The Departed: Italian Migration and the American Mafia*

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Abstract

We study the short- and long-term effects of organized crime across neighborhoods in U.S. cities by exploiting the migration of Sicilian Mafia members in the 1920s who fled a large-scale repression campaign in Italy. Using newly linked administrative and historical data from the U.S. Census, Social Security records, and declassified files of the Federal Bureau of Narcotics, we show that neighborhoods hosting enclaves of migrants from Sicilian towns targeted by the repression later became centers of Italo-American Mafia activity. These neighborhoods experienced higher violence, incarceration, and financial exclusion in the short run, but higher educational attainment and employment in the long run. The results suggest that while the arrival of organized criminal networks initially intensified conflict and exclusion, their subsequent consolidation generated localized economic spillovers, helping to explain the long-term resilience and persistence of organized crime.

1 Introduction

Organized crime groups are among the most enduring organizations in human history. The origins of groups such as the Mafia, Camorra, and 'Ndrangheta—some of the oldest and most notorious criminal organizations worldwide—can be traced back to the birth of the Italian

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state in the mid-19th century (Gambetta, 1993; Bandiera, 2003; Buonanno et al., 2015). This historical continuity has led many scholars to argue that organized crime is deeply embedded in local culture (see, e.g., Schneider and Schneider, 1994), which itself exhibits remarkable persistence over time (Guiso et al., 2016; Giuliano and Nunn, 2021). A key implication of this "cultural hypothesis" is that organized crime should struggle to successfully transplant itself into different institutional or cultural contexts.

From the mid-20th century onward, however, Italian criminal organizations expanded their reach far beyond their traditional strongholds in Sicily, Campania, and Calabria, establishing a stable presence not only in other Italian regions but also abroad—in countries vastly different in terms of institutions, cultural traditions, language, and economic development (Calderoni et al., 2016). While numerous qualitative studies have examined the spread of these organizations and their activities abroad (see, notably, Varese, 2011), quantitative evidence remains limited to cases where criminal groups move within the same national institutional environment, as in the Northward expansion of Italian organizations (Buonanno and Pazzona, 2014; Scognamiglio, 2018; Dipoppa, 2025), or return to their country of ancestry following U.S. deportation policies, as in the case of Salvadoran gangs (Sviatschi, 2022; Melnikov et al., 2025).

In this paper, we study the migration of Sicilian Mafia members who fled to the United States in the 1920s to escape a military campaign targeting towns with a strong Mafia presence. Using newly assembled data on organized crime and a wide range of socio-economic outcomes at a fine spatial scale for ten U.S. cities from 1920 to the present, we trace how migrants from these Mafia strongholds shaped the emergence of organized crime in American neighborhoods and its long-term social and economic legacy.

In an effort to eliminate a powerful rival to his regime in Sicily, Benito Mussolini entrusted Prefect Cesare Mori with leading an extensive military campaign against the Mafia. On January 1, 1926, Mori laid siege to the town of Gangi—a well-known hub for criminal groups and bandits—and over the following months raided 28 other Mafia strongholds, arresting or killing numerous members and forcing many others to flee the island (Mori, 1933). Despite the restrictive quotas imposed by the 1924 Immigration Act, at least 500 Sicilian Mafia members found safe haven—and new criminal opportunities—in the United States during the Prohibition era (President's Commission on Organized Crime, 1986, p. 34). Among them were the Gambino, Bonanno, and Profaci clans, whose members would later rise to prominence in the Italo-American Mafia (McWeeney, 1987; Lupo, 2015).

The migration literature consistently shows that new arrivals tend to settle where earlier migrants from their home country have already established enclaves, often even from the same villages or towns (see, e.g., Bartel, 1989; Card, 1990; Munshi, 2003; Dustmann et al., 2011).

We thus use the pre-existing spatial distribution of Sicilian immigrants across American cities in 1920—before Mussolini's anti-Mafia raids—as a source of plausibly exogenous variation in subsequent inflows from the same Sicilian towns, enabling us to estimate their effects on both short- and long-term outcomes.

To implement this design, we map full-count U.S. Census data and Social Security mortality files onto more than 8,000 time-invariant hexagons of approximately 1.67 km^2 across eleven major U.S. cities. Within these hexagons, we identify nearly 500 that in 1920 hosted Sicilian migrants from the 29 towns later raided by Cesare Mori (henceforth, *Mori neighborhoods*). We then compare subsequent indicators of Mafia presence and activity across Mori neighborhoods and random placebo samples of neighborhoods hosting Sicilian migrants from other, non-raided towns. Our measures of Mafia presence come from declassified Bureau of Narcotics files that list the residential addresses of individuals who would later become leading figures in the Italo-American Mafia in 1959, as well as the location of Mafia-linked businesses identified in the same investigation (US Federal Bureau Of Narcotics, 2007).

Our findings reveal that 63 percent of Mafia leaders active in 1959 had resided in Mori neighborhoods (representing only 1.7 percent of all hexagons) in 1920. This overlap increases to 69 percent when restricting the analysis to New York, Chicago, and Philadelphia—the three cities with the highest Mafia activity. Drawing 1,000 random placebo samples of neighborhoods hosting immigrant enclaves from other Sicilian towns not raided by Mori, we find that the probability of obtaining such high matching rates by chance is effectively zero. On average, placebo samples capture only 2 percent of Mafia leaders' prior residences, or 11 percent when restricted to other Sicilian neighborhoods. Similarly, the share of Mafia-linked businesses located in Mori neighborhoods reaches 50 percent, compared to 5 percent in random placebo samples and 15 percent in samples drawn from other Sicilian enclaves. Across all specifications, we reject (with $p < 0.001$) the null hypothesis that the presence of future Mafia leaders and Mafia-linked businesses was the same in Mori neighborhoods as in other Sicilian immigrant areas.

These results are consistent with the "old-world" Mafia from Sicily providing a critical source of criminal capital that proved fundamental to the rise of the Italian-American Mafia in the following decades. We next examine the socio-economic consequences of Mafia presence—both in the short and the long run. To this end, we assemble data from multiple historical and contemporary sources. For the short-term analysis, we rely on de-anonymized, individual-level U.S. Census data from 1920 to 1940, which we link across censuses to construct consistent measures of incarceration and homeownership, complemented by incident-level homicide data for Chicago and HOLC redlining maps capturing perceived credit risk. For the long run (2000–2010), we use data from the Opportunity Insights project, which

provides consistent measures of education and employment across U.S. communities (Chetty and Hendren, 2018a,b). Importantly, both the historical and contemporary data are harmonized to the same time-invariant hexagonal grid using novel crosswalks, enabling consistent spatial comparisons over a full century of neighborhood-level data.

Our results reveal both expected and unexpected patterns. Starting with the former, violence and incarceration rates increase in Mori neighborhoods after the arrival of immigrants from Sicily in the mid-1920s. In Chicago—the only city for which incident-level homicide data are available, and a primary stronghold of the Italo-American Mafia as well as one of the most violent centers of organized crime during the Prohibition era—we document that homicides rose by about 20 percent more in Mori neighborhoods than in other comparable areas immediately after 1926, the year of the Mori raids in Sicily. Violence also spilled over to adjacent neighborhoods, which experienced smaller but significant increases. For other cities, where incident-level data are unavailable, we rely on neighborhood-level incarceration rates as a proxy for criminal activity. Using novel historical crosswalks that link individuals across censuses, we trace each inmate's residence prior to arrest and find that incarceration rates remain stable between the 1920 and 1930 censuses but rise sharply by 1940. This lag is consistent with the slower detection and prosecution of crimes relative to the timing of violent incidents.

Taken together, evidence from homicides and incarcerations indicates an upsurge in criminal activity and violence following the arrival of Sicilian migrants. This increase in violence is consistent with the entry of new criminal actors competing for control of lucrative illicit markets during a period when the prohibition of alcohol created exceptional opportunities for organized crime to expand (Thrasher, 1927; Demleitner, 1994). In the absence of formal property-rights enforcement, these markets depended on criminal organizations to provide protection and governance (Konrad and Skaperdas, 2012; Porreca and Thompson, 2024), fueling widespread gangsterism and market-based violence across American cities (Owens, 2014; García-Jimeno, 2016). Against this backdrop, the arrival of Mafiosi fleeing Sicily may have further intensified violence, as they had to fight their way into the existing criminal underworld to secure control over territory and access to illicit markets.

The increase in Mafia activity and violence likely influenced the perceived riskiness of these neighborhoods and, in turn, their access to credit and investment. In particular, in the late 1930s the Home Owners' Loan Corporation (HOLC) introduced redlining—the practice of grading neighborhoods according to perceived credit risk and restricting mortgage lending in those classified as "hazardous." In these assessments, crime and the perceived presence of organized criminal groups were important determinants of neighborhood ratings, as areas viewed as unsafe or socially unstable were systematically downgraded. Indeed, crime and

the presence of criminal groups were not seldom explicitly mentioned as reasons for poor evaluations in the HOLC surveyors' qualitative area descriptions. Consistent with this, we find that Mori neighborhoods were about 40 percent more likely to be redlined than other areas, even when compared to neighborhoods with similar shares of Italian and Sicilian immigrants.

In light of extensive evidence that redlining produced long-lasting negative effects on home ownership, housing values, and economic opportunity (Aaronson et al., 2021; Fishback et al., 2023), this result suggests that the early association with organized crime should have translated into enduring economic penalties for these communities. Instead, we find that Mori neighborhoods experienced a notable rise in home ownership already in the period through 1940—immediately after the arrival of Sicilian migrants—and even significantly higher levels of education and employment in the long run (2000–2010). These unexpected effects can potentially be attributed to the reinvestment of illicit profits into local assets, along with the formation of informal credit and enforcement networks that substituted for the lack of formal bank credit (Gambetta, 1993).

Although these findings appear at odds with the well-documented adverse consequences of redlining, they align with the results of Murphy and Rossi (2020), who show that Mexican municipalities exposed to cartel formation experienced long-run improvements in socioeconomic indicators. By contrast, they diverge from the findings of Pinotti (2015), who documents a 16% decline in GDP per capita in the Italian region of Apulia following the expansion of criminal organizations from neighboring areas. A plausible explanation for this divergence lies in the nature and duration of criminal presence: in Apulia, infiltration was short-lived and largely predatory, whereas in both Mexico and the United States, criminal organizations settled more permanently, reinvested illicit profits locally, and relied on a degree of social consensus and community embeddedness to sustain their operations. As Murphy and Rossi (2020) argue, localized economic spillovers—such as informal employment and credit—play a central role in the resilience and persistence of organized crime. At the same time, this interpretation contrasts with evidence of persistent economic stagnation in areas of long-standing Mafia influence within Italy (Acemoglu et al., 2020; Fenizia and Saggio, 2024). Overall, more work is needed to understand how the transplantation of organized crime shapes local development across different institutional and cultural environments.

Our contribution is to empirically document one such extreme transplant of organized crime: the relocation of the Sicilian Mafia—one of the oldest existing criminal organizations—from small, impoverished villages in southern Europe to major U.S. cities, which were already among the wealthiest and most institutionally developed in the world. This case provides a unique setting to examine whether and how criminal organizations can adapt and

persist across radically different formal and informal institutions, languages, religions, and cultural traditions. Related work has studied other types of criminal transplants. Sviatschi (2022) shows that the repatriation of Salvadoran gang members from the United States led to the expansion and institutionalization of organized crime in El Salvador, while Melnikov et al. (2025) documents the long-term social and economic costs of similar deportations. In those cases, the transplant occurs through the forced return of criminals to their country of ancestry -—implying a change in institutional environment but not in cultural identity. In contrast, research on the internal migration of Italian criminal organizations from Southern to Northern Italy (Buonanno and Pazzona, 2014; Scognamiglio, 2018; Dipoppa, 2025) examines movement within the same national and institutional setting but across regions with sharp divides in economic development and social capital (Putnam et al., 1994; Guiso et al., 2016). We complement both strands of this literature by studying a much more radical form of institutional transplantation, in which organized crime moved from one of Europe's poorest and least-governed regions to one of the richest and most institutionalized societies in the world.

The rest of the paper is organized as follows. Section 2 provides the historical background on Mori's anti-Mafia campaign and the migration of Sicilian Mafiosi to the United States. Section 3 outlines our empirical strategy and data construction. Section 4 presents the main results on the relationship between Sicilian migration and the rise of the Italian-American Mafia, while Section 5 discusses its long-term consequences; finally, Section 6 concludes.

2 Historical Background

Primary sources place the emergence of the Sicilian Mafia around Italian unification in the second half of the 19th century (Franchetti and Sonnino, 1876; Jacini, 1885; Cutrera, 1900), when uneven state enforcement made private protection, dispute resolution, and political brokerage profitable (Gambetta, 1993; Bandiera, 2003; Buonanno et al., 2015; De Feo and De Luca, 2017; Alesina et al., 2019).

In fact, in the years between Italy's unification and fascism, successive Italian governments had largely ignored or coexisted with the Mafia. Political leaders of the time such as Francesco Crispi, Giovanni Giolitti, and Vittorio Emanuele Orlando either downplayed the Mafia's significance or leveraged its influence for political gain. This changed dramatically in May 1924, when Mussolini visited Sicily shortly after the April general election that granted him 65% of the vote through widespread intimidation and violence. During a public event at Piana degli Albanesi, Mafia-affiliated local leaders offered him their personal "protection" – a gesture that was less an act of loyalty than a display of the Mafia's entrenched authority.

Mussolini perceived this offer as both an insult and a direct challenge to the supremacy of the Fascist state, prompting his determination to confront and dismantle Mafia power in Sicily. A few days later, on May 9, 1924, Mussolini delivered a speech in Agrigento that signaled the regime's intent to assert state authority in the region:

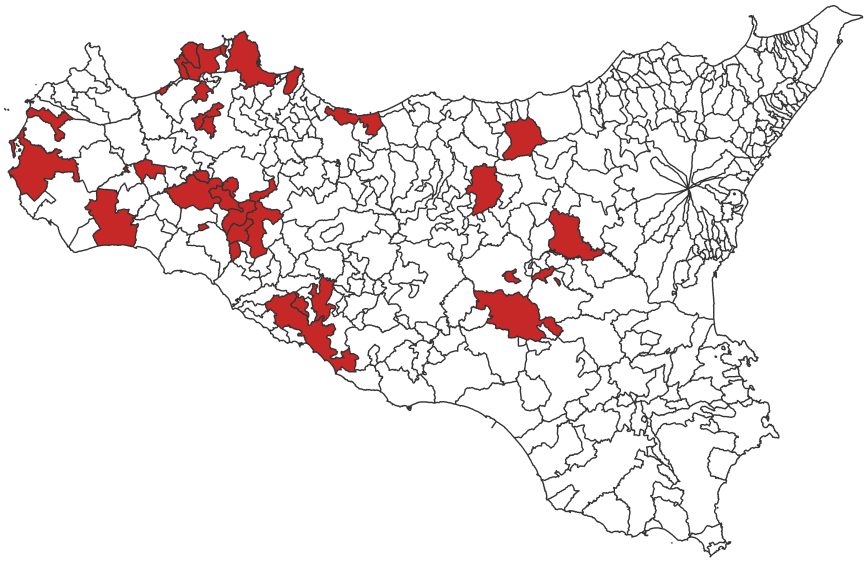
> "You have material needs that I understand: [...] it has been said that we need to guarantee the property and safety of hard-working citizens. Well, I declare to you that I will take all necessary measures to protect the honest men from the crimes of criminals. It should no longer be tolerated that a few hundred malefactors overwhelm, impoverish, and harm a magnificent population like yours."

This declaration underscored Mussolini's strategy of leveraging the fight against crime to legitimize his centralized authority, framing the Mafia as an obstacle to economic and social progress. To implement this vision, Mussolini appointed Cesare Mori, known as the "iron prefect," to the Trapani government post on May 28, 1924, tasking him with dismantling Mafia control over Sicilian communities. Indeed, Mori was granted extensive legal and military powers allowing him to conduct large-scale operations with minimal judicial oversight.

2.1 The Mori campaign and the migration of Mafiosi to the United States

Cesare Mori's anti-Mafia strategy – as articulated by Mori himself in his memoirs (Mori, 1932)– called for bold, direct assaults on the Mafia's strongholds. In particular, his military campaign escalated with the siege of Gangi on January 1, 1926, when an 800-strong force of Carabinieri, police, and fascist militia ringed the town, severed telegraph and telephone lines, and carried out systematic house-to-house searches. The cordon isolated suspected hideouts and shifted the costs of harboring fugitives onto the entire community; within days, residents—under intense pressure—indicated the locations of wanted men and facilitators, enabling mass arrests and the dismantling of local bands. Following the siege of Gangi, in 1926, Mori's forces conducted operations in another 28 towns across Sicily. Figure 1 presents a map of Sicily, highlighting in red the municipalities raided by Mori, as reconstructed from his memoirs (Mori, 1932). These raids resulted in the mass arrests of suspected Mafiosi or their forced flight abroad. The perceived effectiveness of the crackdown is reflected in contemporary press coverage (see in Appendix Figure A1 a 1928 article about the Mori campaigns in the New York Times titled "The mafia dead, a new Sicily is born").

Figure 1: Map of Sicilian Municipalities Raided by Cesare Mori



Mori's repression of the Sicilian Mafia triggered a substantial displacement of high-ranking Mafiosi, many of whom chose to migrate to the United States. Importantly, clandestine immigration from Sicily to the U.S. was possible in those years despite the rigid 1924 halt to migration, as reported by Lupo (2008):

> "The investigations revealed that in previous years, the gangs of Piana dei Greci and San Giuseppe Jato had collaborated to organize clandestine departures for America at the price of six thousand lire per emigrant [...] it was 'perfectly organized' according to the principle of the division of labor: some procured false documents at the municipal office of the town and others in Palermo, there were those who organized the trips via Tunis-Marseille, those who waited for the clandestine immigrants at the arrival point to provide for their accommodation, and it was even guaranteed that the sums paid would be wholly or partly refunded to those who, caught by US surveillance, were sent back."[1]

Crucially, leading mafiosi activated these channels preemptively, fleeing already before cordons and raids took hold:

> "Many mafiosi personally used these clandestine travel channels to escape the Mori hurricane. I do not know which route the Corleonesi took to reach the

[1] Additional information is available from primary sources, such as the Ruling of the Court of Palermo against S. Termini and others, August 16, 1928, p. 26; a judicial police report of April 29, 1926, cc. 3 and 8, both in ACS, MGG, Extraditions, b. 17; and the testimonies in G. Nania, San Giuseppe and the Mafia, Edizioni della Battaglia, Palermo 2000, p. 94.

United States, but they applied for and obtained passports immediately before the raid carried out by the authorities [in Corleone]."

In 1976, the Italian Parliamentary Commission on Organized Crime provided one of the earliest systematic reconstructions of the transnational links between the Sicilian Mafia and the Italian-American Mafia. The report identifies a meeting held in December 1928 in Cleveland as a pivotal attempt to form a unified Sicilian criminal association in the United States. As stated on page 258 of Commissione Parlamentare Antimafia (1976), the purpose of the meeting was

> "to insert into the existing gangs those legal or clandestine Sicilian emigrants who had been forced to flee to America by the ruthless Mori operation."

The report thus explicitly connects Cesare Mori's 1926 anti-Mafia repression in Sicily to the migration of hundreds of Mafiosi who would go on to reshape organized crime abroad. Although the Cleveland gathering was interrupted by a U.S. police raid and failed to establish lasting coordination, its agenda was soon realized: in May 1929, a follow-up conference in Atlantic City produced the foundational pact of *La Cosa Nostra*, the institutionalized structure formalized under Lucky Luciano that defined organized crime in the United States for decades (p. 259).[2]

U.S. official documents reflect the same dynamic from the receiving end. The President's Commission on Organized Crime (1986), established under the Reagan administration, reports on page 52:

> "The *La Cosa Nostra* in Italy has undergone several periods of severe repression, including a purge by Mussolini in the 1920's. American groups became safe havens for Sicilian members during these periods of difficulty. During the 1920's, a formative decade for the *La Cosa Nostra* in this country, at least 500 Sicilian members fled to the United States. Among them were Joseph Bonanno, Carlo Gambino, Stefano Maggadino, and Joseph Profaci – men who were among the leadership of U.S. organized crime during the next 40 years. Relations between the U.S. and Sicilian *La Cosa Nostra* groups remained close through 1950 and may have influenced one another's leadership changes and criminal activities."

A year later, the FBI Law Enforcement Bulletin (McWeeney, 1987, pages 4-6) identified explicitly the Mori Operation as the trigger for the arrival of the high-ranking Mafiosi that later formed the base of the Italo-American Mafia:

[2]Interestingly, the name *La Cosa Nostra* ("our own thing") was later applied to the Sicilian Mafia in Italy as well (see, e.g., Falcone and Padovani, 2012), further attesting to the strong connections maintained between the two organizations over time.

> "Although Mussolini announced to the world in 1927 that the Mori Operation was a success and that the Sicilian Mafia had been eliminated, he was wrong. In fact, the strong roots of the Sicilian Mafia remained. The high-ranking Mafiosi either joined the 'enemy' (the Fascist Party) or emigrated to the United States and formed the base of the American *La Cosa Nostra*."

Read together, the Italian "push" factors (Mori's repression and the functioning clandestine escape channels) and the U.S. "pull" factors (established Sicilian diasporic communities and high demand for criminal expertise during Prohibition) form a coherent sequence linking Fascist-era displacement to the consolidation of organized crime in the United States.

2.2 The legacy of Mori repression in the United States

Mafiosi escaping Mori repression in Sicily could have affected the development of the Italo-American Mafia in the U.S. both directly – because they were experienced criminals – and indirectly, by influencing other Sicilian immigrants living in the same neighborhoods. Two illustrative cases are Francesco "Frank" Coppola and Giuseppe "Joe" Magliocco. Coppola was a documented Mafia boss who fled Sicily in 1926 during the Mori raids, whereas Magliocco had migrated well before Fascism, with no criminal record, yet quickly rose within the emerging Profaci family (later known as the Colombo family, one of New York's Five Families) after a Mafia boss from his same Sicilian town arrived in Brooklyn.

Frank Coppola, born in Partinico near Palermo, became one of the clearest examples of a Sicilian mafioso pushed into the United States by Fascist repression. According to his dossier in the US Federal Bureau Of Narcotics (2007, page 781, shown in Appendix Figure A2), Coppola "fled Sicily in 1926 to avoid prosecution". The New York Times obituary of April 27, 1982 (Section B, p. 8, shown in Appendix Figure A3) quotes him directly as saying he left Italy because he was being "crucified" by Mussolini's Fascists, reinforcing the picture of a political-police crackdown driving his emigration. Once in America, Coppola emerged as a high-level figure in the developing *La Cosa Nostra*: his dossier also lists his principal criminal associates as "Lucky Luciano" and describes him as "a dangerous criminal and killer", an "important link in the international narcotic traffic", and a "high Mafia leader who hears grievances, then orders restitution or assassination".

"Joe" Magliocco was born in 1898 in Portella di Mare—on the border between Palermo and Bagheria, both later targeted in the Mori campaign. However, Magliocco migrated to the U.S. in 1914 – more than a decade before the repression – at age fifteen with his parents and four younger siblings. The Ellis Island manifest of the "Taormina" ship, which departed Palermo on April 9, 1914, lists both Joe Magliocco and his father as "traders" (see Appendix

Figure A4). His father had no criminal record in Italy, nor would he later in the United States. By the 1920 Census, Joe Magliocco appears in a Brooklyn neighborhood populated by Sicilians from towns subsequently raided by Mori (what we refer to as a "Mori enclave" throughout the paper). He is recorded at 646 Union St. as a 22-year-old laborer in the building trades, still residing with his Sicilian family (see Appendix Figure A5).[3] A decade later, the 1930 Census lists Magliocco at Bay 11th Street in Brooklyn—the same address later noted by federal authorities in 1959. By that year, he is recorded as a "proprietor" (business owner) in the "wholesale grocer" sector (see Appendix Figure A6). These early entrepreneurial activities foreshadow the later federal description of his Sunland Beverage Co. in Brooklyn as the center of his operations as a Mafia member. The first concrete record of Magliocco's criminal involvement appears in late 1928—two and a half years after the Mori raids in Palermo and Bagheria—as documented by the FBI dossier on Magliocco (US Federal Bureau Of Narcotics, 2007, see Appendix Figure A7). The same dossier links him directly to "Joe Profaci", a fellow émigré from the same Palermo–Bagheria corridor – with documented criminal records in Sicily in the early 1920s – who would later become one of the most powerful U.S. Mafia bosses and founder of the Profaci crime family—one of New York's Five Families, later known as the "Colombo family". Magliocco is listed as both Profaci's brother-in-law and his underboss. Notably, Profaci was explicitly mentioned by the President's Commission on Organized Crime (1986) among the most prominent of the 500 Sicilian mafiosi who fled following the "purge by Mussolini", as documented by the full quote reported above. Magliocco's trajectory—early placement in a Mori enclave, an initially non-criminal occupation, and rapid promotion after the arrival of Mafiosi fleeing Mori's repression—illustrates our mechanism: absent the displacement shock, he would have been far less likely to rise to underboss of one of New York's Five Families.

In the remainder of the paper, we document these patterns systematically using detailed individual- and neighborhood-level data linked across time and mapped onto a granular spatial grid.

3 Empirical Strategy and Data

Our empirical analysis addresses two main questions. First, we ask to which extent the migration of Italian Mafiosi fleeing Mori repression in Sicily during the 1920s contributed to the rise of the American Mafia. To answer this question, we assess the degree of overlap between the spatial distribution of (i) Sicilian immigrants coming from the 29 municipalities

[3]Parents and siblings listed in the Census match with those reported in the 1959 dossies by the US Federal Bureau Of Narcotics (2007, as shown in Appendix Figure A7), confirming the accuracy of both sources.

targeted by Mori in Sicily and (ii) measures of the American Mafia presence and activity in later periods. Second, we examine the relationship at neighborhood level between the presence of immigrants from Mori-targeted municipalities and a number of short-term and long-term socio-economic outcomes, including homicide rates, incarceration, and poverty.

The main challenge to identifying the impact of Mafiosi from Sicilian towns raided by Mori is that they could endogenously self-select into some areas and not others. To the extent that members of the Sicilian Mafia fleeing Mori's repression wanted to pursue illicit businesses in the US, they should be relocating more to areas that were already experiencing greater expansions of criminal opportunities. This concern is particularly relevant in the historical context of the 1920s, given the dramatic changes in the criminal landscape occurring during the Prohibion Era. Following the common approach in the literature on migration impacts (e.g. Card, 2009), we leverage variation in the presence of migrants from the same Mori towns across locations in the US in the 1920 – i.e., before the Mori raids. To the extent that the pre-1920 settlement patterns matter for later outcomes only by attracting a disproportionate share of post-raid migrants from the same towns, leveraging this pre-raid variation alleviates endogeneity concerns. In the jargon of impact evaluation, we focus on the "intention-to-treat" (or "reduced form") effect of migration from Mori-raided towns. To estimate such effect, we will compare the observed spatial correlation between 1920 "Mori-town" immigrant networks and subsequent Mafia presence against placebo estimates for random sets of U.S. neighborhoods hosting immigrants from other Sicilian towns not raided by Mori.

In addition to Mafia presence, we will focus on other key outcomes that are observed both before and after the 1926 Mori raids – namely, incarceration, homeownership, and homicides. We can thus compare changes in these variables in Mori-network neighborhoods to suitable controls, before and after 1926, using a difference-in-differences design. This approach identifies the effect of the post-raid inflow from Mori towns under the weaker parallel-trends assumption, which we validate by verifying that treated and control neighborhoods exhibit no differential pre-treatment trends.

3.1 Neighborhood Data

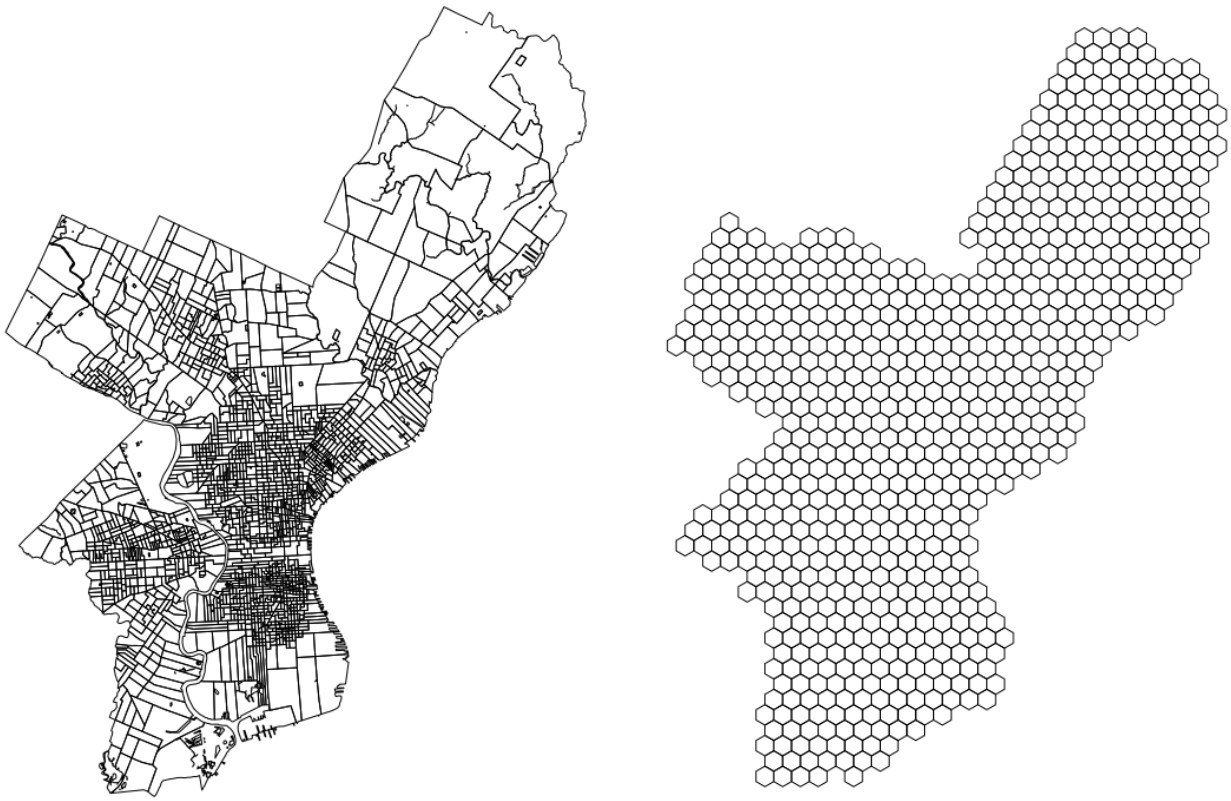
All data on immigration, criminal activity, and socio-economic development—drawn from multiple administrative sources—are mapped into a micro-neighborhood panel spanning 1910–2010. Because geographic units (e.g., Census tracts) vary across sources and over time, we harmonize all data to a temporally constant grid of equal-area hexagons following Shertzer and Walsh (2019). Each hexagon covers roughly 1.67 km^2—similar in size to a modern Census tract—and contained about 2,800 residents in the 1920 Census; these hexagons

serve as our primary units of analysis throughout.

To place historical observations onto this grid, we georeference Census enumeration districts using maps from the Urban Transition Historical GIS Project (Shertzer et al., 2016; Logan et al., 2023). This procedure can be implemented for eleven metropolitan areas where historical enumeration district maps are available: Baltimore, Boston, Brooklyn, Chicago, Cincinnati, Cleveland, Detroit, Manhattan, Philadelphia, Pittsburgh, and St. Louis.

Figure 2 and illustrates the mapping procedure: the 1920 Census enumeration districts for Philadelphia (left) and the corresponding grid of equal-area, time-invariant hexagons used as our primary units (right). We refer to these hexagons as "neighborhoods" throughout.

Figure 2: Enumeration district map (Census 1920) and hexagon grid map for Philadelphia



(a) Enumeration district map

(b) Hexagon grid map

3.2 Data on immigrants from Sicily

The key explanatory variable is the 1920 presence—across U.S. neighborhoods—of immigrants from the Sicilian municipalities later raided by Mori in 1926. To construct it, we merge two main sources of information. First, the full-count 1920 U.S. Census from IPUMS provides detailed geographic locations based on enumeration districts. Second, the Social

Security Administration's Numerical Identification System (Numident) death files, accessed via the National Archives (NARA), record exact places of birth for individuals issued Social Security Numbers, including both documented and undocumented migrants. Historically, it was common for undocumented individuals to obtain a Social Security Number through fraudulent means (see, e.g., Social Security Administration, 2013). Importantly, unlike the U.S. Census or other sources such as Ellis Island passenger manifests (e.g., U.S. National Archives and Records Administration, 1957), Numident death records report precise places of birth—often down to the exact town abroad—because most Social Security Numbers were issued decades later, when data collection was more accurate and standardized. This feature helps mitigate well-known measurement issues in historical sources, such as inconsistent birthplace reporting and linkage error (Abramitzky et al., 2012, 2014; Feigenbaum, 2016; Bailey et al., 2023).

Therefore, linking Numident birthplace information to individuals observed in the 1920 Census allows us to identify and geolocate Sicilian migrants from Mori-targeted towns. To implement this linkage, we develop a crosswalk algorithm that matches Numident records on individuals born in identifiable Sicilian municipalities –both those later targeted by Mori's raids and other Sicilian towns– to their 1920 Census records, tolerating common spelling variations and anglicizations and incorporating parental names when available to improve match quality. To our knowledge, this is the first time that the Numident records have been employed to map immigration patterns in such fine geographic detail for both the source and destination localities. Full details of the matching algorithm appear in Appendix A.2. We match 19.4% of the 50,612 Numident records listing a Sicilian municipality of birth to individuals observed in at least one U.S. decennial census between 1900 and 1940. This match rate is relatively high compared to typical name-based linkages across censuses reported in prior work (Abramitzky et al., 2024; Helgertz et al., 2024). Among the 9,827 Sicilian immigrants identified in the Census (within our sample of cities), 2,291 reported birthplaces corresponding to one of the municipalities raided by Mori. To capture the broader household networks of these migrants, we flag as "Sicilian immigrants" all 142,693 individuals who, in any census between 1900 and 1940, shared a household with a direct Numident–Census Sicilian match. Within this group, 34,842 individuals resided with a direct match from a Mori-raided town; we classify these as "Mori immigrants." Both direct and household-linked (secondary) Sicilian and Mori immigrants are geocoded to their U.S. enumeration districts and mapped onto the time-invariant, equal-area hexagon grid defined above. Throughout, we refer to hexagons that in 1920 contained at least one immigrant from the 29 Sicilian municipalities later raided by Mori as "Mori enclaves."

For longitudinal analyses, we track immigrants from Mori-raided towns as well as other

Sicilian immigrants across censuses using the Census Tree linked data, which leverages genealogical matching and achieves individual-level linkage rates of up to 89%. (Buckles et al., 2024). This high match rate, which represents a major improvement in historical data linking, is made possible by the underlying algorithm being trained on crowd-sourced information from a popular genealogy website hosted by the Church of Latter Day Saints.

As a preliminary diagnostic to our analysis, Table 1 examines the ex-ante similarity between Mori enclaves and other neighborhoods populated by immigrants from other Sicilian towns not raided by Mori, respectively, across pre-treatment measures available from the 1920 Census – incarceration rates, socioeconomic indicators, and employment structure. Differences along all dimensions remain small, as shown by the values of the standardized differences reported (last column): all fall below 0.25 –the conventional balance threshold recommended by Imbens and Rubin (2015) – with the exception of homeownership. Because homeownership is available both before and after Mori raids, we address this residual imbalance using difference-in-differences specifications, which control for all time-invariant neighborhood characteristics and, importantly, allow us to verify the parallel-trends assumption.

Table 1: Summary statistics and balance between Mori neighborhoods and other neighborhoods hosting immigrants from other Sicilian towns.

Variable	**Mori**	**non-Mori Sic.**	**Diff**	**Std. Diff**
Incarceration Rate per 10k	3.075	3.057	-0.017	0.003
Occ Score	13.620	14.527	0.907	-0.220
Duncan's SEI	17.350	18.768	1.418	-0.228
Home Ownership Rate	0.275	0.388	0.113	-0.484
Employment shares in:				
Transportation	0.057	0.064	0.007	-0.172
Construction	0.040	0.042	0.002	-0.105
Public Admininstration	0.042	0.042	0.000	0.004
Business Services	0.018	0.017	-0.001	0.092
Professional Services	0.019	0.019	0.001	-0.043

Notes: This table reports the mean of observable variables in the 1920 Census for Mori enclaves (n = 596) and for neighborhoods populated by immigrants from other Sicilian towns (n = 583). The third and fourth columns report, respectively, the simple difference in means and the standardized difference between the two groups. The standardized difference is computed as the difference in means divided by the pooled standard deviation of the two groups and provides a scale-free measure of covariate imbalance. Following **?**, standardized differences below 0.25 in absolute value are typically taken as evidence of adequate balance.

We also assess the similarity of Mori enclaves vs. other non-Mori Sicilian neighborhoods

in terms of the multivariate distance statistic, a single metric that summarizes balance across multiple covariates. Since there is no established critical threshold for such variable, we compare the value obtained for our sample (0.848), with a random distribution of 1,000 neighborhoods with above-median share of Sicilian immigrants from other towns and obtain a multivariate distance of 1.27. Testing against a null hypothesis that the imbalance between Mori enclaves and other (non-Mori) Sicilian neighborhoods is greater than or equal to the mean of that placebo distribution yields an empirical p value of 0.00. Therefore, Sicilian immigrants fleeing Mori raids largely inhabit the same sorts of locations as other Sicilian immigrants, meaning in turn that we can attribute any difference in subsequent outcomes to the arrival of immigrants from Mori-raided towns.

3.3 Outcomes

Mafia presence. We measure the presence of the Italo-American Mafia in 1950s using detailed information from declassified files of mafia members digitized from a report by the Federal Bureau of Narcotics (US Federal Bureau Of Narcotics, 2007). The report, originally prepared in 1960 at the request of Attorney General Robert F. Kennedy to direct the efforts of police and the judiciary against the Italo-American Mafia, provides detailed information on 810 of its most prominent leaders. These documents, which have been previously used by Mastrobuoni (2015) to characterize the network structure of *La Cosa Nostra*, provides us, among other things, with (i) the names of the most most prominent Mafia leaders that we can identify in the census, and (ii) the address of economic activities linked to them in 1959. Using the names from the FBI report, we match the 1959 roster of Mafia bosses to individuals in the 1920 full-count census, recover their census tracts, and thus geolocate them to 1920 neighborhoods.[4] These locations correspond to childhood or early-adulthood residences of men who would later be documented as *known* Mafia leaders in 1959. If future Mafiosi are found to have disproportionately grown up in the same neighborhoods where the old-world Mafia likely settled after fleeing Sicily, this pattern can be interpreted as evidence that the 1920s exodus of Mafiosi from Sicily contributed to the rise of the future leaders of the Italian-American mafia. The second measure of Mafia activity is the spatial concentration of businesses linked to each leader, which is also available in the report by the US Federal Bureau Of Narcotics (2007) and captures the organization's local economic footprint.

Homicides and incarceration. In addition to measures of Mafia activity, we examine the prevalence of violence and crime. Reliable micro-level measures of violence from this

[4]We use the same name-based matching algorithm described above for Numident record and obtain again a 17% match rate.

period are rare, but Bienen and Rottinghaus (2001b) compiled detailed incident-level data on every recorded homicide in Chicago between 1870 and 1930.[5] Chicago – long a focal point of Prohibition-era gang activity (Thrasher, 1927) – offers a particularly suitable setting. We geocode 4,377 homicides recorded between 1920 and 1930 and assign each incident to its corresponding neighborhood, allowing us to trace spatial and temporal patterns of violence before and after the influx of Sicilian migrants.

While homicides represent only the most extreme cases of violence, meaning that we are neglecting a whole lot of other violent acts (e.g., assaults), they are largely used by criminal organizations to solve disputes, break into new businesses and areas and maintain control over the territory, and so on. Moreover, similarly granular measures of violence (or crime more broadly) are not available for the first half of the 20th century.

As an alternative measure of criminal behavior available for all cities in our sample, we construct a novel neighborhood-by-census-year panel of incarceration rates. To do so, we leverage the Census Tree project (Buckles et al., 2024) to link individual-level information on incarceration status across full-count U.S. censuses. Following Abramitzky et al. (2024), we classify individuals as incarcerated in the 1900-1940 censuses based on enumerator entries in unstructured fields such as "group quarters", "occupation", and "relationship to head of household." Using the Census Tree matching algorithm (Buckles et al., 2024), we then link these individuals to their records in earlier censuses and identify their most recent pre-incarceration residence. Each incarcerated individual is assigned to that neighborhood of origin, regardless of the location of the facility in which they were later enumerated. With this information we define the incarceration rate of neighborhood i in census year t as

$$Incarceration_{i,t} = \frac{Prison_{i,t}^{t-1}}{MatchedPop_{i,t}^{t-1}}, \tag{1}$$

where the numerator represents the number of individuals imprisoned in in census year t that the Census Tree algorithm can trace to location i in census year $t-1$, while the denominator is the total number of residents of location i in census year $t-1$ that the same algorithm can match to a census year t record. The resulting measure captures the share of matchable residents from the previous census who are incarcerated in the current census, providing a consistent neighborhood-level indicator of incarceration over time.

Other outcomes of interest. Beyond direct indicators of violence and incarceration, organized crime also shaped institutional perceptions of neighborhood risk in the 1930s. The redlining maps produced by the Home Owners' Loan Corporation (HOLC) provide a comple-

[5]The database is publicly available at https://homicide.northwestern.edu/.

mentary, indirect measure of how Mafia presence was perceived by contemporary evaluators. HOLC, a federal agency established in 1933 as part of the New Deal to stabilize the housing market, created detailed "Residential Security" maps that color-coded neighborhoods by perceived mortgage risk and restricted access to credit in lower-graded ("C"/"D") areas. These assessments relied on field surveyors' "area descriptions" that considered housing quality, recent sales and rents, and—crucially—the race, ethnicity, and social class of residents (Nelson et al., 2023).[6] Crime and disorder often appeared explicitly in these qualitative narratives; for example, Cleveland's D22 sheet described a "well-known Italian settlement" associated with the "Mayfield Road mob" and "gangster activities during prohibition" (Home Owners' Loan Corporation, 1939). Redlining is therefore both an outcome of interest—capturing how institutions interpreted the spread of organized crime—and a key mediating channel through which the early presence of Mafiosi could shape longer-term neighborhood trajectories via credit rationing and disinvestment. Consistent with this interpretation, causal estimates show that HOLC grades depressed homeownership, housing prices, and rents, and increased segregation in subsequent decades (Aaronson et al., 2021).

We then turn to long-term economic effects drawing on data from the Opportunity Insights Social Capital Atlas, developed by Raj Chetty and co-authors (Chetty et al., 2022a,b). This dataset provides detailed measures of economic opportunities, as measured by employment college completion rates, across ZIP codes. We spatially harmonize these measures to the temporally constant hexagon grid described above, enabling consistent comparison with historical neighborhood-level data.

The diagram in Figure 3 summarizes the construction of our dataset and provides a conceptual mapping of the many data linkages involved.

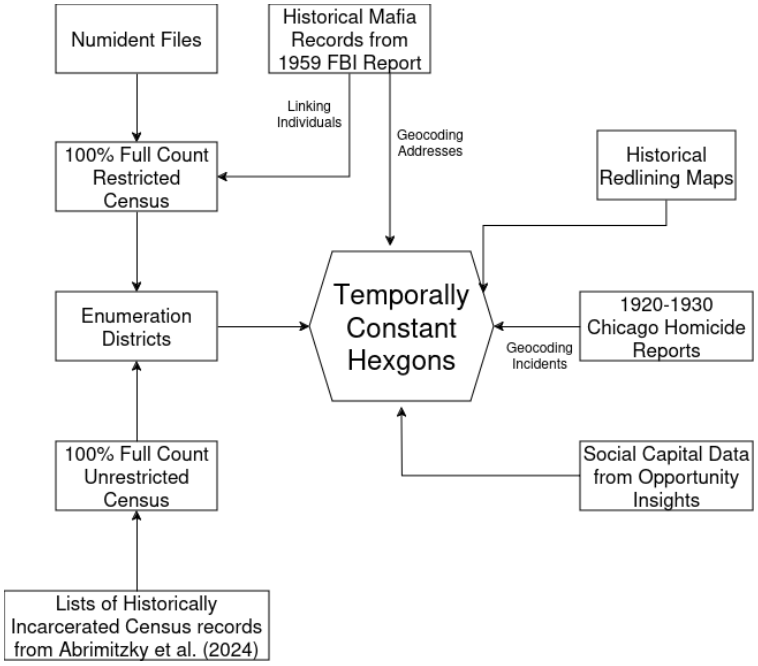
4 Results

4.1 Migration from Mori-raided towns and Mafia presence

In the first part of our empirical analysis we document the relationship between the Mafia presence in 1959 (as documented by US Federal Bureau Of Narcotics, 2007) and the pre-existing geography of "Mori enclaves" in 1920. Specifically, we examine whether neighborhoods that, prior to the Mori raids, already hosted migrants from the Sicilian municipalities later targeted by Mori were disproportionately associated with the subsequent presence of Mafia leaders and businesses. This strategy exploits only pre-raid variation in the spatial

[6] Our data on redlining come from the Mapping Inequality project at University of Richmond (https://dsl.richmond.edu/panorama/redlining/); see Connolly et al. (2018) for a description.

Figure 3: Diagram depicting data linkages employed throughout this paper.



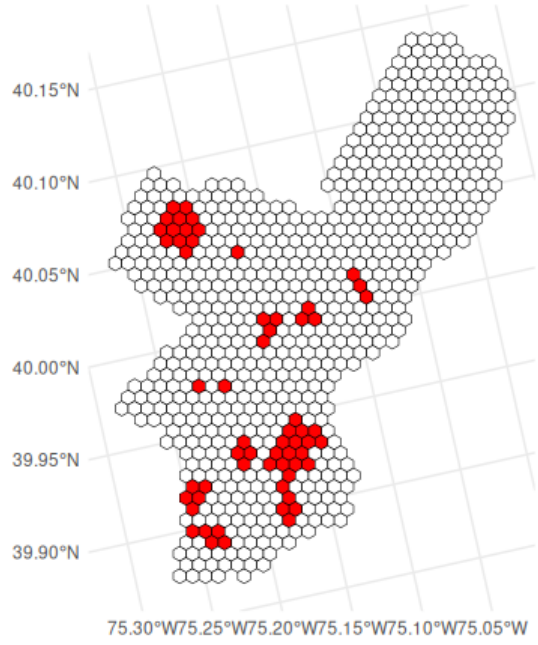
distribution of Mori enclaves—driven by historical migration networks rather than by contemporaneous economic or criminal opportunities—to identify an (intention-to-treat) effect of the inflow of Mafiosi displaced after the 2026 anti-Mafia Mori campaign. By focusing on these pre-existing settlement patterns, the analysis isolates exogenous exposure to incoming criminal capital from potential endogenous neighborhood selection in the late 1920s.

Figure 4 provides visual evidence for the city of Philadelphia, one of the cities with a traditionally strong presence of the Italo-American Mafia. Figure 4a maps the spatial distribution of Mori enclaves, while Figure 4a shows neighborhoods hosting any Sicilian immigrant in 1920. Figure 4c and Figure 4d show, respectively, the neighborhoods that in 1920 were home of individuals who would grow to become known Mafia leaders by 1959 and the neighborhoods hosting businesses linked to the Mafia in the same year – as available from US Federal Bureau Of Narcotics (2007). Both these measures of Mafia presence display a strong overlap with the specific subset of Mori immigrant enclaves, as opposed to other neighborhoods hosting Sicilian immigrants.[7]

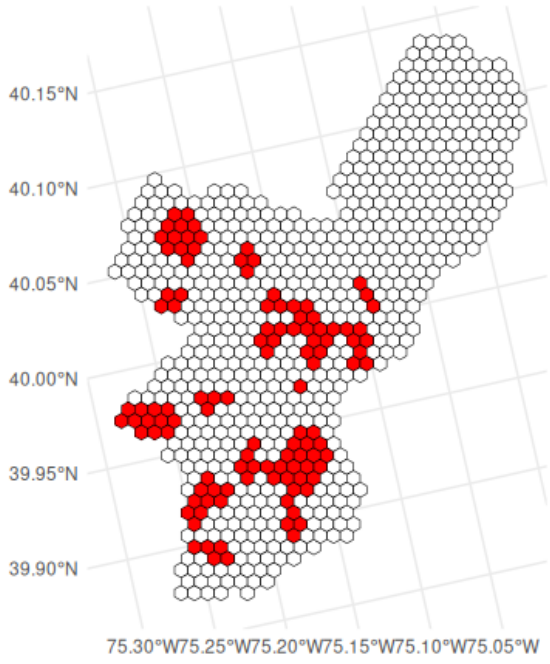
We systematically test for the association between Mori enclaves and later Mafia activity using a randomization-inference procedure. Specifically, we calculate the share of would-be Mafia leaders' 1920 residences and Mafia-linked business locations that fall within the subset of Mori enclaves across all cities in our sample. We then repeatedly draw random

[7]Appendix Figures A8, A9, and A10 show maps for Chicago, Manhattan, and Brooklyn – other areas with a high presence of mafia activities.

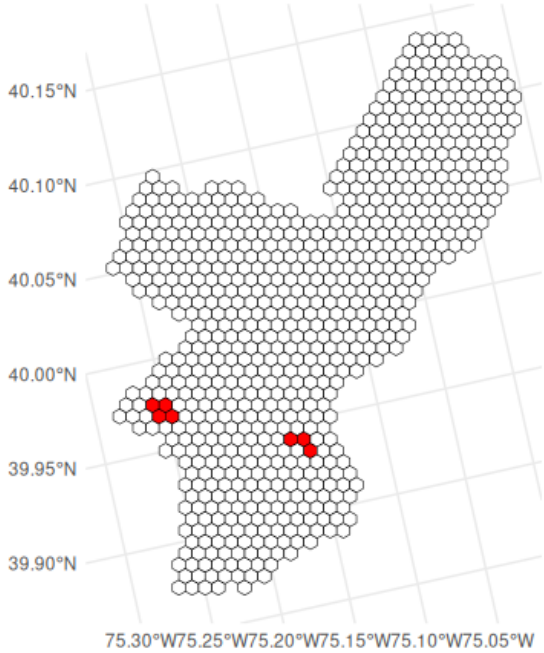
Figure 4: Mori Enclaves and Mafia Presence in 1920 Philadelphia



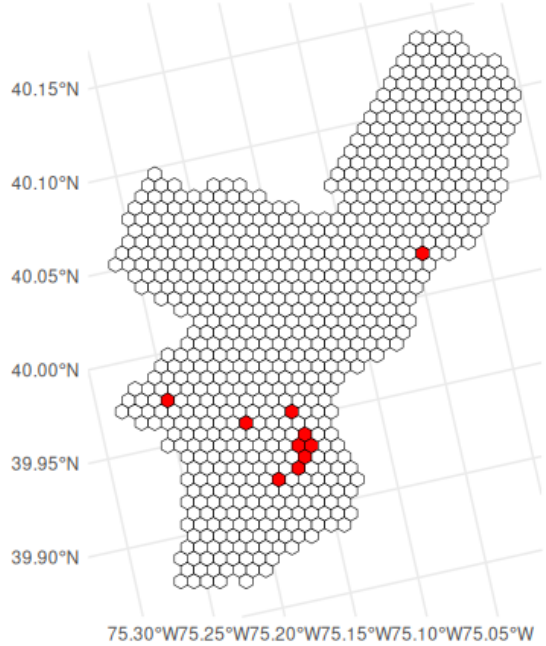
(a) Mori Enclaves



(b) Neighborhoods with Sicilian immigrants



(c) Neihborhoods of future Mafia bosses

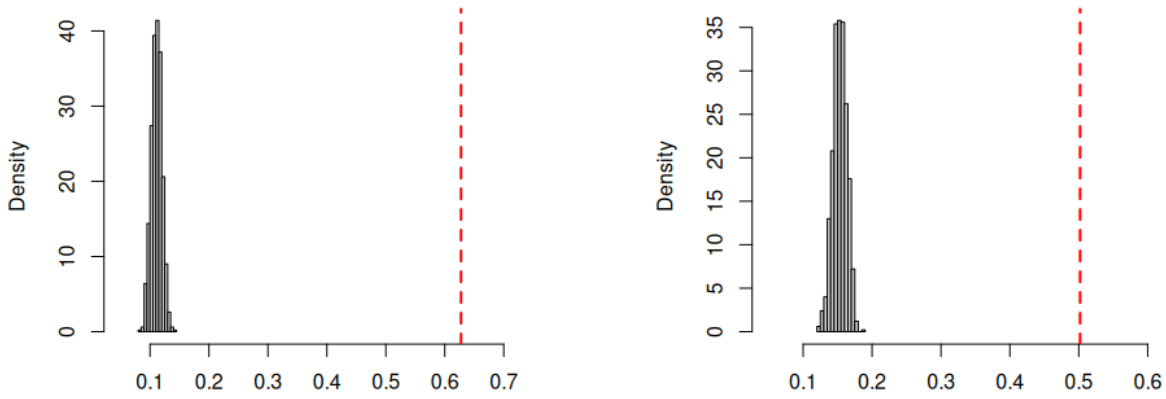


(d) 1959 location of known Mafia activities

sets of neighborhoods – equal in number to the subset of Mori enclaves – from all hexagons that hosted immigrants from any Sicilian municipality, and compute the same shares for each draw. Comparing the observed proportions with the distribution from these placebo samples provides a direct test of whether the observed overlap could arise by chance.

Figure 5 presents the results. Both panels show that future Mafia leaders and Mafia-linked businesses were markedly more concentrated in 1920 Mori immigrant enclaves than in other Sicilian neighborhoods. The contrast is especially pronounced for would-be Mafia leaders: 62.8% lived in Mori enclaves in 1920, compared with an average of 11% in the random samples. Likewise, 50.2% of Mafia business locations were situated in Mori enclaves, relative to 15% in the placebo sample. The maximum values within the placebo sample also remain well below the observed proportions (13% and 20%, respectively).

Figure 5: Randomization Inference



(a) Proportion of Mafia Bosses in Mori Enclaves (b) Mafia-linked Economic Activities

Notes: Both panels refer to aggregated data for all 11 cities in the study. Panel (a) reports the observed share (red dashed line) of 1959 Mafia leaders who, in 1920, lived in neighborhoods identified as Mori enclaves. The accompanying histogram shows the distribution of corresponding shares from 1000 placebo samples, each based on randomly drawn sets of neighborhoods that hosted immigrants from any Sicilian town in 1920. Panel (b) replicates this randomization exercise for the spatial distribution of Mafia-linked business locations in 1959. Empirical p-values for both exercises are 0.

The detailed results from the randomization inference in Figure 5 along with additional results for different definitions of the sample and the placebo group are reported in Table 2. The empirical p-value is 0.00 in all potential buckets we use to draw placebo neighborhoods and irrespectively of whether we run this exercise on all 11 cities or subsets of them. Figure 5

and Table 2 together reveal a striking spatial correspondence between the early settlement of Sicilian migrants from Mori-raided towns and the geography of American Mafia activity four decades later. Individuals who would later emerge as Mafia leaders were disproportionately drawn from the small set of neighborhoods that hosted these migrants in 1920, with observed shares far exceeding the distribution obtained under any randomization scenario. A similar pattern holds for Mafia-linked businesses in 1959, whose locations cluster tightly around the same enclaves. This spatial persistence echoes the mechanism documented by Sviatschi (2022), where exposure to repatriated gang members in El Salvador increased the likelihood of later criminal participation among local youth. Here too, the migration of organized criminal capital triggered by Mori campaigns appear to have transmitted the organizational and social infrastructure necessary for the rise of the American Mafia.

Table 2: Randomization inference based on different sets of neighborhoods

Sample of cities	Definition of Placebo	Proportion of 1959 Mafiosi that in 1920 resided in...			Business activites linked to Mafia, 1959		
		Mori Enclaves	Placebo (Mean)	p-value	Mori Enclaves	Placebo (Mean)	p-value
All 11 cities	(i) Sicilian	0.628	0.11	0.00	0.502	0.15	0.00
	(ii) Italian		0.09	0.00		0.14	0.00
	(iii) all		0.02	0.00		0.05	0.00
NYC, Chicago, Philly	(i) Sicilian	0.685	0.12	0.00	0.569	0.22	0.00
	(ii) Italian		0.11	0.00		0.20	0.00
	(iii) all		0.04	0.00		0.09	0.00
NYC, Chicago	(i) Sicilian	0.707	0.05	0.00	0.573	0.24	0.00
	(ii) Italian		0.14	0.00		0.26	0.00
	(iii) all		0.05	0.00		0.12	0.00

Notes: For each specification, we compare the observed proportions of 1959 Mafia leaders that resided in Mori enclaves in 1920 and of Mafia-linked activities located in the same Mori enclaves with the respective (mean) proportions in placebo distributions generated by repeatedly drawing random sets of other neighborhoods equal in number to the Mori enclaves. The table reports, for each definition of the sample of cities and the placebo group, reported in the first two columns, the observed proportion of Mafia outcomes in Mori enclaves and the associated placebo proportion and empirical p-value, defined as the fraction of placebo samples yielding an equal or greater proportion than observed.

4.2 Violence and incarceration rates

Having established the link between the inflow of Mafiosi escaping Mori repression and the presence of the Italo-American Mafia over the following decades, we next explore how the latter shaped the broader social and economic trajectory of U.S. communities starting from the effect on violence and incarceration. Such effect is in principle ambiguous: on the one

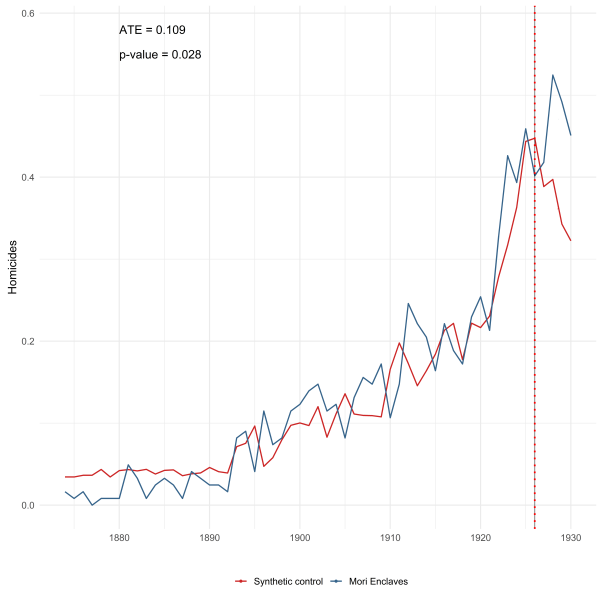
hand, criminal groups establishing and consolidating a monopoly of protection can reduce open violence by enforcing order and dispute resolution (Gambetta, 1993; Bandiera, 2003; Konrad and Skaperdas, 2012); on the other hand, increased competition among criminal organizations tends to raise violence (Sobrino, 2019; Bruhn, 2021). More broadly, violence in illicit markets hinges on the institutions of protection: markets can be relatively peaceful under stable protection, but become violent when those arrangements break down (Snyder and Durán-Martínez, 2009; Lessing, 2015). Our context – the U.S. during Prohibition – featured large rents in the illegal alcohol market, creating conditions for both consolidation and violent competition. Therefore, the relationship between organized crime and violence ultimately remains an empirical question.

As discussed in the previous section, there is an extreme paucity of granular data on violence—and crime more generally—for a period going back one hundred years. A notable exception is the incident-level homicide data for Chicago covering 1870–1930 (Bienen and Rottinghaus, 2001a). We leverage this unusually long pre-treatment time series within a Synthetic Difference-in-Differences (SDID) approach, which compares homicide rates in Mori enclaves (and neighboring areas) to a weighted combination of other neighborhoods whose pre-1926 trends best approximate those of the treated units. This method is particularly well suited to our context, as SDID is designed to exploit settings with long panels and rich pre-treatment dynamics, yielding more credible counterfactual trends than standard DID or synthetic control estimators (Arkhangelsky et al., 2021).

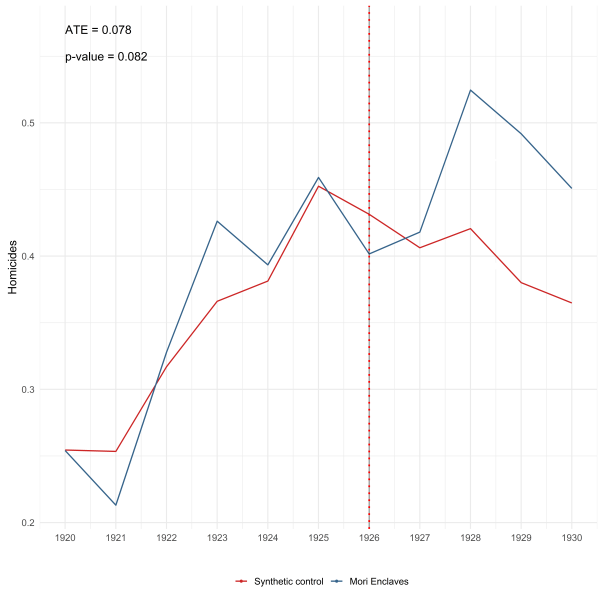
The SDID estimates are shown in Figure 6. Panels (a) and (b) report results for Mori enclaves using the full 1874–1930 series and a zoomed-in 1920–1930 window, respectively. Across specifications, the estimated post-treatment effect (1926–1930) lies between +0.08 and +0.11 homicides per 10,000 inhabitants, which corresponds to roughly a 20–25 percent increase relative to a baseline homicide rate of about 0.4 per 10,000 inhabitants. Panels (c) and (d) show similar, though slightly smaller, effects of about +0.07 to +0.09 homicides per 10,000 inhabitants in adjacent neighborhoods. These patterns indicate the presence of spatial spillovers, consistent with violent competition extending beyond the initial settlement areas. All of these estimates are statistically significant at conventional levels.[8]

[8]P-values for the SDID estimates are computed using the placebo-based inference procedure proposed by Arkhangelsky et al. (2021), which repeatedly assigns placebo treatment to control units, re-estimates the effect, and compares the observed estimate to the empirical distribution of placebo effects. This approach provides valid inference in large panels and is the default in SDID applications.

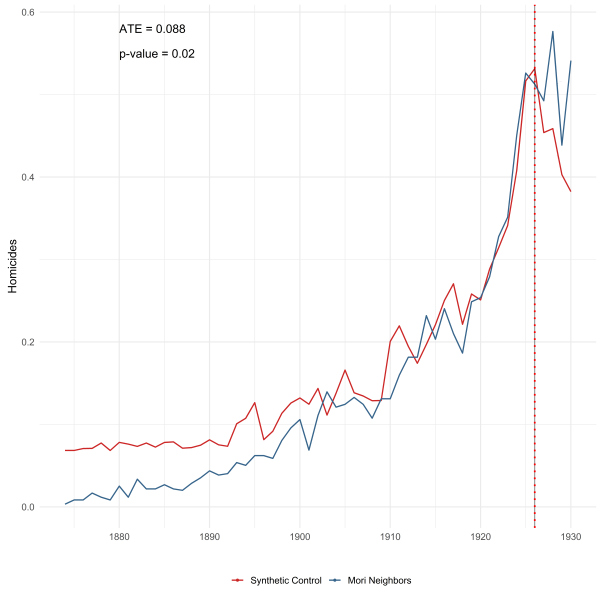
Figure 6: Synthetic Difference-in-Differences estimates of the impact of the inflow of Sicilian Mafiosi in 1926 on homicide rates in Chicago



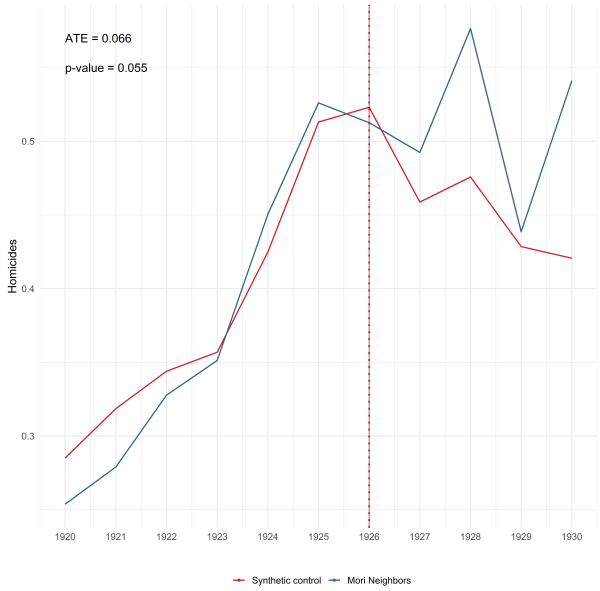
(a) Mori enclaves, 1874–1930



(b) Mori enclaves, 1920–1930



(c) Adjacent neighborhoods, 1874–1930



(d) Adjacent neighborhoods, 1920–1930

Notes: This figure compares average annual homicide rates per 10,000 thousand inhabitants in Mori enclaves (panels (a) and (b)) and in adjacent neighborhoods (panels (c) and (d)) with weighted averages of other Chicago neighborhoods whose pre-treatment homicide trends most closely match their own, following the Synthetic Difference-in-Differences estimator of Arkhangelsky et al. (2021). Panels (a) and (c) use the full 1874–1925 period as the pre-treatment window, while panels (b) and (d) restrict the pre-treatment period to 1920–1925. The dashed vertical line marks 1926, the year in which Mafiosi fleeing the Mori repression arrived in Chicago. Each panel reports the estimated average treatment effect over the post-treatment period as well as the corresponding p-value.

For completeness, Table 3 reports the results of two-way fixed effects Difference-in-Differences regressions for the period 1920–1930. Columns (1)–(2) present estimates using unweighted observations, while columns (3)–(4) reweight observations using the SDID unit weights. The event-study plots in Appendix Figure A11 show that the SDID weights substantially mitigate the mild pre-treatment differences in trends between treated and control units. In any case, regardless of whether observations are weighted or unweighted, the estimated effects remain very similar to those shown in Figure 6

Table 3: Estimated impact of Mori's raids in Sicily on local criminal activity

	Chicago Homicide Data (Annual, 1919–1930)			
	Unweighted Two-way DiD		Synthetic-control Weighted Two-way DiD	
	Mori Enclaves	Adjacent Neighborhoods	Mori Enclaves	Adjacent Neighborhoods
Post Raids	0.0730*	0.0817*	0.1016*	0.0881**
	(0.0389)	(0.0368)	(0.0523)	(0.0426)
Neighborhood FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Observations	5,335	10,538	4,785	10,109
DV Mean	0.3536	0.36	0.3536	0.36
Adjusted R^2	0.55	0.66	0.623	0.685

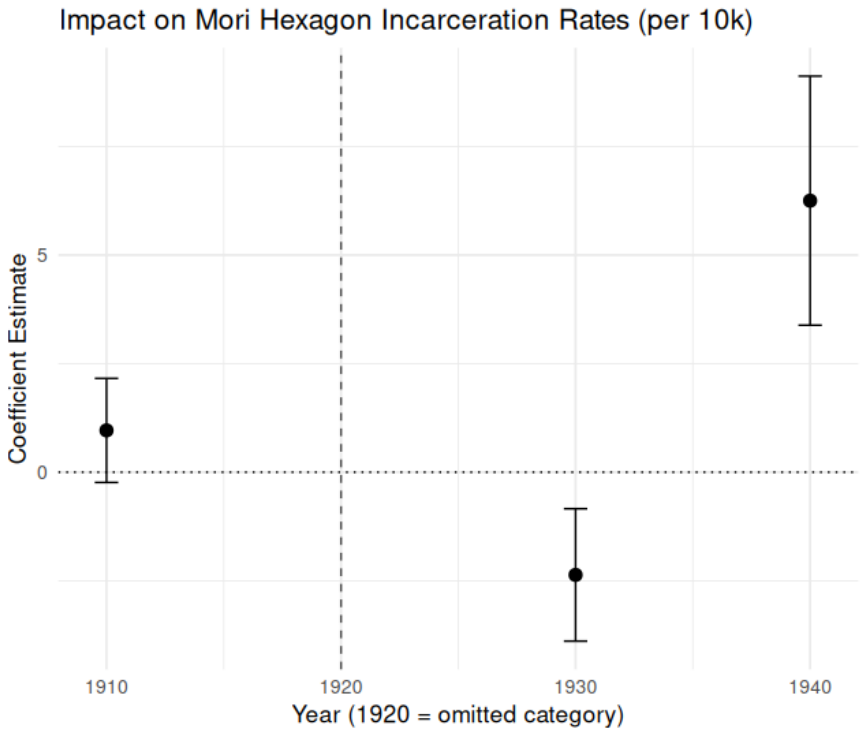
Notes: Columns (1)–(4) report difference-in-differences estimates using incident-level homicide data for Chicago from 1919–1930. Columns (1)–(2) use standard two-way fixed-effects models. Columns (3)–(4) apply synthetic-control weights constructed using the full 1874–1925 pre-treatment period, even though the regression sample begins in 1919; this ensures that treated neighborhoods are matched to control neighborhoods with long-run comparable homicide trajectories. "Mori Enclaves" are neighborhoods that in 1920 hosted immigrants from the Sicilian municipalities later raided by Cesare Mori, while "Adjacent Neighborhoods" are their first- and second-degree neighbors. All specifications include neighborhood and year fixed effects, and standard errors are clustered by neighborhood and year. $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.10$.

We interpret this evidence as reflecting intensified competition in illicit markets characterized by the absence of formal property-rights enforcement. As discussed in the introduction, when illegal markets lack state-backed mechanisms of protection, criminal groups must enforce contracts and territorial claims through violence, particularly when new entrants challenge established actors (e.g., Konrad and Skaperdas, 2012; Owens, 2014; García-Jimeno, 2016). The arrival of Mafiosi fleeing the Mori repression into Prohibition-era Chicago—a period marked by exceptionally high rents in the bootlegging economy (Thrasher, 1927;

Demleitner, 1994)—likely exacerbated these dynamics. Competition for control over distribution channels and neighborhood-level rackets would generate both direct violence within Mori enclaves and spillovers into adjacent areas, consistent with the spatial propagation of homicide increases documented above.

Turning to other cities, only incarceration rates are available, constructed as described in the previous section. These data are observed both before and after 1926—though only at four census years between 1910 and 1940—so identification comes from longitudinal variation while holding neighborhood fixed characteristics constant. As with homicide rates, we compare incarceration trends in Mori enclaves with those in other neighborhoods hosting Sicilian immigrants before and after 1926. Because the pre-treatment period contains too few observations to implement a synthetic control, we estimate an event-study specification using 1920—the last census year before the repression—as the baseline. Figure 7 shows an insignificant coefficient for 1910, consistent with the identifying assumption of parallel pre-treatment trends. Incarceration rates then decline slightly between 1920 and 1930, before increasing sharply between 1930 and 1940 – by more than 6 incarcerations per 10,000 inhabitants, relative to a baseline rate of about 3 per 10,000 (see Table 1). As incarceration is a medium-term outcome—requiring individuals first to be detected, arrested, it is not surprising that any effect on such outcomes appears only in the medium-long run.

Figure 7: Event-Study Estimates of the Impact of the 1926–1927 Influx of Mafiosi on Incarceration Rates in Mori Enclaves



Notes: Figure plots event-study coefficients from a two-way fixed-effects regression estimating the effect of the post-1926 arrival of Mafiosi from Mori-raided Sicilian towns on neighborhood-level incarceration rates. The dependent variable measures the share of residents in census year t incarcerated by census year $t + 1$, regardless of incarceration location. Regressions control for the proportion of Italian-born residents and the presence of Sicilian immigrants. Standard errors are clustered by neighborhood and census year.

4.3 Redlining

In addition to examining outcomes such as homicides and incarceration, we assess whether organized crime was indirectly reflected in perceived investment risk, as captured by the Home Owners' Loan Corporation (HOLC) maps from the late 1930s. As explained in Section 3.3, these assessments incorporated perceptions of disorder and safety (among other factors; see Fishback et al., 2023). Neighborhoods viewed as unsafe or unstable were systematically downgraded and, under Federal Housing Administration (FHA) criteria, cut off from mortgage financing (Light, 2010), which in turn depressed homeownership, lowered housing prices, and increased vacancy rates (Aaronson et al., 2021). Table 4 provides empirical confirmation of these patterns in our setting.

Table 4: Long-Run Neighborhood Outcomes Associated with HOLC Redlining

	Dependent Variable			
	Median Income (1990)	Housing Price Index (2020)	College Rate (2000)	Poverty Rate (1990)
D-Grade	-5,334.69***	-81.52*	-0.032*	0.107***
	(1,171.32)	(41.46)	(0.011)	(0.010)
City FE	Yes	Yes	Yes	Yes
Observations	4,591	3,992	4,591	4,591
DV mean	24,237	463.6	0.200	0.199
Adjusted R^2	0.119	0.320	0.090	0.206

Notes: Table reports OLS estimates of the long-run effects of receiving a HOLC Grade D ("redlined") classification on neighborhood-level socioeconomic outcomes. The dependent variables are measured across various decades, as indicated in parentheses. All specifications include city fixed effects. Significance levels: $^{***}p < 0.001$, $^{**}p < 0.01$, $^{*}p < 0.05$.

Given the importance of perceived safety and disorder in HOLC evaluations, and the fact that some assessments explicitly referenced organized crime,[9] we examine whether Mori enclaves were disproportionately assigned the lowest grade in HOLC maps.

[9]For example, one Mori enclave in Cleveland was described as a "well-known Italian settlement" associated with the "Mayfield Road mob" and "gangster activities during Prohibition" (Nelson et al., 2023).

Table 5: Likelihood of Redlining for Mori Enclaves

Dependent variable	*HOLC Map Grade D ("Redlined")*			
	Model 1	Model 2	Model 3	Model 4
Mori	0.317***	0.279***	0.176**	0.150**
	(0.064)	(0.074)	(0.051)	(0.057)
Italian Proportion		0.333***		0.225**
		(0.110)		(0.092)
Sicilians Present			0.194**	0.186***
			(0.047)	(0.049)
City FE	✓	✓	✓	✓
R-squared	0.153	0.156	0.173	0.174
DV Mean	0.381			
Observations	4,591			

Notes: Table reports OLS estimates of the probability that a neighborhood received a HOLC Grade D ("redlined") classification. The key regressor, *Mori*, equals one for hexagons containing immigrants from Mori-raided Sicilian towns in 1920. Models progressively add controls for the share of Italian-born residents and the presence of immigrants from *any* Sicilian town. All specifications include city fixed effects.
Standard errors are clustered at the city level. Significance levels: $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$.

Even after controlling for the presence of Sicilian immigrants and the share of Italian-born residents, Mori enclaves were about 40% more likely to be redlined fifteen years later. Given the long-term implications of redlining for neighborhood development documented in Table 5—and consistent with the broader evidence in Aaronson et al. (2021)—one would expect Mori enclaves to exhibit poorer socioeconomic outcomes in later decades. We examine this prediction in the final part of this section.

5 Long-term Effects of Mafia Transplant

Having provided substantial evidence that the Mori enclaves were home to later mafia activity and characterized by short-run spikes in homicides, incarcerations, and red-lining, we now turn to their long-term evolution. Surprisingly, these neighborhoods did not follow the downward trajectory typical of red-lined urban areas. Instead, by the end of the twentieth century they displayed markedly better educational and employment outcomes.

We document this pattern using data from the neighborhood-level data from the Opportunity Insights Social Capital Atlas (Chetty et al., 2022a) we regress long-term social and

economic outcomes on an indicator for Mori enclaves.

Table 6 summarizes the main results. The dependent variables cover educational attainment (college-completion rates in 2000 and 2010), labor-market integration (employment at ages 24 and 32 for birth cohorts tracked in the data), and residential persistence (remaining in the same tract from childhood). Across specifications, Mori enclaves exhibit higher college-completion rates - roughly 6–7 percentage-point increases by 2010— for children born in the neighborhood between 1978 and 1983, 50 years after Mori's expulsion of the mafia from Sicily. They also exhibit higher employment probabilities at both ages 24 and 32. The coefficients on staying in the same tract are smaller and not statistically significant, but their positive sign suggests somewhat greater neighborhood stability. In Appendix Table A1, we replicate these regressions using the spatial-error corrections proposed by Conley and Kelly (2025) for persistence studies; although standard errors widen, point estimates and significance are broadly unchanged.

Dependent variable	Baseline (no extra controls)	+ Italian control	+ Italian & Sicilian controls
College rate (2010)	0.0650**	0.0625**	0.0739**
	(0.0171)	(0.0192)	(0.0203)
College rate (2000)	0.0434*	0.0407	0.0590*
	(0.0221)	(0.0251)	(0.0269)
Employed at age 32	0.0608*	0.0656*	0.0586**
	(0.0328)	(0.0299)	(0.0178)
Employed at age 24	0.0777*	0.0826**	0.0747**
	(0.0370)	(0.0343)	(0.0220)
Same tract from childhood	0.0196	0.0221	0.0134
	(0.0139)	(0.0123)	(0.0082)

Notes: Clustered SEs in parentheses Estimated with city fixed effects. Significance: $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.10$

Table 6: Long run differences in outcomes for Mori districts

This pattern echoes the findings of Murphy and Rossi (2020), who, in a very different context, show that Mexican municipalities exposed to cartel formation experienced long-run improvements in socioeconomic indicators—such as lower illiteracy, higher household incomes, and more extensive public-service provision—decades after the initial emergence of organized crime. They argue that once criminal groups become locally entrenched, they often invest in public goods and informal governance to secure legitimacy and cooperation, generating tangible, though uneven, benefits for the communities they control. In our setting, a similar process may have operated: wealth accumulation and reinvestment—profits laundered into local businesses and real estate—anchored capital within Mori enclaves and supported their long-run upward trajectories. The event-study results in Figure **??** support this interpretation: Mori enclaves experienced a sharp and statistically significant rise in home-ownership rates beginning in the 1930s, only a decade after the arrival of Sicilian

mafiosi and in spite of credit rationing due to redlining. This increase—about 12 percent relative to the pre-period mean—suggests that mafia-linked households were channeling accumulated resources into real assets within their own neighborhoods.

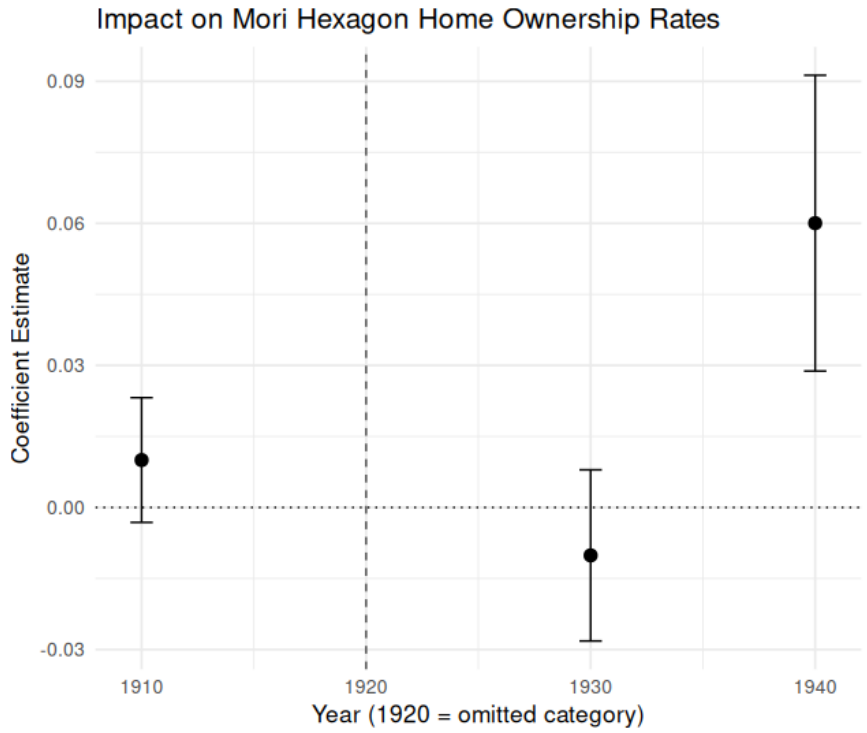


Figure 8: Figure depicting event study results showing the increase in home ownership rates in Mori hexagons following the influx of criminal capital. The underlying event study regressions control for the proportion of Italian immigrants in a district and the presence of identifiable Sicilian immigrants.

In other words, while redlining blocked formal avenues of investment, the inflow of "criminal capital" effectively substituted for missing finance, anchoring wealth in property and reinforcing local attachment.

Interestingly, these long-term economic effects do not spill over to neighboring areas, even though short-run violence did. Table 7 reports long-run outcomes for neighborhoods adjacent to the original Mori enclaves—those in the first or second ring around the 1920 settlements. Across all specifications and outcome measures, the coefficients are small and statistically insignificant, indicating no detectable long-run impact of proximity. In the short run, these bordering areas absorbed part of the violent conflict as newly arrived Mafiosi entered Prohibition-era illicit markets, yet in the long run they did not share in the gains observed within Mori enclaves.

Dependent variable	Baseline (no extra controls)	+ Italian control	+ Italian & Sicilian controls
College rate (2010)	0.0107	0.0099	0.0105
	(0.0096)	(0.0096)	(0.0093)
College rate (2000)	0.0014	0.0011	0.0022
	(0.0108)	(0.0109)	(0.0105)
Employed at age 32	−0.0005	−0.0011	−0.0017
	(0.0242)	(0.0245)	(0.0240)
Employed at age 24	0.0069	0.0061	0.0054
	(0.0235)	(0.0239)	(0.0234)
Same tract from childhood	0.0034	0.0031	0.0025
	(0.0072)	(0.0073)	(0.0073)

Notes: Clustered SEs in parentheses Estimated with city fixed effects. Significance: $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.10$

Table 7: Long run differences in outcomes for districts that were neighbors to Mori districts

6 Conclusion

This paper has documented the historical and spatial link between the forced migration of Sicilian Mafiosi under Fascist repression and the subsequent rise of organized crime in the United States. Using newly linked administrative and historical data, we show that neighborhoods in 1920 hosting immigrants from the 29 Sicilian municipalities raided by Cesare Mori became the epicenters of American Mafia leadership and activity four decades later. This relationship holds even when benchmarked against randomized placebo distributions, suggesting that the connection between the "old world" Mafia and its American counterpart was neither anecdotal nor coincidental but rooted in enduring institutional and social continuities.

Beyond this institutional continuity, our results illuminate the broader social and economic legacies of this migration. In the short run, the arrival of displaced Mafiosi coincided with localized spikes in violence –especially in neighboring districts competing for control of lucrative illicit markets– and rising incarceration rates. Financial institutions also responded by labeling these enclaves as "hazardous" in their lending assessments, producing systematic redlining that curtailed formal investment and access to credit. Yet over the long term, these same neighborhoods diverged sharply from the typical redlined trajectory: rather than decline, they accumulated social and economic capital, exhibiting higher homeownership, education, and employment rates by the late twentieth century.

Taken together, these findings suggest that organized crime, while initially parasitic, can leave complex developmental legacies. The Mafia's presence created early distortions in violence and credit access but simultaneously generated durable ownership structures, and informal governance that persisted after overt criminal dominance waned. In this sense, the "institutional continuity" initiated by Mori's repression produced not only a transatlantic

criminal lineage but also unintended patterns of local persistence, where communities once stigmatized for harboring criminal capital later became resilient.

More broadly, this study highlights the capacity of state coercion and migration to reshape the geography of illicit institutions. Efforts to eradicate entrenched criminal systems can displace rather than destroy them, exporting both organizational capacity and social infrastructure across borders. The case of Mori's Sicily and the birth of the American Mafia thus provides a cautionary illustration of how repression, migration, and markets interact to reproduce institutions of power in new settings—and how their legacies may endure long after the original actors have vanished.

References

Aaronson, D., Hartley, D., and Mazumder, B. (2021). The effects of the 1930s holc "redlining" maps. *American Economic Journal: Economic Policy*, 13(4):355–392.

Abramitzky, R., Boustan, L., and Eriksson, K. (2012). Europe's tired, poor, huddled masses? self-selection and economic outcomes in the age of mass migration. *American Economic Review*, 102(5):1832–1856.

Abramitzky, R., Boustan, L., Jácome, E., Pérez, S., and Torres, J. D. (2024). Law-abiding immigrants: The incarceration gap between immigrants and the us-born, 1870–2020. *American Economic Review: Insights*, 6(4):453–471.

Abramitzky, R., Boustan, L. P., and Eriksson, K. (2014). A nation of immigrants: Assimilation and economic outcomes in the age of mass migration. *Journal of Political Economy*, 122(3):467–506.

Acemoglu, D., De Feo, G., and De Luca, G. D. (2020). Weak states: Causes and consequences of the sicilian mafia. *The Review of Economic Studies*, 87(2):537–581.

Alesina, A., Piccolo, S., and Pinotti, P. (2019). Organized crime, violence, and politics. *The Review of Economic Studies*, 86(2):457–499.

Arkhangelsky, D., Athey, S., Hirshberg, D. A., Imbens, G. W., and Wager, S. (2021). Synthetic difference-in-differences. *American Economic Review*, 111(12):4088–4118.

Bailey, M. J., Cole, C., and Henderson, M. (2023). The challenges of historical measurement: Lessons from linking u.s. census data. *Journal of Economic Literature*. forthcoming.

Bandiera, O. (2003). Land reform, the market for protection, and the origins of the sicilian mafia: theory and evidence. *Journal of Law, Economics, and Organization*, 19(1):218–244.

Bartel, A. P. (1989). Where do the new u.s. immigrants live? *Journal of Labor Economics*, 7(4):371–391.

Bienen, L. B. and Rottinghaus, B. (2001a). Learning from the past, living in the present: Understanding homicide in chicago, 1870–1930. *Journal of Criminal Law & Criminology*, 92:437.

Bienen, L. B. and Rottinghaus, B. (2001b). Learning from the past, living in the present: Understanding homicide in chicago, 1870-1930. *J. Crim. L. & Criminology*, 92:437.

Bruhn, J. (2021). Competition in the black market: Estimating the causal effect of gangs in chicago. Working Paper.

Buckles, K., Haws, A., Price, J., and Wilbert, H. (2024). Breakthroughs in historical record linking using genealogy data: The census tree project. Working Paper.

Buonanno, P., Durante, R., Prarolo, G., and Vanin, P. (2015). Poor institutions, rich mines: Resource curse in the origins of the sicilian mafia. *The Economic Journal*, 125(586):F175–F202.

Buonanno, P. and Pazzona, M. (2014). Migrating mafias. *Regional Science and Urban Economics*, 44(1):75–81.

Calderoni, F., Berlusconi, G., Garofalo, L., Giommoni, L., and Sarno, F. (2016). The italian mafias in the world: A systematic assessment of the mobility of criminal groups. *European Journal of Criminology*, 13(4):413–433.

Card, D. (1990). The impact of the mariel boatlift on the miami labor market. *Industrial and Labor Relations Review*, 43(2):245–257.

Card, D. (2009). Immigration and inequality. *American Economic Review*, 99(2):1–21.

Chetty, R. and Hendren, N. (2018a). The impacts of neighborhoods on intergenerational mobility i: Childhood exposure effects. *The quarterly journal of economics*, 133(3):1107–1162.

Chetty, R. and Hendren, N. (2018b). The impacts of neighborhoods on intergenerational mobility ii: County-level estimates. *The Quarterly Journal of Economics*, 133(3):1163–1228.

Chetty, R., Jackson, M. O., Kuchler, T., Stroebel, J., Hendren, N., Fluegge, R. B., ..., and Wernerfelt, N. (2022a). Social capital i: measurement and associations with economic mobility. *Nature*, 608(7921):108–121.

Chetty, R., Jackson, M. O., Kuchler, T., Stroebel, J., Hendren, N., Fluegge, R. B., ..., and Wernerfelt, N. (2022b). Social capital ii: determinants of economic connectedness. *Nature*, 608(7921):122–134.

Commissione Parlamentare Antimafia (1976). Relazione della commissione parlamentare d'inchiesta sul fenomeno della mafia in sicilia. capitolo iv: Le ramificazioni territoriali della mafia. Discussione del convegno di Cleveland (1928) e riferimento alla "spietata operazione Mori" a p. 258.

Conley, T. G. and Kelly, M. (2025). The standard errors of persistence. *Journal of International Economics*, 153:104027.

Connolly, N. D. B., Winling, L., Nelson, R. K., and Marciano, R. (2018). Mapping inequality:'big data'meets social history in the story of redlining. In *The Routledge companion to spatial history*, pages 502–524. Routledge.

Cutrera, A. (1900). *La Mafia e i Mafiosi nella Sicilia Occidentale*. Reber, Palermo.

De Feo, G. and De Luca, G. D. (2017). Mafia in the ballot box. *American Economic Journal: Economic Policy*, 9(3):134–167.

Demleitner, N. V. (1994). Organized crime and prohibition: What difference does legalization make. *Whittier Law Review*, 15:613.

Dipoppa, G. (2025). How criminal organizations expand to strong states: Local agreements and migrant exploitation in northern italy. *The Journal of Politics*, 87(2):556–571.

Dustmann, C., Frattini, T., and Glitz, I. P. (2011). The impact of migration: A review of the economic evidence. *The Economic Journal*, 121(557):F324–F341.

Falcone, G. and Padovani, M. (2012). *Cose di cosa nostra*. Bur.

Feigenbaum, J. J. (2016). Thrown out and brought back: Off-the-books workers and the matching of historical census records. *Journal of Economic History*, 76(2):1–38.

Fenizia, A. and Saggio, R. (2024). Organized crime and economic growth: Evidence from municipalities infiltrated by the mafia. *American Economic Review*, 114(7):2171–2200.

Fishback, P. V., LaVoice, J., Shertzer, A., and Walsh, R. P. (2023). The holc maps: How race and poverty influenced real estate professionals' evaluation of lending risk in the 1930s. *The Journal of Economic History*, 83(4):1019–1056.

Franchetti, L. and Sonnino, S. (1876). *La Sicilia nel 1876*. G. Barbera, Firenze.

Gambetta, D. (1993). *The Sicilian Mafia: The Business of Private Protection*. Harvard University Press, Cambridge, MA.

García-Jimeno, C. (2016). The political economy of moral conflict: An empirical study of learning and law enforcement under prohibition. *Econometrica*, 84(2):511–570.

Giuliano, P. and Nunn, N. (2021). Understanding cultural persistence and change. *The Review of Economic Studies*, 88(4):1541–1581.

Guiso, L., Sapienza, P., and Zingales, L. (2016). Long-term persistence. *Journal of the European Economic Association*, 14(6):1401–1436.

Helgertz, J., Ozder, N., Ruggles, S., Warren, J. R., Fitch, C. A., Hacker, J. D., Nelson, M. A., Price, J. P., Roberts, E., and Sobek, M. (2024). Ipums multigenerational longitudinal panel: Version 1.2 [dataset].

Home Owners' Loan Corporation (1939). Area description d22, cleveland, oh: Mayfield road mob reference. `https://dsl.richmond.edu/panorama/redlining/map/OH/Cleveland/area_descriptions/D22`. Mapping Inequality: Digital Scholarship Lab, University of Richmond.

Imbens, G. W. and Rubin, D. B. (2015). *Causal inference in statistics, social, and biomedical sciences*. Cambridge university press.

Jacini, S. (1885). *Atti dell'Inchiesta Agraria Jacini*. Parliamentary inquiry on agrarian conditions in Southern Italy and Sicily, Roma.

Konrad, K. A. and Skaperdas, S. (2012). The market for protection and the origin of the state. *Economic Theory*, 50(2):417–443.

Lessing, B. (2015). Logics of violence in criminal war. *Journal of Conflict Resolution*, 59(8):1486–1516.

Light, J. (2010). Nationality and neighborhood risk at the origins of fha underwriting. *Journal of Urban History*, 36(5):634–671.

Logan, J. R., Minca, E., Bellman, B., Kisch, A., and Carlson, H. J. (2023). From side street to ghetto: Understanding the rising levels and changing spatial pattern of segregation, 1900–1940. *City & Community*.

Lupo, S. (2008). *Quando la mafia trovò l'America. Storia di un intreccio intercontinentale, 1888–2008*. Number 24 in Einaudi Storia. Einaudi, Torino.

Lupo, S. (2015). *The Two Mafias: A Transatlantic History, 1888-2008*. Springer.

Mastrobuoni, G. (2015). The value of connections: Evidence from the italian-american mafia. *The Economic Journal*, 125(586):F256–F288.

McWeeney, S. M. (1987). The sicilian mafia and its impact on the united states. *FBI Law Enforcement Bulletin*, 56(2):1–10. ISSN 0014-5688.

Melnikov, N., Schmidt-Padilla, C., and Sviatschi, M. M. (2025). Gangs, labor mobility and development. *Econometrica, forthcoming*.

Mori, C. (1932). *Con la mafia ai ferri corti: Le memorie del "prefetto di ferro"*. A. Mondadori, Verona.

Mori, C. (1933). *The Last Struggle with the Mafia*. G. P. Putnam's Sons, London and New York.

Munshi, K. (2003). Networks in the modern economy: Mexican migrants in the u.s. labor market. *Quarterly Journal of Economics*, 118(2):549–599.

Murphy, T. E. and Rossi, M. A. (2020). Following the poppy trail: Origins and consequences of mexican drug cartels. *Journal of Development Economics*, 143:102433.

Nelson, R. K., Winling, L., et al. (2023). Mapping inequality: Redlining in new deal america. `https://dsl.richmond.edu/panorama/redlining/`.

Owens, E. G. (2014). The american temperance movement and market-based violence. *American Law and Economics Review*, 16(2):433–472.

Pinotti, P. (2015). The economic costs of organised crime: Evidence from southern italy. *The Economic Journal*, 125(586):F203–F232.

Porreca, Z. and Thompson, H. (2024). Economics of criminal governance. In *Handbook of Labor, Human Resources and Population Economics*, pages 1–23.

President's Commission on Organized Crime (1986). The impact: Organized crime today.

Putnam, R. D., Nanetti, R. Y., and Leonardi, R. (1994). *Making democracy work: Civic traditions in modern Italy*. Princeton university press.

Schneider, J. and Schneider, P. (1994). Mafia, antimafia, and the question of sicilian culture. *Politics & Society*, 22(2):237–258.

Scognamiglio, A. (2018). When the mafia comes to town. *European Journal of Political Economy*, 55:573–590.

Shertzer, A. and Walsh, R. P. (2019). Racial sorting and the emergence of segregation in american cities. *Review of Economics and Statistics*, 101(3):415–427.

Shertzer, A., Walsh, R. P., and Logan, J. R. (2016). Segregation and neighborhood change in northern cities: New historical gis data from 1900–1930. *Historical Methods: A Journal of Quantitative and Interdisciplinary History*, 49(4):187–197.

Snyder, R. and Durán-Martínez, A. (2009). Does illegality breed violence? drug trafficking and state-sponsored protection rackets. *Crime, Law and Social Change*, 52(3):253–273.

Sobrino, F. (2019). Mexican cartel wars: Fighting for the us opioid market. `https://www.fersobrino.com/files/DraftPaper.pdf`.

Social Security Administration (2013). Effects of unauthorized immigration on the actuarial status of the social security trust funds.

Sviatschi, M. M. (2022). Making a gangster: Exporting us criminal capital to el salvador. Working Paper.

Thrasher, F. M. (1927). *The Gang: A Study of 1,313 Gangs in Chicago*. Doctoral dissertation, University of Chicago.

US Federal Bureau Of Narcotics (2007). *Mafia: The Government's Secret File on Organized Crime*. Harper.

U.S. National Archives and Records Administration (1957). Passenger lists of vessels arriving at new york, ny, 1820–1957. Microfilm Publication T715. Records of the Immigration and Naturalization Service.

Varese, F. (2011). *Mafias on the move: How organized crime conquers new territories*. Princeton University Press.

A Appendix

A.1 Additional Figures and Tables

Figure A1: The Mori anti-mafia campaign in the New York Times, 1928



SUNDAY, MARCH 4, 1928 ◀ PAGE 87

10 THE NEW YORK TIMES MAGAZINE, MARCH 4, 1928

THE MAFIA DEAD, A NEW SICILY IS BORN

Mussolini's War Against the Secret Society Rids The Island of an Evil Many Centuries Old

The Prefect Who Broke the Mafia —Cesare Mori.

Photograph by Courtesy of Corriere d'America.

By ARNALDO CORTESI

ROME.

THE Mafia, one of the most picturesquely villainous secret societies the world has ever seen, exists no more. After holding absolute sway over Sicily for centuries, murdering, blackmailing, terrorizing the luckless inhabitants, it has met its fate

honor, a certain appearance of robbing the rich to benefit the poor, that won it the support of the lowest classes.

The Mafia found adherents in all classes of society. From men of ancient lineage and noble birth to the lowest ruffians of the cities and the peasants of the country, all found it profitable to enter a secret

fascination in the eyes of the lowly Sicilians. Despite ghastly cruelties it often won popular sympathy, and many Sicilians served long terms in prison rather than commit the "infamy" of giving information to the police. The appellation of "giovane d'onore"—"a young man of honor"—given to one who refused to assist

the Sicilian national spirit alive, and boasted among its members men eminent for birth or position.

In that early period the Mafia creed held that it was cowardly and disloyal to appeal to the authorities of the oppressor for redress of any wrong. The Mafia took it upon itself to dispense a rough and ready justice rather than permit the Sicilians to have dealings with the justice of the Spaniards. Any one who appealed to the regular courts was branded as infamous and dealt with accordingly. This creed, drilled into the Sicilians for centuries, became a part of their mental make-up.

The Mafia in time lost its patriotic character and continued as a criminal organization. In the latter half of the last century, when Sicily became a part of the Kingdom of Italy and any justification for such a body as the original Mafia ceased to exist, the quality of the society deteriorated until the members were ordinary gangsters and the leaders cold-blooded criminals who thought no more of ordering the murder of an enemy than of killing a fly.

The old tradition of keeping one's wrong to one's self was continued. Indeed, the Mafia took good care to prevent any backsliding in this respect by inaugurating a reign of terror; it exacted bloody vengeance of any one who dared to inform the police of its doings. The strangle hold the Mafia had over Sicily translated itself into political power. The Mafia became a strong electoral machine without the acquiescence of which no Sicilian candidate could hope to enter the Italian Parliament. It is even said that two Cabinet Ministers of the past were Mafia leaders.

lives were worth. There are cases on record in which men were stabbed to death in broad daylight in crowded streets and no one would admit knowledge of the crime, though the name of the murderer was known to the whole city. The tradition of silence and secretiveness backed up by fear was so strong that nothing appeared capable of shaking it.

The Government at various times made determined efforts to break the grip of the Mafia. The best-known instance is the trial and the conviction of a member of Parliament, who was also a Mafia chief, for the murder of the banker Notarbartolo in 1892. The trial took place ten years after the death and was held out of Sicily, to remove Judges, juries, lawyers and witnesses from the menace of the Mafia's vengeance. Such efforts, however, were sporadic and, being always directed against some great chief instead of against the rank and file, never succeeded in crushing the order.

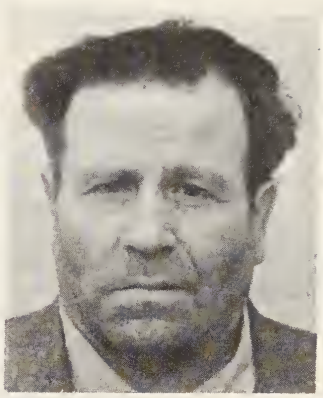
***

LANDOWNERS, whose fields, crops and cattle were constantly exposed, were the ones most often singled out for the society's criminal activities. "Contributions" were assessed by the Mafia in proportion to the landowner's presumed wealth. Any refusal to pay was followed by reprisals, crop burning, cattle maiming and, in extreme cases, death. The landowners were helpless; the mere suspicion that they might appeal to the police for protection was sufficient for the death penalty, which was carried out with clocklike precision, to be pronounced against them. They were also required to employ a

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Figure A2: Frank Coppola's FBI record from US Federal Bureau Of Narcotics (2007)

781



NAME : Francesco Paolo COPPOLA

ALIASES : Frank Cappola, Jim Barbero, Frank Loicono, Angelo Vota, Frank Lomonde, Don Ciccio

DESCRIPTION : Born 10-6-1899, Partinico, Sicily, 5'2", 150 lbs, blue eyes, brown-grey hair, ring & little fingers of left hand amputated.

LOCALITIES FREQUENTED : Resides Localita San Lorenzo, Ardea, Rome, Italy, also Partinico, Sicily. Has resided Detroit, Kansas City, Los Angeles, Rock Island, Ill, also Mexico. Deported from U.S., 1-9-48.

FAMILY BACKGROUND : Wife: Leonarda Chimenti; daughter: Pietra; father: Francesco; mother: Pietra Loicano; son-in-law: Giuseppe Corso, Jr.; Fay Tavolacci, his ex-mistress, lives in Detroit, Mich.

CRIMINAL ASSOCIATES : Lucky Luciano, Phil Kastel, Carlos Marcello, [redacted], Giuseppe Corso, Sr.

CRIMINAL HISTORY : FBI # 549933. Suspect in several Mafia murders, fled Sicily in 1926 to avoid prosecution. Record in U.S. dates from 1931 and includes arrests for murder & bootlegging. Narcotic convictions U.S., & Italy.

BUSINESS : Claims to be a farmer and exporter-importer. Still receives money from illicit interests in the U.S.

MODUS OPERANDI : Dangerous criminal and killer. In the narcotic traffic for many years and an important link in the international narcotic traffic. High Mafia leader who hears grievances, then orders restitution or assassination.

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Figure A3: Frank Coppola's Obituary on New York Times, 1982

Frank Coppola, Mafia Leader

ROME, April 26 (UPI) — Frank Coppola, who was charged with directing a vast drug trafficking ring that operated between Italy and the United States, died today. He was 83 years old.

Mr. Coppola, considered one of the last of the old-style Mafia "godfathers," died in a hospital in Aprilia, near here, where he was being treated for a lung disease.

Considered 'Top Man'

By WOLFGANG SAXON

For decades, Italian and American authorities regarded Francesco Paolo (Three Fingers) Coppola as the boss of a Mafia network based in Sicily that was linked to narcotics and currency rackets in the United States. Mr. Coppola was deported from the United States in the late 1940's. Many of his associates were still operating there in various underworld "crime families," or had also faced deportation.

When he wasn't in jail or banned to remote villages in northern Italy, Mr. Coppola lived on a luxurious estate near Rome. Drugs were found at his residence in a countrywide series of police raids in 1952.

A number of gangsters deported from the United States were arrested at that time, and officials in Washington identified Mr. Coppola as the "top man" in the ring broken up with the help of American Federal agents.

Predawn raids from Bologna to Sicily in August 1965 landed 17 Sicilians, including Mr. Coppola, in jail as suspects in a trans-Atlantic narcotics racket. Three years later, they were cleared by a Palermo court for insufficient evidence.

In 1971, Mr. Coppola and about 90 others again became the targets of an inquiry into international drug trafficking. Once more, prosecutors charged that the ring involved notorious Mafiosi with racketeers in the United States.

In 1973, Mr. Coppola was sent to the Queen of Heaven jail in Rome in connection with the attempted murder of a principal prosecutor — who barely escaped death — in that case. From the jail's hospital ward, he stirred a political scandal the following year when he charged that the same prosecutor later had tried to extort money from him.

Mr. Coppola first entered the United States illegally from Sicily in 1926, leaving behind his wife and daughter. He said he left Italy because he was being "crucified" by Mussolini's Fascists.

Mr. Coppola tried to obtain immigrant status in Detroit in 1942. His fight against deportation ended in January 1948 when the Federal authorities took him from Detroit to LaGuardia Field for a flight home.

Even then, he protested that he wanted to return to the United States legally, saying he had tried to be a "nice fellow" and would give his "right arm to become an American citizen."

"This is a great country for me and I still love it," he told reporters just before his departure. "I will do anything for the United States when I reach Italy, regardless of what they do to me."

Alfred Oppler, Jurist In Germany, Aided MacArthur in Japan

Alfred C. Oppler, a high-ranking judge in pre-Hitler Germany and a key aide to General of the Army Douglas MacArthur during the occupation of Japan after World War II, died Saturday at his home in Hightstown, N.J. He was 89 years old.

Mr. Oppler was an associate justice of the Prussian Supreme Administrative Court and vice president of the disciplinary court in Berlin during the final years of the Weimar Republic.

After fleeing to the United States in 1939, Mr. Oppler served Harvard University as a consultant to the Graduate School of Public Administration and instructor at the School of Overseas Administration. He went to Washington in 1944 to work with the Foreign Economic Administration, which was then preparing for the military occupation of Germany.

In 1946, he joined General MacAr-

Figure A4: Ellis Island's ship manifest documenting Joe Magliocco's arrival to the U.S.

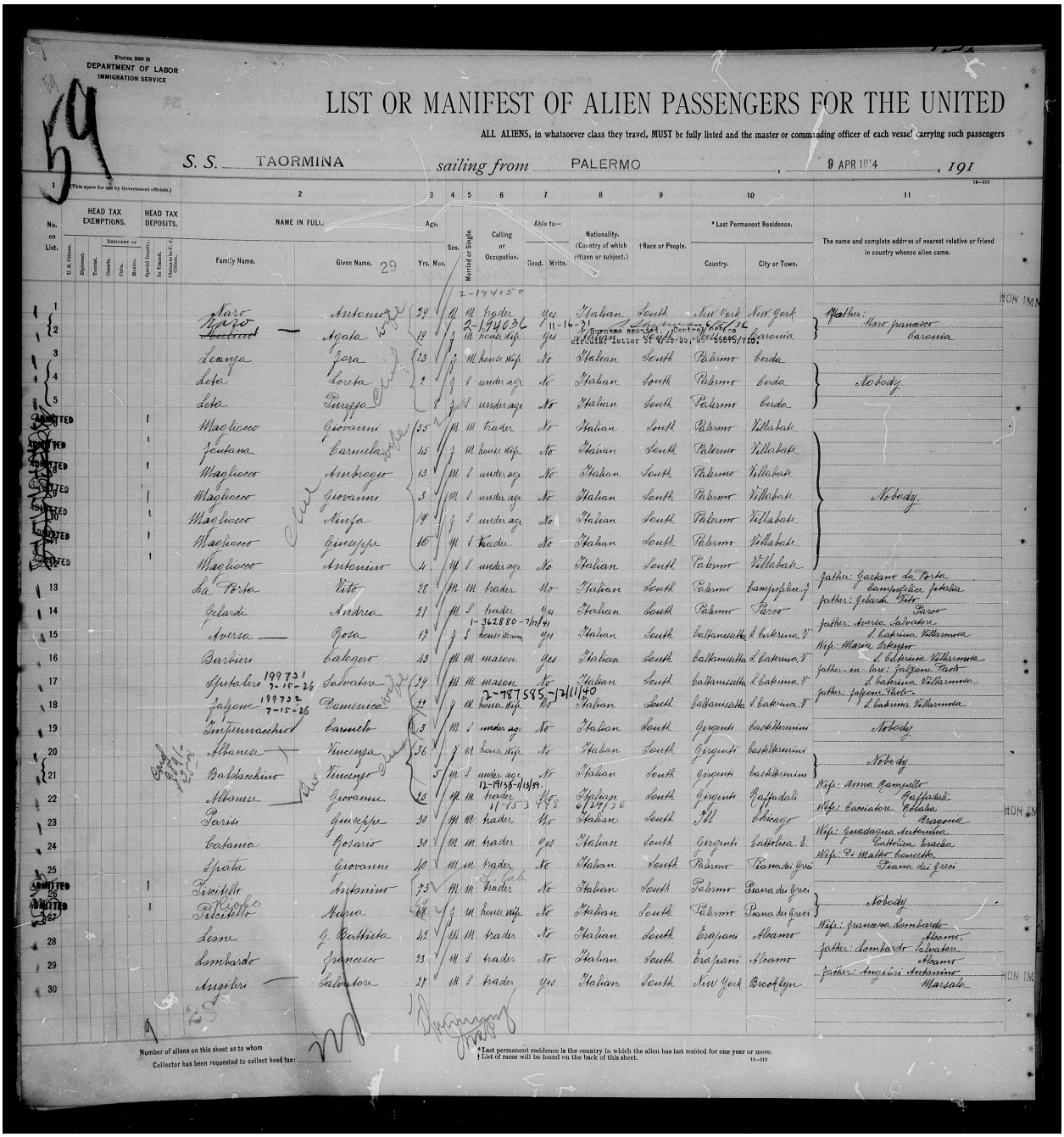


Figure A5: Joe Magliocco's 1920 Census Record

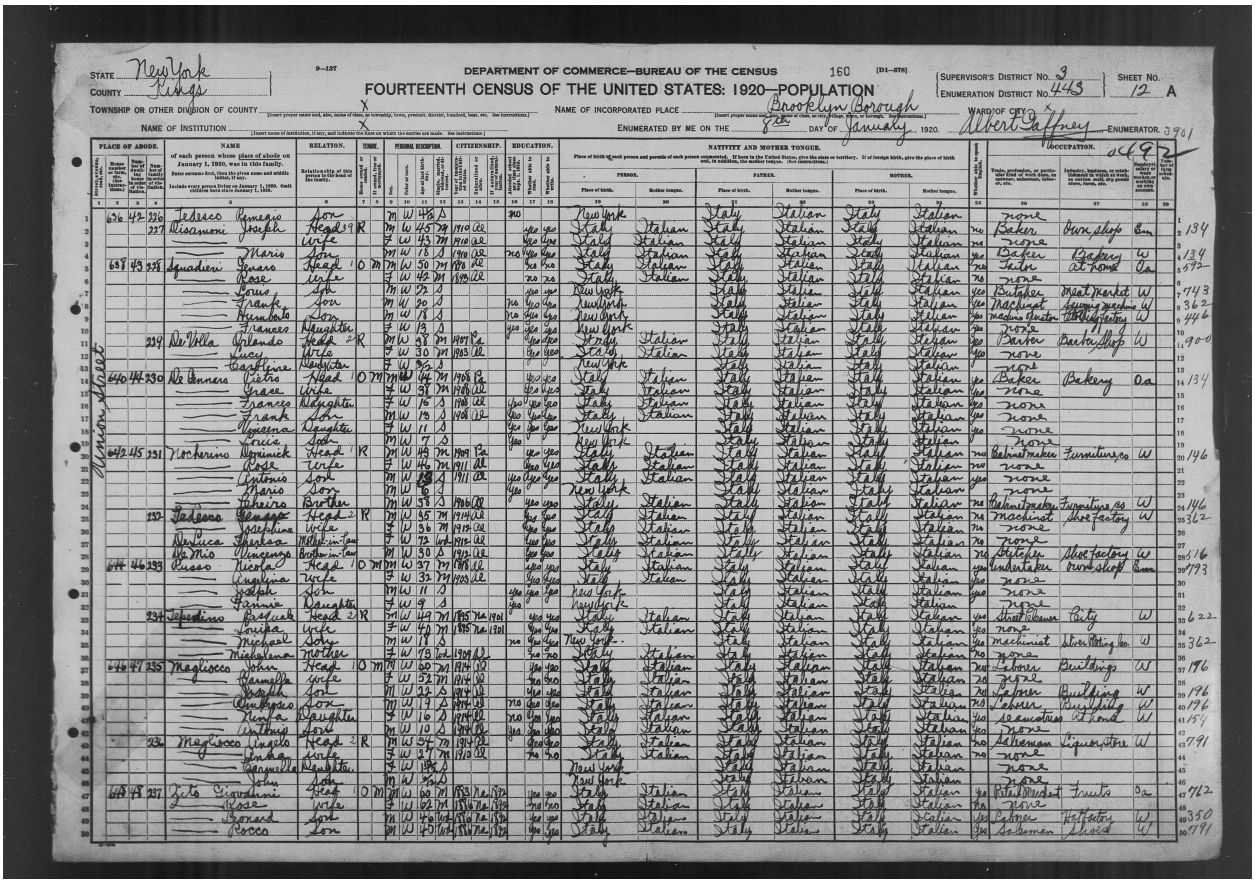


Figure A6: Joe Magliocco's 1930 Census Record

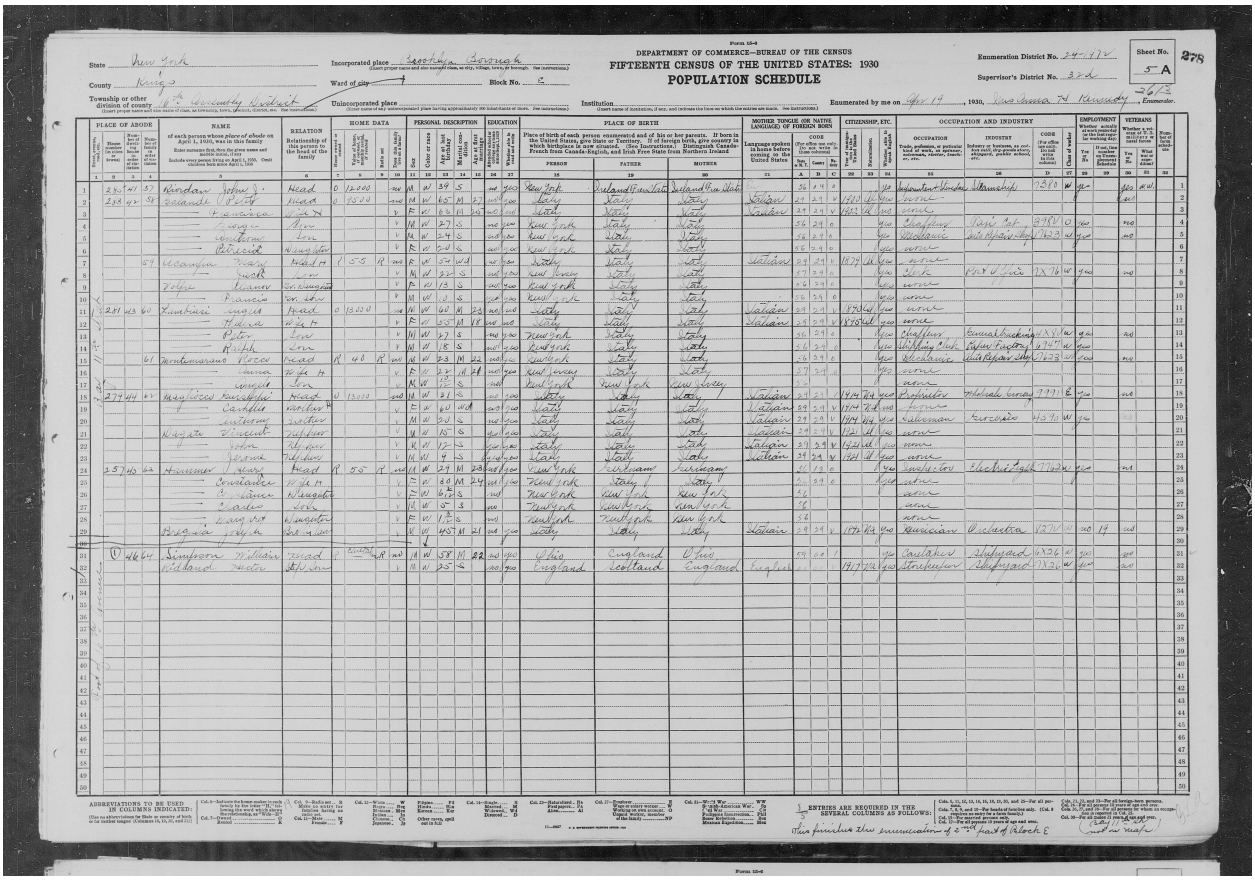


Figure A7: Joe Magliocco's FBI record from US Federal Bureau Of Narcotics (2007)

514



NAME : Giuseppe MAGLIOCCO

ALIASES : Joe Magliocco, Joe Magliocci

DESCRIPTION : Born 6-29-1898, Portella di Mare, Sicily, 5'9", 245 lbs, brown eyes, brown-grey hair.

LOCALITIES FREQUENTED : Resides 279 Bay 11th Street, Brooklyn, NY. Summer home at Bay View Ave., E. Islip, L.I. Frequents Sunland Beverage Co., Brooklyn, NY.

FAMILY BACKGROUND : Married Rose Angelo: brothers: Anthony, Angelo & Ambrosio; father: Giovanni; mother: Carmela Fontani; sister: Mrs. Ninfa Profaci (wife of Giuseppe Profaci).

CRIMINAL ASSOCIATES : Sebastiano Nani & Lucky Luciano, of Italy, John Balsamo, Emmanuel Cammarata, Paolo Gambino, Frank Livorsi, John Oddo, all of NYC area, Angelo Meli & William Tocco, of Detroit.

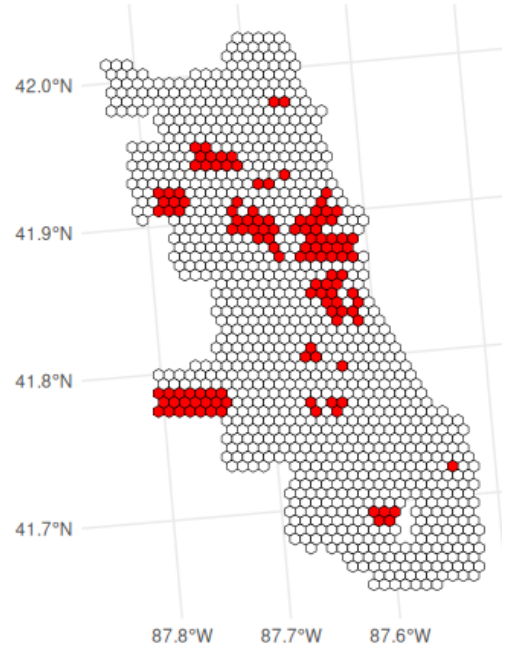
CRIMINAL HISTORY : FBI #184224 Cleveland PD #32771 Record dating from 1928 includes arrests for concealed weapon and conspiracy to obstruct justice. 1960 sentenced on latter charge to 5 years & $10,000 fine.

BUSINESS : Owns Sunland Beverage Co., Brooklyn, N.Y.

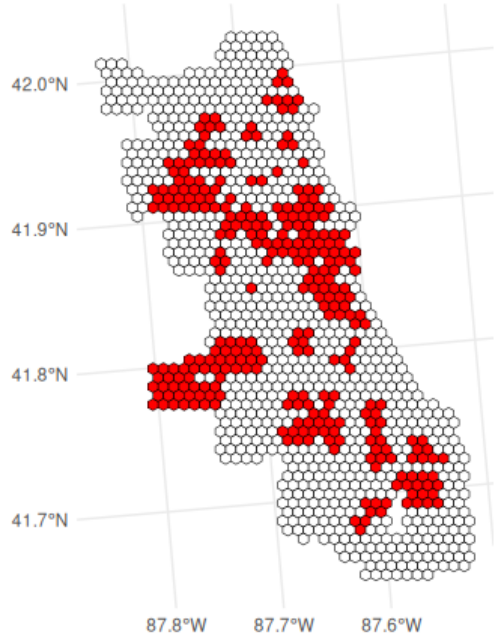
MODUS OPERANDI : Attended Cleveland Mafia meeting 1928 and the 1957 Apalachin Mafia meeting with brother-in-law Giuseppe Profaci. Is one of the most powerful members of the Mafia in the U.S.

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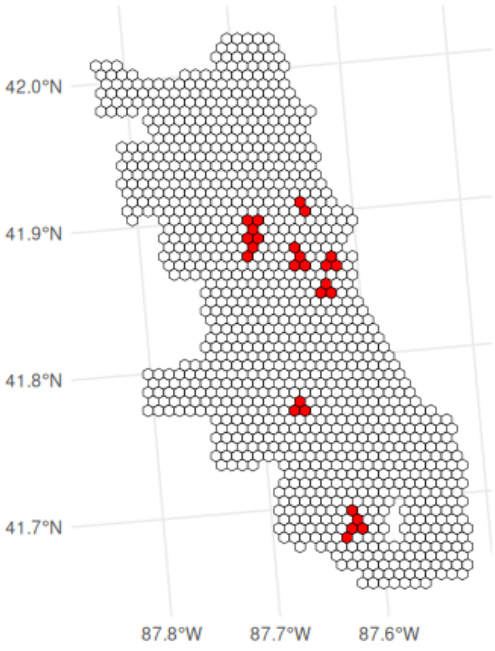
Figure A8: 1920 Mori Enclaves and 1959 Mafia Presence in Chicago



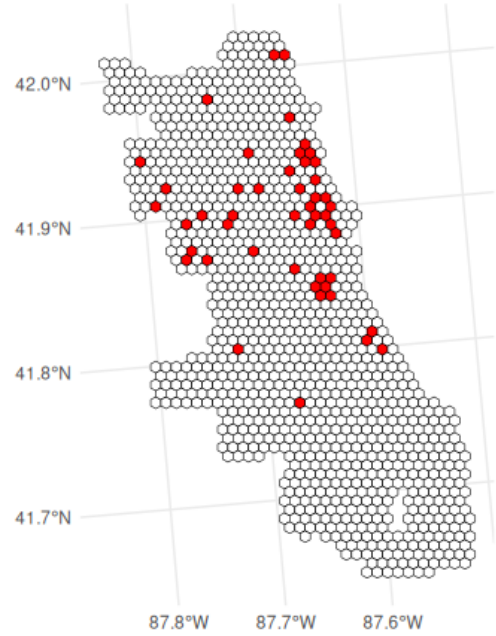
(a) Mori Enclaves



(b) Neighborhoods with Sicilian immigrants

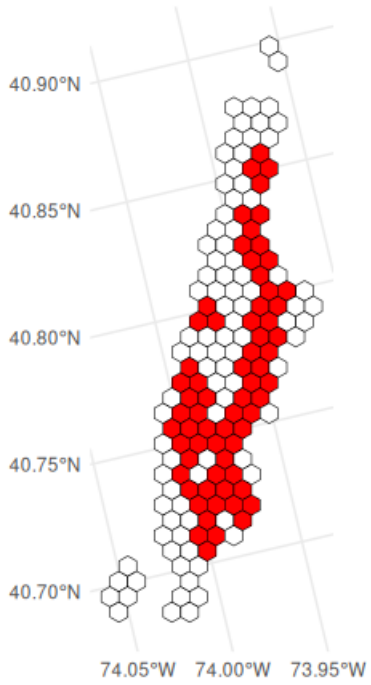


(c) 1920 residence of future Mafia bosses

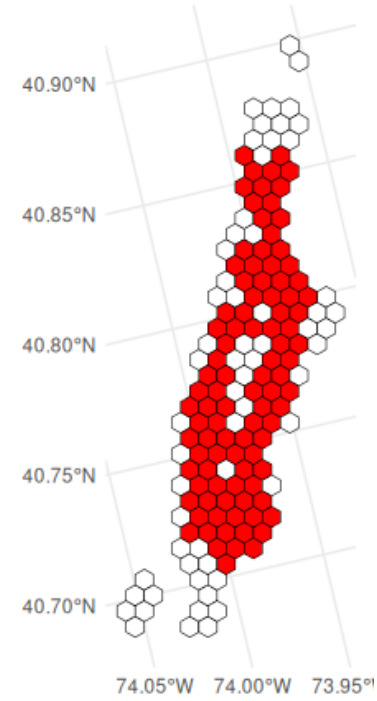


(d) 1959 location of known Mafia activities

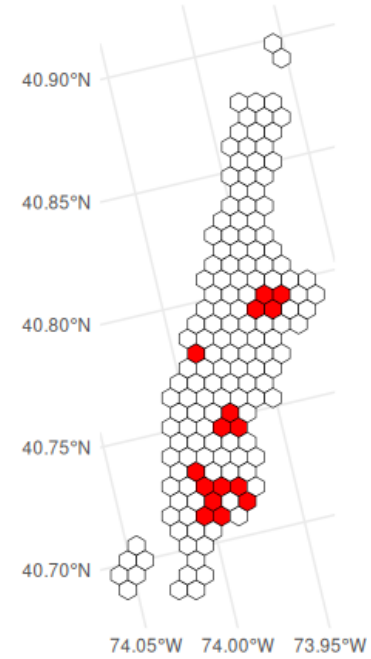
Figure A9: 1920 Mori Enclaves and 1959 Mafia Presence in Manhattan



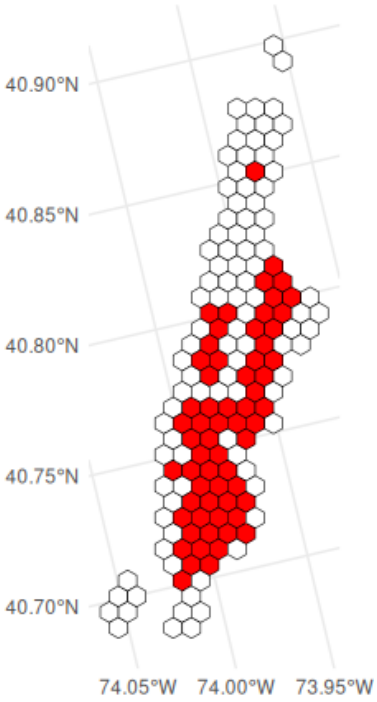
(a) Mori Enclaves



(b) Neighborhoods with Sicilian immigrants

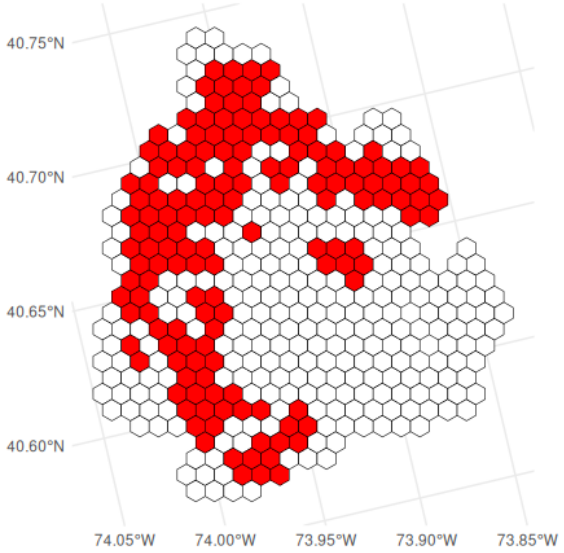


(c) Neihborhoods of future Mafia bosses

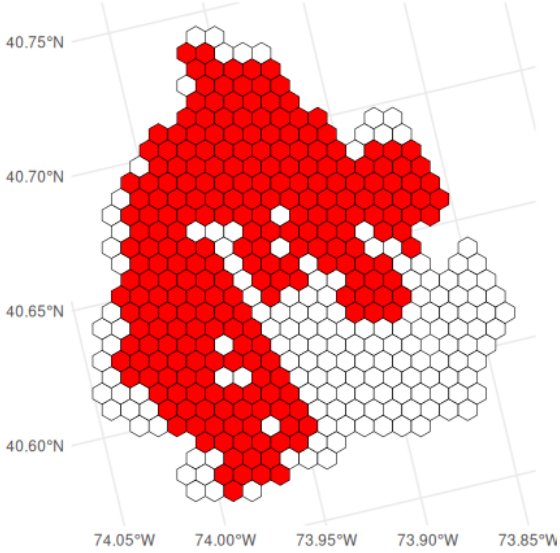


(d) 1959 location of known Mafia activities

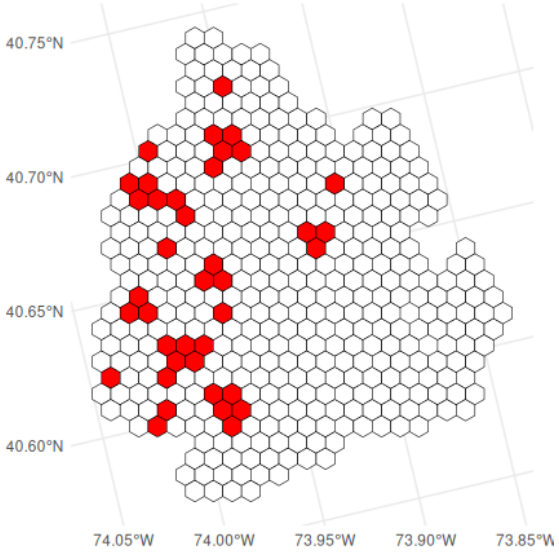
Figure A10: 1920 Mori Enclaves and 1959 Mafia Presence in Brooklyn



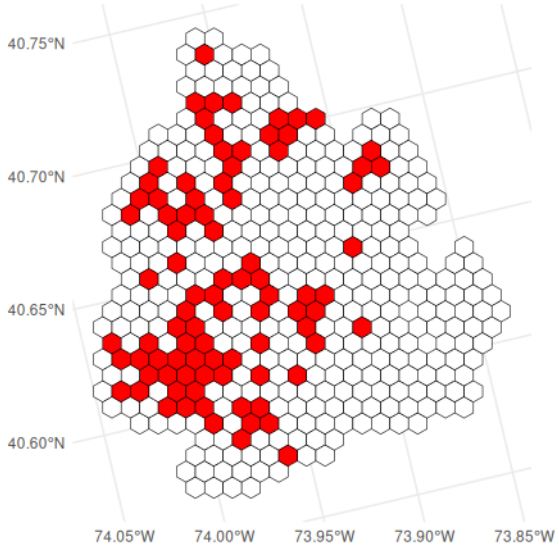
(a) Mori Enclaves



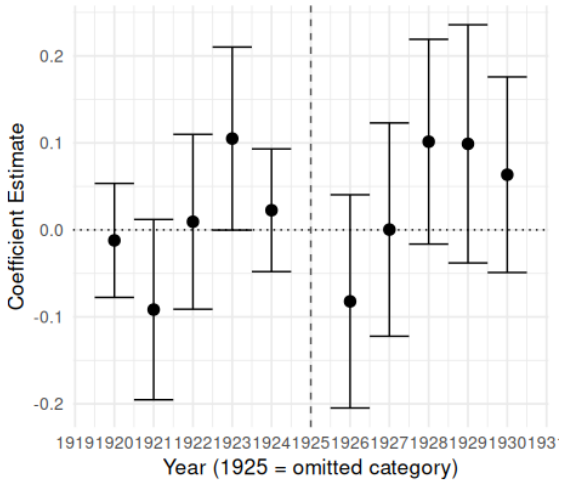
(b) Neighborhoods with Sicilian immigrants



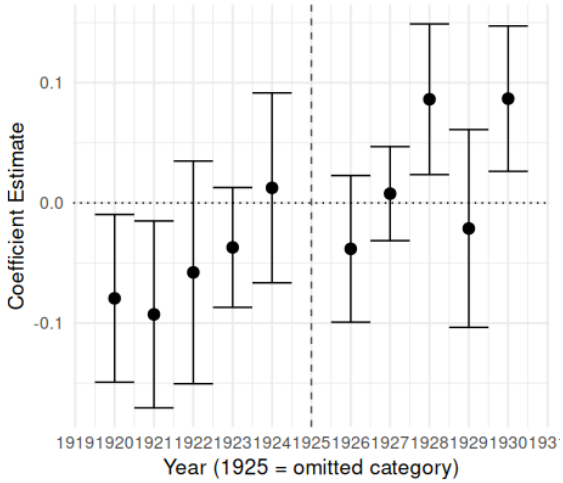
(c) Neihborhoods of future Mafia bosses



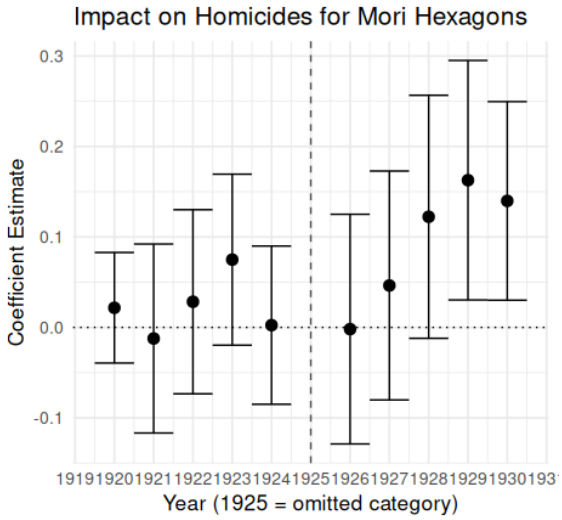
(d) 1959 location of known Mafia activities



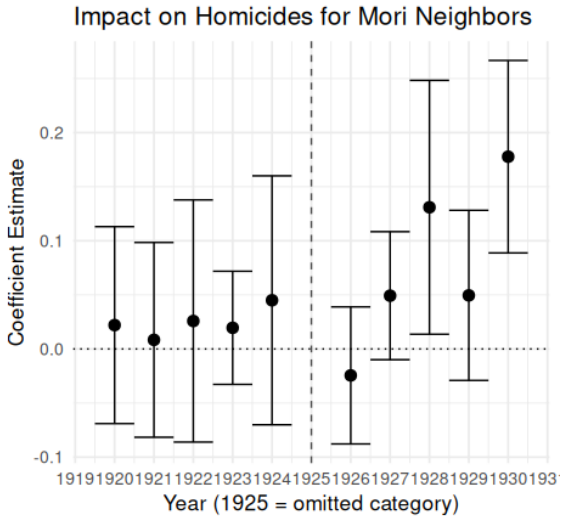
(a) Mori enclaves, unweighted two-way DiD



(b) Adjacent neighborhoods, unweighted two-way DiD



(c) Mori enclaves, synthetic-control weighted two-way DiD



(d) Adjacent neighborhoods, synthetic-control weighted two-way DiD

Figure A11: Event-study estimates of the post-1926 impact of the Mori raids on homicide incidence in Chicago neighborhoods.
Notes: Panels (a) and (b) report event-study estimates from unweighted two-way difference-in-differences regressions, while panels (c) and (d) present the corresponding specifications using synthetic-control weights. Although the event-study coefficients are plotted only for the 1919–1931 window, the synthetic-control weights used in panels (c) and (d) are calibrated using the full 1874–1925 pre-treatment period. All models include neighborhood and year fixed effects, and confidence intervals are clustered by neighborhood and year.

Table A1: Long run differences in outcomes for Mori districts - Robustness for serial correlation

Dependent variable	Baseline (no extra controls)	+ Italian control	+ Italian & Sicilian controls
College rate (2010)	0.0507*	0.0494*	0.0618*
	(0.0147)	(0.0188)	(0.0182)
College rate (2000)	0.0336*	0.0332*	0.0483*
	(0.0139)	(0.0140)	(0.0167)
Employed at age 32	0.0652*	0.0684*	0.0672**
	(0.0313)	(0.0290)	(0.0144)
Employed at age 24	0.0758	0.0784*	0.0718**
	(0.0427)	(0.0412)	(0.0187)
Same tract from childhood	0.0216	0.0230	0.0170*
	(0.0150)	(0.0137)	(0.0079)

Notes: Estimated employing the Conley and Kelly (2025) procedure for long-run persistence estimates. Significance: $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.10$

A.2 Numident to Census Matching Algorithm

The linkage between historical Numident records and U.S. censuses was conducted through a multi-stage process designed to produce high-confidence, individual-level matches across multiple decades. The process begins by pairing each birth cohort, defined by the first census during an individual's lifetime, with all subsequent censuses in which they could plausibly appear. For each cohort–census pair, potential linkages are generated using both exact and fuzzy name matching. These matches incorporate full names, short-name variants, and likely anglicizations drawn from a name dictionary. Potential matches are further constrained to plausible age ranges based on birth year. This stage produces sets of direct and fuzzy matches identifying all census records that based of off name and age could likely correspond to individuals in the Numident.

Subsequent steps consolidate and refine these candidate matches. Direct and fuzzy matches are combined into unified objects and filtered to include only Italian-born individuals, removing spurious linkages to non-immigrant records. The resulting sets of potential matches are used to extract smaller subsets of the census, limited to the households containing possible matches. This step substantially reduces computational load while preserving the full household context for each potential linkage.

Final linkage selection integrates these potential matches with existing crosswalks across census years. Individuals are ranked according to Soundex-based string distances between parent names in the Numident and those recorded in the census, using the mean similarity of mother and father names to select the most plausible match. The resulting cohort-level datasets represent finalized, one-to-one linkages of Numident individuals across censuses. The complete set of linked records enables longitudinal analysis of immigrant populations. Here, this refers to Sicilian-born individuals across time and generations.