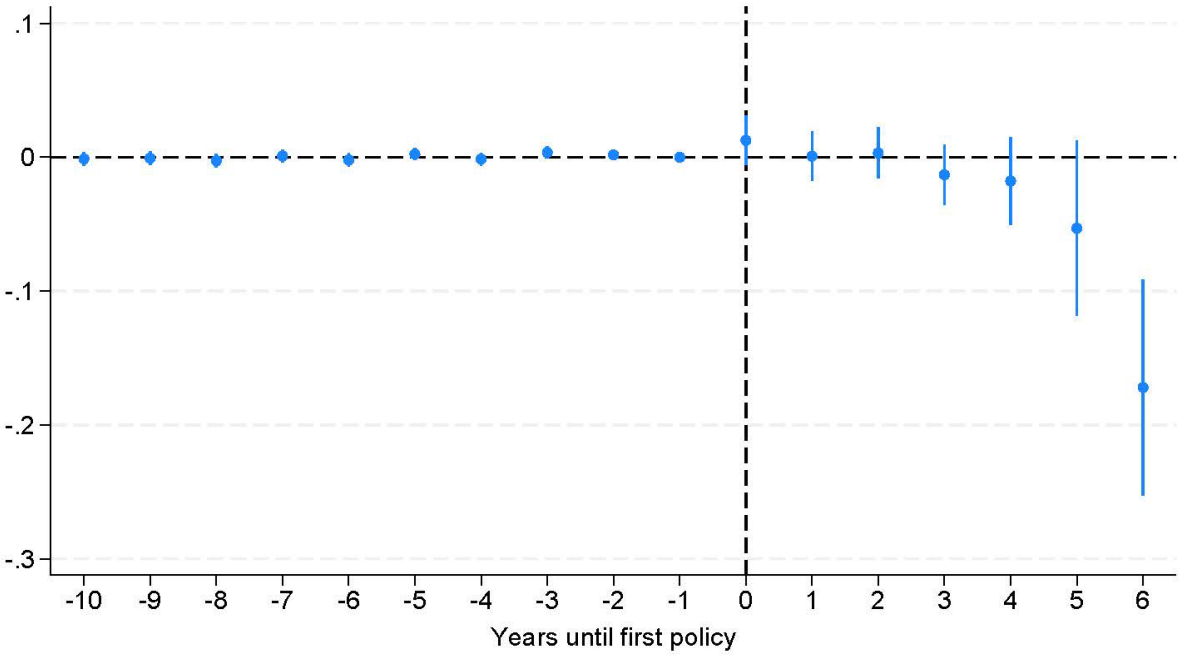


Figure 6. Homicide Event Study – County – All Mexicans

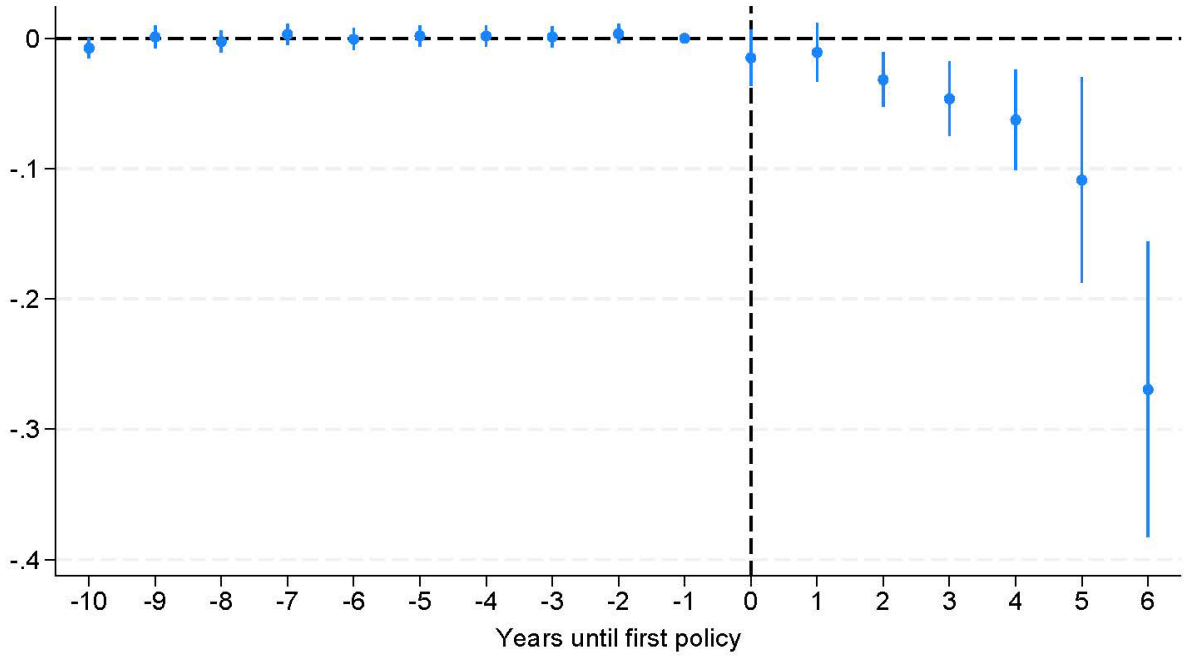


Figure 6. Homicide Event Study – County – Foreign Born Mexicans

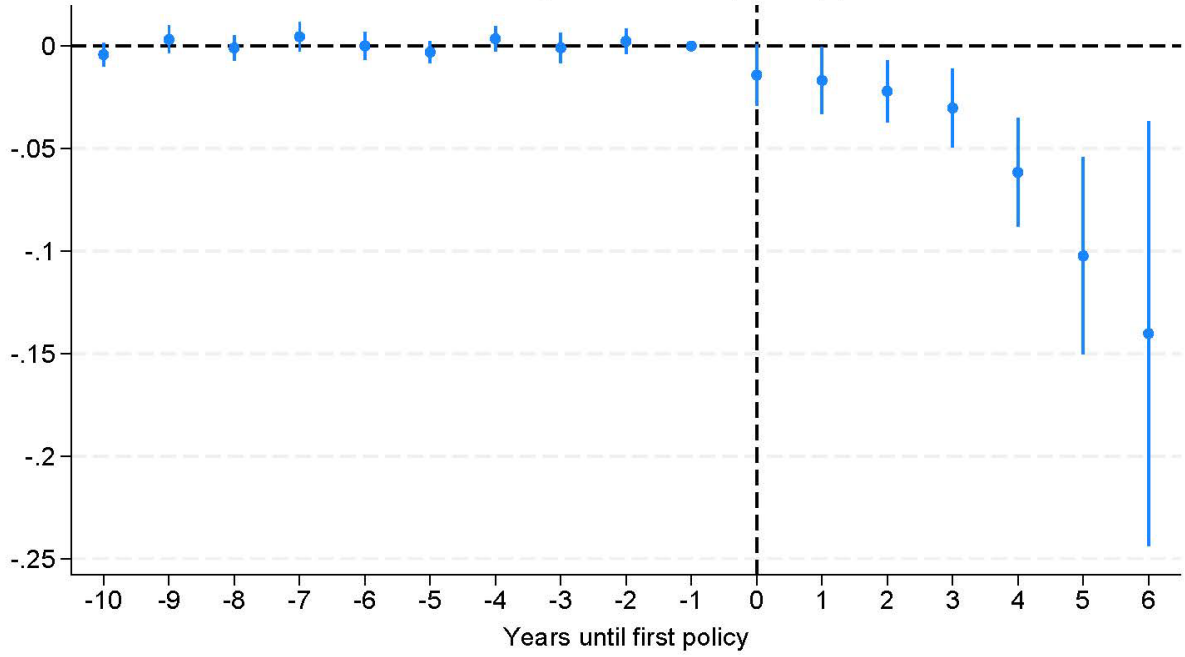


Figure 7. Injury-Work Death Event Study – County

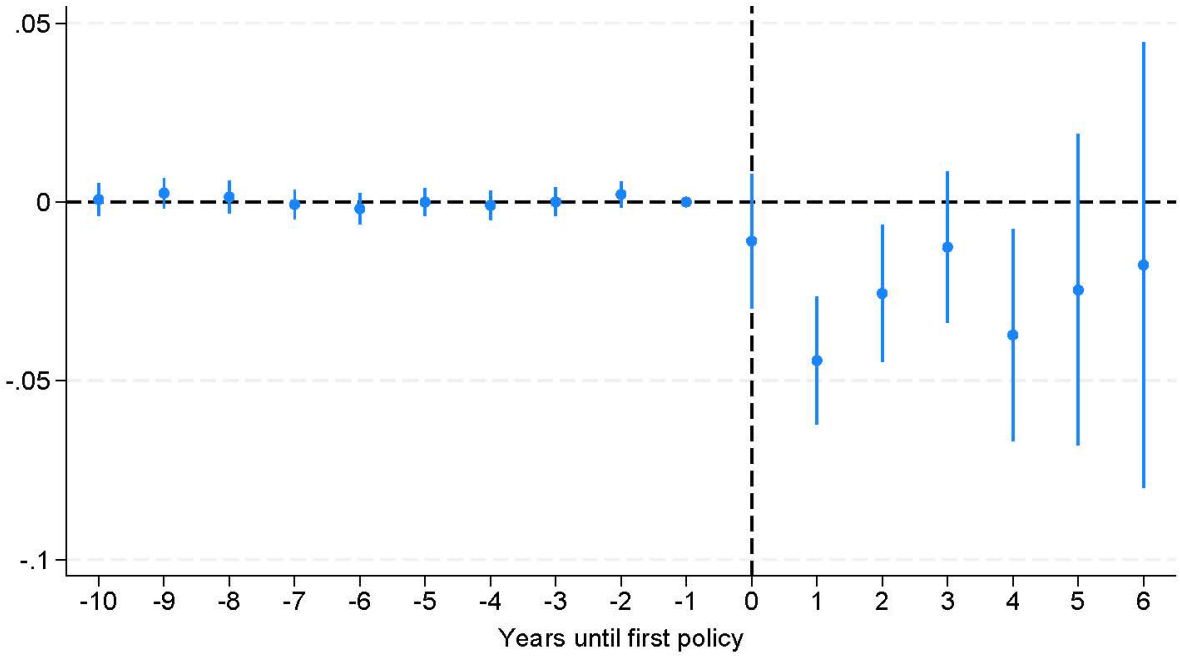


Figure 7. Injury-Work Event Study – County – All Mexicans

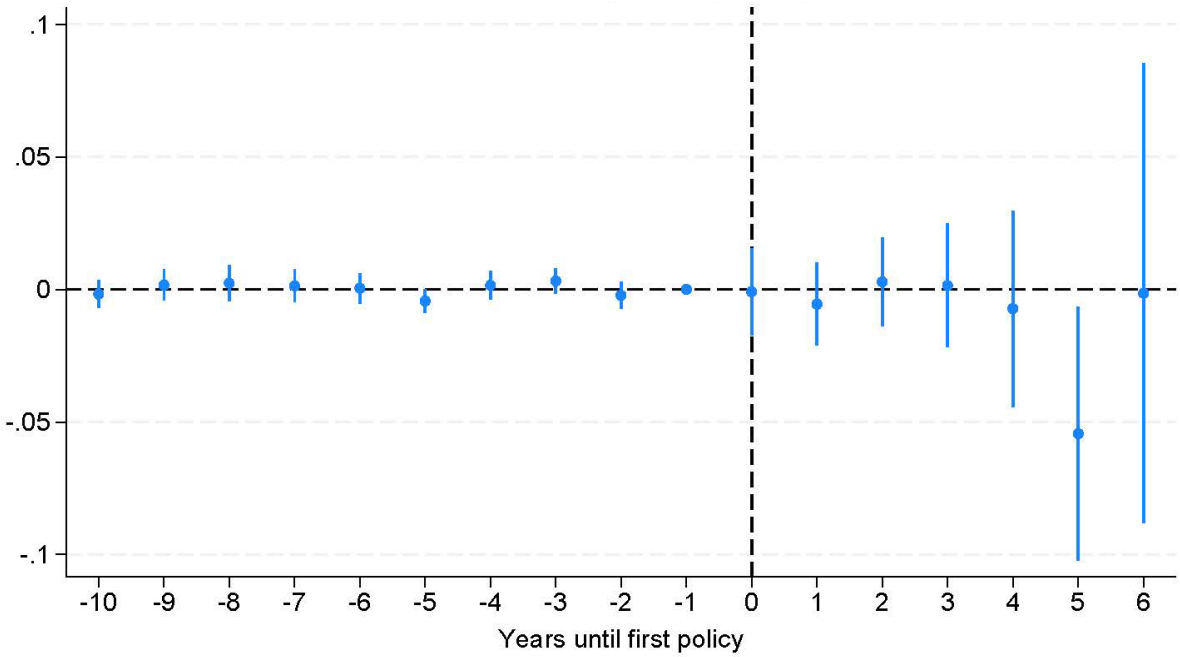


Figure 7. Injury-Work Event Study – County – Foreign Born Mexicans

