# Immigration Enforcement, Sanctuary Cities, and Rising Suicide Rates Among Hispanic Youth

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First version: July 9, 2025
This version: September 14, 2025

**Abstract**

I estimate the causal effect of the US Secure Communities (SC)—a nationwide immigration enforcement program that greatly expanded deportation risk—on suicide rates among Hispanic youth. Using the program's staggered county-level roll-out from 2008 to 2013, I use the Callaway and Sant'Anna (2021) method to identify causal impacts. SC led to an increase in suicide rates by 0.19 additional incidents per county among Hispanic children aged 5-14, equal to about 600 more deaths in the nation (a 100% increase from baseline). Due to likely underreporting of Hispanic ethnicity in vital statistics, my results probably underestimate the true influence of immigration enforcement on mental health outcomes for Hispanic youth. The analysis reveals significant variations depending on local policy contexts: counties with sanctuary policies experienced a decrease in suicide rates following program implementation, while those without such ordinances witnessed increases. The results reveal that aggressive immigration enforcement has a significant negative impact on mental health. **JEL**: I14, I18, J15, H75

**Keywords**: Immigration enforcement, Secure Communities, Suicide, Difference-in-differences, Sanctuary Cities

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# 1 Introduction

Immigration enforcement policies directly interact with the daily lives of millions of people in the United States. With an estimated 11-12 million undocumented immigrants currently residing in the country, enforcement actions create ripple effects that extend throughout mixed-status families and communities (Passel and Krogstad 2025). These effects reach beyond undocumented individuals to impact Hispanic US citizens and immigrants regardless of their legal status. This is a particularly significant concern given that Hispanic Americans have now become the largest minority group in the United States, overtaking Black Americans.[1] The psychological impact of living under the constant threat of detention and deportation, or of witnessing family and community members face these threats, can cause profound and lasting psychological distress. A substantial gap persists in the empirical literature examining how enforcement policies shape mental health outcomes across affected populations, limiting our understanding of the broader social and economic costs of current immigration policies.

The mental health consequences of immigration enforcement represent an important and understudied aspect of contemporary immigration policy. The United States has experienced a broadening trend of increased immigration enforcement over recent decades, with measures intensifying significantly in recent years. As these increasingly aggressive enforcement measures are implemented, understanding their broader implications has become critical for policymakers and communities alike. Although immigration enforcement policies are designed to enhance security and compliance with immigration law, emerging evidence suggests that they may generate substantial unintended consequences (Alsan and Yang 2024; Cox and Miles 2013; East et al. 2023).

These unintended consequences align with a broader literature demonstrating how policy-induced stressors can profoundly affect mental health outcomes, particularly during critical developmental years. Research on stress and adverse life experiences shows that exposure to traumatic or stressful events during childhood and adolescence can have lasting effects on mental health, educational attainment, and long-term wellbeing (Almond and Currie 2011). Studies examining community-wide stressors—including earthquakes (Tan et al. 2009; Torche 2011), hurricanes (Currie and Rossin-Slater 2013), and terrorist attacks (Camacho 2008;

[1] The 2020 Census counted more than 62 million Hispanics—19 percent of the population—triple the number of Hispanics counted three decades earlier (Flood et al., Integrated Public Use Microdata Series, USA). The Hispanic population numbers are based on the author's calculations from the Current Population Survey and US Census data.

Lauderdale 2006)—demonstrate how external threats can affect entire communities and demographic groups, extending beyond those directly exposed to the stressor. This paper extends this literature by examining how immigration enforcement affects youth suicide rates within Hispanic communities.

I estimate the causal relationship between immigration enforcement and suicide rates among Hispanic youth, focusing on one of the most significant federal immigration programs: Secure Communities (SC). Implemented between 2008 and 2014, SC fundamentally transformed how local law enforcement interacted with federal immigration authorities by requiring local police to share fingerprints of all arrestees with Immigration and Customs Enforcement (ICE), regardless of the severity of the offense or the individual's immigration status. This sharing mechanism enabled ICE to issue detainer requests for individuals in local custody, creating a direct pathway from routine police encounters to potential deportation. The program's implementation generated widespread fear within Hispanic communities, as any interaction with law enforcement—whether as a victim, witness, or through minor infractions—could potentially lead to deportation for themselves or family members, fundamentally altering how these communities interact to local police and public institutions. The gradual rollout of the program across US counties provides a unique quasi-experimental setting to identify the causal effects of this enforcement-driven climate of fear on mental health outcomes, specifically suicide rates among Hispanic youth.

Hispanic youth represent one of the fastest growing demographic groups in the US, with Hispanic children comprising 25% (18.8 million) of all children in the United States as of 2020, up from 23% (17.1 million) in 2010.[2] However, this population faces disproportionately high rates of mental health challenges and alarming increases in suicide risk. Suicide has become the 7th leading cause of death for Hispanic children, with suicide rates among Hispanic children increasing by 92.3% from 2010 to 2019, representing one of the most dramatic increases among any demographic group Price and Khubchandani 2022. If immigration enforcement policies exacerbate these existing vulnerabilities, the implications of such policies could be profound and long-lasting for this rapidly growing population. Moreover, understanding these effects is crucial as immigration enforcement continues to evolve, with recent years witnessing both intensification and reform of enforcement practices.[3]

[2]The Hispanic youth population numbers are based on the author's calculations from the Current Population Survey and US Census data.

[3]Immigration enforcement has undergone significant changes across administrations, including the expansion of programs like Secure Communities, the implementation of policies such as fam-

Using mortality data from the National Vital Statistics System, combined with detailed records of SC implementation across counties, I employ a difference-in-differences (DID) approach that uses the staggered adoption of SC to identify causal effects. The DID method allows me to compare suicide rates in counties before and after the implementation of SC relative to counties that had not yet, and never, adopted the program, while controlling for time-invariant county characteristics and national trends.

I find an increased suicide rates among Hispanic youth after the implementation of SC. Adoption of SC led to an increase of 0.19 additional suicides per county among Hispanic children aged 5-14 (an increase equal to approximately 600 additional deaths nationally). Among Hispanic youth aged 15-24, the point estimate suggests an even larger effect of 0.22 additional suicides per county, though this estimate is statistically insignificant. Although these point estimates for the 15-24 age group are statistically insignificant, I cannot rule out the possibility that SC led to meaningful increases in suicides among Hispanic adolescents and young adults.

Moreover, I find striking heterogeneity by sanctuary status: counties with sanctuary laws that limited cooperation with federal immigration enforcement experienced declining suicide rates after SC implementation, while non-sanctuary counties saw increases. Sanctuary ordinances were passed at local levels to limit a municipality's cooperation with federal immigration enforcement agencies and provide some level of protection or services to undocumented immigrants within its jurisdiction. Counties with non-sanctuary policies experienced a significant increase in suicides 4 years after implementation of SC that is equal to 0.2 additional suicides per county. Counties with sanctuary policies experienced a significant decrease in suicides 4 years after the implementation of SC that is equal to -0.62 suicides per county among Hispanic children aged 5-14. This divergence suggests that local policy choices can serve as protective mechanisms against the adverse mental health effects—and other potential negative effects—of federal immigration enforcement.

In addition to examining the validity of parallel trends and no anticipation assumptions, I test the validity of my estimation strategy by employing placebo tests. This involves focusing on groups unlikely to be directly impacted by stricter immigration enforcement, specifically non-Hispanic Black and non-Hispanic White

ily separation, and subsequent policy reversals and reforms. Immigration has increasingly become a central campaign issue in federal and state elections, and enforcement measures have garnered bipartisan support. This sustained political attention ensures that immigration enforcement remains a prominent policy priority regardless of which party holds power.

populations. These placebo tests enable me to reject the hypothesis that factors other than the enactment of SC in certain counties are causing the increase in youth suicides. I find that SC had no effect on suicides of White non-Hispanic and Black non-Hispanic individuals aged 5 to 14 years.

There are several mechanisms through which exposure to immigration enforcement can affect suicide among Hispanics. I test for the following mechanisms: (1) the deterioration of mental health associated with fear of deportation, measured through changes in mentally unhealthy days per adult at the county level; and (2) increased anti-Hispanic bias at the state level, assessed by examining whether counties in states with above-median versus below-median levels of pre-existing bias exhibit differential responses to Secure Communities implementation. To explore which mechanisms are contributing to these outcomes, I use cohort-specific average treatment effect analyses for counties that adopted SC in 2011 and 2012, using not-yet-treated counties as controls, and examine heterogeneity across counties with varying baseline levels of anti-Hispanic sentiment.

This paper makes several important contributions to the existing literature. First, it provides the first causal analysis of the effects of immigration enforcement on completed suicides, the most serious mental health outcome, among Hispanic youth. While previous research has documented enforcement effects on self-reported mental health distress (Wang and Kaushal 2019) and birth outcomes (Amuedo-Dorantes, Churchill, and Song 2022; Vu 2024), to my knowledge, no study has examined actual suicide deaths or established causal identification for youth populations specifically. Second, it demonstrates how immigration policies generate substantial spillover effects that extend far beyond their direct targets to affect entire demographic communities. Unlike existing studies that focus primarily on adults, specific enforcement events, or broad measures of mental distress (Goldstein and Wilson 2022; Pinedo and Valdez 2020), this analysis reveals how systematic enforcement programs can increase the most extreme adverse mental health outcomes among youth who may not themselves be direct enforcement targets.[4] Third, by leveraging the quasi-experimental variation from Secure Communities' staggered rollout across counties, this study provides causal evidence on the effect of SC on Hispanic suicides.

[4]While SC checks the immigration status of anyone arrested, the documented effects on youth suicides demonstrate how enforcement creates harmful community-wide spillover effects

# 2 Literature Review

Immigration enforcement in the United States has undergone significant transformation over the past two decades. Cox and Miles (2013) demonstrate that Secure Communities' (SC) rollout was systematically correlated with Hispanic population concentrations, with counties having larger Hispanic populations prioritized for earlier adoption. This creates a differential exposure to enforcement activities across demographic groups. East et al. (2023) examine SC's labor market consequences, finding decreased employment and wages not only among likely undocumented immigrants, but also among US-born individuals through increased labor costs and reduced local consumption.[5] My study contributes to this literature by examining how SC's rollout affected suicide rates among Hispanic youth, providing the first causal evidence of enforcement's most severe mental health consequences.

Research on stress and adverse life experiences shows that exposure to traumatic or stressful events during critical developmental years can have profound and lasting effects on mental health outcomes. Almond and Currie (2011) provide a comprehensive review of how adverse early-life conditions affect long-term health, educational attainment, and income, establishing the foundation for understanding how policy-induced stress affects vulnerable populations.[6] Studies examining community-wide stressors include earthquakes (Tan et al. 2009; Torche 2011), hurricanes (Currie and Rossin-Slater 2013), and terrorist attacks (Camacho 2008; Lauderdale 2006), which demonstrate how external threats can affect entire communities and demographic groups.[7] I extend this literature by examining how stricter immigration enforcement—a policy-induced stressor—affects youth suicide rates.

Immigration enforcement policies have generated wide-ranging health consequences that span multiple outcomes and demographic groups. Birth outcome studies show that enforcement during pregnancy increases the risk of low birth

[5] See Amuedo-Dorantes and Bansak (2014) and Bohn and Santillano (2017) for additional research on employment verification mandates and local enforcement programs.

[6] For seminal natural experiments in this literature, see Almond (2006), Almond et al. (2010), Almond, Edlund, and Palme (2009), Almond and Mazumder (2011), and Scholte, van den Berg, and Lindeboom (2015).

[7] See Barreca (2010), Berkowitz et al. (2003), Black, Devereux, and Salvanes (2016), Currie, Mueller-Smith, and Rossin-Slater (2022), Field et al. (2004), Isen, Rossin-Slater, and Walker (2017), Kinsella and Monk (2009), Persson and Rossin-Slater (2018), Sanders (2012), and Simeonova (2011) for additional research on stress effects covering natural disasters, family bereavements, violence exposure, environmental pollution, disease exposure, and maternal depression.

weight Amuedo-Dorantes, Churchill, and Song (2022), with Vu (2024) finding that SC increased very low birth weight by 21% among infants of foreign-born Hispanic mothers.[8] Wang and Kaushal (2019) demonstrates that SC increased mental health distress among Latino immigrants by 14.7%.[9] My research adds to this body of work by examining completed suicides among Hispanic youth, moving beyond self-reported distress to study the most severe mental health outcome.

The mental health burden of immigration enforcement appears particularly acute among children and adolescents in affected communities. Roche et al. (2020) present the first direct evidence linking family member detention or deportation to severe mental health impacts in Latino adolescents, showing a more than double increase in the risk of suicidal thoughts. Furthermore, Rojas-Flores et al. (2017) report a notable increase in PTSD symptoms among Latino children born in the US whose parents have experienced detention or deportation.[10] Building on these findings, I provide causal evidence linking systematic immigration enforcement to completed suicides among Hispanic youth.

Immigration enforcement creates "chilling effects" reducing participation in social safety net programs among eligible individuals and families. Alsan and Yang (2024) show that SC significantly reduced participation in the federal safety net program among Hispanic households through fear and network effects. Vargas and Pirog (2016) demonstrate reduced participation in the WIC program among mixed-status families facing deportation risk, while Watson (2014) shows that enforcement reduces Medicaid participation among children of noncitizens. My study complements this research by showing that enforcement also increases suicide rates among Hispanic youth, revealing another pathway through which enforcement harms vulnerable communities.

[8] See Novak, Geronimus, and Martinez-Cardoso (2017), Tome et al. (2021), and Torche and Sirois (2019) for additional research on birth outcomes examining immigration raids, early Immigration and Customs Enforcement (ICE) interventions, and restrictive state laws.

[9] See Dadras and Hazratzai (2025), Goldstein and Wilson (2022), Martínez, Ruelas, and Granger (2018), Pinedo and Valdez (2020), and Torres et al. (2018) for broader mental and physical health effects.

[10] Refer to Amuedo-Dorantes and Arenas-Arroyo (2018) and Amuedo-Dorantes, Arenas-Arroyo, and Sevilla (2018) for studies on how enforcement affects family dynamics, involvement in foster care and the economic situations of children with unauthorized parents.

# 3 Background: Secure Communities

Secure Communities (SC) was an immigration enforcement program run by Immigration and Customs Enforcement (ICE) that operated from 2008 to 2014, was reactivated in 2017, and then ended in 2021. The program allowed ICE to check the immigration status of anyone arrested by the local police by fingerprint analysis, alerting federal agencies about possible immigration violations.

SC worked as follows: When someone was arrested by local law enforcement, their fingerprints were taken and sent to the FBI for criminal background checks, as was standard practice. However, with the adoption of SC, these fingerprints were also automatically sent to the Department of Homeland Security (DHS), where they were checked against immigration databases. If there was a match indicating that someone could be in the country illegally, ICE would issue a "detainer", which is a request for local authorities to hold that person for up to 48 hours so ICE could take custody and begin deportation proceedings. This was a significant change from previous methods, which relied on labor-intensive interviews conducted by federal officers or local officers of jails and prisons.

The program was gradually implemented across counties starting in October 2008, with most counties participating in mid-2012. Initially, the program required agreements between ICE and state officials, but after some states tried to opt out in 2011, ICE determined that these agreements were not necessary and made participation essentially mandatory in 2013. The program was controversial, with some "sanctuary cities" refusing to comply with detainer requests, arguing that they were unconstitutional and would discourage immigrants from cooperating with local police.

Alsan and Yang (2024) collected records that are available to the public through Freedom of Information Act (FOIA) requests to ICE. The data include the roll-out of secure communities by ICE from 2002 to 2013. I present the histories of the staggered adoption of secure communities by counties in Figure 1. Since participation became mandatory in early 2013, fundamentally changing the nature of adoption decisions, I restricted my analysis to the year ending in 2012 to maintain a control group of counties that had not-yet and never adopted the program.

# 4 Data

I primarily use two main data sources: To measure the effect of secure communities on suicides among Hispanic youth, I use mortality data from the National

Vital Statistics System (NVSS) and the Secure Communities (SC) adoption data from Alsan and Yang (2024). All data samples used in the analysis are between 1999 and 2013 (the year that SC became a national policy).

## 4.1 National Vital Statistics System Data

To measure the effect of secure communities on Hispanic youth suicides in the United States, I use mortality data from the National Vital Statistics System (NVSS) covering the years 1959 to 2019 (National vital statistics system 2007). My outcome of interest is the annual count of suicides in each county. I specifically use the Multiple Cause of Death files, which provide detailed causes of death for each death recorded in the US at the county level using ICD-10 codes. The ICD-10 codes allow for the identification of specific causes of death, including suicide. Suicides are further broken down into several categories, allowing for a more detailed analysis of different types of suicide.[11] In addition, the data include socioeconomic characteristics of the deceased, such as age, sex, race, marital status, and education level, as well as county of occurrence, county of residence, and county population size. The evolution of average suicides among Hispanics aged 5-14, 15-24 years, and 5-24 years can be seen in Figure 2. Summary statistics and balance tables are presented in Tables 1 and 2. For the purposes of this study, the sample is restricted to 1999-2013 to align with the implementation year of the secure communities program.

## Sanctuary Cities Data

I construct measures of sanctuary city status using data compiled by Alsan and Yang (2024), who built upon the original list maintained by the Immigration and Customs Enforcement (ICE). Sanctuary ordinances were passed at local levels to limit a municipality's cooperation with federal immigration enforcement agencies

[11] The ICD-10 codes used to define underlying causes of death due to suicide were X60-X84 (intentional self-harm), and Y87.0 (Sequelae of intentional self-harm)pertains to the physical or mental health conditions that arise directly from an individual's intentional self-inflicted harm. X60 to X69 correspond to intentional self-poisoning, while X70 to X84 correspond to intentional self-harm by other and unspecified means, including drowning, hanging, strangulation, and suffocation, smoke, sharp object, etc. Suicide by firearms was categorized using three specific codes: X72 (intentional self-harm by handgun discharge), X73 (intentional self-harm by rifle, shotgun and larger firearm discharge), and X74 (intentional self-harm by other and unspecified firearm discharge).

and typically represent policies where local jurisdictions do not honor Immigration and ICE detainer requests or otherwise limit cooperation with federal immigration authorities.

The sanctuary city indicator variable identifies jurisdictions with active sanctuary policies during the period of SC activation. For Hispanics in sanctuary cities relative to nonsanctuary cities, Alsan and Yang (2024) find a significant and positive effect of SC activation on participation in food stamps and no significant effect of SC activation on participation in SSI, suggesting that sanctuary policies mitigate the chilling effects of immigration enforcement on program participation.

ICE's sanctuary jurisdiction list includes various types of sanctuary policies that can be categorized into three main types: (1) "don't ask" policies that prohibit local officials from inquiring about immigration status, (2) "don't enforce" policies that limit local enforcement of immigration law, and (3) "don't tell" policies that restrict information sharing with federal immigration authorities (Kittrie 2006).

For this analysis, I focus primarily on city-level sanctuary policies, as local police enforcement typically operates under municipal governments. However, I also account for state and county-level sanctuary policies where applicable. The binary sanctuary indicator captures whether a jurisdiction had active sanctuary policies in place during the relevant time period of SC implementation, allowing me to test whether local protective policies moderate the effects of federal immigration enforcement on Hispanic youth suicide rates.

## 4.2 County-Level Mental Health Measures

I use the County Health Rankings & Roadmaps for county-level mental health measures to test if worsening mental health as a result of SC adoption is a mechanism that could drive Hispanic suicides up (University of Wisconsin Population Health Institute 2025). This dataset provides standardized mental health indicators for nearly all U.S. counties, including the average number of mentally unhealthy days reported by adults and county-level suicide rates. The ranking system allows for cross-sectional comparisons between counties and longitudinal analysis.

## 4.3 Measuring Prejudice

I also test whether prejudice or bias against Hispanics is another mechanism that could drive the results. It could be the case that places that are more biased

against Hispanics would supportive of ICE and more strict immigration enforcement policies. I construct a measure of prejudice and use the skin-tone implicit association test, the American National Election Studies, and hate crimes against Hispanics from 2004-2013.[12]

I construct another proxy measure of racial animus using the American National Election Studies (ANES) survey to measure animus, or discrimination, against racial minorities (American National Election Studies 2021). ANES is a survey that has been conducted since 1948 and is widely used in political science. The survey asks respondents about their attitudes toward different racial groups, voting intentions, and other political questions. I used several questions from the ANES surveys conducted between 2004 and 2013 to measure racial animus. The racial animus index is constructed by taking the average of responses to several questions that measure the racial animus. [13]

Lastly, I incorporate data from the Uniform Crime Reports (UCR) to calculate the number of hate crimes against Hispanics (Bureau of Justice Statistics 2023). Hate crime data offer a tangible measure of racially motivated aggression and discrimination, which, when combined with implicit and explicit bias measures, allows a more complete understanding of the landscape of prejudice across states. This combination of implicit and explicit bias measures, along with hate crime statistics, offers a multidimensional approach to understanding the nature and prevalence of racial prejudice.

Moreover, to reduce attenuation bias and measurement error, I follow Lubotsky and Wittenberg (2006) in constructing a composite bias measure using the IAT, the ANES racial animus measure and hare crimes against Hispanics. A lower score implies less bias, while a higher score implies higher racial animus. A one standard deviation increase in bias is equivalent to moving from Washington, DC, or Vermont to North Dakota in 2020.

[12]The implicit association test measures how people associate concepts—for example, Black and dark-skinned people—and evaluations—good, bad. Respondents are asked to quickly match words into categories shown on a screen. I use data from the skin tone implicit association test to construct a proxy of prejudice (Greenwald, McGhee, and Schwartz 1998). This measure has been used in the social sciences, especially in psychology. Previous work has shown that IAT test scores are difficult to manipulate (Egloff and Schmukle 2002).

[13]The questions used are similar to those used by Charles and Guryan (2008). The questions are: (1) "Conditions Make it Difficult for Blacks to Succeed", (2) "Blacks Should Not Have Special Favors to Succeed", (3) "Blacks Must Try Harder to Succeed", (4) "Blacks Gotten Less than They Deserve Over the Past Few Years", and (5) "Feeling Thermometer Toward Asians."

# 5 Empirical strategy

I use the staggered county-level adoption of Secure Communities to causally identify its effects on Hispanic youth suicide rates. The quasi-experimental design uses two sources of variation: (1) cross-sectional variation in which counties adopted SC, and (2) temporal variation in when adoption occurred. This approach compares suicide rates before and after the implementation of SC in adopting counties relative to control counties that had not yet implemented the program.

The first source of variation comes from the county-level adoption of secure communities, which allows me to compare between counties that have adopted secure communities and those that have not. The second source of variation is based on the timing of suicides, with some suicides that occurred before and after the adoption of secure communities within the adopting counties.

I estimate a dynamic Two-way Fixed Effects model using Callaway and Sant'Anna (2021) to identify how secure communities affect suicides in different counties. Using the method, I test for suggestive evidence of the validity of the parallel trends and the no anticipation assumptions. The event study equation is:

$$y_{cst} = \sum_{l=-K}^{L} \beta_l \mathbf{1}\{t - E_c = l\} + \theta_c + \lambda_t + \varepsilon_{cst} \tag{1}$$

where the outcome variable $y_{cst}$ is the number of Hispanic suicides in county $c$, in state $s$, at time $t$. $E_c$ is the year of time in which county $c$ adopted secure communities. $\mathbf{1}\{t - E_c = l\}$ is an indicator variable equal to 1 when time $t$ is $l$ years away from the adoption of secure communities in county $c$. For example, Harris County, Texas adopted secure communities in October 2008, therefore $t - E_c$ would give you the number of years away from the year 2008. If $t = 2005$, Harris County, Texas would be three years away from secure community adoption, which means that $t - E_c$ would be equal to three. All regressions include county- and year-fixed effects. County-fixed effects, $\theta_c$ which absorbs time-invariant differences in observable and unobservable characteristics and allows a consistent estimation of $\beta$ even in the presence of differences between treated and untreated locations. The year-fixed effects $\lambda_t$ capture the time-variant shocks that affect all counties equally. I used counties not yet treated and never treated as a control group. All standard errors are cluster bootstrapped at the county level. I also weighted the coefficients by the total Hispanic populations of the counties.

Causal identification depends on two key assumptions. First, the Stable Unit Treatment Value Assumption (SUTVA), which implies that there are no spillovers.

Second, the parallel trends assumption requires that, absent SC implementation, adopting and non-adopting counties would have followed similar trajectories in Hispanic youth suicide rates. Third, the no anticipation assumption requires that Hispanic youth do not alter their behavior in ways affecting suicide risk prior to SC's actual implementation.

The coefficients of interest are $\beta_l$. The coefficients for values of $l < 0$ provide an estimate of the effect of secure communities on the outcome of interest before the adoption of the secure communities. I can also test for suggestive evidence supporting the validity of the parallel trends and the no anticipation assumptions using coefficients for values of $l < 0$. If the coefficient $\beta_{-1}$ is statistically insignificant, it indicates that the no anticipation assumption holds. If coefficients $\beta_l$ for values of $l < 0$ are statistically insignificant, then the assumption of parallel trends holds. On the other hand, the coefficient for values of $l \geqslant 0$ captures the post treatment effect of secure communities on Hispanic suicide.

# 6 Results

The analysis reveals heterogeneous effects of SC implementation across age groups, with the strongest and most statistically significant impacts concentrated among the youngest Hispanic children. This section presents results by age group, followed by analysis of gender differences and heterogeneity by local sanctuary policies.

## Age-Specific Effects

### Children and Adolescents (Ages 5-14)

The implementation of SC significantly increased suicide rates among Hispanic children aged 5-14. Figure 3 presents event study estimates showing that pretreatment coefficients remain statistically insignificant, supporting both parallel trends and no anticipation assumptions. post treatment effects emerge immediately and persist through the observation year, with suicide rates increasing most in the first two years after implementation before moderating in the third year.

The estimated average treatment in the treated (ATT) is equal to 0.19 additional suicides per county, translating to approximately 600 additional deaths among Hispanic children aged 5-14 nationwide. This effect is statistically significant at the 10% level and represents a significant increase given the baseline suicide rates in this population. Although the significance of the point estimates in the three

years post-treatment are insignificant at the 5% level, the confidence intervals predominantly include positive values. The heterogeneous gender differences are small, with girls showing 0.06 additional suicides per county and boys 0.14 additional suicides per county, both statistically insignificant (Figures A.8 and A.9).

**Effects for Children and Non-Adolescent Hispanic Youth (Ages 5-24)**

Among Hispanic young adults (ages 15–24), the estimated effects are statistically insignificant (see Figure 4). Pre-treatment coefficients validate the assumptions of parallel trends and no anticipation, while post-treatment estimates exhibit considerable fluctuation—rising to roughly two additional suicides per county in the first two years before subsequently declining. The average treatment effect on the treated (ATT) is 0.03 additional suicides per county, a value that is statistically insignificant, with wide confidence intervals. Notably, although the point estimates for years 1 and 2 post-treatment are insignificant at the 5% level, their confidence intervals are largely in the positive direction.

The analysis of SC's impact on the broader Hispanic youth population (ages 5-24) yields inconclusive results (Figure 5). The estimated ATT of 0.22 additional suicides per county does not reach statistical significance. The confidence intervals show considerable uncertainty, extending across both positive and negative values in the post-treatment period, though they tend to include more positive values in the early years following implementation. The point estimates in the three years post-treatment remain statistically insignificant at the 5% level, with confidence intervals that encompass a range of possible effects including both increases and decreases.

Among Hispanic youth aged 15-24, both men and women show modest effects that remain statistically indistinguishable from zero, with women experiencing 0.41 additional suicides per county and men showing a decrease of 0.38 suicides per county (Figures A.6 and A.7). The broader youth population aged 5-24 shows similar gender differences, with young women experiencing 0.47 additional suicides per county and young men showing a decrease of 0.25 suicides per county (Figures A.10 and A.11).

**Older Adults (Ages 34+)**

The implementation of SC produces substantial but statistically insignificant increases in suicide rates among Hispanic adults 34 years and older (Figure A.2). Pretreatment coefficients remain consistently near zero, confirming parallel trends

and no anticipation assumptions. Post treatment effects show a clear upward trajectory, rising from approximately 2 additional suicides per county at implementation to 10 suicides per county by the third year—representing the largest point estimates across all age groups examined. The ATT of 4.0 additional suicides per county, while substantial in magnitude, remains statistically insignificant due to wide confidence intervals. Notably, the majority of confidence intervals lie in positive territory across all post treatment years, suggesting a consistent pattern despite the lack of statistical precision. This pattern indicates that, while we cannot definitively conclude that SC increases suicide rates among older Hispanic adults, the data do not rule out potentially large harmful effects in this population.

## Aggregate Effects Across All Ages

When examining the entire Hispanic population regardless of age, the implementation of SC shows large but imprecisely estimated increases in suicide rates (Figure A.3). The aggregate effects reflect the sum of age-specific impacts, with suicide rates rising immediately to 4 additional deaths per county at implementation, peaking at 10 suicides per county in the second post treatment year, and stabilizing around 8 suicides per county thereafter. The ATT of approximately 7.5 additional suicides per county represents a substantial magnitude that, if statistically significant, would indicate a major public health impact of immigration enforcement. However, the wide confidence intervals prevent us from drawing definitive conclusions about the effects across the population. These aggregate results demonstrate that while the most precise and statistically significant impacts of SC are concentrated among young children aged 5-14, the broader Hispanic community experiences an elevated risk of suicide, although statistically insignificant.

The heterogeneous gender results reveal that there are no statistically significant effects of SC implementation in any age group or demographic combination examined. For the overall Hispanic population, men show substantially larger point estimates than women—with men experiencing an ATT of 5.75 additional suicides per county compared to women's decrease of 0.41 suicides per county (Figures A.4 and A.5)—but neither estimate is statistically significant.

## Heterogenous Effects by Sanctuary Status

I analyze whether local sanctuary policies moderate the impact of SC by estimating the model separately for counties with and without sanctuary ordinances.

Figure 6 plots the weighted event study estimates for non-sanctuary (grey) and sanctuary (pink) counties that include county and year fixed effects.

Post-SC effects exhibit striking heterogeneity between sanctuary and non-sanctuary counties. The pretreatment coefficients for both groups hover near zero and are consistently statistically insignificant, confirming the parallel trends assumption and indicating no anticipatory effects.

Following SC adoption, non-sanctuary counties experience a steady increase in suicide rates, rising from approximately 0.02 additional suicides per county in the implementation year to 0.10 suicides per county at t = 2 and 0.22 suicides per county by t = 3. In stark contrast, sanctuary counties show a post treatment decline, with suicide rates falling to approximately -0.15 suicides per county at t = 0, -0.18 at t = 1, -0.72 at t = 2, and -0.62 at t = 3. Although confidence intervals remain wide throughout, the opposing trajectories reveal a clear divergence between sanctuary and non-sanctuary counties. This heterogeneity provides compelling evidence that sanctuary policies mitigate the fear-of-deportation pathway, supporting the hypothesis that increased deportation risk drives the relationship between SC implementation and changes in Hispanic youth suicide rates.

# 7 Robustness Checks and Discussions

## 7.1 Stable Unit Treatment Value Assumption (SUTVA) and Spillover Effects

The Stable Unit Treatment Value Assumption (SUTVA) requires that treatment assignment of one unit does not affect the potential outcomes of other units. In the context of Secure Communities implementation, this assumption may be violated if the policy creates spillover effects across county boundaries. For instance, the adoption of SC in one county might lead to an increase in suicides in neighboring counties, affecting suicide rates in both treated and untreated areas.

While SUTVA cannot be directly tested, I can provide evidence that it is not substantially violated by examining spillover effects. I examine spillover effects by analyzing whether Secure Communities implementation in neighboring counties affects suicide rates in non-treated counties. Table A.1 presents results from two specifications that test for geographic spillover effects on Hispanic youth (ages 5-14) suicide rates. The first specification includes an indicator for whether a county borders a treated county but has not yet adopted Secure Communities itself. The second specification measures the intensity of treatment by counting

the number of neighboring counties that have implemented the program.

The results show small and statistically insignificant spillover effects. These negligible spillover effects suggest that SUTVA is not substantially violated in this context, supporting the validity of the identification strategy. The lack of significant spillover effects indicates that the observed increases in Hispanic youth suicide rates are primarily driven by direct treatment effects within counties rather than cross-border displacement or contagion effects.

## 7.2 Parallel Trends Assumption

The validity of the difference-in-differences design critically depends on the assumption of parallel trends: That treated and control counties would have followed similar trends in suicide rates in the absence of treatment. Figures 3 and 5 present event study plots that allow for visual inspection of pre-treatment trends and dynamic treatment effects.

Figure 3 shows the event study results for Hispanic children aged 5-14. The pre-treatment coefficients (years -5 to -1) are statistically insignificant, providing evidence that the parallel trends assumption probably holds. Similarly, Figure 5 displays results for Hispanic adolescents and young adults aged 5-24. Again, pre-treatment coefficients are insignificant, supporting the parallel trends assumption.

To assess the sensitivity of the results to potential violations of the assumption of parallel trends, Figure A.18 presents the point estimate in year 1 from specification in Figure 5 using the approach of Rambachan and Roth (2023). This method constructs confidence intervals that are robust to violations of the parallel trends assumption by allowing for different degrees of linear pre-trend violations, measured by the parameter $\bar{M}$. The results show that while the treatment effect remains significant for small violations of parallel trends, it becomes statistically insignificant when allowing for $\bar{M} \geqslant 0.5$, indicating that the findings are sensitive to moderate violations of the parallel trends assumption.

## 7.3 Alternative Specifications and Geographic Heterogeneity

To assess the robustness of the main findings to different modeling choices, I estimate several alternative specifications. Figure A.19 incorporates state-year fixed effects to control for time-varying unobserved heterogeneity at the state level. This specification accounts for state-specific economic conditions, or other factors that might confound the relationship between Secure Communities implementation

and suicide rates. The results remain consistent with the main findings, suggesting that state-level confounders are not driving the observed effects.

Figure A.20 examines geographic heterogeneity by excluding southern counties from the analysis following Alsan and Yang (2024).

## 7.4 Alternative Estimators

Recent methodological advances in difference-in-differences estimation have highlighted potential biases in traditional two-way fixed effects (TWFE) models when treatment timing varies across units. To verify the robustness of my findings, Figures A.15, A.16, and A.17 present treatment effect estimates using multiple estimators designed for staggered adoption settings.

I compare results from TWFE with estimates from Callaway and Sant'Anna (2021), Sun and Abraham (2021), Gardner (2022), Roth and Sant'Anna (2023), and Borusyak, Jaravel, and Spiess (2024). Across all age groups and estimation methods, the results consistently show positive treatment effects, with the various estimators that are similar in point estimates and confidence intervals. This convergence across methodologically distinct approaches strongly reinforces the robustness of the findings and suggests that the results are not artifacts of the specific estimation strategy employed.

## 7.5 Placebo Tests

One potential threat to identification is that the timing of county implementation may be correlated with other factors that influence suicide rates. To address this concern, I conduct placebo tests on groups that should be unaffected by immigration policy: non-Hispanic White and non-Hispanic Black individuals. Since these populations are less likely to be directly impacted by Secure Communities, they serve as placebo groups to test whether early adopting counties have other characteristics that systematically affect youth suicide rates.

The results of these placebo tests, shown in Figures A.13 and A.14, are statistically insignificant across all time periods. The absence of effects on these control populations provides strong evidence that the observed increases in Hispanic youth suicide rates are not driven by random factors, unobserved county-level characteristics, or other policies that might have been implemented concurrently with Secure Communities.

### 7.6 Discussion of Effect Magnitude

The estimated effects of Secure Communities on Hispanic youth suicide rates should be interpreted as likely lower-bound estimates of the true causal impact. Hispanic ethnicity is often underreported or misclassified in vital statistics records, with some Hispanic suicides potentially being recorded as non-Hispanic white deaths due to inconsistencies in data collection practices, incomplete information, or administrative errors in death certificates.

Consequently, the significant positive effects observed on Hispanic youth suicide rates—particularly the increases in suicides among children aged 5-14 and adolescents aged 15-24 following Secure Communities implementation—likely represent conservative estimates of the true policy impact. The actual harm to Hispanic communities may be substantially larger than the results suggest.

## 8 Mechanisms

I test multiple mechanisms that could lead to an increase in Hispanic youth's suicide after a change in immigration enforcement. These mechanisms are fear of deportation that could directly affect youth mental health and racial or ethnic bias toward Hispanics.

To explore the role of anti-Hispanic bias in amplifying the effects of immigration enforcement on youth suicide rates, I examine whether counties with above-median versus below-median levels of state-level bias exhibit differential responses to Secure Communities implementation.[14] The results, presented in Figure A.21, show no clear evidence that pre-existing bias significantly moderates the policy's impact. Although counties with below-median anti-Hispanic bias appear to show a slight downward trend in later years and those with above-median bias show a modest upward trend, these differences are statistically insignificant. The lack of a clear differential effect suggests that anti-Hispanic bias may not be a primary mechanism through which Secure Communities affects Hispanic youth suicide rates, or that the bias measure used may not adequately capture the relevant dimensions of community sentiment that influence policy impacts.

To assess whether the timing of Secure Communities activation mattered for general population mental health, I present the ATT for the two cohorts that

[14] I use state-level measures of bias rather than more granular geographic units due to data limitations. County-level data are unavailable for key sources such as the ANES, and the GSS is not representative below the state level. Additionally, crime data are typically more reliable and complete at the state level.

adopted the SC in 2011 and 2012 using not-yet-treated counties as controls. These two cohorts are chosen because 2011 and 2012 are the only years for which county-level mentally unhealthy days data and SC implementation dates overlap before becoming a nationwide policy. Figure A.22 presents the cohort-specific ATT estimates with 95 percent confidence intervals.

For the 2011 cohort, the ATT is equal to –0.08 mentally unhealthy days per adult (CI: –0.17 to +0.01), and the 2012 cohort's ATT is equal to –0.10 days. Averaging across both cohorts yields an ATT equal to –0.09 days. In all cases, no estimate is statistically significant. These null cohort-specific effects reinforce the conclusion that SC implementation may not meaningfully change average mentally unhealthy days at the county level, regardless of activation year. Since Hispanics may be affected more by the policy than other groups, it is important to examine mental health data specifically for Hispanic residents to see if SC had different effects on this population that are not captured in the overall county-level results.

# 9 Conclusion

This paper provides a causal analysis of how immigration enforcement affects suicide rates among Hispanic youth in the United States. Using the staggered implementation of Secure Communities across counties between 2008 and 2013, I find robust evidence that enhanced immigration enforcement significantly increases suicide rates among Hispanic children, with effects that vary substantially across age groups and gender.

The adoption of SC increased the number of suicides among children aged 5-14. The implementation of SC led to an estimated 600 additional suicides among Hispanic children aged 5-14, with an average treatment effect of 0.19 additional suicides per county. Notably, effects among age groups (5-24, adults 34+) and across gender subgroups were inconclusive. The lack of statistical significance in these estimates means that I cannot reject the possibility that SC could have led to an increase in suicides among Hispanic populations, highlighting the need for more precise measurement to definitively rule out harmful effects. I find no statistically significant gender-specific effects for either Hispanic men or women. The heterogeneity analysis shows no robust evidence of differential impacts across age-gender subgroups, with most estimates remaining statistically insignificant despite some variation in point estimates.

An important consideration in interpreting our findings concerns the systematic underreporting and misclassification of Hispanic ethnicity in vital statistics

data. Hispanic ethnicity is frequently underreported in death certificates, with some Hispanic suicides likely recorded as non-Hispanic white deaths due to data collection inconsistencies, incomplete documentation, or administrative errors. This systematic misclassification biases my estimates toward zero by reducing the observed number of Hispanic suicides in both treated and control counties. The substantial and statistically significant increases in Hispanic youth suicide rates we document—particularly among children aged 5-14 and young adults aged 15-24—should therefore be interpreted as conservative lower-bound estimates of the true causal effects. The actual mental health toll of immigration enforcement on Hispanic communities is likely considerably larger than our results indicate, suggesting that the public health crisis we identify represents only the visible portion of a more extensive harm. This strengthens rather than weakens our core findings and underscores the critical urgency for immediate policy reforms to address the devastating mental health consequences of aggressive immigration enforcement on vulnerable youth populations.

The heterogeneity analysis by sanctuary status reveals particularly intriguing evidence in this paper: sanctuary policies appear to serve as a crucial protective mechanism against the adverse mental health effects of immigration enforcement. Counties with sanctuary ordinances experienced declining suicide rates after SC implementation, while nonsanctuary counties saw increases, creating a striking divergence in outcomes. This pattern suggests that local policies designed to limit cooperation with federal immigration enforcement can effectively mitigate the fear-of-deportation pathway that drives an increased risk of suicide among Hispanic youth. The protective effect of sanctuary policies underscores the importance of local governance in buffering vulnerable populations from federal enforcement activities and highlights how community-level policy choices can meaningfully influence population health outcomes. These findings suggest that sanctuary policies can represent an effective harm reduction strategy for communities seeking to protect the mental health of their Hispanic residents during years of intensified immigration enforcement.

However, this analysis provides only an initial examination of how different types of sanctuary policies, which vary considerably in scope and implementation, may differentially affect mental health outcomes. This paper provides potential future topics to be researched, including examining the specific mechanisms through which sanctuary policies provide protection, investigating whether certain policy designs are more effective than others, and assessing how the interaction between federal enforcement intensity and local sanctuary strength influences community mental health. Furthermore, research exploring the long-term

effects of sanctuary policies on broader community trust, social cohesion, and access to public services would provide valuable insights to policymakers seeking to design comprehensive approaches to immigrant integration and community well-being.

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Table 1: Summary Statistics for County-Year Data

| | Mean | SD | Min | Max |
|---|---|---|---|---|
| Population | 88,641 | 289,529 | 67 | 9,519,338 |
| Population Age 5–14 | 12,908 | 43,753 | 0 | 1,525,699 |
| Population Age 15–24 | 12,406 | 41,185 | 1 | 1,445,814 |
| Hispanic Population | 10,776 | 93,604 | 0 | 4,242,213 |
| % Female Population | 50.48 | 1.95 | 32.07 | 57.44 |
| % White Alone Population | 84.64 | 16.56 | 4.51 | 99.95 |
| % Never Married Men | 20.18 | 4.59 | 7.55 | 61.89 |
| % College Degree or Higher | 10.60 | 5.03 | 1.83 | 45.85 |
| % Persons Below Poverty Level | 13.90 | 6.49 | 0.00 | 61.79 |
| Median Household Income | 34,343.6 | 9,324.3 | 8,595.0 | 82,929.0 |
| Suicides: Hispanic Age 15–24 | 0.16 | 1.17 | 0.00 | 51.00 |
| Suicides: Hispanic Age 5–14 | 0.01 | 0.12 | 0.00 | 4.00 |
| Suicides: Hispanic Females Age 15–24 | 0.02 | 0.23 | 0.00 | 10.00 |
| Suicides: Hispanic Females Age 5–14 | 0.00 | 0.06 | 0.00 | 2.00 |
| Suicides: Hispanic Males Age 15–24 | 0.13 | 1.00 | 0.00 | 42.00 |
| Suicides: Hispanic Males Age 5–14 | 0.01 | 0.09 | 0.00 | 3.00 |

[1] Data source is the National Vital Statistics System (NVSS) covering 1959-2013 for mortality data and Manson et al. (IPUMS National Historical Geographic Information System: Version 17.0) for the demographic data from the US Census. Sample includes county-year observations. Suicide data uses ICD-10 codes X60-X84 and Y87.0 to identify deaths by intentional self-harm among Hispanic youth.

Table 2: Comparison of Treated and Control Groups

| | Control (N=424) | | Treated (N=34053) | | | |
|---|---|---|---|---|---|---|
| | Mean | Std. Dev. | Mean | Std. Dev. | Diff. in Means | Std. Error |
| Population | 54 506.0 | 170 032.2 | 89 065.8 | 290 683.5 | 34 559.8 | 8406.4 |
| Population Age 5–14 | 8184.9 | 22 946.0 | 12 966.5 | 43 947.2 | 4781.6 | 1139.5 |
| Population Age 15–24 | 7579.0 | 23 926.2 | 12 465.5 | 41 350.6 | 4886.5 | 1183.4 |
| Hispanic Population | 5409.4 | 47 155.9 | 10 843.0 | 94 036.2 | 5433.7 | 2346.1 |
| % Female Population | 47.4 | 3.7 | 50.5 | 1.9 | 3.1 | 0.2 |
| % White Alone Population | 52.2 | 28.2 | 85.0 | 15.9 | 32.9 | 1.4 |
| % Never Married Men | 25.9 | 4.9 | 20.1 | 4.5 | −5.8 | 0.2 |
| % College Degree or Higher | 12.2 | 5.6 | 10.6 | 5.0 | −1.6 | 0.3 |
| % Persons Below Poverty Level | 13.8 | 9.4 | 13.9 | 6.4 | 0.1 | 0.5 |
| Median Household Income | 45 011.2 | 12 278.4 | 34 210.7 | 9204.2 | −10 800.4 | 598.4 |
| Suicides: Hispanic Age 15–24 | 0.1 | 0.5 | 0.2 | 1.2 | 0.1 | 0.0 |
| Suicides: Hispanic Age 5–14 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Suicides: Hispanic Females Age 15–24 | 0.0 | 0.3 | 0.0 | 0.2 | 0.0 | 0.0 |
| Suicides: Hispanic Females Age 5–14 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Suicides: Hispanic Males Age 15–24 | 0.1 | 0.3 | 0.1 | 1.0 | 0.1 | 0.0 |
| Suicides: Hispanic Males Age 5–14 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |

[1] Data source is the National Vital Statistics System (NVSS) covering 1959-2013 for mortality data and Secure Communities adoption data from Alsan et al. (2024). Control group represents county-year observations before Secure Communities implementation; treated group represents observations after implementation. Secure Communities was an ICE immigration enforcement program operating 2008-2014, with staggered county adoption beginning October 2008.

Table 3: Sanctuary Jurisdictions Used in the Analysis [a,b]

| State | Jurisdiction | Level |
|---|---|---|
| CA | Alameda, Amador, Butte, Calaveras, Contra Costa, Del Norte, El Dorado, Fresno, Humboldt, Imperial, Inyo, Kings, Los Angeles, Mendocino, Merced, Mono, Napa, Orange, Placer, San Bernardino, San Francisco (City/County), San Joaquin, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, Santa Cruz, Sutter, Yolo, Yuba | Local |
| CA | *Trust Act*[c] | Statewide |
| CO | Archuleta, Delta | Local |
| CO | *All jails: detainers require judicial warrant*[c] | Statewide |
| CT | Hartford, New Haven | Local |
| CT | *Trust Act*[c] | Statewide |
| DC | Washington, D.C. | Local |
| FL | Alachua, Hernando | Local |
| GA | Clayton, DeKalb | Local |
| IA | Benton, Iowa, Jefferson, Sioux, Story, Union | Local |
| IL | Chicago (City) | Local |
| KS | Butler, Finney, Harvey, Sedgwick, Shawnee | Local |
| LA | Orleans Parish (New Orleans) | Local |
| MD | Montgomery, Prince George's | Local |
| MA | Boston (City), Hampshire (County), Middlesex (County), Northampton (City) | Local |
| MN | Hennepin | Local |
| NE | Hall, Sarpy | Local |
| NV | Clark, Washoe | Local |
| NJ | Burlington, Camden, Essex, Middlesex | Local |

*Continued on next page*

Table 3: Sanctuary Jurisdictions Used in the Analysis (continued)

| State | Jurisdiction | Level |
|---|---|---|
| NM | Bernalillo, Doña Ana, Rio Arriba, Santa Fe, Taos | Local |
| NM | *All county jails*[c] | Statewide |
| NY | New York City (NYC), Franklin, Onondaga, St. Lawrence, Wayne | Local |
| OR | Baker, Clackamas, Clatsop, Coos, Deschutes, Douglas, Grant, Jackson, Jefferson, Josephine, Lane, Lincoln, Malheur, Marion, Multnomah, Polk, Tillamook, Union, Wallowa, Washington, Yamhill | Local |
| PA | Bradford, Bucks, Butler, Chester, Delaware, Erie, Lebanon, Lehigh, Lycoming, Montgomery, Montour, Perry, Philadelphia (City/County), Pike, Westmoreland | Local |
| RI | Providence | Local |
| RI | *DOC policy*[c] | Statewide |
| VA | Arlington, Chesterfield | Local |
| VT | Montpelier (City) | Local |
| WA | Clallam, Clark, Cowlitz, Jefferson, King, San Juan, Skagit, Snohomish, Thurston, Walla Walla, Whatcom | Local |
| WI | Milwaukee | Local |

[1] Data from ICE Declined Detainer Outcome Report (DDOR), January 28–February 3, 2017.

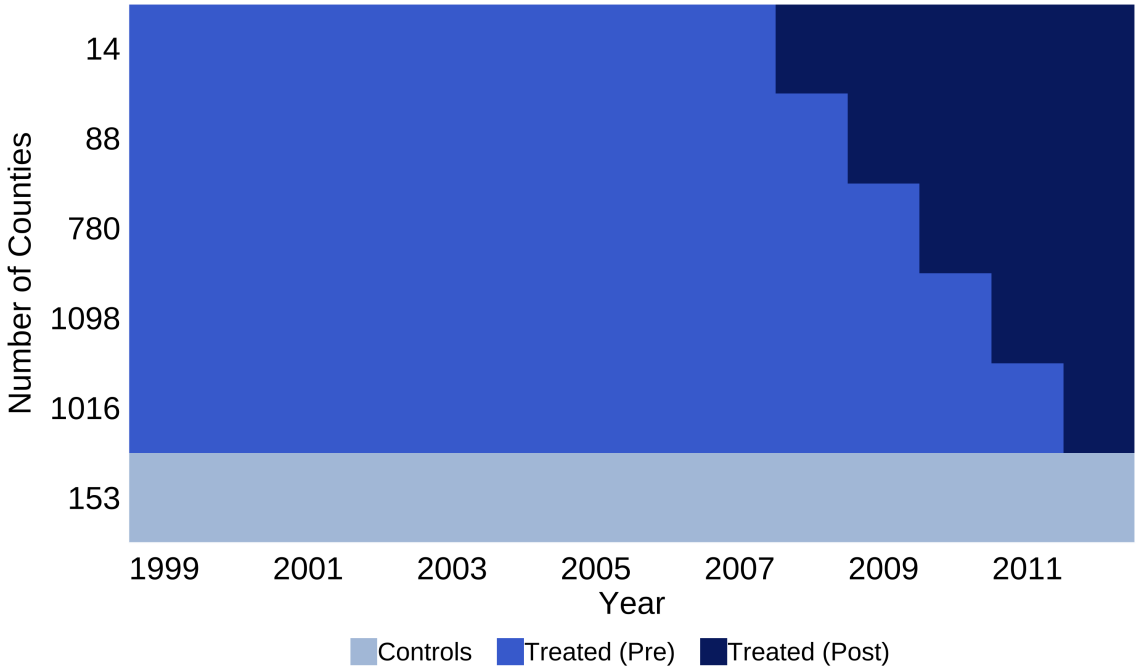
[2] Local jurisdictions consolidated by state; individual counties/cities separated by commas.

[3] Statewide policies apply to all jurisdictions within the state and may coexist with additional local measures.

[4] Sanctuary policies vary in scope: some limit ICE detainer cooperation, others have broader non-cooperation policies.

[5] List may not include all sanctuary jurisdictions nationwide; policies subject to change since data collection.

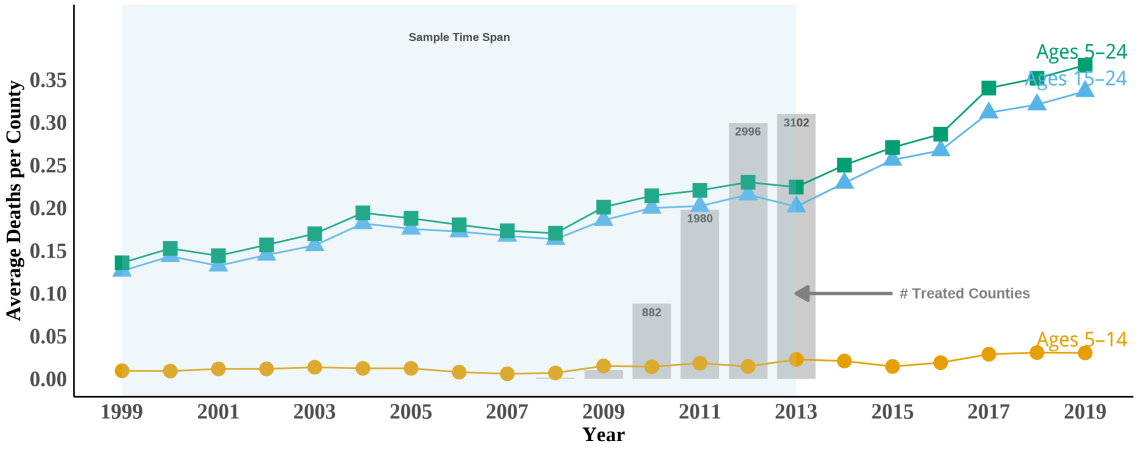
Figure 1: Staggered Adoption of Secure Communities Across US Counties




*Notes:* This figure illustrates the temporal and geographic variation in Secure Communities (SC) implementation across U.S. counties from 1999-2019. The staggered rollout provides the quasi-experimental variation necessary for causal identification, as counties were activated at different times based on administrative priorities rather than local suicide rates.

*Source:* Alsan and Yang (2024) collected records that are available to the public through FOIA requests to US Immigration and Customs Enforcement (ICE).

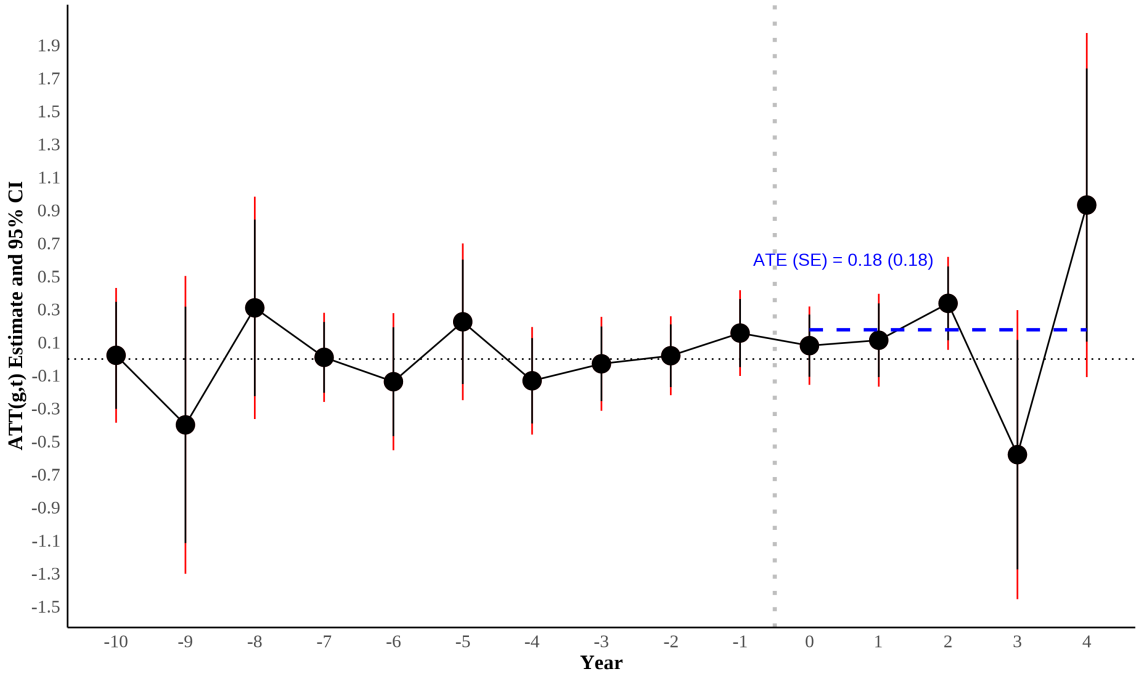
Figure 2: Suicides: By Age Groups




*Notes:* This descriptive figure shows the evolution of suicide rates among Hispanic children aged 5-14 over the study period.

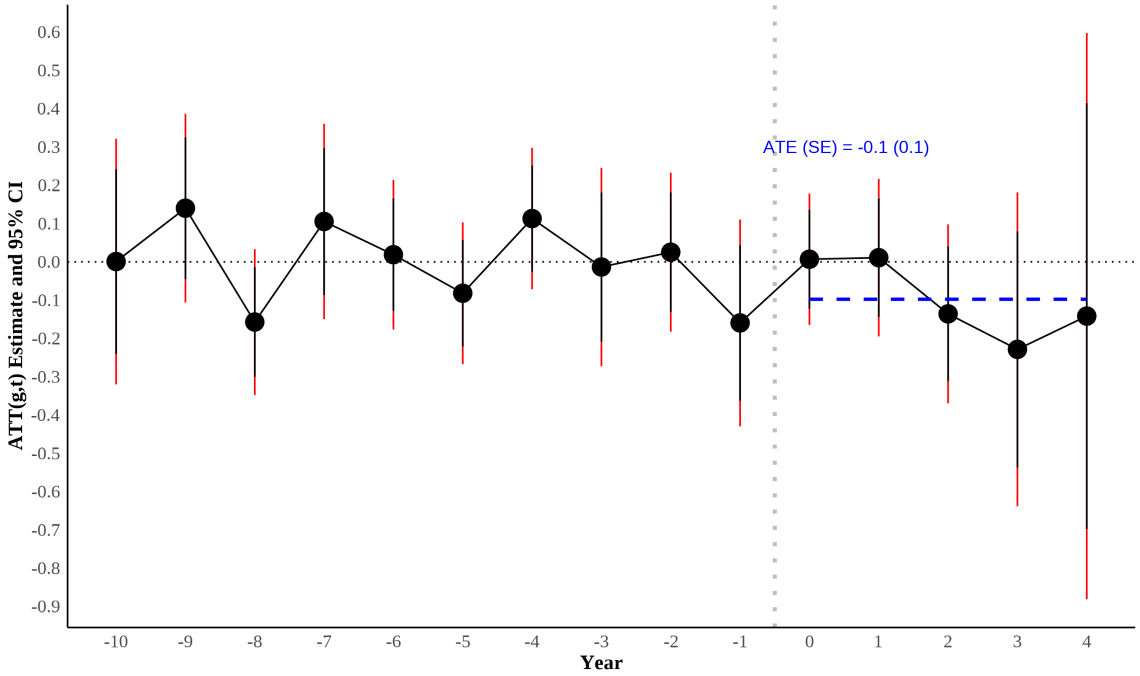
*Source:* National Vital Statistics System (NVSS) covering the years 1959 to 2019 (National vital statistics system 2007).

Figure 3: Effect of Secure Communities on Suicide Rates Among Hispanic Children Aged 5–14



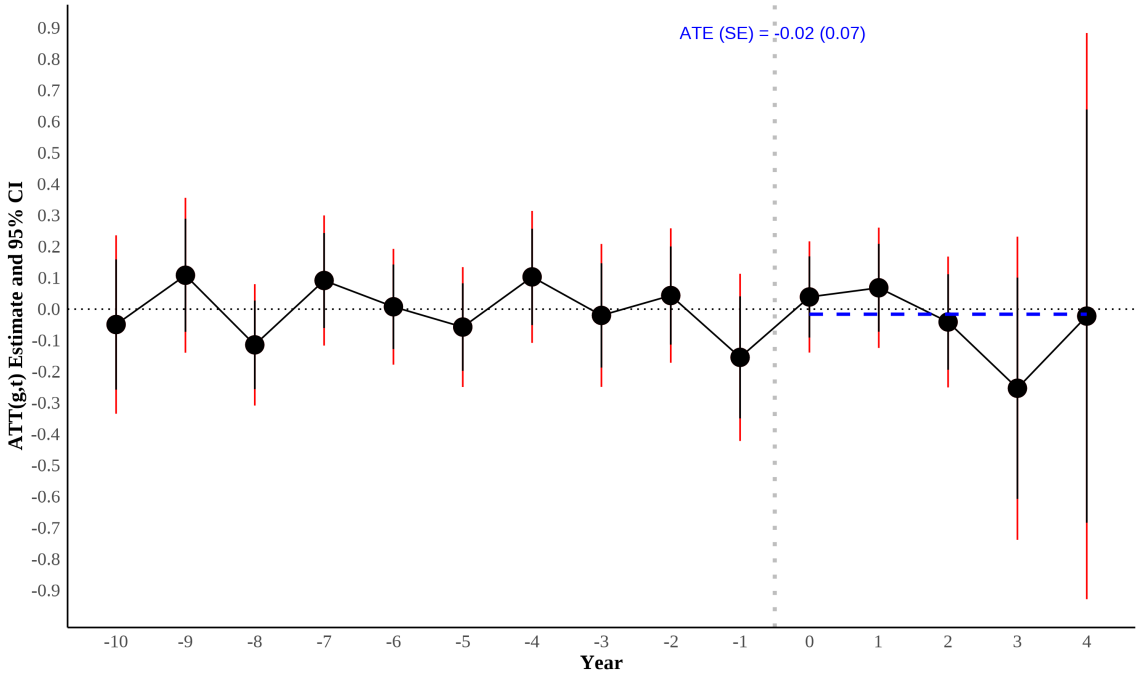

*Notes:* This figure estimates equation 1 where $y_{cst}$ is the number of suicides among Hispanic children aged 5–14 in county $c$, state $s$, at time $t$. Pre-treatment coefficients ($\beta_l$ for $l < 0$) test the parallel trends assumption and anticipation effects. Post-treatment coefficients ($\beta_l$ for $l \geqslant 0$) capture the dynamic treatment effects of Secure Communities implementation on Hispanic children's suicide rates. The total deaths estimate is calculated by multiplying the Average Treatment Effect (ATE) by the number of treated counties in the sample, representing the aggregate annual impact of Secure Communities implementation across all affected counties. This calculation assumes the estimated per-county effect applies uniformly across all counties that activated the program during the study period.

Figure 4: Effect of Secure Communities on Suicide Rates Among Hispanic Children Aged 15–24



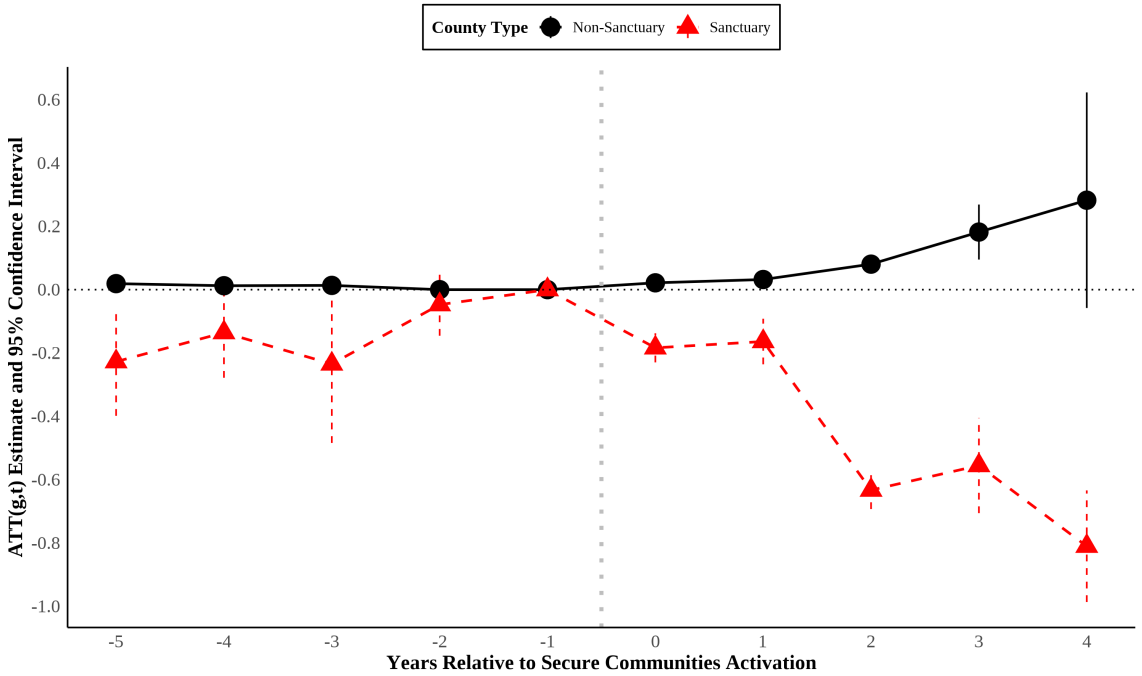

*Notes:* This figure estimates equation 1 where $y_{cst}$ is the number of suicides among Hispanic children aged 15–24 in county $c$, state $s$, at time $t$. Pre-treatment coefficients ($\beta_l$ for $l < 0$) test the parallel trends assumption and anticipation effects. Post-treatment coefficients ($\beta_l$ for $l \geqslant 0$) capture the dynamic treatment effects of Secure Communities implementation on Hispanic children's suicide rates.

Figure 5: Effect of Secure Communities on Suicide Rates Among Hispanic Youth Aged 5–24




*Notes:* This figure estimates equation 1 where $y_{cst}$ is the number of suicides among Hispanic youth aged 5–24 in county c, state s, at time t. Pre-treatment coefficients ($\beta_l$ for $l < 0$) test the parallel trends assumption and anticipation effects. Post-treatment coefficients ($\beta_l$ for $l \geqslant 0$) capture the dynamic treatment effects of Secure Communities implementation on Hispanic youth's suicide rates.

Figure 6: Effect of Secure Communities on Suicide Rates Among Hispanic Children Aged 5-14: By Sanctuary Status of City




*Notes:* This figure estimates equation 1 separately for counties with and without sanctuary city policies, where $y_{cst}$ is the number of suicides among Hispanic children aged 5–14 in county $c$, state $s$, at time $t$. Pre-treatment coefficients ($\beta_l$ for $l < 0$) test the parallel trends assumption and anticipation effects for each subsample. Post-treatment coefficients ($\beta_l$ for $l \geqslant 0$) capture heterogeneous treatment effects by sanctuary status, testing whether local immigration policies moderate the impact of federal enforcement. Sanctuary cities have local policies that limit cooperation with federal immigration enforcement, including restrictions on honoring ICE detainer requests and prohibitions on local officials inquiring about immigration status.

ONLINE APPENDIX

# Immigration Enforcement, Sanctuary Cities, and Rising Suicide Rates Among Hispanic Youth

Hussain Hadah

# A Tables

Table A.1: Spillover Effects of Secure Communities on Hispanic Youth Suicide Rates

| | (1) | (2) |
|---|---|---|
| Direct Treatment | 0.32 | 0.37 |
| | (0.22) | (0.24) |
| Neighboring Counties | 0.02 | |
| | (0.11) | |
| Neighboring Counties Intensity | | -0.02 |
| | | (0.03) |
| Observations | 43,782 | 43,782 |
| County FE | X | X |
| Year FE | X | X |

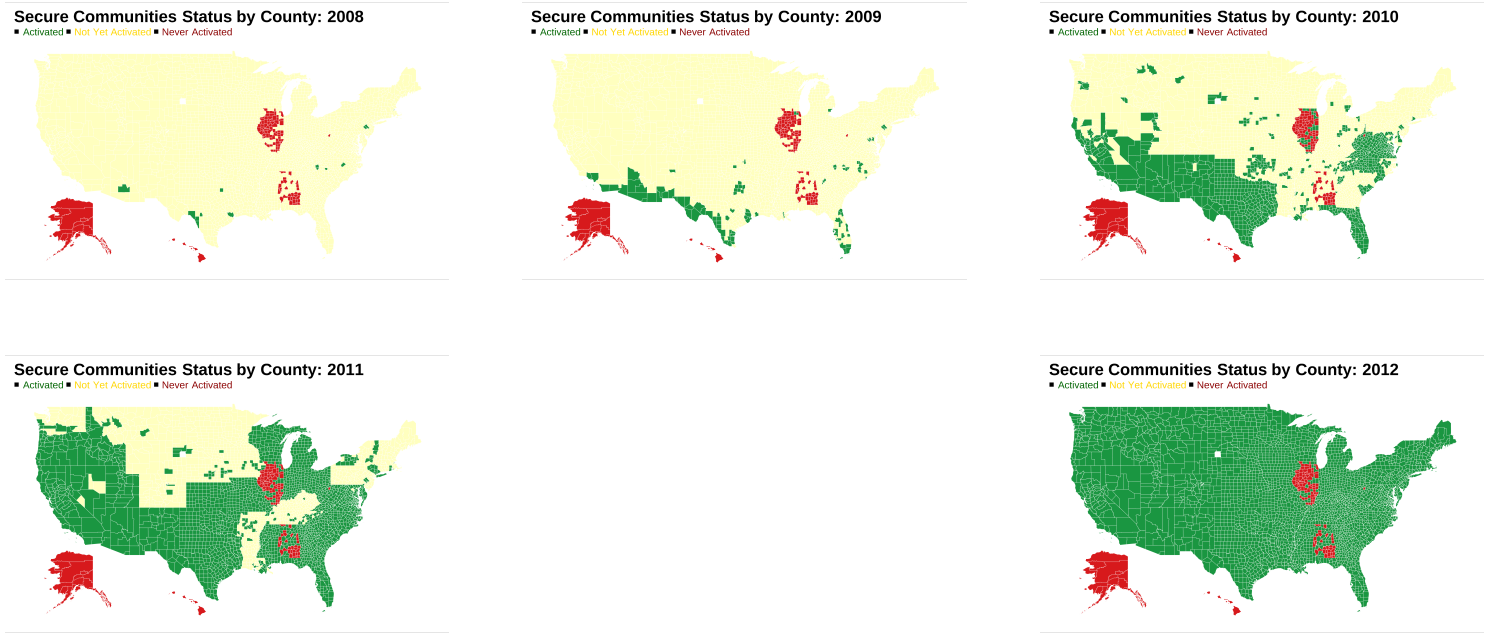
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

[1] This table examines spillover effects on Hispanic youth (ages 5-14) suicide rates using two-way fixed effects regressions with county and year fixed effects. 'Direct Treatment' indicates counties that adopted Secure Communities. 'Neighboring Counties' is an indicator equal to 1 if a county borders a treated county in a given year but has not yet adopted the program itself. 'Neighboring Counties Intensity' counts the number of neighboring counties that have adopted Secure Communities by year t. Standard errors are clustered at the county level.

[2] Standard errors are clustered on the county level.

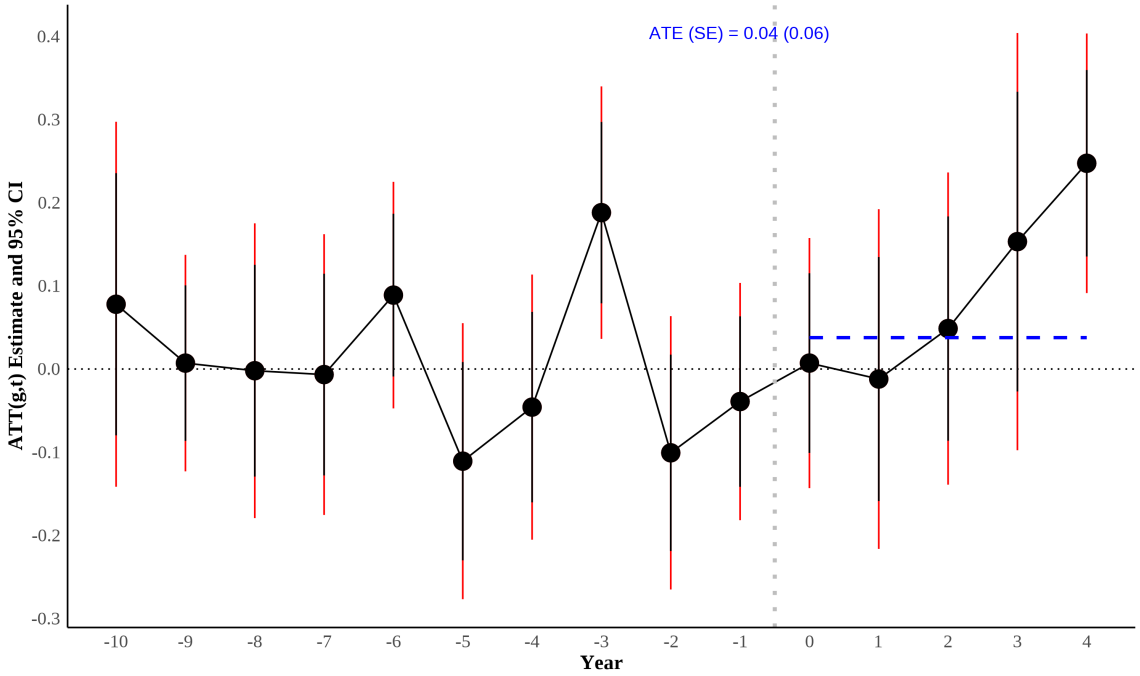
# B Figures

Figure A.1: Secure Communities Status by County



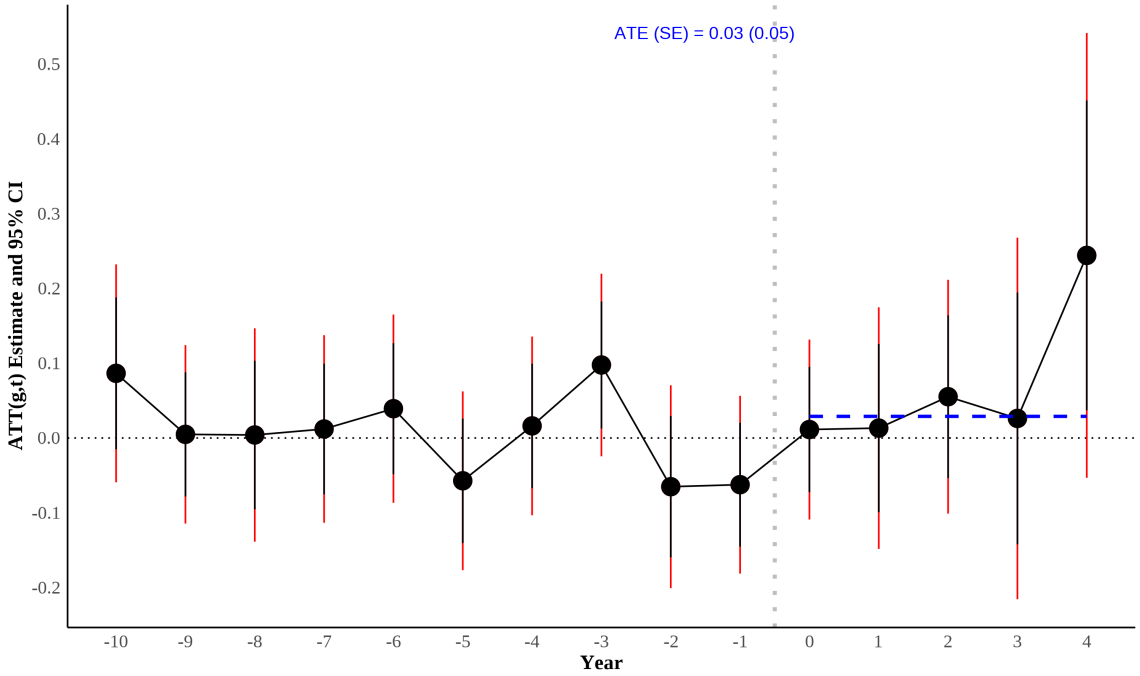

*Notes:* These maps illustrate the rollout of Secure Communities by county in selected years. Green counties had Secure Communities activated by that year, yellow counties not yet activated, and red counties never activated.

Figure A.2: Effect of Secure Communities on Suicide Rates Among Hispanic Adults Aged 35 and Older



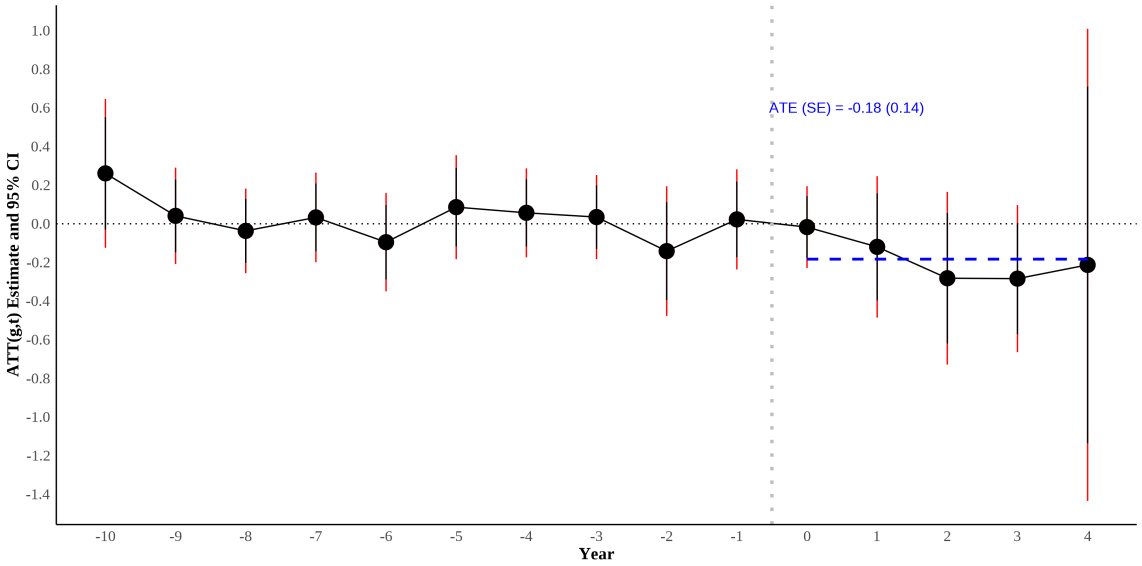

*Notes:* This figure estimates equation 1 where $y_{cst}$ is the number of suicides among Hispanics aged 35 and older in county c, state s, at time t. Pre-treatment coefficients ($\beta_l$ for $l < 0$) test the parallel trends assumption and anticipation effects. Post-treatment coefficients ($\beta_l$ for $l \geqslant 0$) capture the dynamic treatment effects of Secure Communities implementation on Hispanic suicide rates.

Figure A.3: Effect of Secure Communities on Suicide Rates Among All Hispanic Individuals



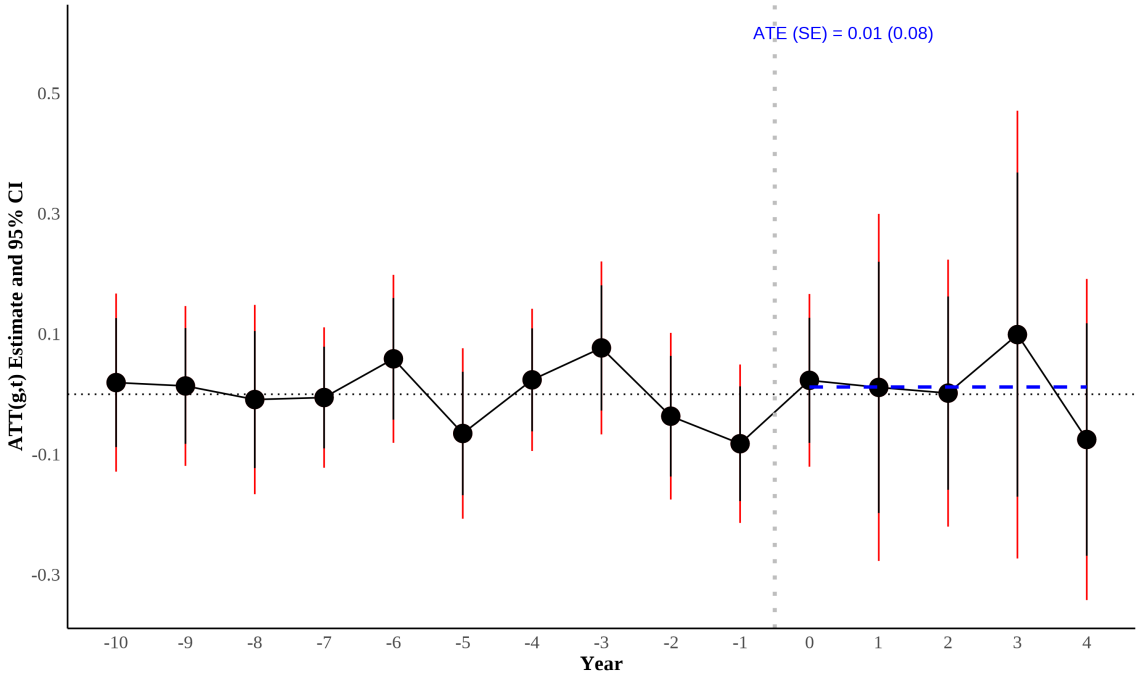

*Notes:* This figure estimates equation 1 where $y_{cst}$ is the number of suicides among all Hispanics in county $c$, state $s$, at time $t$. Pre-treatment coefficients ($\beta_l$ for $l < 0$) test the parallel trends assumption and anticipation effects. Post-treatment coefficients ($\beta_l$ for $l \geqslant 0$) capture the dynamic treatment effects of Secure Communities implementation on Hispanics suicide rates.

Figure A.4: Effect of Secure Communities on Suicide Rates Among Hispanic Women



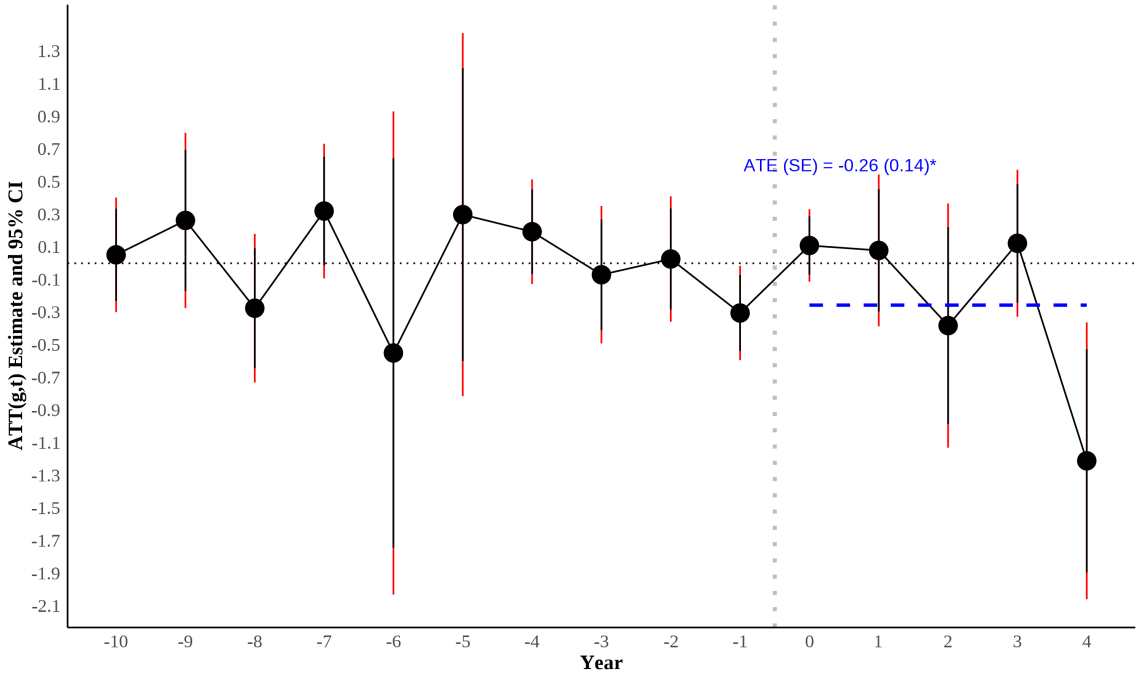

*Notes:* This figure estimates equation 1 where $y_{cst}$ is the number of suicides among Hispanic women in county $c$, state $s$, at time $t$. Pre-treatment coefficients ($\beta_l$ for $l < 0$) test the parallel trends assumption and anticipation effects. Post-treatment coefficients ($\beta_l$ for $l \geqslant 0$) capture the dynamic treatment effects of Secure Communities implementation on Hispanic women suicide rates.

Figure A.5: Effect of Secure Communities on Suicide Rates Among Hispanic Men



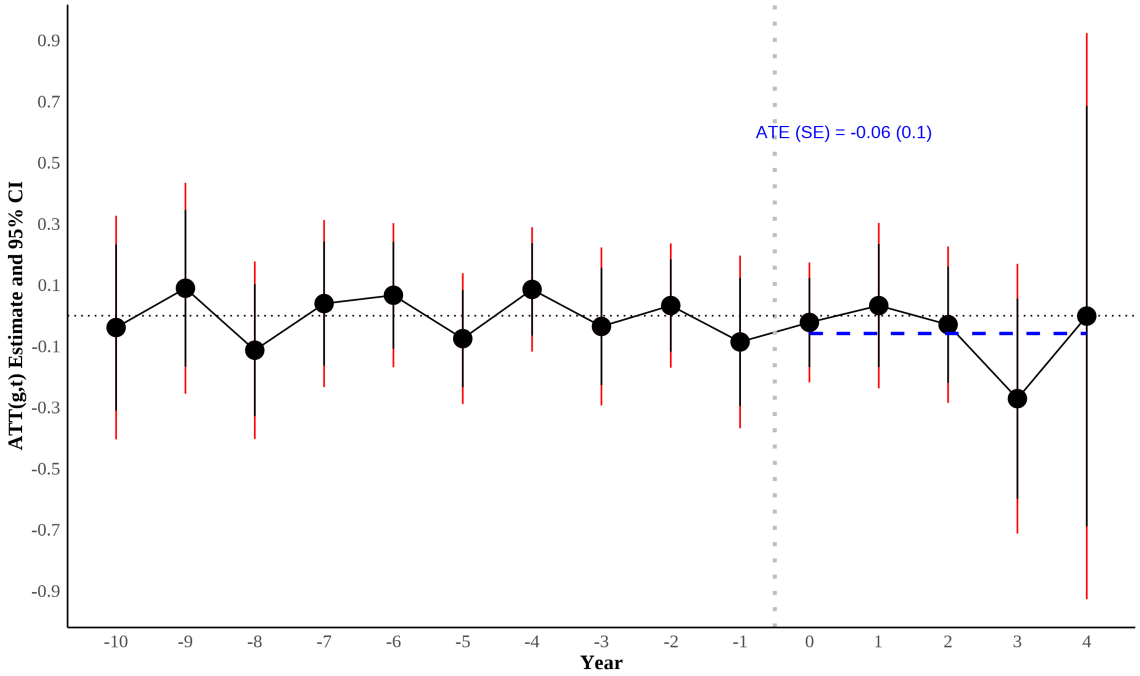

*Notes:* This figure estimates equation 1 where $y_{cst}$ is the number of suicides among Hispanic men in county $c$, state $s$, at time $t$. Pre-treatment coefficients ($\beta_l$ for $l < 0$) test the parallel trends assumption and anticipation effects. Post-treatment coefficients ($\beta_l$ for $l \geqslant 0$) capture the dynamic treatment effects of Secure Communities implementation on Hispanic men suicide rates.

Figure A.6: Effect of Secure Communities on Suicide Rates Among Hispanic Youth: Women Aged 15–24



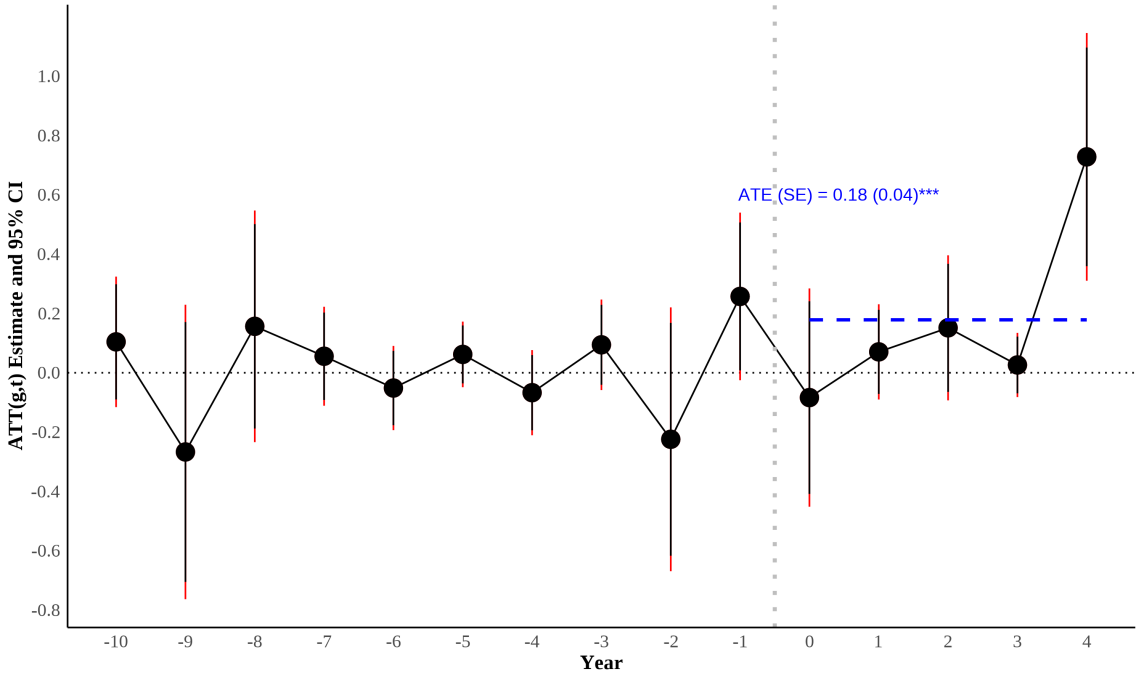

*Notes:* This figure estimates equation 1 where $y_{cst}$ is the number of suicides among Hispanic women aged 15–24 in county c, state s, at time t. Pre-treatment coefficients ($\beta_l$ for $l < 0$) test the parallel trends assumption and anticipation effects. Post-treatment coefficients ($\beta_l$ for $l \geqslant 0$) capture the dynamic treatment effects of Secure Communities implementation on Hispanic women aged 15–24 suicide rates.

Figure A.7: Effect of Secure Communities on Suicide Rates Among Hispanic Youth: Men Aged 15–24



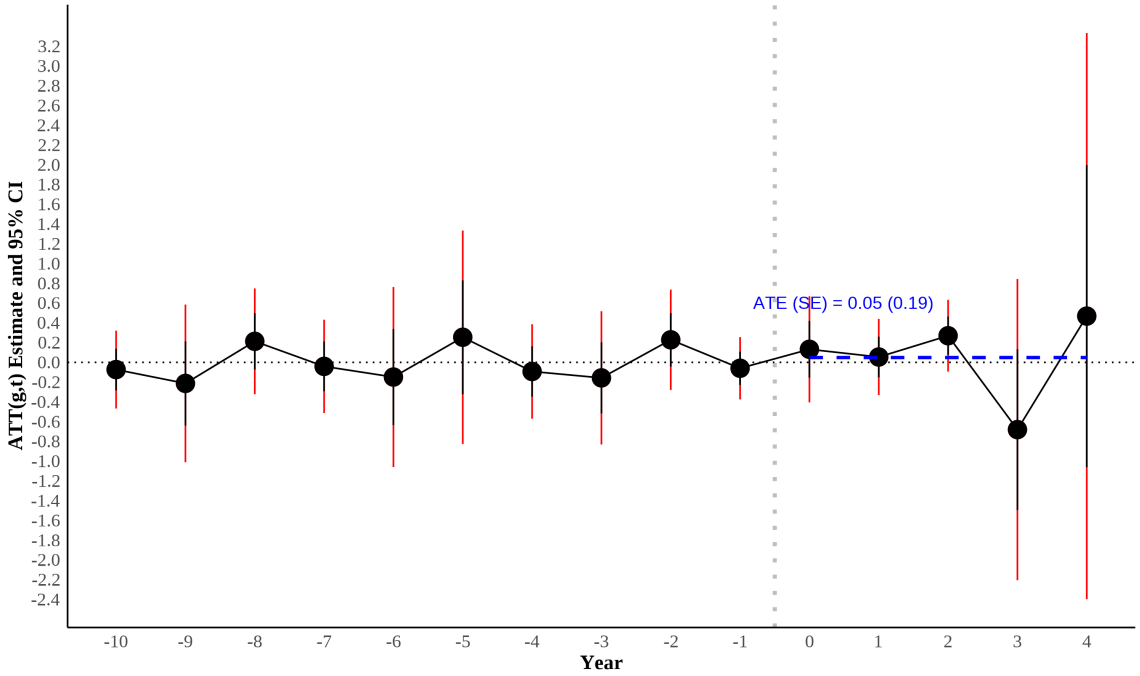

*Notes:* This figure estimates equation 1 where $y_{cst}$ is the number of suicides among Hispanic men aged 15–24 in county $c$, state $s$, at time $t$. Pre-treatment coefficients ($\beta_l$ for $l < 0$) test the parallel trends assumption and anticipation effects. Post-treatment coefficients ($\beta_l$ for $l \geqslant 0$) capture the dynamic treatment effects of Secure Communities implementation on Hispanic men aged 15–24 suicide rates.

Figure A.8: Effect of Secure Communities on Suicide Rates Among Hispanic Girls Aged 5–14



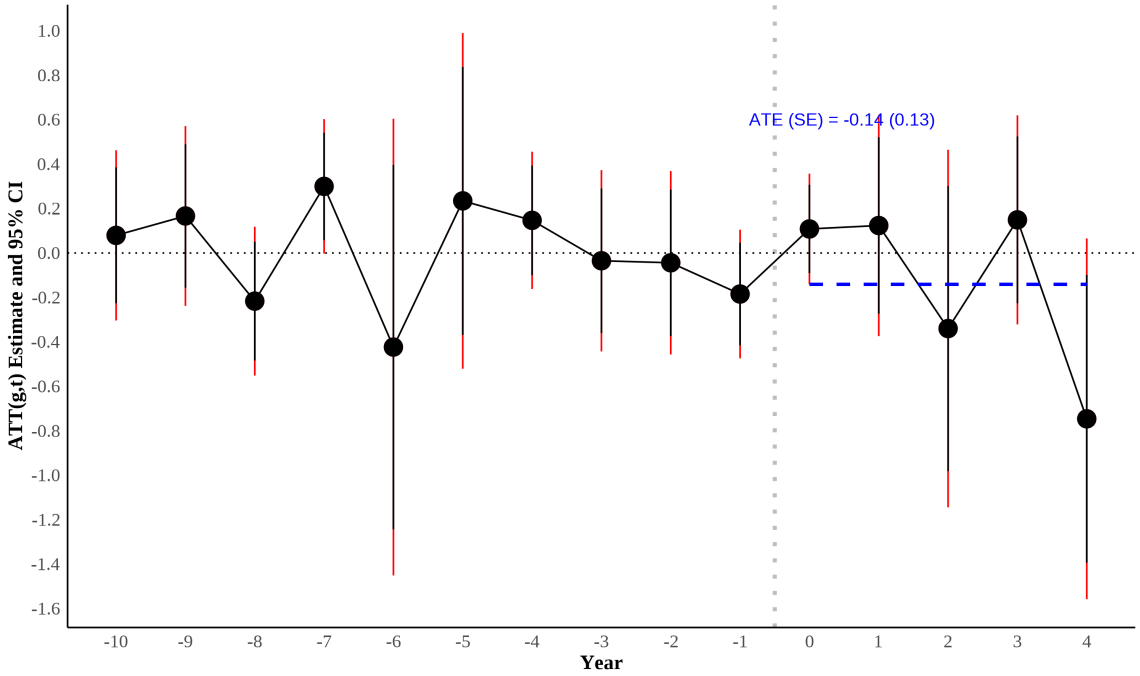

*Notes:* This figure estimates equation 1 where $y_{cst}$ is the number of suicides among Hispanic girls aged 5–14 in county c, state s, at time t. Pre-treatment coefficients ($\beta_l$ for $l < 0$) test the parallel trends assumption and anticipation effects. Post-treatment coefficients ($\beta_l$ for $l \geqslant 0$) capture the dynamic treatment effects of Secure Communities implementation on Hispanic girls aged 5–14 suicide rates.

Figure A.9: Effect of Secure Communities on Suicide Rates Among Hispanic Boys Aged 5–14



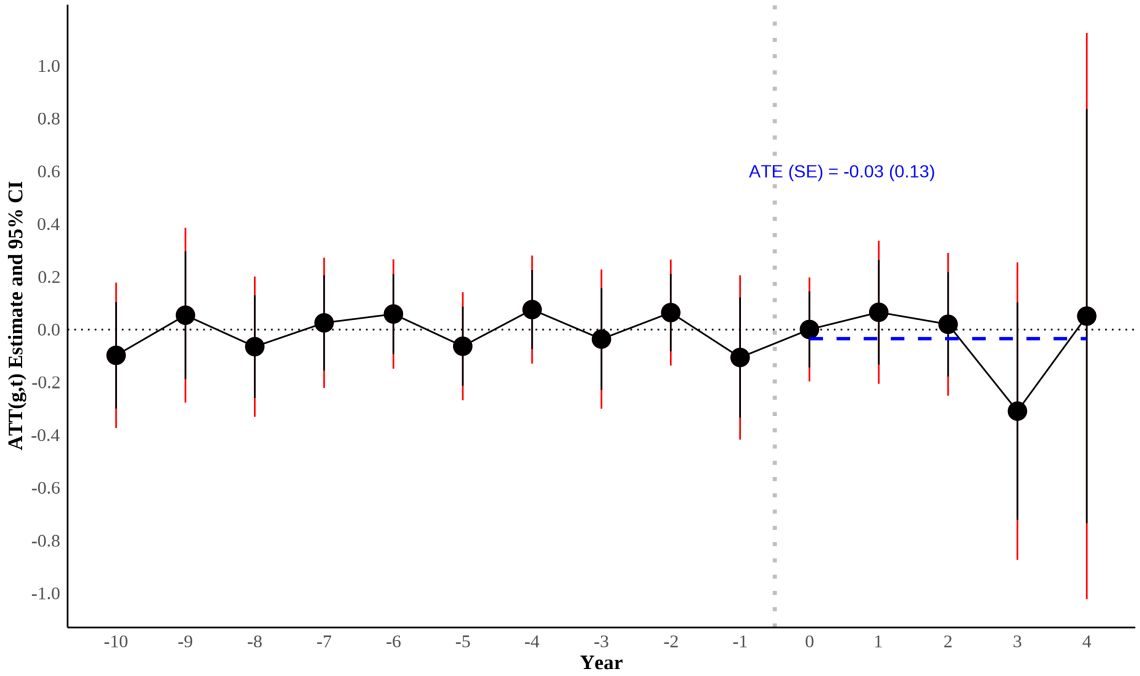

*Notes:* This figure estimates equation 1 where $y_{cst}$ is the number of suicides among Hispanic boys aged 5–14 in county c, state s, at time t. Pre-treatment coefficients ($\beta_l$ for $l < 0$) test the parallel trends assumption and anticipation effects. Post-treatment coefficients ($\beta_l$ for $l \geqslant 0$) capture the dynamic treatment effects of Secure Communities implementation on Hispanic boys aged 5–14 suicide rates.

Figure A.10: Effect of Secure Communities on Suicide Rates Among Hispanic Youth: Women Aged 5–24



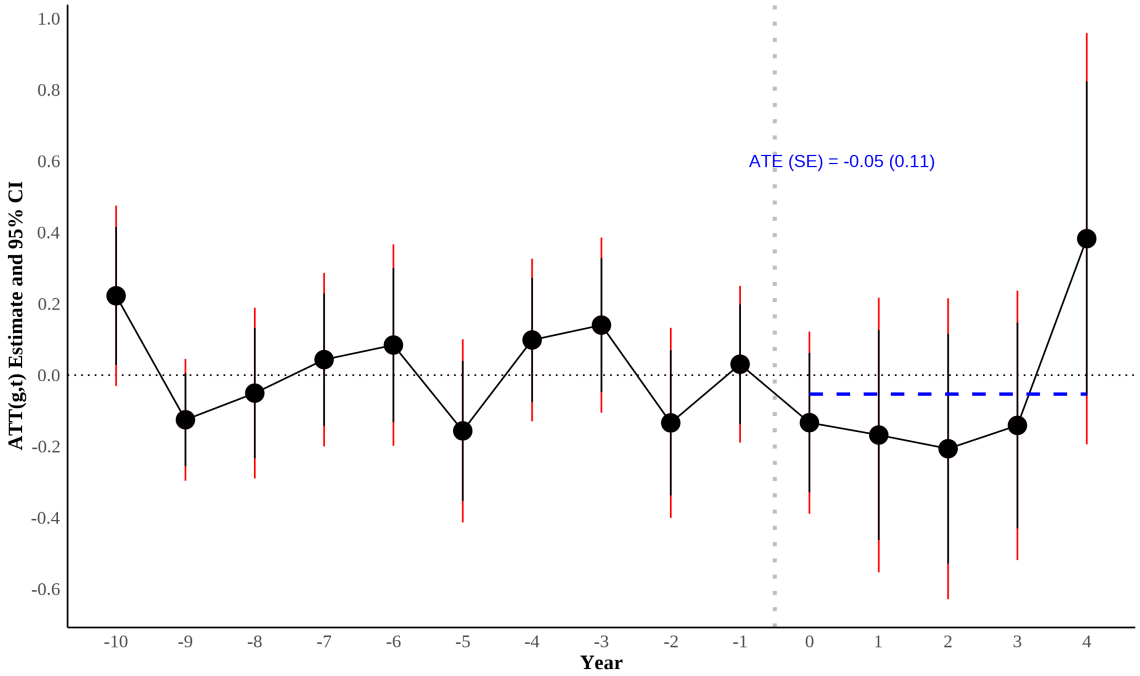

*Notes:* This figure estimates equation 1 where $y_{cst}$ is the number of suicides among Hispanic youth that are women and aged 5–24 in county c, state s, at time t. Pre-treatment coefficients ($\beta_l$ for $l < 0$) test the parallel trends assumption and anticipation effects. Post-treatment coefficients ($\beta_l$ for $l \geqslant 0$) capture the dynamic treatment effects of Secure Communities implementation on Hispanic youth that are women and aged 5–24 suicide rates.

Figure A.11: Effect of Secure Communities on Suicide Rates Among Hispanic Youth: Men Aged 5–24



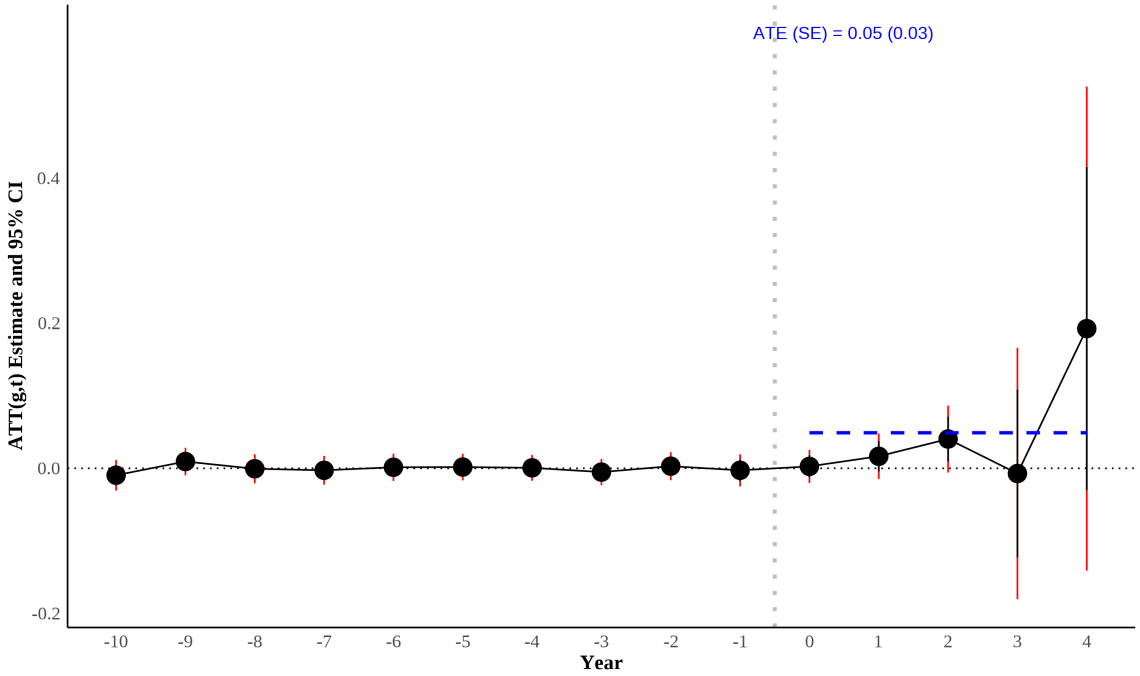

*Notes:* This figure estimates equation 1 where $y_{cst}$ is the number of suicides among Hispanic youth that are men and aged 5–24 in county c, state s, at time t. Pre-treatment coefficients ($\beta_l$ for $l < 0$) test the parallel trends assumption and anticipation effects. Post-treatment coefficients ($\beta_l$ for $l \geqslant 0$) capture the dynamic treatment effects of Secure Communities implementation on Hispanic youth that are men and aged 5–24 suicide rates.

Figure A.12: Effect of Secure Communities on Per 100,000 Suicides Among Hispanics



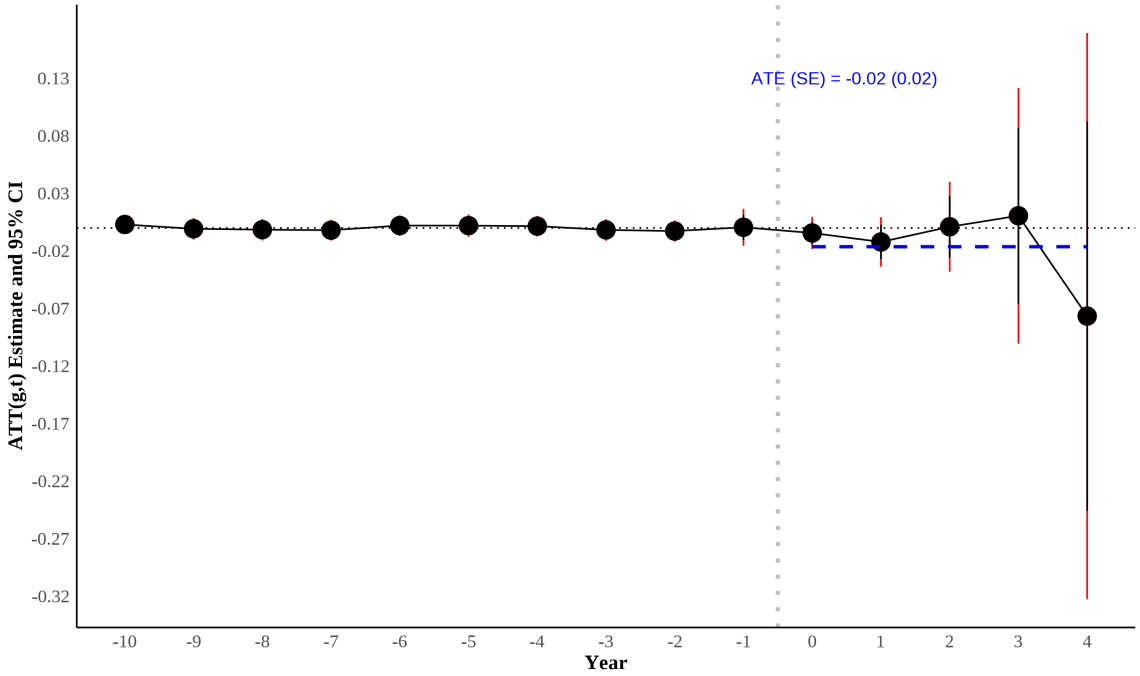

*Notes:* This figure estimates equation 1 where $y_{cst}$ is the suicide rate per 100,000 Hispanic population in county $c$, state $s$, at time $t$. Pre-treatment coefficients ($\beta_l$ for $l < 0$) test the parallel trends assumption and anticipation effects. Post-treatment coefficients ($\beta_l$ for $l \geqslant 0$) capture the dynamic treatment effects of Secure Communities implementation on Hispanic suicide rates.

Figure A.13: Placebo Effect of Secure Communities on Suicide Rates Among Non-Hispanic Whites Aged 5–14



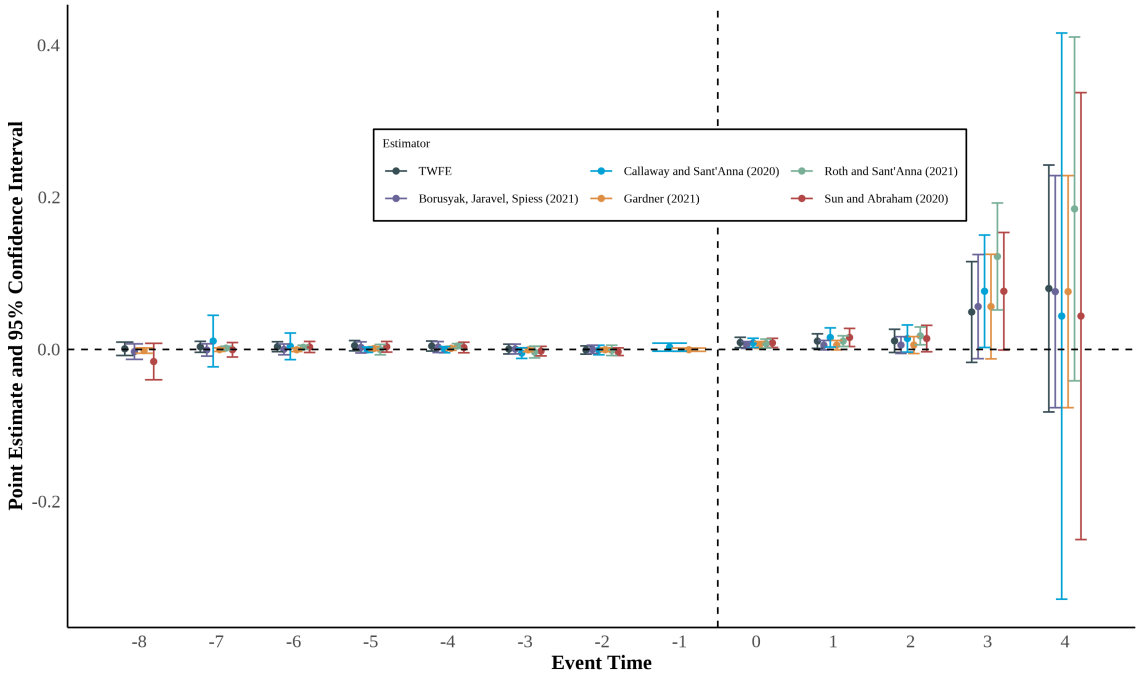

*Notes:* This figure estimates equation 1 where $y_{cst}$ is the number of suicides among non-Hispanic White youth aged 5–14 in county c, state s, at time t. Pre-treatment coefficients ($\beta_l$ for $l < 0$) test the parallel trends assumption and anticipation effects. Post-treatment coefficients ($\beta_l$ for $l \geqslant 0$) provide a placebo test; significant effects would suggest confounding factors rather than causal SC effects.

Figure A.14: Effect of Secure Communities on Suicide Rates Among Non-Hispanic Black Youth Aged 5–14



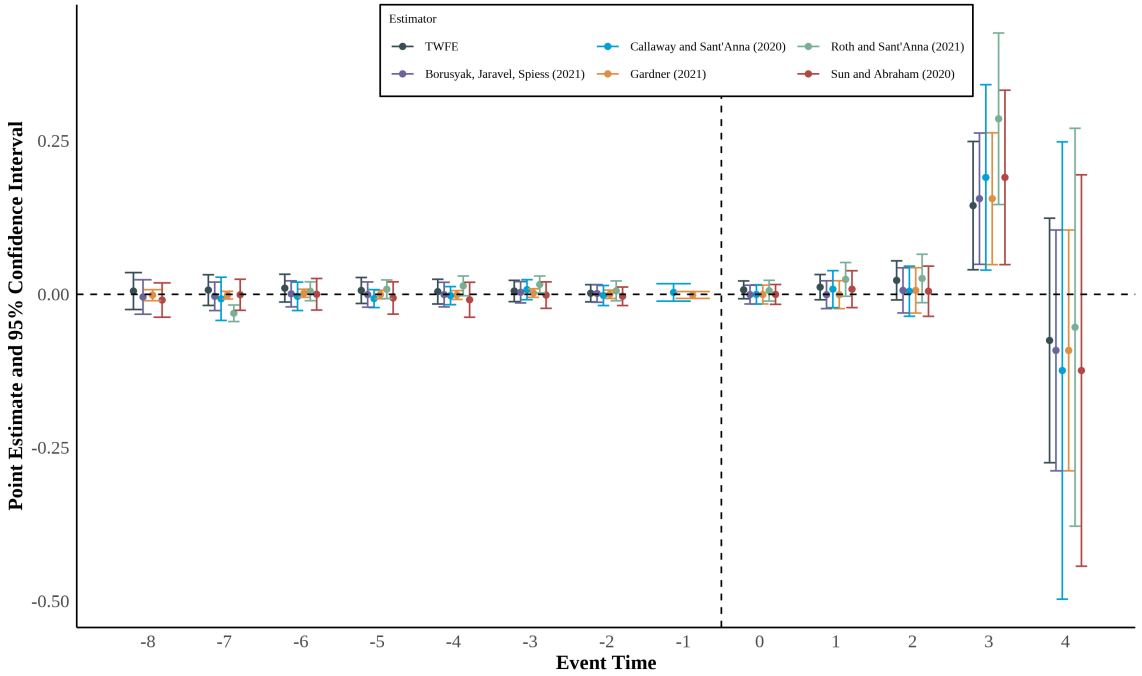

*Notes:* This figure estimates equation 1 where $y_{cst}$ is the number of suicides among non-Hispanic Black youth aged 5–14 in county $c$, state $s$, at time $t$. Pre-treatment coefficients ($\beta_l$ for $l < 0$) test the parallel trends assumption and anticipation effects. Post-treatment coefficients ($\beta_l$ for $l \geqslant 0$) provide a placebo test; significant effects would suggest confounding factors rather than causal SC effects.

Figure A.15: Effect of Secure Communities on Suicide Rates Among Hispanic Children Aged 5–14: Other Estimators



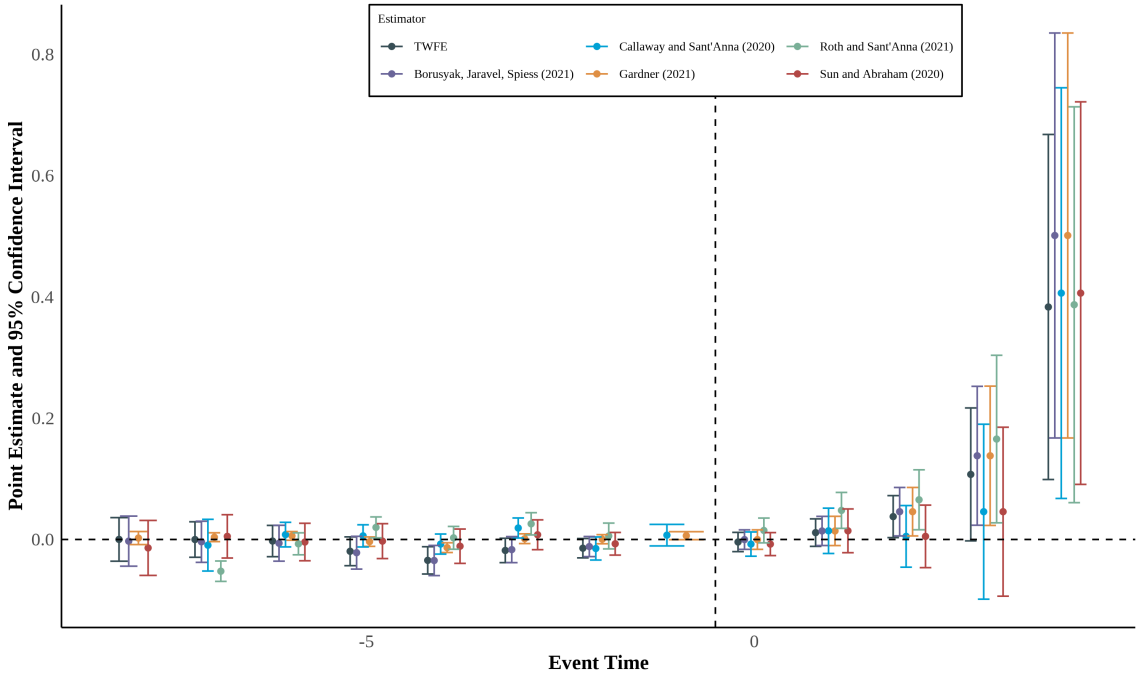

*Notes:* This figure compares treatment effect estimates from multiple difference-in-differences estimators for Hispanic children aged 5–14 suicide rates. The outcome variable $y_{cst}$ is the number of suicides among Hispanic children aged 5–14 in county c, state s, at time t. Different estimators include Callaway and Sant'Anna (2021), Roth and Sant'Anna (2023), Borusyak, Jaravel, and Spiess (2024), Gardner (2022), Sun and Abraham (2021), and two-way fixed effects (TWFE) to assess sensitivity of results to methodological choices in staggered adoption designs.

Figure A.16: Effect of Secure Communities on Suicide Rates Among Hispanic Youth Aged 5–24: Other Estimators



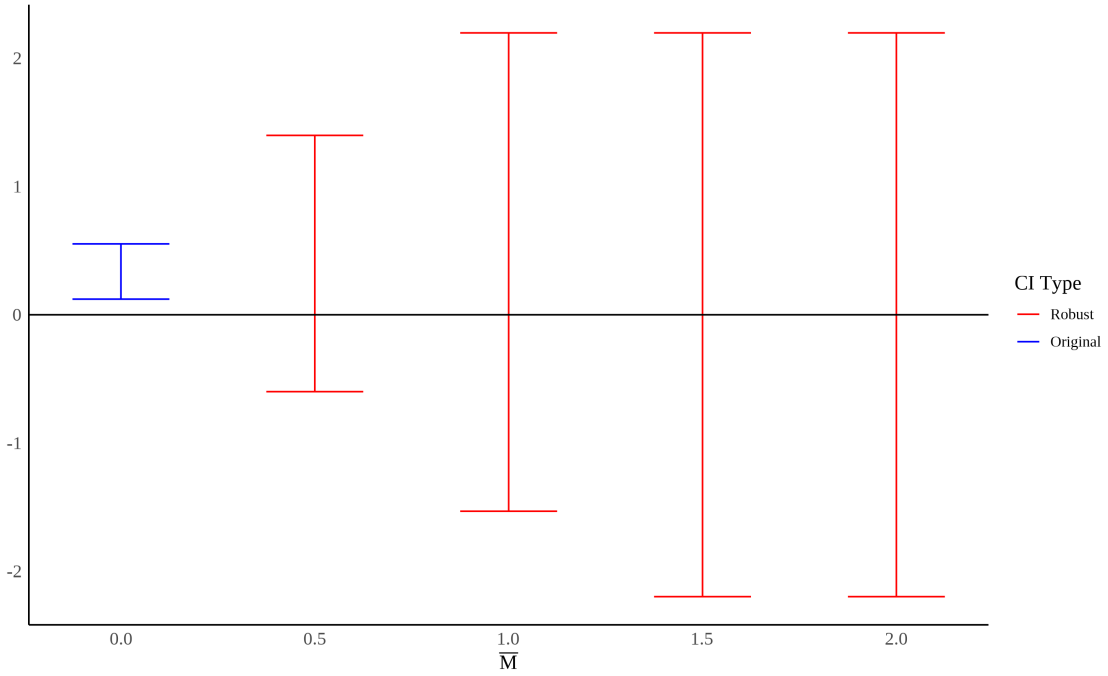

*Notes:* This figure compares treatment effect estimates from multiple difference-in-differences estimators for Hispanic youth aged 5–24 suicide rates. The outcome variable $y_{cst}$ is the number of suicides among Hispanic children aged 5–24 in county c, state s, at time t. Different estimators include Callaway and Sant'Anna (2021), Roth and Sant'Anna (2023), Borusyak, Jaravel, and Spiess (2024), Gardner (2022), Sun and Abraham (2021), and two-way fixed effects (TWFE) to assess sensitivity of results to methodological choices in staggered adoption designs.

Figure A.17: Effect of Secure Communities on Suicide Rates Among Hispanics Aged 34 and Over: Other Estimators



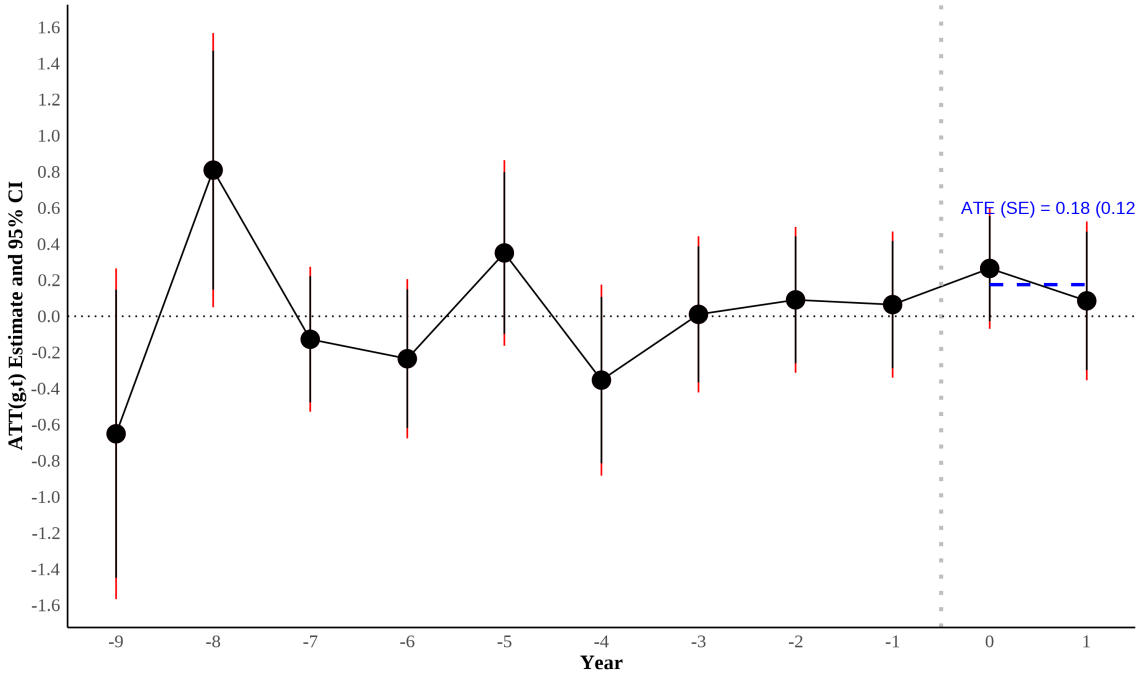

*Notes:* This figure compares treatment effect estimates from multiple difference-in-differences estimators for Hispanics aged 34 and over suicide rates. The outcome variable $y_{cst}$ is the number of suicides among Hispanics aged 34 in county c, state s, at time t. Different estimators include Callaway and Sant'Anna (2021), Roth and Sant'Anna (2023), Borusyak, Jaravel, and Spiess (2024), Gardner (2022), Sun and Abraham (2021), and two-way fixed effects (TWFE) to assess sensitivity of results to methodological choices in staggered adoption designs.

Figure A.18: Effect of Secure Communities on Suicide Rates Among Hispanics Aged 5-14 Using Rambachan and Roth (2023)



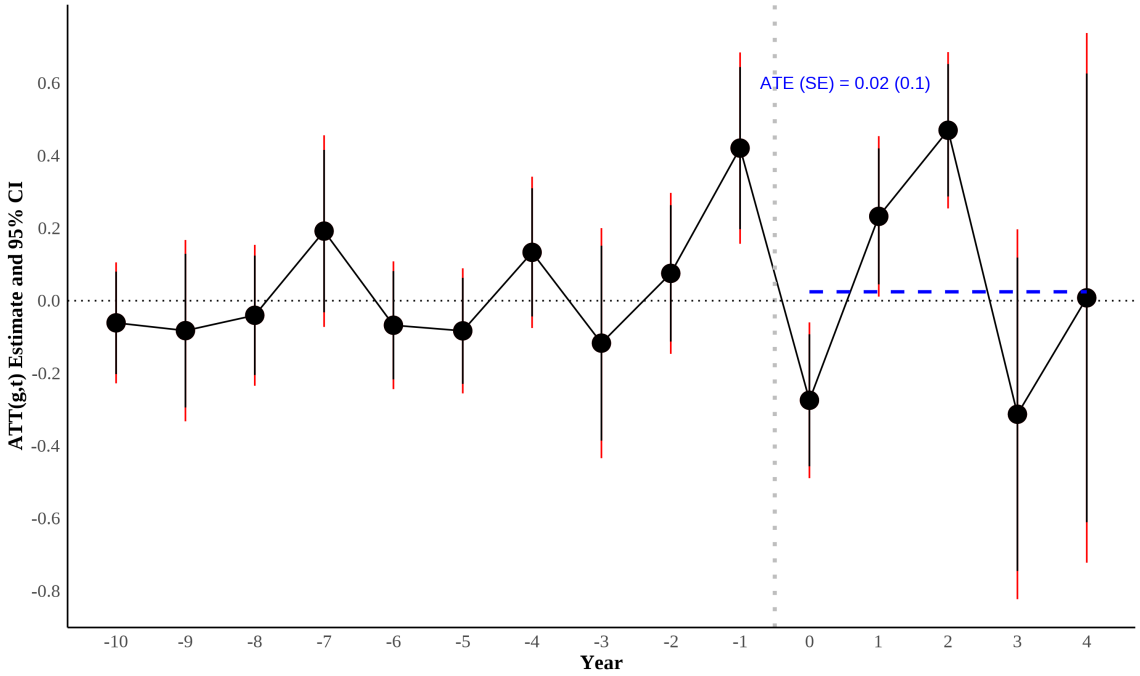

*Notes:* This figure presents treatment effect estimates using the Honest Difference-in-Differences estimator for Hispanic suicide rates among children aged 5-14. The outcome variable $y_{cst}$ is the number of suicides among Hispanics aged 5-14 in county $c$, state $s$, at time $t$. The approach recommended by Rambachan and Roth (2023) accounts for potential violations of the parallel trends assumption by constructing confidence intervals that are robust to linear pre-trends, providing more conservative estimates in staggered adoption designs where treatment timing varies across counties.

Figure A.19: Effect of Secure Communities on Suicide Rates Among Hispanics Aged 5-14: With State-Year Fixed Effects



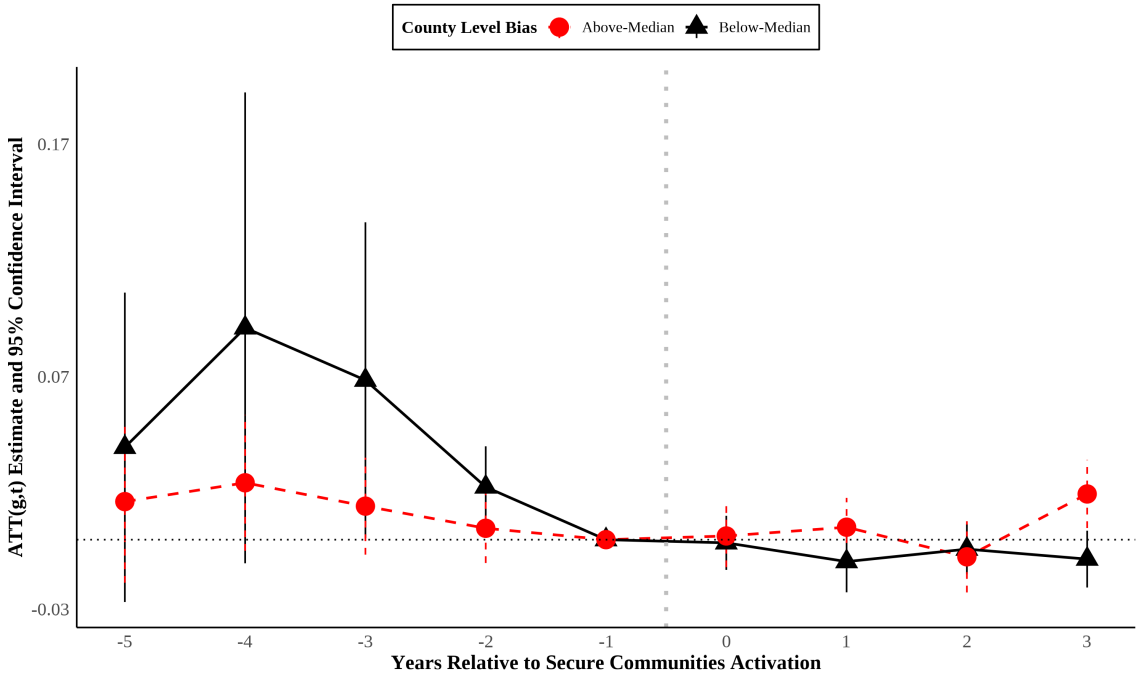

*Notes:* This figure shows treatment effect estimates incorporating state-year fixed effects for Hispanic suicide rates among children aged 5-14. The outcome variable $y_{cst}$ is the number of suicides among Hispanics aged 5-14 in county $c$, state $s$, at time $t$. The inclusion of state-year fixed effects controls for time-varying unobserved heterogeneity at the state level, accounting for state-specific policy changes, economic conditions, or other factors that might confound the relationship between Secure Communities implementation and suicide rates.

Figure A.20: Effect of Secure Communities on Suicide Rates Among Hispanics Aged 5-14: Excluding Southern Counties



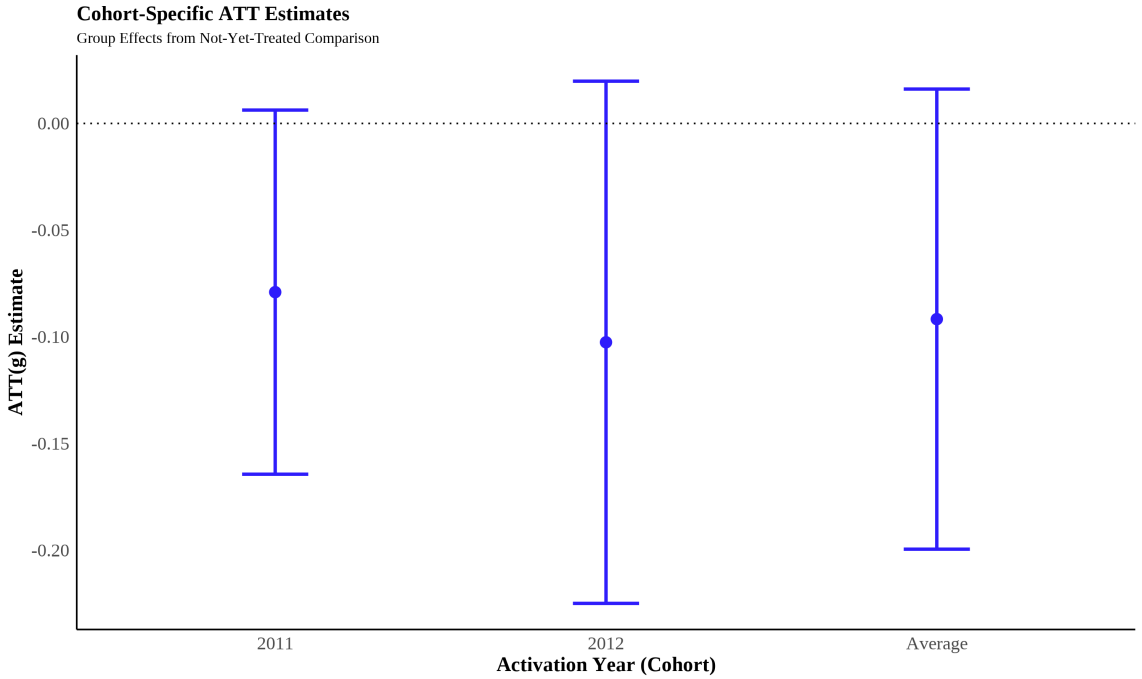

*Notes:* This figure presents treatment effect estimates excluding southern counties for Hispanic suicide rates among children aged 5-14. The outcome variable $y_{cst}$ is the number of suicides among Hispanics aged 5-14 in county c, state s, at time t. Southern counties are excluded to test the robustness of results to regional heterogeneity, as the South may have distinct immigration enforcement patterns, demographic compositions, or cultural factors that could influence the relationship between Secure Communities and mental health outcomes among Hispanic populations.

Figure A.21: Effect of Secure Communities on Suicide Rates Among Hispanic Children Aged 5-14: By County-level Bias




*Notes:* This figure estimates equation 1 separately for counties that are above or below median in county-level anti-Hispanic bias, where $y_{cst}$ is the number of suicides among Hispanic children aged 5–14 in county $c$, state $s$, at time $t$. Pre-treatment coefficients ($\beta_l$ for $l < 0$) test the parallel trends assumption and anticipation effects for each subsample. Post-treatment coefficients ($\beta_l$ for $l \geqslant 0$) capture heterogeneous treatment effects by sanctuary status, testing whether local immigration policies moderate the impact of federal enforcement.

Figure A.22: Effect of Secure Communities on Number of Day Reported Mental Unwellness




*Notes:* This figure estimates equation 1 where $y_{cst}$ is the number of days of reported mental unwellness in county c, state s, at time t.

*Source:* County Health Rankings & Roadmaps University of Wisconsin Population Health Institute (2025).