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JEL Classification: J15, N31, Z12

Keywords: Immigration, Assimilation, religious organizations

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1 Introduction

Rising international migration flows have sparked a heated debate on the effects of immigrants in host societies. One recurring theme in this debate is the concern that cultural differences between immigrants and natives and the lack of immigrants' assimilation pose fundamental threats to social cohesion and may erode national identity (Collier, 2013). Such concerns are often linked to religion – a dimension along which immigrants and natives tend to differ, and an important determinant of culture, beliefs, and moral values (Bisin et al., 2004; Enke, 2019; Valencia Caicedo et al., 2021).

Irrespective of their specific characteristics and of the faith they are linked to, religious organizations are frequently blamed for perpetuating ethnic practices and for slowing the adoption of norms prevailing in the host society. In recent decades, Muslim immigrants have become the target of episodes of violence perpetrated by natives (Abdelgadir and Fouka, 2020; Bansak et al., 2016; Bisin et al., 2008; Müller and Schwarz, 2020). Although the religious groups that trigger natives' hostility may differ across time and space, the current animosity is not a new phenomenon. In fact, between 1850 and 1920, when more than 30 million Europeans moved to the United States during the Age of Mass Migration (Abramitzky and Boustan, 2017), Catholic immigrants led to similar, hostile reactions (Higham, 1955; Spiro, 2009).

Despite the salience of the topic, the effects of religious organizations on immigrants' assimilation have remained surprisingly under-studied, at least within economics. Moreover, such effects are *ex-ante* ambiguous. On the one hand, ethnic religious organizations may keep alive the legacy of national culture either directly (e.g., by encouraging immigrants to stick to their social norms) or indirectly (e.g., by favoring the expansion of ethnic networks or by triggering natives' backlash). On the other hand, they may alleviate the cost of immigration by providing spiritual and material support, thus favoring the permanence of immigrants in the destination country and making adaptation smoother. In addition, religious organizations might foster the economic and social integration of ethnic minorities through the provision of key public goods such as education.

In this paper, we study the effects of ethnic religious organizations on the social, cultural, and economic assimilation of immigrants. We examine the role of Italian Catholic churches in the United States between 1890 and 1920, at the peak of the Age of Mass Migration. This setting offers several advantages. First, between 1892 and 1925 more than 4 million Italians migrated to the United States, representing the single largest national group at the time (Ferenczi, 1929; Spitzer and Zimran, 2018). Moreover, while Italian immigrants were homogeneously Catholic, the US was predominantly Protestant at the

time because of the heritage from the Anglo-Saxon settlers (Gillis, 2000).¹ Second, we collected and digitized detailed historical records on the arrival and the presence of Italian Catholic priests and churches that were specifically identified by the Catholic hierarchy to serve the Italian community. By combining this novel dataset with the full count US Census of Population, we can trace out the effects of religious organizations on immigrants' integration. Third, anecdotal and historical evidence highlights both the importance of the Catholic Church for Italian immigrants (Herberg, 1983; Vecoli, 1969) and the hostile reactions that it triggered among natives at the time (Higham, 1955).

We consider the universe of Italian immigrants living in the United States between 1900 and 1920. For each individual, we count the number of years, within a decade, she was exposed to the presence of an Italian Catholic church in the county of residence.² We then estimate linear, two-way (county and state by decade) fixed effects regressions that compare individuals living in counties within the same state that were differentially exposed to the presence of an Italian Catholic church in the previous decade. This strategy nets out any county fixed and any state time-varying characteristics that might have jointly influenced the assimilation of Italian immigrants and the establishment of an Italian Catholic church. That is, the effects of Italian churches are estimated within the same county over time, as compared to other counties within the same state in a given Census year.

The main threat to identification is that counties where the assimilation of Italian immigrants was evolving differentially received an Italian church earlier – something that would violate the parallel trends assumption behind our difference-in-differences (DD) strategy. For instance, Italian Catholic churches were more likely to open in areas with pre-existing Italian communities, where immigrants may have been on differential assimilation trends. Furthermore, the presence of a church may, at least in part, reflect the process of assimilation of the ethnic community (Tomasi, 1975). To assuage these and similar concerns, we interact Census year dummies with several 1900 county characteristics, to allow for differential trends.³ Our preferred specification restricts attention to counties that received at least one Italian church between 1890 and 1920, and includes county-

¹Notable exceptions were the (Catholic) Irish and the Jewish communities. These were, however, minority groups, also opposed by natives because of their religious affiliation (Higham, 1955).

²Throughout the paper, we define an Italian church if *i*) it was an Italian national church (as classified by the Catholic directories); or, *ii*) it was a church with at least one Italian priest.

³These are: county population, the urban, the Black, the Italian, the Irish, and other Europeans share of the population, labor force participation, the manufacturing share, the number of years a county had been connected to the railroad, the average number of years spent in the US by Italian immigrants, and a Herfindahl–Hirschman (surname-based) index of regional homogeneity within the Italian community.

specific linear trends. This guarantees that we only exploit variation in the *timing* of the arrival of an Italian church within a given decade, net of heterogeneous constant trends in county penetration, which, as we describe below, were largely dictated by idiosyncratic factors.

To corroborate the validity of the empirical design, we perform three key exercises. First, we check that the timing of church arrivals within a decade is largely uncorrelated with either the 1880-1900 change or the 1900 level of several county characteristics. Second, we verify that neither the 1880-1900 change in Italian immigrants' assimilation nor its 1900 level predicts church exposure in subsequent years. This holds also for two variables that historical accounts associate with the presence of Italian Catholic churches: the economic circumstances and the cultural homogeneity of the Italian community.⁴ Finally, we document that church entries are not predicted by *yearly* changes in the Italian immigrant population, as inferred from individual information on the year of arrival in the US. In the same spirit, exploiting yearly variation in the ethnic content of names chosen by Italian parents for their offspring and in the language used in local newspapers, we verify that Italian churches did not arrive earlier in counties where either naming patterns or ethnic stereotypes were evolving differentially. These patterns are consistent with the historical evidence described in Section 2, according to which the timing of the arrival of Italian churches was erratic.⁵

We find that Catholic churches slowed down the social and cultural assimilation of Italian immigrants, as proxied for by intermarriage and residential integration. The former is defined as a dummy equal to one if an Italian immigrant was married to a native of native parentage. The latter is an indicator for having at least one native neighbor (of native parentage), and is constructed with a methodology similar to that in Logan and Parman (2017). According to our estimates, five additional years of exposure to an Italian Catholic church – slightly less than the inter-census sample average – reduce intermarriage rates by .4 percentage points, or 50% relative to the 1900 mean. Similarly, being exposed to an Italian church for five more years reduces residential integration by 2 percentage points, or 12.5% relative to the baseline mean. Exposure to churches also lowered immigrants' naturalization rates, suggesting that Italians became less interested

⁴For one, opening a church was expensive, and wealthier communities may have been better able to pay for it. In addition, in order to receive an Italian priest and to open a national church, a formal petition had to be submitted. Coordination, which was important to speed up the petition process, may have been easier in communities where migrants came from the same Italian region.

⁵For example, the timing of the entry (and exit) of Italian churches in a county was influenced by the scarce supply of Italian priests, by uncertainty over American bishops' approval of the petition to open the church, by the death of a priest, or by the destruction of an existing church due to a fire.

in political participation.

Turning to economic outcomes, the picture is more mixed. On the one hand, the presence of Italian churches increased Italians' labor force participation; on the other, it reduced their occupational standing and the quality of their jobs. Moreover, Italian immigrants living in counties more exposed to churches were more likely to specialize in more typically "Italian" occupations (such as bootblacks, barbers, or fruit graders). These patterns are consistent with anecdotal accounts (Francesconi, 1983), and indicate that Italian priests made it easier for immigrants to find jobs via their ethnic networks, but that such jobs limited the opportunities for occupational upgrading.

We verify that our results are not due to the spurious correlation between church arrival and other factors, such as the growth of the Italian or the immigrant community, or stronger labor demand, and that they are robust to accounting for heterogeneous effects across cohorts (de Chaisemartin and D'Haultfoeuille, 2020; Goodman-Bacon, 2021). We also provide evidence against the possibility that our findings may be driven by changes in county characteristics, including the composition of the population and sex ratios, potentially triggered by church arrivals. We describe these and additional robustness checks below, after presenting the main results.

In the second part of the paper, we investigate the mechanisms. Abundant historical evidence suggests that churches increased the coordination within the Italian community, acting as a catalyst for immigrants. The parish was "*the center for various institutions for assisting Italians*" – a place where "*from morning till evening there is a steady coming and going of Italians*" (Francesconi, 1983). While the Sunday Mass was the most important event for the Italian community, churches and priests facilitated the interaction among immigrants in many other ways, such as celebrating weddings, promoting lay associations, and organizing recreational activities for both adults and children.

To test this mechanism, we interact church exposure with the size of the Italian community in 1900, both in absolute value and relative to the county population. In the presence of coordination, one would expect Catholic churches to reduce social assimilation more in areas with a larger Italian enclave. Our estimates confirm this conjecture: intermarriage rates and residential integration declined more where the size of the Italian community was larger. At the same time, church exposure did not reduce economic assimilation more in counties with a larger baseline Italian population. This is consistent with the idea that, even though lower social integration may have limited opportunities for economic assimilation, coordination also facilitated the (ethnic) matching in the labor market, more so in larger enclaves. We provide additional evidence for the role of coordi-

nation by showing that churches reduced the integration of Italians not only with natives, but also with other immigrant groups.

A second potential mechanism is natives’ backlash, which may have arisen if Italian Catholic churches increased the salience of the immigrant community in the eyes of natives, thereby reinforcing the (negative) stereotypical association between Italian immigrants and Catholicism (Higham, 1955). To test this hypothesis, we exploit the local press, which we take as a proxy for natives’ attitudes, since systematic surveys do not exist for this historical period (Fouka et al., 2021; Gentzkow and Shapiro, 2010). Not only the presence of Italian churches increased the joint appearance of references to the Catholic Church and Italians in local newspapers. But also, it raised the probability that disparaging ethnic stereotypes, such as “crime” and “violent”, appeared together with the word “Italian”.

Finally, Italian churches might have reduced immigrants’ effort to assimilate. The presence of churches may have directly increased incentives to preserve national culture, for instance by reminding parents about their roots. These direct effects may have been reinforced by the fact that churches increased the probability of endogamous marriage as well as the likelihood of living in Italian enclaves. Exploiting yearly variation in church exposure and in children’s birth, we show that this mechanism was unlikely to be at play in our setting. In particular, immigrant parents did not give a more Italian sounding name to children born after the arrival of an Italian church, relative to the name chosen for children born (from the same parents) before the arrival of the church.

The findings described thus far suggest that Italian Catholic churches reduced the social and, to a lesser extent, economic assimilation of Italian immigrants. However, churches may have helped immigrants integrate in the host society along other dimensions. One specific channel highlighted by the historical literature is the provision of education, since Catholic churches often had annexed schools that immigrant children could attend (Vecoli, 1969). In line with this view, we show that immigrant children born in Italy and growing up in counties with a longer exposure to an Italian church were more likely to speak English and to be literate. Exploiting the granularity of our data, we find that this pattern was more pronounced for Italian churches that had an annexed school. Interestingly, the effects for ability to speak English – but not those for literacy – are stronger in counties belonging to states that had compulsory English laws in place, and are larger for girls than for boys.

Our paper speaks to different strands of the literature. First, we complement the papers on immigrants’ assimilation. Existing works have considered a number of forces – from time spent in the host country (Abramitzky et al., 2014, 2020) to ethnic enclaves and

group size (Edin et al., 2003; Eriksson, 2019) to the arrival of new groups (Fouka et al., 2021) to education and other government policies (Bandiera et al., 2019; Fouka, 2020; Lleras-Muney and Shertzer, 2015) – that shape the inclusion or exclusion of minorities into the majority group. To the best of our knowledge, we are the first to examine the impact of ethnic religious organizations, which are anecdotally viewed as an important factor in the process of integration of minorities. Since ethnic churches mediate the transmission of values and the persistence of national culture, our paper is also related to works on cultural transmission (Alesina et al., 2013; Bisin and Verdier, 2001; Fernandez and Fogli, 2009; Giuliano and Nunn, 2020).

Second, our paper complements the broader literature on the economics of religion (Barro and McCleary, 2003; McCleary and Barro, 2006). Since the seminal contribution of Weber (2002), many papers have examined the role of the Protestant Reformation on economic growth and economic activity (Becker and Woessmann, 2009; Cantoni et al., 2018; Dittmar and Meisenzahl, 2020). Botticini and Eckstein (2012), Squicciarini (2020), and Valencia Caicedo (2019) among others have analyzed the conditions under which religion can promote or hinder human capital accumulation, scientific knowledge, and, in turn, long run economic development. Montero and Yang (2021) have documented that religious festivals lower agricultural productivity and hinder economic development in Mexico.⁶ In studying how religious organizations influence immigrants’ integration, our work links this literature to that on assimilation.

Finally, we complement the recent and growing literature on the Age of Mass Migration, which has studied the economic and political effects of European immigrants in the short run (Abramitzky et al., 2019; Tabellini, 2020), and their long run impact on political ideology and economic growth (Giuliano and Tabellini, 2020; Sequeira et al., 2020).⁷

The rest of the paper proceeds as follows. Section 2 discusses the historical background and the role of Italian Catholic churches in the US during the Age of Mass Migration. Section 3 describes the data, and Section 4 lays out the empirical strategy. Section 5 presents the main results, while Section 6 explores the mechanisms. Section 7 examines the effects of churches on immigrant children. Section 8 concludes.

⁶See also Becker et al. (2021), Iannaccone (1998), and Iyer (2016) for comprehensive reviews.

⁷See also Abramitzky and Boustan (2017) for a review. Goldin (1994) is an early contribution on the political economy of immigration restrictions. Spitzer and Zimran (2018) and Pérez (2021) study, respectively, the patterns of selection and the assimilation in the US and Argentina of Italian immigrants during the Age of Mass Migration.

2 Historical Background

2.1 The Age of Mass Migration

During the Age of Mass Migration, from 1850 to 1920, around 30 million Europeans migrated to the United States (Hatton and Williamson, 1998).⁸ The Age of Mass Migration was triggered by a number of factors, including innovations in steam technology that reduced the cost of shipping (Keeling, 1999) and rising per capita income in Europe (Hatton and Williamson, 1998). Between 1850 and 1890, most immigrants came from Northern and Western Europe, but, after 1890, their composition shifted increasingly towards Southern and Eastern Europe (Figure A.1).

The change in the composition of immigrants was coupled with a dramatic increase in their numbers, especially after 1900 (Figure A.2). These forces, together, raised natives' concerns about the assimilation of immigrants, particularly those from new and culturally more distant countries. In 1917, US Congress introduced a literacy test requiring immigrants to be able to read and write (Goldin, 1994). When the literacy test was introduced, European immigration was very low, because of World War I (WWI). After the war, however, immigration returned to its pre-1914 levels, fueling again natives' backlash. As a result, in 1921 and 1924, the Quota Emergency and the National Origins Acts introduced temporary and, then, permanent immigration restrictions.⁹ The combined effects of WWI and the quotas were dramatic, and marked the end of the Age of Mass Migration (Abramitzky and Boustan, 2017).

2.2 Italian Immigrants and Italian Churches in the US

Between 1875 and 1914, about 13 million Italians left the country, in what is known as the largest voluntary emigration in recorded world history (Foerster, 1919; Livi-Bacci, 1961). Especially before 1890, many went to other European countries and South America. However, more than 4 million Italians migrated to the United States, eventually becoming the

⁸During this period, another 20 million Europeans moved to Latin America or Canada. The Age of Mass Migration was characterized by the lack of legal restrictions for European immigrants to migrate to the United States. Immigration to the US was instead restricted for Chinese and Japanese immigrants, following the 1882 Chinese Exclusion Act and the 1907 Gentleman's Agreement respectively (Abramitzky and Boustan, 2017).

⁹The 1921 Emergency Quota Act mandated that the number of European immigrants from each country entering the US in a given year could not exceed 3% of the stock from that country living in the US in 1910. With the 1924 National Origins Act, the limit was lowered to 2%, and the base year was moved to 1890, so as to further restrict immigration from new sending countries. Furthermore, the total number of immigrants that could be admitted in a given year was capped at 150,000 (Goldin, 1994).

single largest immigrant group (Spitzer and Zimran, 2020). The original Italian settlements, dating back to the mid-nineteenth century and driven by the 1859 gold-rush, were concentrated in the South-West. Other early Italian communities were found in Louisiana and other Southeastern states (Connell and Pugliese, 2017). This distribution remained almost unchanged until the end of the century when, with the growth of large cities, the North-East became the epicenter of Italian immigration (Figure 1).

The unprecedented exodus of migrants triggered immediate reactions among Italian institutions (Connell and Pugliese, 2017). The Catholic Church, in particular, was worried to lose followers, both in Italy and abroad. Pope Leo XIII coordinated many initiatives to increase the presence of Italian Catholic churches in the US. In 1887, the Pope approved the foundation of a new religious institute, the Missionaries of St. Charles Borromeo, also known as Scalabrinians (from the name of the founding Father, Giovanni Battista Scalabrini). By 1900, the order had dozens of parishes, schools, and missions, both in the US and in South America. Soon after, Pope Leo XIII urged another institute, the Missionary Sisters of the Sacred Heart of Jesus, founded by Mother Theresa Cabrini in 1880, to help Italian immigrants in the US. Mother Cabrini and her Sisters arrived in New York City in 1889, opening several hospitals, orphanages, and schools. Many other religious institutes reached the US independently between 1890 and 1920 (Vecoli, 1969).¹⁰

By the late nineteenth century, the American Catholic Church was highly organized and had developed a clear hierarchical structure. Its first diocese had been established already in 1789 in Baltimore.¹¹ The diocese became an archdiocese in 1809, and its archbishop was given precedence over most other figures (except cardinals) within the American Catholic Church by Pope Pius IX in 1858.¹² When Italian immigrants started entering the US in large numbers, the Irish controlled most of the seminaries and colleges in the American Catholic Church. Irish bishops often viewed the Roman Church with suspicion, and were concerned about its influence overseas (Tomasi, 1975). For this reason, even though hundreds of Catholic parishes were created during the nineteenth century, they were for the most part tailored to the needs of the Irish Catholic community and were organized independently from the Roman Church (Lazerson, 1977). Indeed, when Pope Leo XIII tried to coordinate the establishment of Italian churches, he encountered the opposition of the American Catholic Church (Francesconi, 1983). Since (Irish) Amer-

¹⁰Among them, the most notable ones were the Society of the Catholic Apostolate (better known as Pallottines), the Order of Friars Minor (better known as Franciscans), and the Society of Jesus (better known as Jesuits).

¹¹In the Catholic Church, a diocese is an ecclesiastical district under the jurisdiction of a bishop.

¹²For more information, see <https://web.archive.org/web/20080509083814/http://www.archbalt.org/our-history/index.cfm>.

ican bishops and archbishops were reluctant to help the Pope coordinate his efforts, the diffusion of Italian Catholic churches was largely organized in Italy, and rested on the efforts of individual bishops and denominations (such as that of the Scalabrinians).¹³

Figure 2 plots the presence of Italian churches across US counties between 1900 and 1920. Following the classification adopted in the Catholic directories, we define a church as Italian if *i*) it was an Italian national church; or, *ii*) it was a church with at least one Italian priest (see Section 3 for more details). Perhaps not surprisingly, the arrival of missions and churches followed the distribution of Italian settlements. Yet, church arrivals did not always follow the footsteps of Italian migration. For example, Italian churches remained absent from the South-West, where many Italians had settled. At first, Italian churches were confined to large urban centers like Boston, New York, Chicago, or San Francisco. However, churches and priests reached many more locations, with no apparently obvious pattern.

Opening a church was an expensive process, since it was necessary to buy the building (or the land) and to pay for the priest’s living expenses (Tomasi, 1975). On the other hand, missions often tried to target poorer areas, where Italian immigrants were more in need of (spiritual and material) support. This was particularly true for the Scalabrinians, but it held for other denominations as well (Francesconi, 1983). Hence, while the affluence of the Italian community might have influenced the probability of receiving a church, the direction in which this force operated is ambiguous. The homogeneity of the Italian enclave is another factor that might have affected the probability of church entry. In order to open a church, communities had to submit a petition to the (American) bishop of the corresponding diocese. This process, whose outcome and timing were highly uncertain, tended to be smoother when Italian immigrants came from the same region in Italy.¹⁴

Given the importance of income and homogeneity of Italian communities for church entry, in our empirical strategy below we pay special attention to these variables, conducting placebo exercises to rule out that richer or more homogeneous enclaves received a church earlier within a decade.¹⁵ Our strategy is instead motivated by the abundant

¹³Similar dynamics occurred for other ethnic churches, such as the German, the French, and the Canadian ones. Gradually, the American Catholic Church became characterized by a plurality of ethnic parishes, where the corresponding language (rather than English) and the home-country culture remained prevalent, at least until the mid-1920s (Lazerson, 1977; Tomasi, 1975).

¹⁴For example, in Buffalo (NY), it took more than two years for the local community, formed for a major part by emigrants from Sicily but also composed of individuals from several non-southern regions (such as Veneto, Lombardy, and Tuscany), to agree upon the arrival of a priest from Sicily called by his relatives. Similar episodes are described for Syracuse (NY), Fredonia (MA), and many other places.

¹⁵As explained in detail below, our analysis also controls for potential differential trends of Italian assimilation depending on baseline county (or immigrant group) characteristics, including regional ho-

historical evidence that indicates that the *timing* of church arrivals (within a decade) was often dictated by idiosyncratic factors.

First, the size and the conditions of Italian communities were hard to predict. For instance, when discussing the possibility of opening a mission in Erie (PA), Father Gibelli wrote that he was “*not sure about the number of Italians. Some people say there are six hundred, others eight hundred, and others over one thousand.*”¹⁶ Such uncertainty interacted with the limited supply of priests. “*There remained the problem of finding a priest [...] willing to daily carry out the delicate and responsible task at Ellis Island,*” lamented Father Gambera in his 1900 *Memorie*, who also noted how “*The scarcity of priests was our most serious and damaging problem.*”¹⁷

In addition, which communities received a priest first depended on the region of origin of the priest leaving Italy, who would go where many emigrants from his region, or even town, were living.¹⁸ In many instances, the establishment of a church depended on the entrepreneurial spirit of the missionaries. In Somerville (MA), Father Properzi “*had improvised a small altar; a Crucifix, an image of the Blessed Mother, four candlesticks: and that made up the whole furnishing of the new Italian church [...] The first step was taken!*” (Properzi, 1916). In Framingham (MA), Father Maschi decided to promote the construction of an Italian church after the collapse of a building that killed several Italians, including his brother (Francesconi, 1983).

Even before finding a priest, long negotiations between Italian religious institutions and local authorities were needed. On the one hand, the land to build the church (or an existing building) had to be purchased. Reports of such lengthy negotiations are available for many US cities – from Hartford (CT) to St. Louis (MO) to Philadelphia (PA) to Thornton (RI). On the other hand, the various Italian religious orders had to be granted permission to open a church by the bishop of the diocese – again, a process whose outcome and duration were highly uncertain.¹⁹

Finally, just as some Italian churches arrived in a county, others left or disappeared. For instance, an Italian national church might have lost its ethnic official status, may

mogeneity based on surname distribution.

¹⁶Letter from Father Gibelli to Father Vicentini, 1893. Reported in Francesconi (1983).

¹⁷See *Memorie* by Father Gambera, reported in Francesconi (1983).

¹⁸For example, as described in Francesconi (1983), when Father Antonio Castelli moved to the United States, he was assigned to “*Utica to assist the emigrants from his own towns [in the surroundings of Caserta, Campania].*”

¹⁹Father Gambera’s *Memorie* provide several examples. For instance, when referring to the case of St. Louis (MO), Father Gambera writes: “*Following long negotiations, I obtained permission from that Archbishop of St. Louis, Missouri to preach a mission to the Italian community [...] in the Irish church of St. Patrick.*”

have been destroyed by a fire or by a gas explosion, or an Italian priest might have died or been relocated somewhere else. This helps explain why, although we observe a net increase in the presence of Italian churches in the US between 1890 and 1920 – with many churches settling down permanently – we also register a non-negligible turnover, with multiple entries and exits across counties and decades. Specifically, between 1890 and 1920 we observe 756, 192, and 36 single, double, and triple church entries, respectively. There were also 700 single, 148 double, and 10 triple exits.²⁰

2.3 Italian Churches and Immigrants’ Assimilation

In the intentions of Pope Leo XIII, Italian churches should have preserved the faith and reinforced the legacy of the Catholic culture among Italian immigrants. As the Pope wrote in the 1888 Encyclical *Quam Aerumnosa* (whose literal translation is “How Sad”), specifically addressing the Italian migration to the Americas, “*Among all these evils, however, that is by far the most calamitous which [...] renders it not as easy as it should be to obtain the saving assistance of God’s servants who are unable to speak to them the word of life in the Italian tongue, to administer the sacraments, or to uphold by the aids whereby the soul is raised to the desire of heavenly things, and the life of the spirit is strengthened and nourished.*”

When establishing the religious institute of the Scalabrinians in 1887, the Pope also noted that the Catholic Church was “*determined to send from Italy to that land many priests to console their countrymen in their own tongue, to teach the faith and the obligations of the Christian life, which were unknown or neglected, to administer to them the saving sacraments, to spread among the rising generation religion...*” Led by Bishop John Baptist Scalabrini, the Missionaries of St. Charles Borromeo soon started their missions in the US. One of the main goals of the institute, consistent with that of Pope Leo XIII, was to preserve “*the Christian traditions and principles of Catholicism [...] in the millions of Italians living in the American Continents.*”²¹ Special attention was paid to young migrants, who were considered by the Church at risk of abandoning their Italian culture for the American one.²²

These and similar accounts suggest that Italian Catholic churches may have hindered the Americanization of Italian immigrants. Through the lens of standard models of cul-

²⁰We return to this point when discussing the empirical strategy in Section 4.

²¹Letter by Bishop Scalabrini to Archbishop of Ireland, 1889, in Francesconi (1983).

²²For instance, Father Morelli wrote in a letter to Bishop Scalabrini in 1888: “*If we do not quickly establish kindergartens and schools to prevent our children from falling into their (protestant) hands, the future of our community, its faith and national character, will be destroyed*” (Francesconi, 1983).

tural evolution (Bisin and Verdier, 2001), Italian churches may have favored the transmission of Italian culture both vertically and horizontally. For one, priests reminded immigrants about their roots, reducing incentives to learn English or to apply for citizenship, and inducing parents to give more Italian sounding names to their kids. As noted by Tomasi (1975), Italian parishes were the “*first line of defense behind which the immigrants could organize themselves and preserve their group identity.*” By reinforcing their Catholic faith, Italian churches may have also reduced the probability of intermarriage between Italian immigrants and natives, as religious differences were usually the single most important obstacle to mixed marriages according to historical accounts (Casassa, 1905). Furthermore, the presence of the church likely increased coordination within the Italian community, raising the probability of interactions among fellow Italians. Such coordination was often promoted by priests, who would “*ascend the pulpit after the Gospel for the reading of the Sunday announcements to inform the people about feasts, days of fast and abstinence, meetings of societies, the dates of the monthly communion*” (Francesconi, 1983).²³

The arrival of Italian Catholic churches may have also increased the salience of the immigrant community, triggering natives’ backlash and discrimination and raising the frequency of negative stereotyping. At the time, anti-Catholic sentiments were widespread, to the point that the KKK openly targeted Catholic immigrants (Higham, 1955). Natives’ backlash may have further lowered the prospects of integration among Italian immigrants, both directly and indirectly, for instance by reducing incentives for Italian immigrants to learn English and attempt to become Americans.

At the same time, the intent of many institutes was to take care of the Italian community abroad: “*How well did they know [...] always tormented by that fatal disease we call homesickness? They were dreaming of their native country that could not provide their livelihood, imploring for the ministers of their ancestors’ religion to mitigate the agony.*”²⁴ Moral and material support may have increased immigrants’ prospects for a permanent stay in the US, inducing them to exert more effort to fit in the American society.²⁵ In addition, missionaries often emphasized that more schools were needed to facilitate the

²³Francesconi (1983) further noted that, linked to the church, was often a Catholic school, which “*has a hall for the meetings of the numerous societies [...] in it Sunday classes are held, and night celebrations and entertainments for families and their children are offered.*”

²⁴Lecture by Bishop Scalabrini, 1898, in Francesconi (1983).

²⁵Return migration rates were especially high among immigrants from new sending regions (Bandiera et al., 2013), to the point that they were often labelled “birds of passage”, and blamed for being unwilling to assimilate (Ward, 2017).

adaptation of Italian immigrants.²⁶ Especially after 1910, many US states required public and private institutions, including ethnic schools, to teach also – if not exclusively – in English (Edwards, 1923).²⁷

Since Italian immigrants often sent their children to ethnic and religious schools, Catholic churches may have promoted skill acquisition and favored successful assimilation, more so in states where schools were required to teach (also) in English. These effects, which were likely stronger for pupils born in Italy and arrived in the US while in schooling age, may have increased the assimilation of at least some segments of the Italian immigrant population, contrary to the intents of Pope Leo XIII.

This discussion also suggests that the impact of Italian Catholic churches was *ex-ante* ambiguous also for Italian immigrants’ economic assimilation. On the one hand, a more segregated community and limited social integration, possibly coupled with lower levels of English proficiency, may have prevented Italian immigrants from finding well-paying jobs with opportunities for skill and occupational upgrading (Eriksson, 2019). On the other hand, the existing evidence suggests that priests actively helped Italian immigrants find a job.²⁸ Moreover, if churches increased coordination within the Italian community, they may have facilitated the matching process in the ethnic labor market (Edin et al., 2003).

3 Data

3.1 US Census Data

Data on socioeconomic and demographic characteristics of Italian immigrants, as well as on county historical variables, come from the full count US Census of Population (Ruggles et al., 2020). In our analysis, we restrict attention to the universe of Italian immigrants living in the US in each Census year 1900, 1910, and 1920.²⁹

We measure immigrants’ assimilation in different ways. First, we proxy for social

²⁶“An English-Italian school was opened, with the Archbishop’s blessing, at the beginning of the school year, 1892-1893. It was attended by one hundred pupils – and it was the only thin thread of hope for the betterment of our colony”, wrote Father Gambera in 1892 in a letter to Father Rolleri (Francesconi, 1983).

²⁷Some states also introduced more stringent measures, banning foreign languages (especially German), during and after WWI (Fouka, 2020).

²⁸After visiting several Italian Catholic parishes in the US, Father Giuseppe Capra summarized his impressions in 1916 as follows: “The pastor and missionary is not only the counselor of the doubtful, the comforter of the afflicted [...] but he is also [...] the protector who looks around to find them [the Italians] a job, work, and salary increases” (Capra, 1916).

²⁹Since county boundaries changed over time, we fix them to 1930 using the procedure developed in Perlman (2016).

assimilation using *i*) intermarriage between an Italian immigrant and a native spouse of native parentage, and *ii*) a measure of residential integration. The former is considered in the sociology literature “the final stage of assimilation” (Gordon, 1964). The latter is constructed adapting the procedure developed in Logan and Parman (2017), and can be interpreted as the probability that an Italian immigrant had at least one native neighbor (of native parentage).³⁰ Both variables can be also interpreted as “equilibrium outcomes”, which depend not only on immigrants’ desire to fit in but also on natives’ willingness to accept them.

As additional proxies for social assimilation, we consider naturalization rates and ability to speak English – two variables that depend more on immigrants’ actions than on those of natives. For naturalization, we restrict attention to immigrant men who were at least 21 years old and had spent at least 5 years in the US, since only these individuals were eligible to apply for citizenship.³¹ When defining ability to speak English, we instead consider individuals (of either gender) who were at least 15 years old.

Next, we measure economic assimilation with labor force participation and the log of occupational income scores.³² We complement these variables using indicators for working, respectively, in the unskilled and in the manufacturing sector, where immigrants were over-represented relative to natives. We also construct an index that captures the “Italianness” of the occupation held by the immigrant.³³ We describe in more details these variables as they become relevant below.

Finally, we consider the willingness of immigrant parents to transmit the (Italian) culture to their offspring. Following the literature (Abramitzky et al., 2020; Fouka, 2020; Fryer and Levitt, 2004), we construct an index that captures the ethnic distinctiveness of the name given by parents to their children. The index, whose description is detailed in Appendix B.2, ranges from 0 to 100, with lower values for names that were relatively less common among Italians living in the US.

Table 1 reports the summary statistics, presenting individual and household outcomes

³⁰For intermarriage, we restrict attention to married individuals who were at least 15 years old. Appendix B.1 describes in detail the construction of our proxy for residential integration, which, to avoid double-counting, is defined only for household heads.

³¹Immigrant men would file a Declaration of Intent, also known as “first papers” upon arrival or shortly thereafter. Then, within five years, they were eligible to file a Petition for Naturalization (or, “second papers”). This was the last step required for the court to finalize the naturalization process. See also Fouka et al. (2021) for more details.

³²The US Census did not collect data on wages or income until 1940. We thus rely on income scores that assign to an individual the median income of his job category in 1950 (Abramitzky et al., 2014).

³³As in Tabellini (2020), when defining economic outcomes we restrict attention to men in working age (15-64). To map occupations to skill groups, we follow Katz and Margo (2014).

in Panel A, key county-level controls in Panel B, and additional individual characteristics in Panel C. Reflecting the propensity of Italians to settle in counties with a large foreign born population, the average immigrant share in our sample is 27%. Italians accounted for an important fraction of immigrants, as the Italian share of the county population was, on average, 4%. Consistent with historical accounts, immigrants in our sample were disproportionately located in urban areas (Abramitzky and Boustan, 2017).

Turning to the main outcomes of interest, only 1% of Italians who were married had a native spouse of native parentage, and only approximately one in five Italian household heads had a native (of native parentage) neighbor. Both variables indicate that social assimilation was not common among Italians at the time. Similarly, only 33% of eligible Italian men were naturalized, and 61% of Italians (who were at least 15 years old) could speak English between 1900 and 1920. Finally, the average Italianness of names given to their offspring by Italian parents was around 70.

3.2 Catholic Directories

We combine the US Census with newly collected data on the presence of Catholic churches and priests in the US. These were obtained by digitizing *The Official Catholic Directory* of the United States for the period 1880-1920, which contain information on the presence of Italian Catholic organizations across counties and over time. The first *Catholic Directory or Catholic Laity's Directory*, as it was called, was published by Matthew Field in 1817 (Meier, 1915), when the presence of Catholic churches in the US had become more important, and covered all English-speaking countries (including Canada and the UK). Although the official denomination (*Ordo*, *Almanac*, *Clergy list*, etc.) and the editing company (Sadlier; Hoffmann; Wiltzius; Kenedy, etc.) changed more than once, the structure remained similar over time. All directories consistently reported: *i*) a list of Catholic institutions (chapels, churches, missions, education and health related institutions), including address and list of available clergy, divided by city and diocese, and the ethnic denomination whenever applicable (see the example in Figure 3); and, *ii*) a complete list of clergymen, with related rank, order, and place of service (see the example in Figure 4).

We were able to recover a PDF version of the almanacs for all years between 1880 and 1920, except for 1882, 1894, 1895, 1913, 1915, 1917, and 1918. From the sources that could be located, we collected: *i*) the number of Italian national churches; *ii*) the number of churches with Italian priests; and, *iii*) the number of other Catholic churches.³⁴ In

³⁴The almanacs identify some churches as “national” (e.g., reporting “Italian”, “German”, or “Polish” after the name of the church, see Figure 3) depending on whether a church was officially assigned by

all cases, we refer to a church as a physical entity like a parish, a chapel, or a building where religious activities were administered. We replaced the information for missing almanacs – something that never happened for more than two consecutive years – by linearly interpolating between available years.³⁵

Panel A of Table 1 reports summary statistics for our most preferred treatment variable – the number of years between two Censuses with at least one Italian national church or a church with an Italian priest.³⁶ On average, the number of years of exposure of a county to an Italian church was about 6 years. This figure may seem relatively high; yet, note that our sample is restricted to counties with at least one Italian immigrant, where the arrival of an Italian church was more likely.

4 Empirical Strategy

4.1 Difference-in-Differences

To study the effects of Italian churches on the assimilation of Italian immigrants, we match the county of residence of an individual in a given Census year to the arrival of Italian priests and churches within the previous decade. For example, the outcomes of an Italian measured in the 1910 Census are matched to her exposure (if any) to an Italian church between 1901 and 1910. We restrict attention to first-generation Italian immigrants, stacking repeated cross-sectional individual datasets for 1900, 1910, and 1920. Following a two-way fixed effects approach to difference-in-differences (DD), we estimate:

$$y_{ihc\tau} = \alpha_c + \gamma_{s\tau} + \beta_1 T_{c\tau} + \beta_2 X_{i\tau} + \beta_3 X_{h\tau} + \beta_4 X_{c\tau} + \epsilon_{ihc\tau} \quad (1)$$

where $y_{ihc\tau}$ is the outcome of immigrant i in household h residing in county c in Census year τ ; and $T_{c\tau}$, the key regressor of interest, is the number of years between Census year τ

the diocese to serve a specific ethnic community, amid the availability of priests who could speak the homeland language. National churches were often connected to national seminaries and confraternities, where the clergymen were trained. The presence of a priest that could speak Italian represented a prerequisite to hear Confession and to administer other sacraments among Italian immigrants (i.e., Eucharist, Confirmation, Matrimony, etc.). Appendix B.3 describes in detail how Italian priests were identified in the data.

³⁵We complement the data from the directories with archival records from the Missionaries of St. Charles Borromeo (Francesconi, 1983, Volumes II and IV). These records were not systematically organized as directories, but we were able to recover the presence of parishes run by the Scalabrinians from 1888 to 1920. Of the 489 county-year observations we could identify in Francesconi (1983), only 95 were not present in the almanacs.

³⁶Since the two measures are not mutually exclusive, in our baseline specification we combine them together, but we present results considering each measure separately in the Appendix.

and $\tau - 1$ with at least an Italian church (as defined in Section 3.2 above) active in county c .³⁷ $X_{i\tau}$ and $X_{h\tau}$ are vectors of individual (gender and fixed effects for marital status, years in the US, and age) and household (number of adults) level controls. $X_{c\tau}$ includes: *i*) the number of years between Census year τ and $\tau - 1$ with at least a non-Italian Catholic church, which proxies for the assistance that Italian immigrants might have received from other Catholic institutions; and, *ii*) a vast set of 1900 county characteristics interacted with Census year fixed effects.³⁸ Finally, α_c and $\gamma_{s\tau}$ are county and state by decade fixed effects. Standard errors are clustered at the county level.

The inclusion of county and state by decade fixed effects implies that the coefficient of interest, β_1 , captures the effects of exposure to Catholic churches and priests within the same county over time as compared to other counties within the same state in a given Census year. Controlling for interactions between Census year dummies and 1900 county characteristics assuages the concern that Italian churches may have arrived earlier in counties that were more urban and had better employment opportunities in a key sector like manufacturing – characteristics that may have independently influenced the pattern of assimilation of Italian immigrants. Similarly, including the baseline share of European, Italian, and Irish immigrants, and the average number of years spent in the US by Italian immigrants deals with the possibility that Italian priests and churches systematically targeted areas with initially larger and stronger (Catholic) immigrant communities, where the assimilation of Italians may have been evolving differently for reasons unrelated to church arrivals. Allowing for differential trends depending on the degree of regional homogeneity, captured by a Herfindahl–Hirschman based on the distribution of Italian surnames, further assuages the concern that more homogeneous communities were better able to request a priest, while simultaneously assimilating more (or less) slowly.

Our preferred specification restricts attention to counties that received at least one Italian church during our sample period – weakening the parallel trends assumption – and includes county linear trends estimated using observations before and after treatment,

³⁷We denote a Census year (or decade) with τ to distinguish it from the exact calendar year, t , which we introduce in Section 4.2 below. If an individual migrated after the arrival of the church, $T_{c\tau}$ is replaced with the number of years spent in the US by the individual. Since the county of residence is only defined at Census year, we are implicitly assuming that there was no inter-county mobility prior to the Census.

³⁸These are (see also Table A.1): logarithm of county population, the urban, the Black, the Italian, the Irish, and other Europeans share of the population, labor force participation, the manufacturing share, the number of years a county had been connected to the railroad, the average number of years spent in the US by Italian immigrants, and a Herfindahl–Hirschman index of regional homogeneity based on the probability that a given Italian surname (observed in the US Census) originated from a specific Italian region (see Appendix B.4 for a detailed description of the index). Appendix C verifies that results are robust to adding more controls.

similarly to Dobkin et al. (2018) – implying that we only exploit residual variation in the *timing* (and not the location) of arrival of an Italian church within a given decade, after controlling for constant growth rates in county penetration.

4.2 Event-Study: Exploiting Yearly Variation

The granularity of the data collected from the *Official Catholic Directories* allows us to exploit yearly variation in church arrivals across and within counties. We combine this with yearly variation in birth dates of children born in the US from (first-generation) Italian parents. We reshape the data from census-year-individual to calendar-year-household level, taking into account the year of arrival of the household head when expanding the dataset at the yearly level. This makes it possible to implement a proper event-study analysis, adding transparency to our DD design and further probing the validity of our identification strategy.

Restricting attention to first-generation Italian married couples over the period 1890-1920, we estimate the following regression:

$$y_{hct} = \sum_{k=-4}^{+6} \beta_{t+k} T_{c,t+k} + \beta_2 X_{ht} + \beta_3 X_{ct} + \alpha_c + \gamma_{st} + \theta_h + \epsilon_{hct} \quad (2)$$

where y_{hct} is the average “Italianness score” of children born in household h in calendar year t , and $T_{c,t+k}$ are event dummy variables. As we can only identify ten coefficients out of eleven, we restrict the coefficient in the year before entry (β_{t-1}) to zero.³⁹ Since counties could have experienced multiple entries per decade, to make the exercise sharper, we restrict attention to the first church arrival in the county over the 1890-1920 period, conditional on having no churches between 1880 and 1890. This leaves us with a sample that is about one fifth relative to the one used when estimating equation (1).

The model additionally includes: interactions between state and (calendar) year dummies, γ_{st} ; a vector of household level controls (household head fixed effects for gender, years in the US, and age, as well as household size and the number of children), X_{ht} ; the vector of time-invariant county controls interacted with decade dummies, X_{ct} , as defined in Section 4.1 (see also Table A.1, Panel B); and, county-specific linear trends. Following Abramitzky et al. (2020), we also include household by decade fixed effects (θ_h). Since we only observe the Italianness score in the presence of children, this implies that we are *de*

³⁹The model also includes a dummy, not reported, for any church arrival before $t - 4$, and a dummy for any church arrival after $t + 6$.

facto comparing the ethnic content of names of siblings born from the same parents before and after the arrival of an Italian Catholic church in a given county within a decade.⁴⁰

This setting also allows us to test the validity of our identification assumption. Specifically, if the latter holds, the effects at each lead ($k = -4, \dots, -1$) should be statistically indistinguishable from zero, ruling out anticipatory effects. One would also expect effects (if any) to manifest at the year of entry ($k = 0$), or later ($k = +1, \dots, +6$), and possibly to change over time as the message of the church spreads across the immigrant community. We return to this point when presenting the results.

4.2.1 Testing the Identification Assumption

The identification assumption behind our strategy is that, within a decade and conditional on the controls and the fixed effects we include in equation (1), the timing of the arrival of an Italian Catholic church was as good as random. The anecdotal evidence discussed extensively in Section 2.2 supports this idea. In what follows, we provide more formal evidence in favor of the identification assumption by conducting a number of exercises.

First, in Table 2 we regress the county-level measure of exposure to Italian churches, $T_{c\tau}$, against either the 1900 level or the 1880-1900 change of several county characteristics. We also replicate this exercise considering a set of proxies for Italian immigrants' assimilation.⁴¹ Since exposure is defined by decade, county characteristics and individual outcomes are interacted with decade dummies. We always control for county and state by decade fixed effects, and include county linear trends in columns 2 and 4.⁴²

Reassuringly, neither the pre-1900 trends nor the 1900 levels of several individual outcomes predict church exposure in subsequent years, independently of whether we control or not for county linear trends.⁴³ This weighs against the possibility that the arrival of Italian churches depended on the pace of assimilation in a given county. As discussed in Section 2.2, one might expect churches to arrive earlier where the Italian community was larger, or where it was growing faster. Columns 1 and 3 confirm this conjecture: the share of Italians and other European immigrants (both in levels and in changes) are correlated

⁴⁰In principle, one could run a similar exercise for church exits. However, as shown in Appendix C, we do not find any effect of exits on assimilation in the DD framework. One possible explanation for this is that, even after a formal exit, the very same church remained open, even though it was no longer considered Italian by the Catholic directories.

⁴¹It is not possible to use the 1890 US Census of Population because it was destroyed in a fire.

⁴²Because of multi-collinearity, $T_{c\tau}$ can be interacted only with one decade dummy (i.e., 1910-1920, but not 1900-1910) in columns 1 and 3. For the 1880-1900 change in immigrants' assimilation, data limitation prevented us from considering residential integration, naturalization, and ability to speak English.

⁴³Results are unchanged when replacing the number of years of exposure to Italian churches with the timing of first arrival of a church within the decade.

with the timing of church arrival in the following decades. However, and crucially for our identification strategy, such correlations disappear when controlling for county linear trends (columns 2 and 4).⁴⁴

Table 2 documents that this holds also for two factors that, as described above, may have played an important role for both the entry of an Italian church and the assimilation of the Italian enclave: economic circumstances and the degree of cultural homogeneity. Since data on wages or wealth do not exist for this historical period, as explained in Section 3, we rely on occupational income scores to proxy for the economic affluence of the Italian community. In Appendix B.4, we instead derive a measure of cultural homogeneity by constructing an Herfindahl–Hirschman Index over the distribution of Italian immigrants’ surname data, where each family name is associated to the probability of originating from a specific region in Italy according to the Italian 2009 *Whitepages* directory.⁴⁵

In Table 2, we could only consider changes in county or individual characteristics over a 20-year period. In Figure 5, we perform a more granular test of the possibility that the timing of church arrival was correlated with the growth of the Italian community across counties. In particular, we present a county-level event study graph that plots the evolution of *yearly* changes in Italian immigrant population in a close window around church entries. The model includes all the state- and county-level controls as in equation (2). We report results both without (Panel A) and with (Panel B) county linear trends. Formally, we estimate:

$$y_{ct} = \sum_{k=-4}^{+6} \beta_{t+k} T_{c,t+k} + \beta_2 X_{ct} + \alpha_c + \gamma_{st} + \epsilon_{ct} \quad (3)$$

As for the exercise on naming patterns outlined in Section 4.2, we restrict attention to the first church arrival in the county over the 1890-1920 period, conditional on having no churches between 1880 and 1890. Yearly inflows are obtained from a procedure that hinges upon information on county of residence at the time of the Census and year of arrival in the US. The main concern with using year of arrival to recover yearly inflows is that, as time goes by, the number of Italians observed in a Census year by cohort of arrival

⁴⁴In principle, unobservable dynamics at county level might follow non-linear patterns. However, we find it reassuring that, after including county specific linear trends, any anticipation pattern disappears.

⁴⁵The *Whitepages* is the official telephone directory, which provides a complete list of all names associated to a landline telephone number. See also Gagliarducci and Manacorda (2020). Ideally, one would exploit the regional distribution of Italians using historical data. However, to the best of our knowledge, no such data exists. For this reason, we rely on the *Whitepages*, acknowledging that it is an imperfect proxy and that it might introduce noise to our estimates.

depletes, because of either return (or out-of-US) migration or mortality. To account for this, we fit a model with a quadratic rate in the inflow of Italians, which we assume being the same across county and years of arrival (i.e., we control for county per year of arrival fixed effects). Predicted values from this model are then used to compute yearly inflow rates. Reassuringly, there is no sign of anticipation over this county-level dimension. Moreover, patterns look very similar when omitting and when including county linear trends.

Taken together, Table 2 and Figure 5 support the idea that, within a decade, there were no county-level trends that might explain the timing of church arrivals. In Section 6.3 below, we present additional evidence consistent with the lack of “pre-trends” in church entries, using the ethnic content of names chosen by immigrant parents for their kids.

An additional concern related to our empirical strategy is that church entries might attract Italian immigrants from other parts of the country (or, from Italy). This would be problematic because we may be attributing to church arrivals the effects of changes in group size on assimilation. In contrast with this possibility, however, Figure 5 documents that there is no increase in Italian immigration after the arrival of an Italian church.⁴⁶

Finally, one may be worried that not only church entries, but also exits, might be endogenous to trends in assimilation of Italians within a given county. Anecdotal accounts suggest the opposite. Church exits were often caused by priests’ deaths or by the destruction of a church due to a fire or a gas explosion.⁴⁷ In addition, bishops’ decisions to “denationalize” a church or to assign it to another religious institution may have resulted from organizational choices made at the diocese level, rather than being the response to specific demands from the Italian community. In line with the anecdotal evidence, Appendix C shows that all results are robust to focusing on a sample of counties with at least one church entry but no exits within the decade – a demanding statistical test, since the sample size drops significantly.

We discuss additional robustness checks in Section 5.3, after presenting the main results.

⁴⁶Appendix C also verifies that church arrivals do not cause compositional changes at the county level.

⁴⁷For example, as Father A. Demo wrote in a letter to Father D. Vicentini in 1907, “*The East Cleveland mission always had a meager existence, because of the few Italians there, poor financing, and above all, we think, Father Gibelli’s administrative ineptitude. When he died, in 1907, the Bishop assigned the Church to a diocesan priest.*” Similarly, as described in a 1900 letter from Father Gambera to Bishop Scalabrini, “*There was a gas explosion at the Church of Our Lady of Pompeii on Sullivan Street, New York [...] the priest upon receiving the Last Rites survived, but he died a few years later. The church was abandoned...*” (Francesconi, 1983).

5 Results

5.1 Social Assimilation

We begin the analysis by focusing on the social assimilation of Italian immigrants. Table 3 reports results from equation (1) for intermarriage and residential integration in Panels A and B respectively. Column 1 estimates a parsimonious regression that only includes individual controls (family size, gender and fixed effects for age, marital status, and years in the US) as well as county and state by decade fixed effects. In both cases, the coefficient is negative and statistically significant, indicating that a longer exposure to Italian churches reduced intermarriage and increased Italians' propensity to live in ethnically segregated neighborhoods. Results remain unchanged when including the battery of interactions between 1900 county controls and decade fixed effects (column 2).

In column 3, we add county-specific linear trends, and in column 4 we restrict attention to counties that received at least one church during our sample period. Again, the point estimate remains highly statistically significant and strongly negative. According to our preferred specification (column 4), 5 additional years of exposure to an Italian Catholic church – or, 75% of the sample mean – reduced the probability that an Italian immigrant married a native of native parentage by .5 percentage points, or around 50% relative to the baseline mean. Similarly, 5 extra years of church exposure reduced the probability of having a native neighbor of native parentage by roughly 2 percentage points, or 12.5% relative to the 1900 mean.

Since residential segregation and intermarriage are equilibrium outcomes, these patterns likely reflect both the direct effect of churches on the actions of Italian immigrants and the indirect impact on natives' attitudes and behavior. The presence of Italian ethnic churches and Italian priests may have increased the propensity of Italians to intermarry and live closer to each other. For instance, Mass celebrations might have raised the frequency of contact between fellow Italians, either because immigrants jointly attended the service or because they chose to live nearby the church (or both). Moreover, the direct influence of churches and priests may have increased the value of retaining the Catholic and Italian culture, thereby reducing effort exerted by immigrants to Americanize. The presence of Catholic churches may have also increased the salience of the immigrant community among natives, triggering backlash. These forces, together, might have led to lower inter-group contact and higher (residential and social) segregation.

Table 4 considers two additional proxies for immigrants' assimilation: an indicator equal to one if an Italian man was naturalized (Panel A), and a dummy for being able

to speak English (Panel B). We focus on the most stringent specification (column 4) for brevity. Exposure to Italian churches had no statistically significant effect on ability to speak English, but substantially reduced the probability of being a naturalized citizen. According to our estimates, 5 additional years of exposure to an Italian church lowered naturalization rates by approximately 2.5 percentage points, or 5% relative to the 1900 mean. Both outcomes are less likely to depend on natives' behavior relative to intermarriage and residential integration, and may thus capture immigrants' effort to assimilate (Fouka et al., 2021). However, we prefer to interpret them more broadly, as reflecting different dimensions of assimilation.

The negative effects of Italian churches on naturalization are consistent with immigrants becoming less interested in (local or national) politics. At the time, corruption was widespread, especially in large cities, where political machines traded the immigrant vote for patronage jobs or other benefits (Menes, 1999; Reid Jr and Kurth, 1992). By offering key public goods (such as education or different forms of insurance) as well as opportunities to find a job within their ethnic network, Italian churches might have reduced the benefits of naturalization.

The muted effects for ability to speak English may be the product of countervailing forces. On the one hand, Italian churches lowered immigrants' incentives to be integrated. On the other, they provided education, including at least basic knowledge of English. We return to the role of churches on the provision of education in Section 7 below.

5.2 Economic Assimilation

Next, we turn to the effects of Italian churches on immigrants' economic assimilation. Restricting attention to Italian men in working age (15-64), Table 5 reports results for labor force participation and the log of occupational income scores in Panels A and B respectively. The structure of the table mirrors that of Tables 3 and 4. Again, for brevity, we only comment on the most stringent specification (column 4). The picture that emerges is mixed. While exposure to Italian Catholic churches increased immigrants' labor force participation, it reduced their occupational income scores.

In both cases, the magnitude of coefficients is non-trivial. The point estimate in Panel A indicates that 5 additional years of exposure to an Italian church increased labor force participation of Italian men by .75 percentage points (or, .8% relative to the baseline mean). The effects of Italian churches on occupational income scores are quantitatively larger (in the opposite direction). According to our estimates, the income score of an Italian man would decline by 1% with each additional year of church exposure. For

comparison, Eriksson (2019) finds that one standard deviation (or, 3 percentage points) increase in the size of the local ethnic enclave reduced the income score of Norwegian men in the US by roughly 10%.

Since occupational income scores capture cross-occupational changes in earnings, our results suggest that the presence of Italian churches pushed Italian immigrants into lower quality jobs, which likely also offered fewer opportunities for skill upgrading. One interpretation is that, although ethnic networks – reinforced by the presence of Catholic churches – provided immigrants with more job opportunities within their group, they may have lowered those in the broader economy.

In Table A.2, we corroborate this view by examining the effects of Italian churches on additional labor market outcomes. Church exposure had a positive, but quantitatively small, effect on the probability that Italian immigrants were employed in the manufacturing (column 1) and in the unskilled (column 2) sectors – two of the most “immigrant intensive” sectors at the time (Fouka et al., 2021; Tabellini, 2020). Perhaps not surprisingly, church exposure did not have any significant effect on Italian men’s literacy (column 3). Nonetheless, it increased the probability of working in occupations that were “Italian dominated” (column 4).⁴⁸

Taken together, Tables 3 to 5 indicate that church exposure reduced the assimilation of Italian immigrants. We cannot rule out the possibility that the reduction in occupational income scores was responsible for the drop in social integration. However, our findings suggest that this cannot be the only mechanism at play. Indeed, church exposure increased immigrants’ labor force participation, thereby facilitating their entry in the (possibly ethnic) labor market.

Our interpretation is instead that church exposure jointly lowered social and, to some extent, economic assimilation of Italians. Social and economic effects might have reinforced each other, further amplifying the initial impact of Italian churches. As noted above, these effects may have been influenced both by immigrants’ actions and by natives’ discrimination. They may have also been driven by peer effects within the Italian community. We return to this discussion in Section 6, when exploring the mechanisms.

⁴⁸We define the index of Italianness as the ratio of the probability that an Italian immigrant were employed in an occupation relative to the same probability for a non-Italian man. The occupation index ranges from 0 to 100, with higher values referring to more “Italian” occupations. By construction, the Italian occupation index does not include individuals in the labor force with a “non-classified” occupation, explaining why the number of observations in column 4 is lower than in previous columns.

5.3 Summary of Robustness Checks

We already showed above that church exposure is uncorrelated with either the 1900 level or the 1880-1900 change in county characteristics and in Italian immigrants’ assimilation (Table 2), and that yearly changes in Italian immigration do not predict the timing of church entry across counties (Figure 5). In this section, we briefly summarize additional robustness checks, which are then described in detail in Appendix C.

First, as anticipated in Section 4.2.1, we document that results are robust to focusing on counties that did not experience any church exit (Table C.1, Panel A). Second, we address concerns raised by the recent econometric literature on DD settings with heterogeneous treatment effects (de Chaisemartin and D’Haultfoeuille, 2020, Goodman-Bacon, 2021), following Cengiz et al. (2019) and Deshpande and Yue (2019) in implementing a stacked-by-event strategy (Table C.1, Panel B). Third, we verify that results are robust to measuring exposure in different ways (Table C.2). Fourth, to address potential concerns about “white flight” or compositional effects, we check that church exposure was not systematically associated with changes in county demographic characteristics (Tables C.3 and C.4). Fifth, we verify that results are robust to including a measure of predicted industrialization, as in Sequeira et al. (2020), and to accounting for predicted changes in Italian or (other) European immigrants (Table C.5). Finally, we show that the statistical significance of results is unchanged when clustering standard errors at the commuting zone and at the state level (Table C.6).

6 Mechanisms

The reduction in social and, to a certain extent, economic assimilation documented above can be explained by at least three, non-mutually exclusive, forces. First, churches may have increased coordination within the Italian community, acting as an attraction point and raising the frequency of contact among fellow Italians. Second, Italian churches may have increased the salience of the Italian community, triggering natives’ backlash. Finally, Italian churches and priests may have encouraged the transmission of national values across generations, while reducing incentives to assimilate to the American culture.

6.1 Italian Churches and the Role of Coordination

As discussed in Section 2.3, the presence of an Italian church raised Mass attendance and increased the chances to join ethnic societies. Italian churches also promoted the

organization of leisure activities – such as plays and night entertainments or meetings to read Italian books – and the availability of classes (from dancing to cooking to gymnastic) for both teens and adults. In many cases, priests purposefully facilitated coordination by reading announcements and reminding local communities about feasts and other events (Francesconi, 1983). By increasing coordination within the ethnic community, Italian churches may have limited opportunities for inter-group contact, ultimately reducing the social and cultural assimilation of Italians.

Size of ethnic enclave. In the presence of coordination, one would expect Italian churches to have a more negative effect on immigrants’ assimilation in communities with a larger number of Italians. Moreover, while coordination may have hampered the social integration of Italians in larger groups, it may have nonetheless increased economic opportunities there, because the size of the “ethnic market” made within group connections more valuable. To test these ideas, in Table 6, we interact exposure to Italian churches with the 1900 size of the Italian community in the county. We consider absolute and relative (to county population) group size in Panels A and B respectively. To ease the interpretation of results, both variables are normalized by subtracting their mean and dividing through their standard deviation.

Consistent with a mechanism of coordination, Italian churches reduced intermarriage and residential integration more in counties with a larger Italian community (columns 1 and 2). Instead, the presence of churches did not have a differential effect for naturalization and ability to speak English (columns 3 and 4), even though the coefficient on the interaction term is negative for naturalization. One explanation for this pattern is that coordination may be less relevant for becoming a naturalized citizen or for learning to speak English, relative to intermarriage or residential choice. In the latter case, it is indeed crucial to coordinate with another party (the spouse or neighbors).

Finally, when considering labor market outcomes (columns 5 and 6), the interaction effect is positive, although statistically significant only for occupational income scores. The positive or null coefficient on the interaction term for economic outcomes is consistent with the church making ethnic labor markets more efficient, smoothing potential frictions in the matching process.

Interaction with other groups. If churches lowered Italians’ assimilation by increasing the frequency of interactions with members of their own group, one might expect integration to fall not only with natives but also with other immigrants as well. In Table 7, we estimate our preferred specification considering intermarriage (Panel A) and residential integration (Panel B) between Italians and members of different ethnic groups. Columns

1 and 2 document that church exposure increased the probability of endogamous marriage and of living in residentially segregated enclaves.

Alongside the increase in endogamous marriage, we observe a steep decline in the probability of intermarriage with non-Italian first and second generation immigrants (column 3). Interestingly, and possibly reflecting the stickiness of residential patterns, we do not observe a corresponding reduction in the probability of having non-native (non-Italian) neighbors. The remaining columns of Table 7 show that the reduction in intermarriage reported in column 3 was likely driven by (lower) marriage rates with other non-Catholic Europeans. Indeed, Italian churches had no, or a negative but small, effect on intermarriage between Italian immigrants and two of the most prominent non-Italian Catholic communities (i.e., the Irish and the Germans).⁴⁹

Results in Table 7 can be reconciled with different mechanisms. However, they are consistent with churches reducing Italian immigrants’ willingness to integrate with other groups. An alternative interpretation, not in contrast with the previous one, is that other immigrant groups became more reluctant to socialize with and more likely to discriminate against Italians, in order to signal to natives that they were “different” (Fouka et al., 2021).

Priests, Italian churches, and non-Italian churches. As explained in Section 3.2, we define a church as Italian when at least one of the following conditions is met: *i*) if it is an Italian national church; *ii*) if it is a church with at least one Italian priest. Historical accounts emphasize that Italians were reluctant to attend the Mass in Catholic, but non-Italian, churches. Moreover, only Italian priests were able to establish a tight relationship with their community – something that was instead unlikely to happen when Catholic priests were not Italian, due to cultural or linguistic barriers (Francesconi, 1983).

One would thus expect no (or weaker) effects on assimilation in the presence of non-Italian churches or priests, especially if coordination, favored by the church and promoted by the priest, were a central mechanism driving our results. We test this conjecture in Table A.4, where we run a horse-race between different measures of exposure. In particular, we consider the number of years with: at least one Italian national church; no Italian national church but at least one Italian priest; and, at least one Catholic church but neither an Italian church nor an Italian priest.

Exposure to Italian national churches had a strong, negative effect on intermarriage, residential integration, and naturalization (columns 1 to 3), while the effects are im-

⁴⁹The coefficient on residential integration is, instead, not statistically significant for the Irish and barely statistically significant (and positive) for the Germans. When interpreting results in column 5, it should be kept in mind that German immigrants were split between Catholic and Protestant at the time (Goldbeck and Grossboelting, 2015). Table A.3 presents additional results for other European regions.

precisely estimated, but negative, for ability to speak English (column 4). As for the main analysis (Table 5), exposure to an Italian national church increased labor force participation (column 5), but reduced the income score (column 6) of Italian immigrant men. Similar, albeit weaker, results appear when considering Italian priests in non-Italian churches. Interestingly, Italian priests (in non-Italian churches) have a stronger effect than Italian national churches on Italians’ labor force participation. This is consistent with the evidence described in Section 2.3, according to which Italian priests exerted substantial effort to help their worshippers find a job (Capra, 1916).

A very different picture emerges when considering non-Italian Catholic churches. In this case, except for naturalization (column 3), coefficients are always imprecisely estimated and without an obvious pattern. The positive effect of non-Italian churches on the probability of being a naturalized citizen may be due to the political influence exerted by the Irish Church, and the Irish community more generally. The latter often tried to mobilize immigrants of other nationalities, trading their support for local political machines in exchange for patronage jobs and similar benefits (Shertzer, 2016).

Taken together, results in Table A.4 indicate that *Italian* churches and, to a lesser extent priests, drive our results. Conversely, the presence of non-Italian churches and priests had no effect on Italian immigrants’ assimilation. Although not the only mechanism, the coordination role of Italian churches can explain these patterns.

6.2 Natives’ Backlash: Evidence from Local Newspapers

In the early twentieth century, anti-immigration sentiments were often intertwined with anti-Catholicism (Higham, 1955). The arrival of an Italian Catholic church, and the subsequent segregation (residential and social) of Italians we documented above, might have made the immigrant community more visible in the eyes of natives, triggering backlash as well as negative stereotyping. In turn, natives’ hostility may have reduced immigrants’ ability to assimilate, because of social, economic, and residential exclusion.

Due to the lack of systematic survey data to measure natives’ attitudes at the beginning of the twentieth century, we rely on the local press, as in Fouka et al. (2021). Because the language used and the sentiments expressed in newspapers largely respond to readers’ demands (Gentzkow and Shapiro, 2010), the local press should capture, though imperfectly, the public’s attitudes towards Italians. We compiled a list of articles from the website Newspapers.com, retrieving data from local newspapers for 1,071 of the 2,164 counties in our sample.⁵⁰ For each calendar year between 1900 and 1920, we computed

⁵⁰Because the counties for which newspapers data are available are characterized by a higher Italian

the number of articles in which selected terms appeared together with the word “Italian”.

First, to check whether the entry of an Italian church increased the association between Italians and Catholicism, we search for articles mentioning jointly the word “Italian” and the word “Catholic”. Next, we more directly consider stereotypical and disparaging terms. Italians, as other immigrant groups, were often considered criminals, prone to violence, and lazy (Katz and Braly, 1933). They were also portrayed as dirty and as threats to public hygiene (Ager et al., 2020). Finally, though to a lesser extent than the Irish or the Germans, as most Europeans, also the Italians were stereotypically associated with alcohol (Fouka et al., 2021). We thus search for the joint occurrence of the word “Italian” and selected terms that are likely to capture natives’ negative stereotypes: crime, violent, alcohol, dirty, and lazy. We also include a common disparaging term associated with Italians: Dago.⁵¹ To account for changes in the frequency of different words over time, we scale the joint frequency of the word “Italian” and each selected term by the marginal frequency of the latter (in each county-year). This normalization allows us to test if, following the entry of an Italian church, selected disparaging, stereotypical terms became increasingly associated to the Italians.⁵²

We apply an event study design similar to the one described in Section 4.2.1 above for yearly Italian immigration. In Panel A of Figure 6, we consider the effects of church entry on the association between Italians and Catholicism. Reassuringly, there is no clear trend in the joint frequency of the words Italian and Catholic before the entry of an Italian church. The relationship becomes positive and statistically significant in the two years after the arrival of the Church. Then, coefficients become again close to zero and imprecisely estimated. These patterns suggest that Italian churches increased the salience of Catholicism and its association with Italian immigrants, even though the effect was relatively short-lived. Given the widespread anti-Catholicism (Higham, 1955),

and total population, they include more than 70% of the individuals in our sample. Table A.5 compares the characteristics of the counties in the full sample (columns 1 to 3) with those for which newspapers were available (columns 4 to 6). Relative to the full sample, counties for which newspapers data could be located have a longer average exposure to Italian churches, are slightly more urban, and have a higher immigrant share. However, the proportion of Italians and natives’ economic outcomes are almost identical in the two samples. Also, and reassuringly, along all individual characteristics, Italian immigrants in the two samples are very similar. Table A.6 shows that results are unchanged when restricting attention to counties with local newspapers’ data.

⁵¹“Dago” comes from the Spanish name “Diego”. Even though it was initially used to indicate Spanish or Portuguese sailors during the seventeenth century, it became a derogatory term when referring to Italians at the end of the nineteenth century.

⁵²To ease the interpretation of results, we standardize all outcomes by subtracting their mean and dividing through their standard deviation. Regressions are weighed by the number of individuals in our sample, and standard errors are clustered at the county level.

this may have increased negative stereotyping against Italians.

Panel B of Figure 6 confirms this idea, by reporting the effects of church entry on the average frequency of the disparaging terms listed above. Also in this case, there are no “pre-trends”; the coefficient jumps in the calendar year of church entry, becoming statistically significant for the following three years. Interestingly, even though coefficients are no longer statistically significant from year 4, they remain positive. In Figure A.3, we decompose the various terms included in the average index reported in Figure 6. Results appear to be driven by the words “crime” (Panel C) and “violent” (Panel D).

Taken together, this section suggests that Italian churches increased the association between the Italians and Catholicism, triggering negative stereotyping and natives’ backlash. Natives’ hostility might have, at least in part, arisen from the higher ethnic segregation promoted by Italian churches. On the other hand, natives’ backlash may have increased incentives for Italians to live closer together, reducing inter-group interactions. Because of discrimination, Italians may have faced higher barriers – both socially and economically. We cannot pin down which force operated first, and whether one was more important than the other. However, our analysis reveals that both coordination within the immigrant community and natives’ backlash contributed to the negative effects of Italian churches on immigrants’ social assimilation.

6.3 Vertical Transmission: Evidence from Naming Patterns

In this section, we examine the possibility that Italian churches increased the desire to vertically transmit national culture across generations. Churches and priests might have lowered the cost – social and economic – from not assimilating, by offering informal insurance and providing immigrants with jobs within the ethnic enclave. Moreover, Italian churches may have increased the psychological cost for Italian immigrants to abandon their national culture. For instance, during sermons, priests reminded the community of social norms and values prevailing in Italy. In addition, since exposure to Italian churches increased residential integration and endogamous marriage, immigrants may have felt pressure from their own ethnic community not to assimilate to the American culture.

Following the literature (Abramitzky et al., 2020; Fouka, 2019), we focus on the ethnic content of names chosen by immigrant parents for their offspring, and implement the event-study design described in equation (2). This strategy exploits yearly variation in church arrivals across and within counties, combined with yearly variation in birth dates of children born in the US from first-generation Italian parents.⁵³

⁵³As explained above, we restrict attention to the first church arrival in the county over the period

As a preliminary step, we test whether the arrival of a church altered parents' decision to have children in the first place. When performing this exercise, the sample is restricted to married couples only, since at the time out of wedlock births were extremely rare (Greenwood et al., 2021). This leaves us with a total of 103,707 households and 711,808 yearly observations. Figure A.4 plots the estimated coefficients (together with 95% confidence intervals) for the effects of church arrivals on the number of children. The vertical line refers to the year of church arrival. Reassuringly, there is no apparent differential trend in fertility before the entry of a church. This evidence rules out anticipation effects or spurious correlation between the decision to have children and the arrival of an Italian church. The graph also shows that Italian churches did not have any effect on the number of children, suggesting that changes (if any) in naming patterns are not driven by changes in family size.⁵⁴

In Figure 7, we turn to our main outcome of interest: the average Italianness score of children's names. We focus on married couples who had children in the US before and after the arrival of a church, for a final sample size of 15,343 households, and a total of 135,754 yearly observations. As before, there is no evidence of anticipatory effects. This indicates that churches did not arrive earlier in counties where the assimilation of Italian immigrants was evolving differentially. Coefficients on the right of the vertical line reveal that immigrant parents did not change the ethnic content of names chosen for children born after the entry of an Italian church (relative to children born in the US from the same parents prior to the arrival of the church). These patterns are consistent with the idea that Italian churches did not increase the desire among parents to vertically transmit their culture to the next generation.

One may be worried that the zero effects obtained in Figure 7 were due to the small sample size and the demanding specification. To address this possibility, we turn to the DD analysis described in Section 4.1, using as dependent variable the average Italianness score of names chosen by Italian parents for their (US born) kids. This approach no longer exploits year-to-year variation in naming patterns driven by children's births. Yet, it allows us to perform the analysis with a larger sample (664,846 household-decade observations), since we now only restrict attention to households with at least one newborn kid within the decade (and not, as in the event-study, both before and after a church arrival). Also in this case, church exposure has no statistically significant effect on the pattern of

1890-1920. See Section 4.2 for the full set of controls included when performing this exercise.

⁵⁴As a further robustness check, not reported for brevity, we restrict attention to first-ever entry episodes only, additionally excluding counties that had already been exposed between 1880-1890. Although the sample size falls remarkably, results remain similar.

children’s names (Table A.7, Panel B). As for the event-study design, the coefficient on church exposure in our preferred specification (column 4) is quantitatively close to zero, with a point estimate of $-.034$ (and standard errors of $.068$).⁵⁵

All in all, this section indicates that exposure to Italian churches did not foster the desire to transmit Italian culture across generations, at least as captured by the naming patterns chosen by immigrant parents for their children – a standard measure of assimilation and, in particular, vertical cultural transmission (Abramitzky et al., 2020; Fouka, 2019). Interpreting a null result is always complicated, and for this reason we prefer not to over-emphasize the estimates obtained here. It is indeed possible that immigrants’ assimilation effort and desire to vertically transmit their national culture declined along margins that we cannot observe. However, the negative effects of churches on social assimilation are unlikely to stem (solely) from a reduction in effort exerted by Italians.

7 Italian Churches and the Provision of Education

Our results thus far indicate that the presence of Italian Catholic churches – directly or indirectly – reduced the assimilation of Italian immigrants, at least in the short run. Yet, religious organizations tend to provide their community with important public goods, such as (formal or informal) insurance and, more often, education (Bazzi et al., 2020; Cantoni et al., 2018; Meyersson, 2014; Valencia Caicedo, 2019). Italian Catholic churches in the early twentieth century US were no exception (Lazerson, 1977; Vecoli, 1969). Education and skill accumulation may, in turn, exert a positive effect on the prospects of integration of ethnic minorities. Even though the average Italian immigrant was typically too old to be in schooling age, Catholic schools, often annexed to churches, might have nonetheless been important for those immigrants arriving as kids. Not only Catholic schools may have raised children’s literacy; but also, they may have increased their ability to speak English, since many Italian priests were aware of the benefits that learning English would have offered to immigrants.

In Table 8, we focus on first-generation immigrants who, in a Census decade, were between 10 and 14 years old. Estimating our most stringent DD specification, we find that church exposure had a strong, positive effect on the probability of speaking English. This effect is quantitatively large: according to the coefficient reported in column 1, 5 additional years of exposure to an Italian church increased the probability of speaking

⁵⁵Results in this section are obtained focusing on families with both parents born in Italy. All findings are robust to considering the case in which only one of the two parents was born in Italy.

English for first-generation Italian children by 2.4 percentage points, or around 3.5% relative to the baseline mean. Interestingly, the effects are driven by females (column 4); church exposure has, instead, no effect on males (column 7).

One possible explanation, consistent with our previous findings, is that boys were more likely to interact with other members of the Italian community. For instance, they may have occasionally helped adults with manual jobs, or simply been allowed to spend more time outside the house. A second possibility is that Italian girls attended schools more often than boys. Since the average school attendance was very similar across genders (75% and 72% for girls and boys, respectively), this interpretation seems unlikely. It is nonetheless possible that the type of education received by girls differed from that received by boys, and that classes were taught in English more often for the former than for the latter.⁵⁶

In column 2, we exploit the fact that several states introduced laws requiring English to be a language of instruction between the late nineteenth and the early twentieth century. In particular, we interact church exposure with a dummy equal to one if the state of residence of the child required (also) English to be the language of instruction (Edwards, 1923). The coefficient on the interaction term is positive and statistically significant, indicating that the effects of churches were larger where English was required as a language of instruction. Yet, the main effect remains positive and precisely estimated, suggesting that, even in states without compulsory English laws in place, church exposure raised immigrant children's ability to speak English. The interaction term is statistically significant for both boys and girls, suggesting that, absent mandatory state laws, girls were more often taught in English than boys.

From the Catholic directories, we were able to extract information on whether the church had an annexed school. This allows us to derive a variable that counts the number of years with (at least) one Italian Catholic school.⁵⁷ We exploit this additional piece of information to examine whether the effects described before were driven by the presence of a Catholic school, or were instead the by-product of churches more generally. In column 3, we augment our preferred specification, by including the number of years of exposure to

⁵⁶Another possibility is that the (positive) effect of Catholic churches on ability to speak English was partly counteracted by the vertical transmission of cultural norms from parents to children – something that might have been stronger for boys than for girls. However, running counter to this interpretation, even when replicating the analysis for naming patterns (Figure 7) separately for boys and girls, we obtained null results (not reported for brevity).

⁵⁷There are no instances of Italian Catholic schools present without a corresponding church. On the other hand, it is possible for an Italian church to be established without a school. In the latter case, either the school was never opened or it appeared later.

an Italian Catholic school. The coefficient on exposure to a church remains positive, but becomes smaller in magnitude and statistically insignificant. The coefficient on the years of exposure to schools is also positive but imprecisely estimated. The noisy estimates hide interesting heterogeneity, however. In column 6, when focusing on girls, both the effect of the church without a school and the effect of the school are positive and statistically significant. This indicates that, as expected, at least some of the improvement in English proficiency was the direct effect of Italian Catholic schools. Instead, and in line with results in column 4, the effects disappear for boys (column 9).

In Appendix Table A.8, we replicate the analysis of Table 8 using as dependent variable an indicator for being able to read and write. Consistent with our previous results, church exposure had a positive effect on first-generation Italian immigrants' literacy (column 1). As before, the effect is entirely driven by females (column 4). Differently than for ability to speak English, the impact of churches on literacy did not vary with the presence of English language requirements (columns 2, 5, and 8). This is to be expected if the effectiveness of churches in instructing children were independent of a state's English laws. In contrast with results for ability to speak English, instead, the presence of a school was essential for the improvement in children's literacy. While the presence of a church alone had no impact on ability to read and write, exposure to a church with an annexed school increased literacy (column 3). The effect is both quantitatively relevant and statistically significant, and holds for both females and males.

Overall, these results paint a nuanced picture of the role of Catholic Italian churches. On the one hand, churches increased both the probability of endogamous marriage and the likelihood of living in ethnically segregated enclaves, slowing down the assimilation of Italian immigrants. On the other hand, however, Italian Catholic churches provided important skills to first-generation immigrant children. Not only Italian immigrant children exposed to Catholic churches were more likely to be literate. But also, and perhaps surprisingly, they were more likely to speak English – something that might have favored their economic and social integration in the American society later in life.

Results in this section also suggest that Italian churches were not mere “attraction points”, which simply increased the frequency of contact among fellow Italians. Rather, churches likely transmitted values to their community. Moreover, and contrary to the rhetoric prevailing at the time (Higham, 1955), Italian churches seem to have provided immigrant kids with tools and skills that may have eventually promoted their assimilation. This finding is consistent with existing historical accounts on the effects of Italian Catholic churches in the US (Tomasi, 1975).

8 Conclusions

The anti-immigrant rhetoric often blames religious organizations for perpetuating ethnic norms and for slowing down immigrants' integration in host societies. In this paper, we provide one of the first pieces of empirical evidence on this issue. Exploiting plausibly exogenous variation in the timing of church arrivals, we find that Italian Catholic churches reduced the social, and to a lesser extent economic, assimilation of Italian immigrants. We provide evidence that increased coordination within the Italian community, as well as the enhanced salience of the Italian enclave among natives might have been important mechanisms behind our findings. To be clear, our paper has no normative implications. That is, our results do not imply that immigrants should (or should not) assimilate. We instead view our work as a first step to inform the current debate on immigration, assimilation, and the role of ethnic religious organizations.

We acknowledge that drawing policy prescriptions based on historical evidence might be hard. For example, the approach of the Roman Catholic Church towards the Italian migration of the early twentieth century might differ from that of religion organizations in other contexts. Yet, the lessons from the Italian experience in the US may apply to other settings, including the contemporary period. For one, the rampant anti-Catholicism prevailing during the Age of Mass Migration is comparable to the recent backlash against Muslim minorities in several European countries as well as in the United States. Furthermore, the extent to which religious organizations coordinated immigrants' networks was probably important in the past as much as it is today.

We believe that our findings raise a number of intriguing questions. First, we focused on the effects of religious organizations in the short-run, within a 10-year interval since the arrival of a church. It would also be important to understand the long-run effects of religious organizations on immigrants' assimilation and, more broadly, on social cohesion, especially in multicultural societies like the United States. Second, we have not examined how the arrival of Italian Catholic churches influenced other ethnic groups. While other immigrant groups, especially non-Catholic ones, may have benefited from the change in natives' perceptions, the opposite scenario may have occurred as well. Finally, more evidence is needed from other contexts, in order to compare patterns obtained across time and space. We leave these, and more, questions for future research.

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Tables

Table 1. Summary Statistics

	Mean	Std. Dev.	Min	Median	Max	Obs.
Panel A. Main Variables						
Years w/ Italian Church	5.900	3.872	0	7	10	3,161,147
<i>Main Individual Level Outcomes</i>						
Married to Native	1.122	10.533	0	0	100	2,157,540
Residential Integration	20.983	40.719	0	0	100	1,093,241
Naturalized	32.726	46.921	0	0	100	1,455,111
Speak English	61.049	48.764	0	100	100	3,161,147
Log Occupational Score	1.976	2.712	-4.61	2.996	4.382	1,846,855
In Labor Force	94.052	23.652	0	100	100	1,963,683
<i>Main Household Level Outcomes</i>						
Number of Children	2.301	1.911	0	2	22	1,181,833
Average INI of Children	69.876	32.218	0	69.877	100	226,573
Panel B. Main County Level Variables						
County Population	767,113	802,677	97	422,100	3,022,912	3,161,147
Urban Share	0.776	0.282	0	0.912	1	3,161,147
Black Share	0.035	0.072	0	0.017	0.945	3,161,147
Immigrant Share	0.272	0.108	0	0.282	0.540	3,161,147
Italian Immigrant Share	0.043	0.025	0	0.041	0.129	3,161,147
Irish Immigrant Share	0.033	0.025	0	0.027	0.121	3,161,147
Other Europeans Immigrant Share	0.196	0.079	0	0.199	0.537	3,161,147
Share Native Men 15-64 in labor force	0.876	0.047	0	0.893	0.964	3,161,147
Share Native Men 15-64 in manufacturing	0.158	0.072	0	0.155	0.473	3,161,147
Years w/ Railroad	53.219	21.667	0	60	70	3,161,147
Italians' Regional Homogeneity	0.080	0.137	0	0	1	3,161,147
Years in the US	11.713	3.722	0	11.674	76	3,161,147
Years w/ non-Italian Church	6.985	3.371	0	8	10	3,161,147
Panel C. Additional Individual Characteristics						
Male	63.581	48.120	0	100	100	3,161,147
Literacy	64.180	47.947	0	100	100	3,161,147
In Manufacturing	18.959	39.198	0	0	100	1,963,683
Married	68.255	46.548	0	100	100	3,161,147
Married to Italian	91.950	27.206	0	100	100	1,890,333

Notes: The main sample includes all counties with at least one first-generation Italian immigrant, for decades 1900, 1910, and 1920. *Years w/ Italian Church* is the number of years with at least one Italian Catholic church in the county over the ten years before a Census. For a description of the rest of the variables, see Table A.1.

Table 2. Predicting the Time of Exposure

Dep. Variable:		(1)	(2)	(3)	(4)
		Years w/ Italian Church			
Indep. Variables:		1900 Levels	1900-1880 Difference		
1900-1910 Decade ×:					
Individual Outcomes	Residential Integration	-0.085 (0.171)			
	Naturalized	-0.240 (0.173)			
	Speak English	-0.040 (0.224)			
	Married to Native	0.146 (0.149)		0.300 (0.196)	
	Labor Force	0.290 (0.266)		-0.028 (0.428)	
	Log Occupational Score	0.056 (0.169)		-0.128 (0.206)	
1910-1920 Decade ×:					
Individual Outcomes	Residential Integration	-0.313 (0.209)	-0.143 (0.354)		
	Naturalized	-0.221 (0.192)	0.259 (0.351)		
	Speak English	-0.420 (0.276)	-0.339 (0.462)		
	Married to Native	0.084 (0.155)	-0.207 (0.306)	0.215 (0.252)	-0.384 (0.432)
	In Labor Force	0.521 (0.361)	-0.058 (0.509)	0.796 (0.685)	0.853 (0.836)
	Log Occupational Score	0.096 (0.191)	-0.016 (0.343)	0.313 (0.283)	0.569 (0.461)

Notes: The sample includes all counties with at least one first-generation Italian immigrant, for decades 1900, 1910, and 1920. *Years w/ Italian Church* is the number of years with at least one Italian Catholic church in the county over the ten years before a Census. *1900-1910 Decade* (resp. *1910-1920 Decade*) is a dummy for the 1900-1910 (resp. 1910-1920) decade. See Table A.1 for the definition of all other variables. All regressions are weighed by number of individuals included in the analysis reported in column 3 of Tables 3, 4, and 5. Standard errors, clustered at the county level, in parentheses. Significance levels: *** p<0.01, ** p<0.05, * p<0.01.

Table 2. Predicting the Time of Exposure (cont'd)

Dep. Variable:		(1)	(2)	(3)	(4)
		Years w/ Italian Church			
Indep. Variables:		1900 Levels	1900-1880 Difference		
1900-1910 Decade ×: County Characteristics					
	Avg. Years in the US	-0.001 (0.005)			
	Total Population	-0.000 (0.000)		0.000 (0.000)	
	Urban Share	0.161 (0.323)		0.640 (0.600)	
	Share in the Labor Force	-1.912 (1.183)		-3.320* (1.759)	
	Manufacturing Share	-0.327 (1.037)		2.065 (1.493)	
	Years w/ railroad	0.008 (0.005)		0.013 (0.017)	
	Share of Italians	24.641*** (6.910)		21.204** (9.822)	
	Share of Irish	0.416 (7.926)		-3.499 (9.344)	
	Share of Other EU Immigrants	4.866*** (1.353)		8.403** (3.698)	
	Italians' Regional Homogeneity	-0.651 (0.591)		-1.204 (0.867)	
1910-1920 Decade ×: County Characteristics					
	Avg. Years in the US	-0.009 (0.007)	-0.007 (0.011)		
	Total Population	-0.000* (0.000)	-0.000 (0.000)	0.000 (0.000)	-0.000 (0.000)
	Urban Share	0.674 (0.424)	0.352 (0.591)	0.734 (0.775)	-0.545 (1.273)
	Share in the Labor Force	-3.199** (1.392)	0.625 (2.410)	-5.660*** (2.113)	0.981 (4.010)
	Manufacturing Share	-2.188 (1.504)	-1.533 (2.107)	2.419 (2.104)	-1.712 (2.946)
	Years w/ Railroad	0.015** (0.006)	-0.001 (0.010)	0.049*** (0.017)	0.023 (0.035)
	Share of Italians	26.938*** (7.999)	-22.344 (14.012)	22.669* (12.129)	-19.740 (18.952)
	Share of Irish	9.286 (10.687)	8.455 (15.928)	-3.378 (12.135)	3.621 (18.810)
	Share of Other EU Immigrants	6.546*** (2.040)	-3.186 (2.978)	16.460*** (4.793)	-0.346 (8.608)
	Italians' Regional Homogeneity	-1.010 (0.835)	0.291 (1.281)	-1.540 (1.292)	0.867 (1.862)
Mean Dep. Variable (1900)		0.755	0.755	1.130	1.130
Observations		3,777	3,777	2,004	2,004
State × Decade FEs		Yes	Yes	Yes	Yes
County FEs		Yes	Yes	Yes	Yes
County Linear Trends			Yes		Yes

Notes: The sample includes all counties with at least one first-generation Italian immigrant, for decades 1900, 1910, and 1920. *Years w/ Italian Church* is the number of years with at least one Italian Catholic church in the county over the ten years before a Census. *1900-1910 Decade* (resp. *1910-1920 Decade*) is a dummy for the 1900-1910 (resp. 1910-1920) decade. See Table A.1 for the definition of all other variables. All regressions are weighed by number of individuals included in the analysis reported in column 3 of Tables 3, 4, and 5. Standard errors, clustered at the county level, in parentheses. Significance levels: *** p<0.01, ** p<0.05, * p<0.01.

Table 3. Intermarriage and Residential Integration

	(1)	(2)	(3)	(4)
Panel A. Dep. Variable: Married to Native				
Years w/ Italian Church	-0.124*** (0.011)	-0.122*** (0.011)	-0.146*** (0.013)	-0.098*** (0.013)
Mean (s.d.) Treatment	6.352 (3.785)	6.352 (3.785)	6.352 (3.785)	6.889 (3.440)
Mean Dep. Variable (1900)	1.087	1.087	1.087	0.808
Observations	2,157,540	2,157,540	2,157,540	1,989,311
Panel B. Dep. Variable: Residential Integration				
Years w/ Italian Church	-0.415*** (0.078)	-0.383*** (0.071)	-0.466*** (0.080)	-0.436*** (0.088)
Mean (s.d.) Treatment	6.830 (3.680)	6.830 (3.680)	6.830 (3.680)	7.421 (3.213)
Mean Dep. Variable (1900)	20.04	20.04	20.04	17.17
Observations	1,093,241	1,093,241	1,093,241	1,006,112
State \times Decade FEs	Yes	Yes	Yes	Yes
County FEs	Yes	Yes	Yes	Yes
Individual Controls	Yes	Yes	Yes	Yes
County Controls \times Decade		Yes	Yes	Yes
County Linear Trends			Yes	Yes
Ever Treated				Yes

Notes: The sample includes first-generation Italian immigrants 15+ who were: *i*) married (Panel A); *ii*) the household head (Panel B). Column 4 restricts attention to individuals living in counties that received at least one Italian Catholic church between 1890 and 1920. *Years w/ Italian Church* is the number of years with at least one Italian Catholic church in the county over the ten years before a Census. *Married to Native* (resp. *Residential Integration*) is a dummy, multiplied by 100, for being married with a (resp. for having at least one neighbor) native of native parentage. *Individual controls* include gender and fixed effects of years in the US, marital status, age, and the number of adults in the household. *County controls* include: *i*) interactions between decade dummies and 1900: logarithm of county population, the urban, the Black, the Italian, the Irish, and other Europeans share of the population, labor force participation, the manufacturing share, the number of years a county had been connected to the railroad, the average number of years spent in the US by the Italian immigrants, the Herfindahl–Hirschman index of regional homogeneity; and, *ii*) number of years with at least one non-Italian Catholic church. Standard errors, clustered at the county level, in parentheses. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.01$.

Table 4. Naturalization and Ability to Speak English

	(1)	(2)	(3)	(4)
Panel A.				
	Dep. Variable: Naturalized			
Years w/ Italian Church	-0.297** (0.119)	-0.230* (0.130)	-0.439** (0.203)	-0.546** (0.212)
Mean (s.d.) Treatment	6.821 (3.624)	6.821 (3.624)	6.821 (3.624)	7.528 (3.029)
Mean Dep. Variable (1900)	53.72	53.72	53.72	53.40
Observations	1,455,111	1,455,111	1,455,111	1,318,535
Panel B.				
	Dep. Variable: Speak English			
Years w/ Italian Church	0.036 (0.098)	0.035 (0.104)	0.121 (0.117)	-0.077 (0.134)
Mean (s.d.) Treatment	5.900 (3.872)	5.900 (3.872)	5.900 (3.872)	6.470(3.571)
Mean Dep. Variable (1900)	57.21	57.21	57.21	57.09
Observations	3,161,147	3,161,147	3,161,147	2,882,460
State \times Decade FEs	Yes	Yes	Yes	Yes
County FEs	Yes	Yes	Yes	Yes
Individual Controls	Yes	Yes	Yes	Yes
County Controls \times Decade		Yes	Yes	Yes
County Linear Trends			Yes	Yes
Ever Treated				Yes

Notes: The sample includes first-generation Italian immigrants who were: *i*) men 21+ and in the US for at least 5 years (Panel A); *ii*) 15+ for both genders (Panel B). Column 4 restricts attention to individuals living in counties that received at least one Italian Catholic church between 1890 and 1920. *Years w/ Italian Church* is the number of years with at least one Italian Catholic church in the county over the ten years before a Census. *Naturalized* (resp. *Speak English*) is a dummy, multiplied by 100, for being naturalized (resp. able to speak English). *Individual controls* include gender and fixed effects of years in the US, marital status, and age. *Household controls* include the number of adults in the household. *County controls* include: *i*) interactions between decade dummies and 1900: logarithm of county population, the urban, the Black, the Italian, the Irish, and other Europeans share of the population, labor force participation, the manufacturing share, the number of years a county had been connected to the railroad, the average number of years spent in the US by the Italian immigrants, the Herfindahl–Hirschman index of regional homogeneity; and, *ii*) number of years with at least one non-Italian Catholic church. Standard errors, clustered at the county level, in parentheses. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.01$.

Table 5. Economic Assimilation

	(1)	(2)	(3)	(4)
Panel A.				
	Dep. Variable: In Labor Force			
Yers w/ Italian church	0.006 (0.060)	-0.026 (0.059)	0.110*** (0.040)	0.150*** (0.048)
Mean (s.d.) Treatment	5.593 (3.938)	5.593 (3.938)	5.593 (3.938)	6.236 (3.644)
Mean Dep. Variable (1900)	85.78	85.78	85.78	85.77
Observations	1,963,683	1,963,683	1,963,683	1,760,957
Panel B.				
	Dep. Variable: Log Occupational Score			
Years w/ Italian Church	-0.007* (0.004)	-0.010*** (0.004)	-0.012*** (0.004)	-0.010** (0.004)
Mean (s.d.) Treatment	5.613 (3.930)	5.613 (3.930)	5.613 (3.930)	6.263 (3.629)
Mean Dep. Variable (1900)	3.061	3.061	3.061	3.070
Observations	1,846,855	1,846,855	1,846,855	1,655,382
State \times Decade FEs	Yes	Yes	Yes	Yes
County FEs	Yes	Yes	Yes	Yes
Individual Controls	Yes	Yes	Yes	Yes
County Controls \times Decade		Yes	Yes	Yes
County Linear Trends			Yes	Yes
Ever Treated				Yes

Notes: The sample includes first-generation Italian men of age 15-64. Panel B restricts attention to those men who were in the labor force or with non-missing occupational scores. Column 4 further restricts the sample to individuals living in counties that received at least one Italian Catholic church between 1890 and 1920. *Years w/ Italian Church* is the number of years with at least one Italian Catholic church in the county over the ten years before a Census. *In Labor Force* (resp. *Log Occupational Score*) is a dummy, multiplied by 100, for being in the labor force (resp. the log of the income occupational score). *Individual controls* include gender and fixed effects of years in the US, marital status, and age. *Household controls* include the number of adults in the household. *County controls* include: *i*) interactions between decade dummies and 1900: logarithm of county population, the urban, the Black, the Italian, the Irish, and other Europeans share of the population, labor force participation, the manufacturing share, the number of years a county had been connected to the railroad, the average number of years spent in the US by the Italian immigrants, the Herfindahl–Hirschman index of regional homogeneity; and, *ii*) number of years with at least one non-Italian Catholic church. Standard errors, clustered at the county level, in parentheses. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.01$.

Table 6. Heterogeneity by 1900 Group Size

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. Variable:	Married to Native	Residential Integration	Naturalized	Speak English	In Labor Force	Log Occ. Score
Panel A.		Interaction with No. Italians				
Years w/ Italian Church	-0.094*** (0.013)	-0.394*** (0.081)	-0.557*** (0.201)	-0.094 (0.134)	0.147*** (0.050)	-0.011*** (0.004)
Years w/ Italian Church × No. Italians (1900)	-0.011* (0.006)	-0.122*** (0.036)	-0.353 (0.230)	0.039 (0.051)	0.008 (0.017)	0.003** (0.001)
Panel B.		Interaction with Fr. Italians				
Years w/ Italian Church	-0.091*** (0.013)	-0.383*** (0.081)	-0.528*** (0.189)	-0.107 (0.131)	0.144*** (0.049)	-0.012*** (0.004)
Years w/ Italian Church × Fr. Italians (1900)	-0.019*** (0.006)	-0.150*** (0.047)	-0.286 (0.276)	0.073 (0.099)	0.018 (0.021)	0.006*** (0.002)
Mean Treatment	6.889	7.421	7.528	6.470	6.236	6.263
Mean Dep. Variable (1900)	0.808	17.17	53.40	57.09	85.77	3.070
Observations	1,989,311	1,006,261	1,318,535	2,882,460	1,760,957	1,655,382
State × Decade FEs	Yes	Yes	Yes	Yes	Yes	Yes
County FEs	Yes	Yes	Yes	Yes	Yes	Yes
Individual Controls	Yes	Yes	Yes	Yes	Yes	Yes
County Controls × Decade	Yes	Yes	Yes	Yes	Yes	Yes
County Linear Trends	Yes	Yes	Yes	Yes	Yes	Yes
Ever Treated	Yes	Yes	Yes	Yes	Yes	Yes

Notes: The table replicates the specification reported in column 4 of Tables 3, 4, and 5, augmented with the interaction between *Years w/ Italian Church* and the 1900 number (resp. fraction) of Italians in the county in Panel A (resp. Panel B). *Years w/ Italian Church* is the number of years with at least one Italian Catholic church in the county over the ten years before a Census. *No. Italians 1900* (*Fr. Italians 1900*) is the number (fraction) of Italians in the county in 1900, standardized by subtracting its mean and dividing through its standard deviation. See Tables 3, 4, and 5 for the sample considered in each column, the definition of the dependent variable, and the description of controls. Standard errors, clustered at the county level, in parentheses. Significance levels: *** p<0.01, ** p<0.05, * p<0.1.

Table 7. Integration with Other Groups

	(1)	(2)	(3)	(4)	(5)
Ethnicity:	1 st gen. Italian	1 st and 2 nd gen. Italian	Not native	Irish	German
Panel A.		Dep. Variable: Married to			
Years w/ Italian Church	0.140*** (0.041)	0.235*** (0.030)	-0.102*** (0.023)	-0.003 (0.006)	-0.024*** (0.006)
Mean Treatment	7.190	7.190	7.190	7.190	7.190
Mean Dep. Variable (1900)	94.17	95.90	2.693	0.288	0.416
Observations	1,760,274	1,760,274	1,760,274	1,760,274	1,760,274
Panel B.		Dep. Variable: Residential Integration			
Years w/ Italian Church	0.465*** (0.109)	0.468*** (0.108)	-0.011 (0.109)	0.004 (0.033)	0.053* (0.032)
Mean Treatment	7.421	7.421	7.421	7.421	7.421
Mean Dep. Variable (1900)	67.33	67.74	41.32	9.867	9.529
Observations	1,006,112	1,006,112	1,006,112	1,006,112	1,006,112
State × Decade FEs	Yes	Yes	Yes	Yes	Yes
County FEs	Yes	Yes	Yes	Yes	Yes
Individual Controls	Yes	Yes	Yes	Yes	Yes
County Controls × Decade	Yes	Yes	Yes	Yes	Yes
County Linear Trends	Yes	Yes	Yes	Yes	Yes
Ever Treated	Yes	Yes	Yes	Yes	Yes

Notes: The table replicates the specification of Table 3, column 4, for intermarriage and residential integration between an Italian immigrant and individuals belonging to the group reported at the top of each column. *Not native* includes any ethnicity and 1st and 2nd generation Italians. See Table 3 for the sample considered in each Panel, the definition of the dependent variable, and the description of controls. Standard errors, clustered at the county level, in parentheses. Significance levels: *** p<0.01, ** p<0.05, * p<0.01.

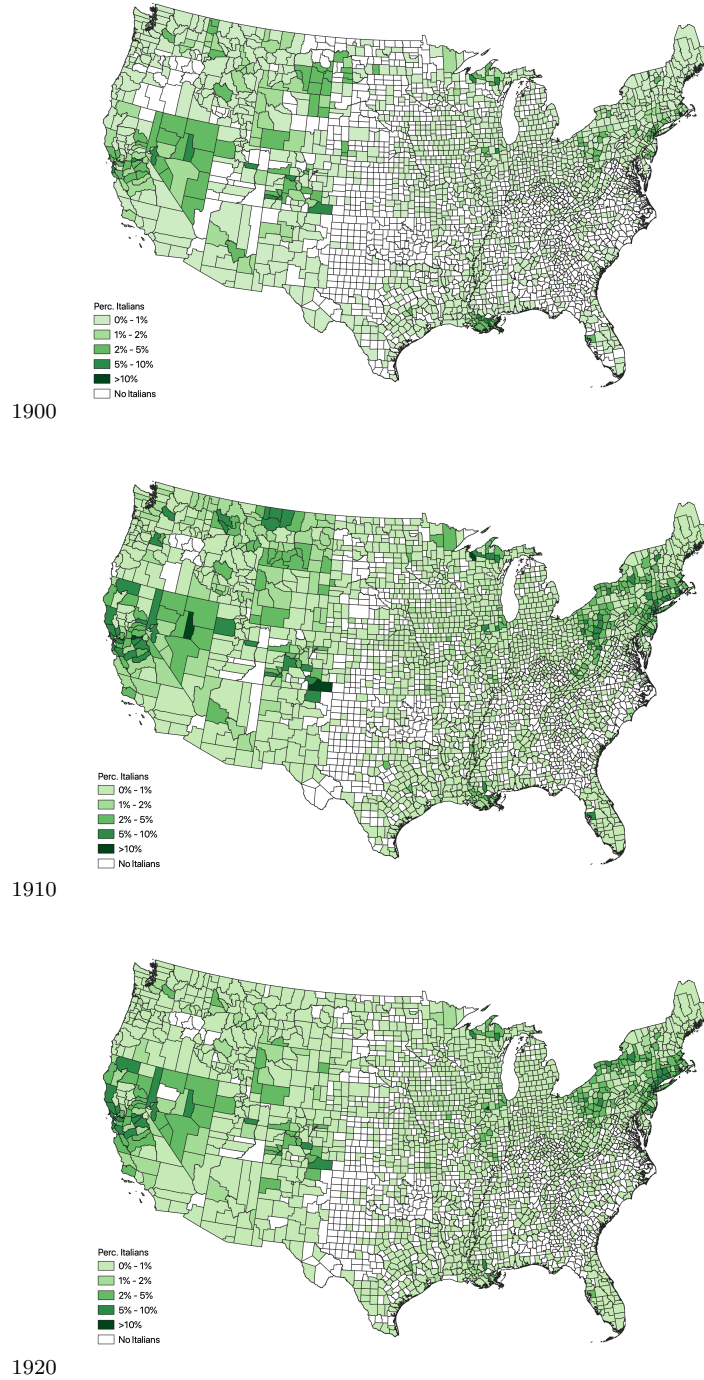
Table 8. Ability to Speak English: Italian Immigrant Children

Dep. Variable:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Speak English								
Sample:	Females and Males			Females			Males		
Years w/ Italian church	0.473*** (0.171)	0.312** (0.158)	0.298 (0.222)	0.775*** (0.200)	0.619*** (0.188)	0.490** (0.241)	0.203 (0.209)	0.031 (0.209)	0.129 (0.271)
Years w/ Italian church × English Laws		0.502** (0.208)			0.480** (0.214)			0.540** (0.228)	
Years w/ Italian church × Presence of School			0.308 (0.201)			0.499** (0.195)			0.131 (0.242)
Age	10-14	10-14	10-14	10-14	10-14	10-14	10-14	10-14	10-14
Mean Treatment	5.270	5.270	5.270	5.270	5.270	5.270	5.270	5.270	5.270
Mean Dep. Variable (1900)	73.89	73.89	73.89	75.52	75.52	75.52	72.08	72.08	72.08
Observations	141,200	141,200	141,200	67,609	67,609	67,609	73,541	73,541	73,541
State × Decade FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
County FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Individual Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
County Controls × Decade	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
County Linear Trends	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Ever Treated	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: The sample includes first-generation Italian immigrants of age 10 to 14. The dependent variable is a dummy (multiplied by 100) equal to one if the individual is able to speak English. $1[English\ laws]$ is a dummy equal to one if the individual lives in a county belonging to a state with the requirement to teach (also) in English at the time of the Census year. The data comes from Edwards (1923). $1[Presence\ of\ School]$ is a dummy equal to one if the individual lives in a county that had at least one parochial school annexed to the Catholic parish for a number of years above the national median in the decade. The table estimates the same specification reported in column 4 of Table 4 (Panel B). See Table 4 for the description of controls. Standard errors, clustered at the county level, in parentheses. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.01$.

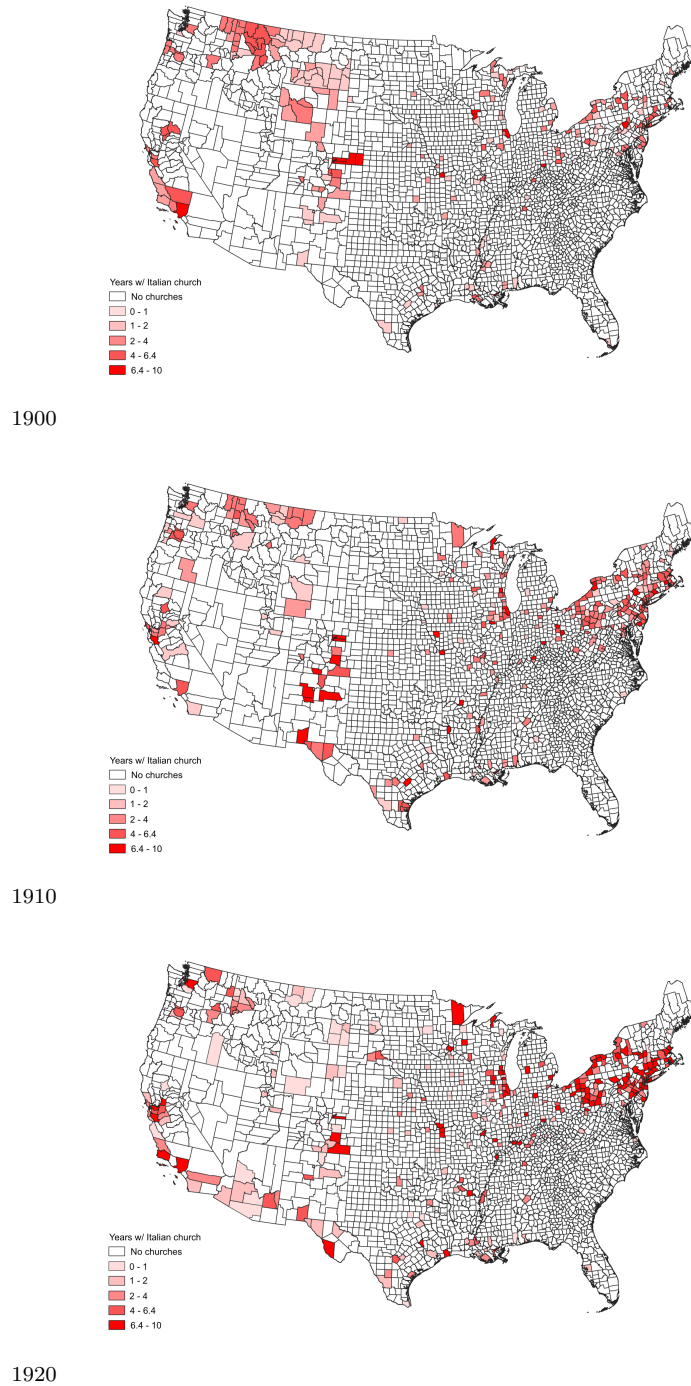
Figures

Figure 1. Italian Immigrants over County Population, by Decade



Notes: The figure plots the share of (first-generation) Italian immigrants relative to total county population in each Census year. County boundaries are fixed to 1930 using the procedure in Perlman (2016). *Source:* Authors' calculation from Ruggles et al. (2020).

Figure 2. Italian Catholic Churches



Notes: The figure plots the number of years with at least one Italian Catholic church (*Years w/ Italian Church*) during the ten years prior to each Census year. A church is defined as “Italian” if at least one of the following two conditions is met: *i*) it is an Italian national church; *ii*) the church has at least one Italian priest. See also Section 3.2. *Source:* Authors’ calculation from the *The Official Catholic Directory*.

Figure 3. Sample of the 1902 Catholic Almanac: List of Churches

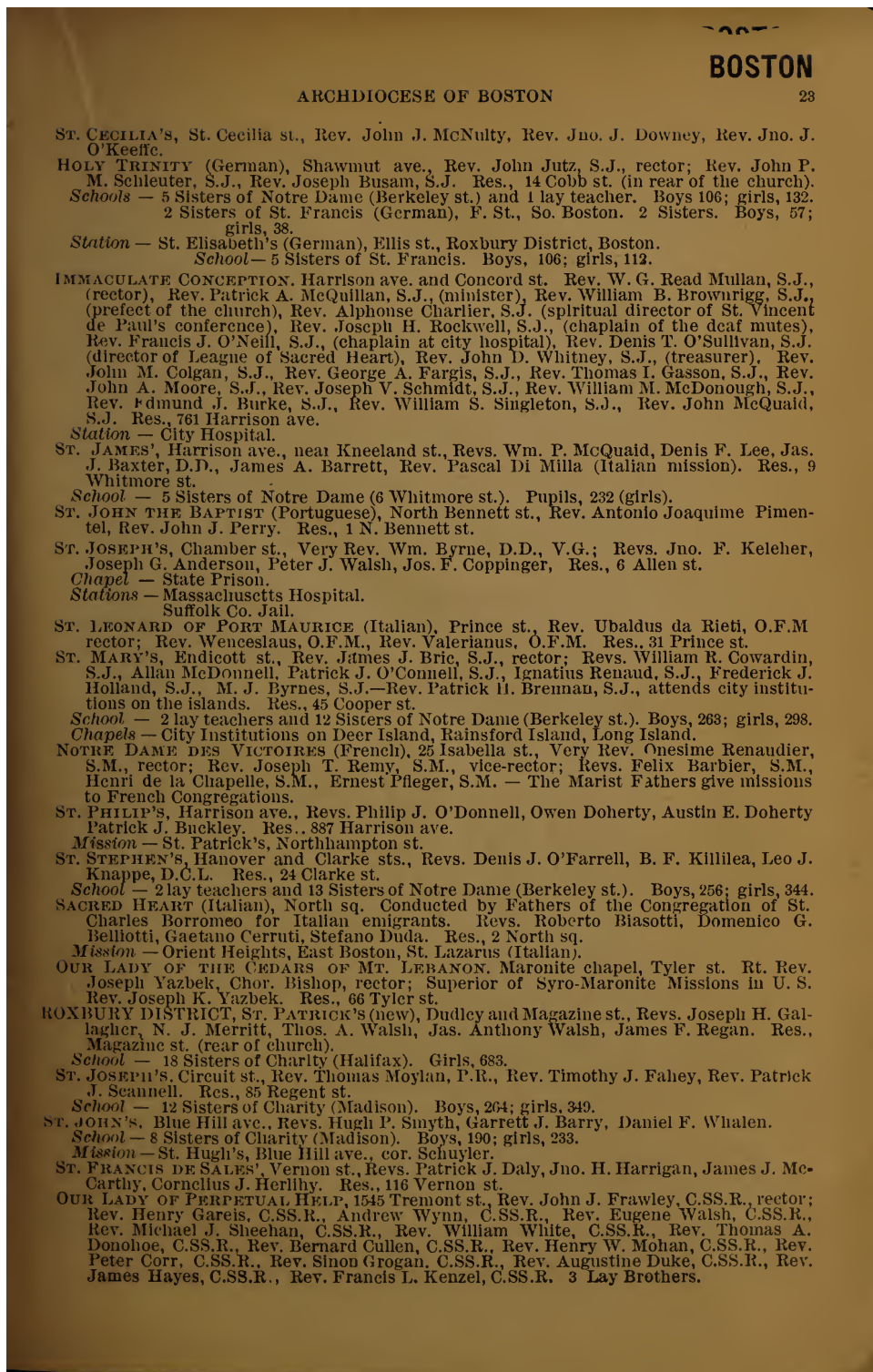


Figure 4. Sample of the 1902 Catholic Almanac: List of Clergymen

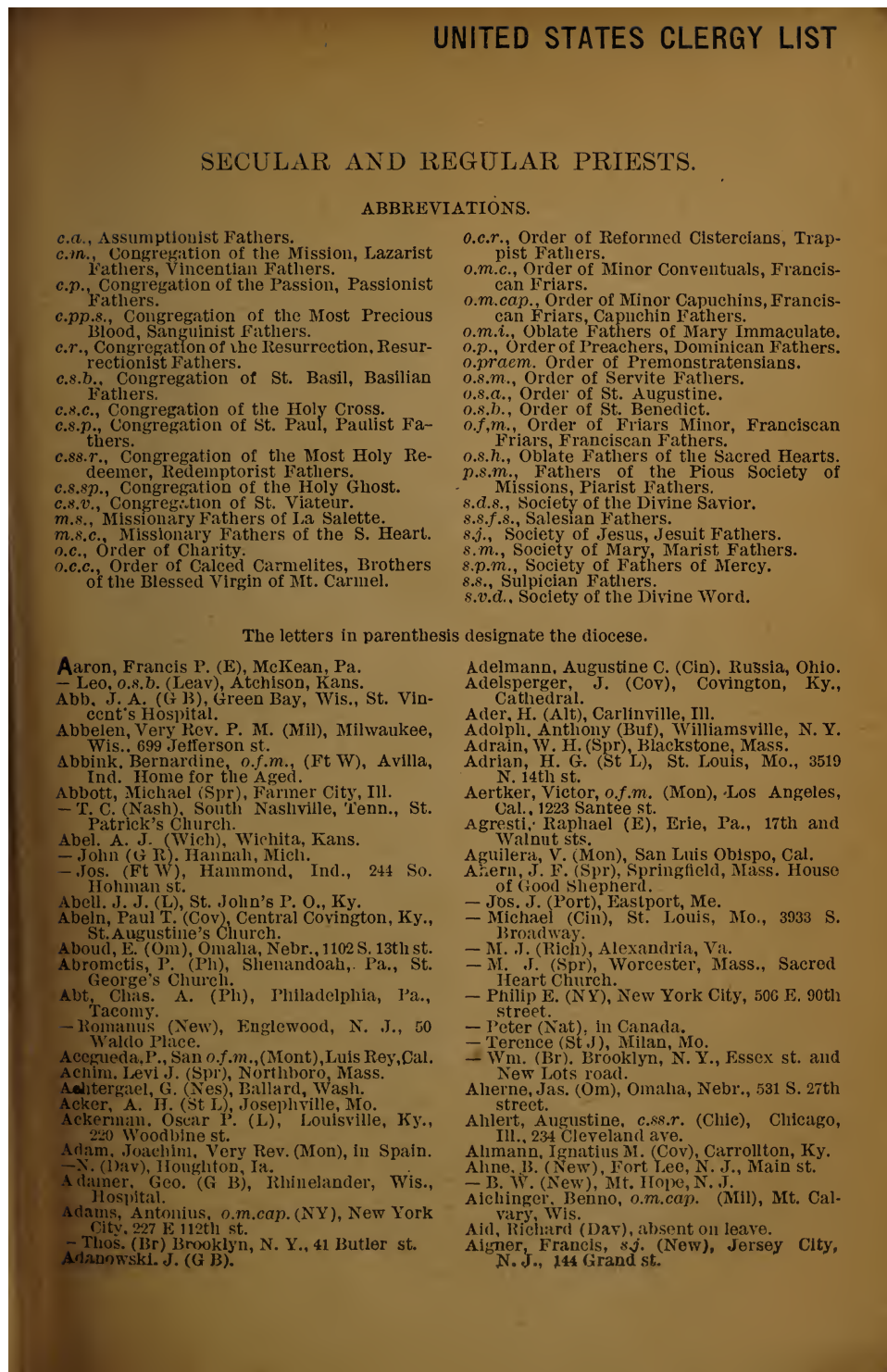
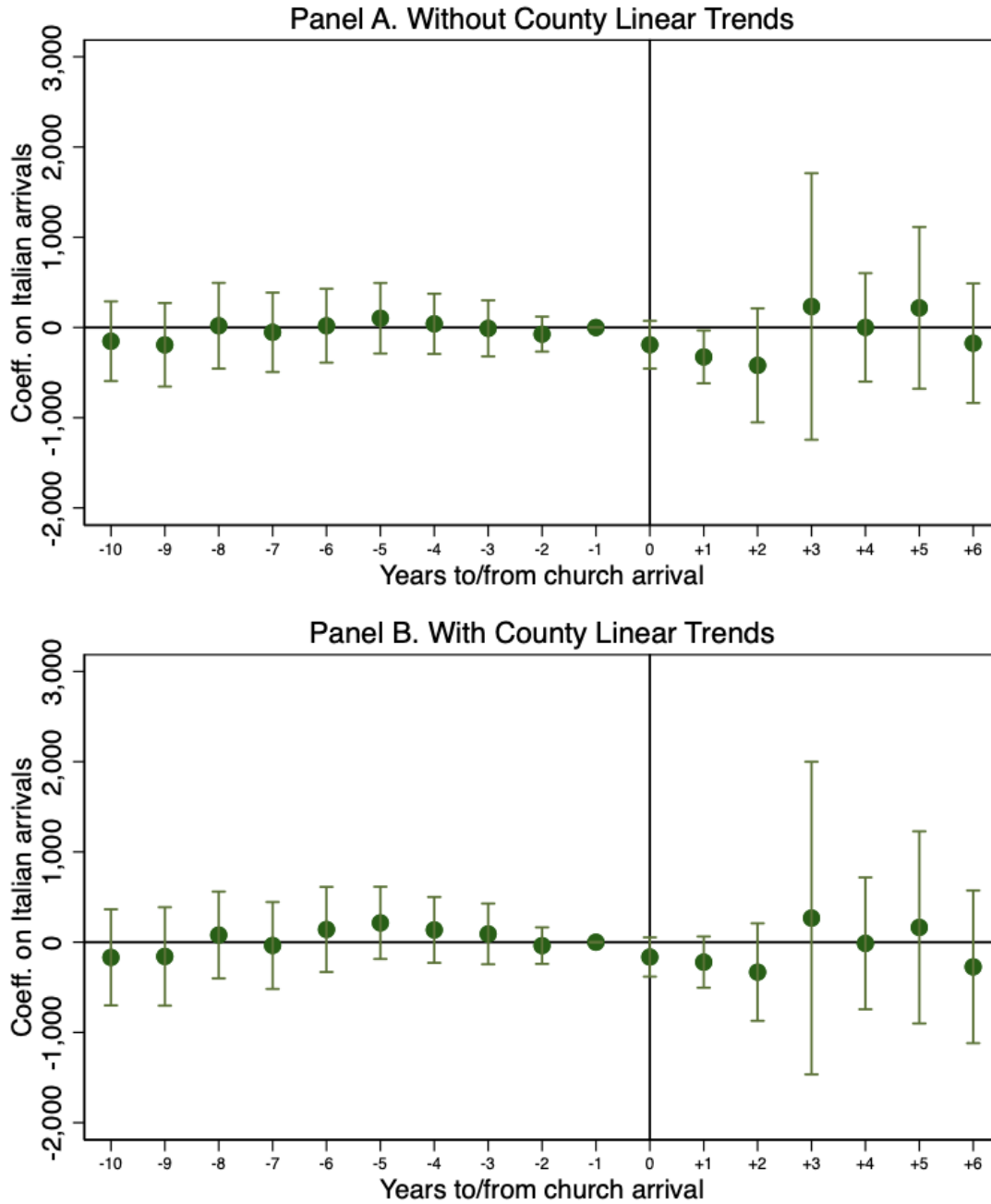
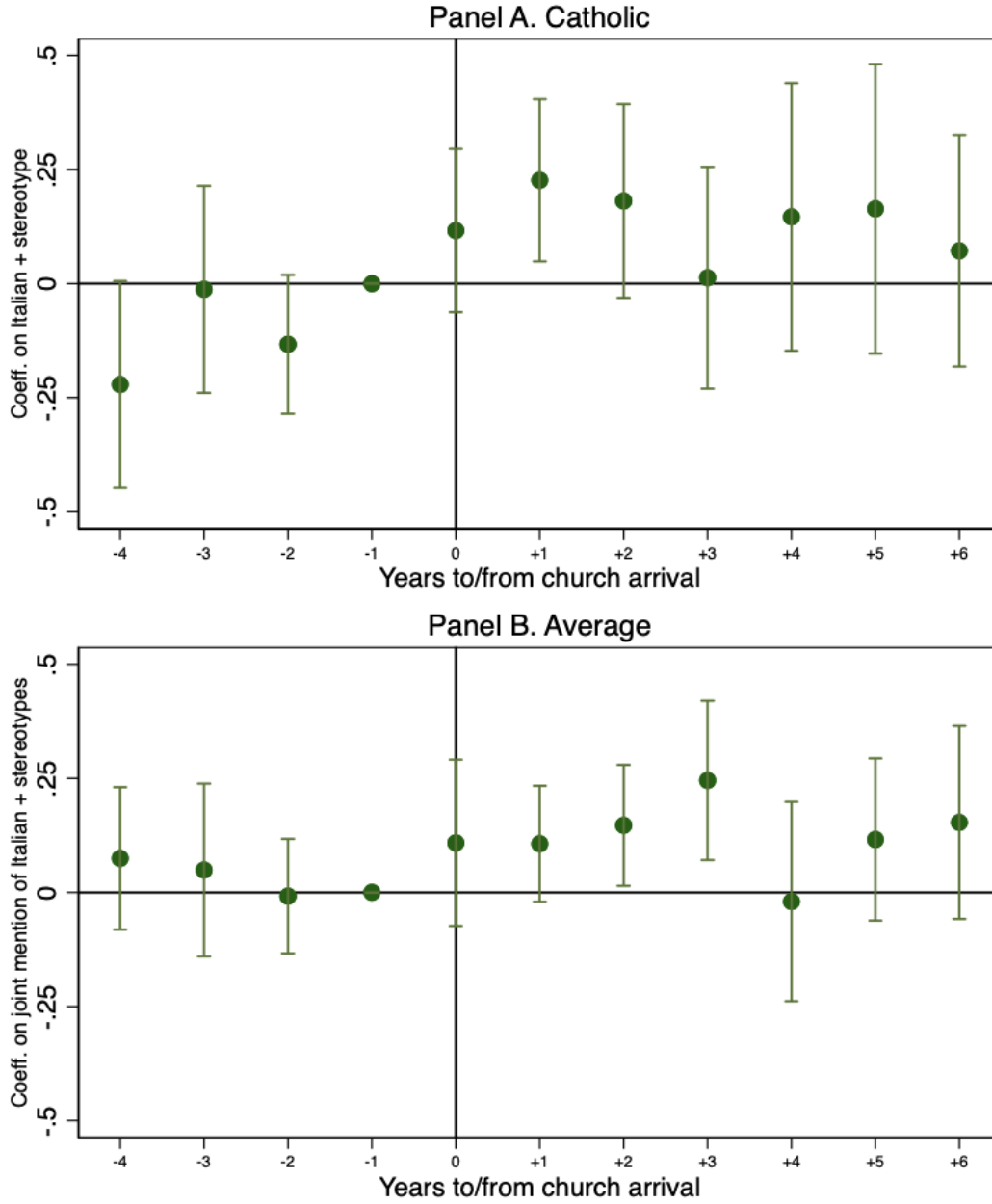


Figure 5. Italian Immigrants Over Time



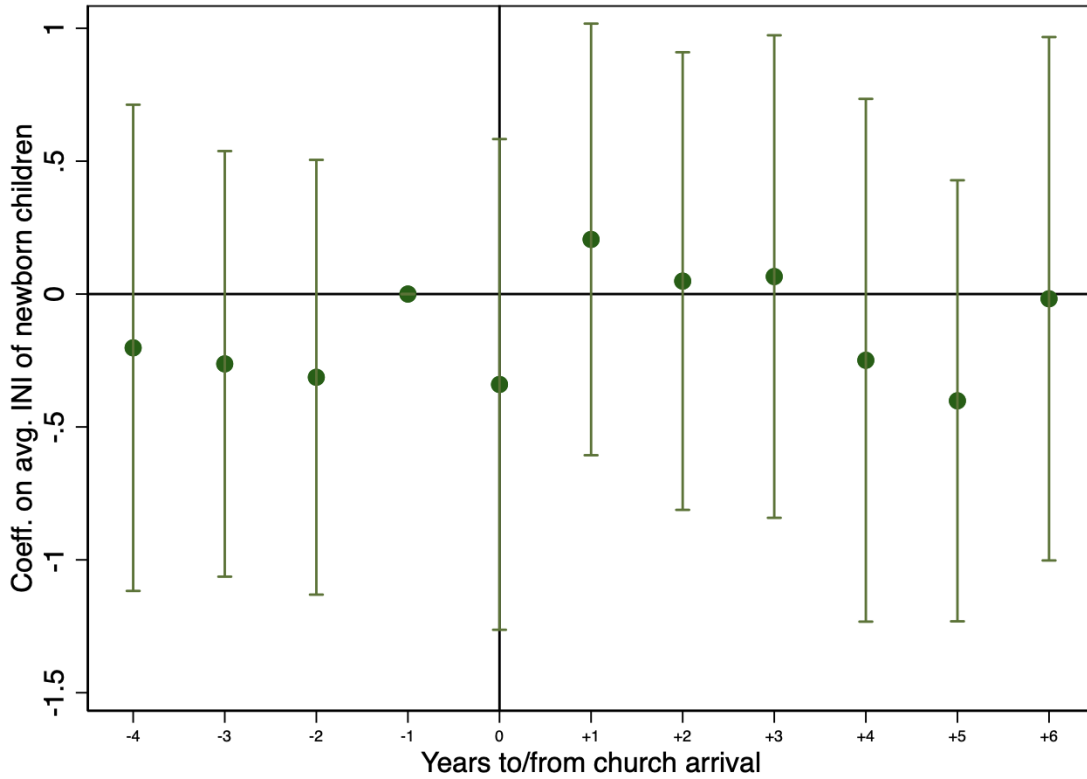
Notes: The figure plots the coefficient, with 95% confidence intervals, on leads and lags of a dummy equal to one for the entry of an Italian Catholic church in each county-(calendar) year. The dependent variable is the predicted number of Italian arrivals in each county-(calendar) year (see Section 4.2.1 for more details). The regression includes all controls listed in column 4 of Table 3, except for individual characteristics. County linear trends are omitted from Panel A, and included in Panel B. The vertical black line refers to the arrival of the church in the county.

Figure 6. Relative Frequency of Anti-Italian Terms in the Press



Notes: The figure plots the coefficient, with 95% confidence intervals, on leads and lags of a dummy equal to one for the entry of an Italian Catholic church in each county-(calendar) year. The dependent variable is the average frequency of joint mentions of the root of the word “Italian” and: *i*) the keyword “Catholic” in Panel A; *ii*) the average mention of the keywords “Alcohol”, “Dirty”, “Crime”, “Violent”, “Lazy”, “Dago” in Panel B, scaled by the number of occurrences of the stereotypical keyword, in local newspapers of a county in a calendar year. The regression includes: *i*) interactions between decade dummies and 1900: county population, the urban, the Black, the Italian, the Irish, and other Europeans share of the population, labor force participation, the manufacturing share, and the number of years a county had been connected to the railroad; and, *ii*) number of years with at least one non-Italian Catholic church. The vertical black line refers to the arrival of the church in the county.

Figure 7. Average INI of Children



Notes: The figure plots the coefficient, with 95% confidence intervals, on leads and lags of a dummy equal to one for the entry of an Italian Catholic church in each county-(calendar) year. The dependent variable is the average score of Italianness of children born to (first-generation) Italian parents in a given year. The sample is restricted to: households with both parents born in Italy and with at least one child born (in the US) before and at least one child born after the entry of the church; first church arrival in the county over the 1890-1920 period, conditional on having no churches between 1880 and 1890. The regression includes all controls listed in column 4 of Table 3, and the following additional variables: household fixed effects; fixed effects for gender, age, and years in the US for the household head. The vertical black line refers to the arrival of the church in the county.

A Appendix – Additional Tables and Figures

Table A.1. Description of Main Variables

Variable	Description
Panel A. Main Variables	
Years w/ Italian Church	Number of years with at least one Italian church in the previous decade
<i>Main Individual Level Outcomes</i>	
Married to Native	Dummy=1 if the individual is married to a native of native parentage; restricted to married individuals 15+ years old
Residential Integration	Dummy=1 if the household head has at least one native neighbor of native parentage
Naturalized	Dummy=1 if citizen is naturalized; restricted to men 21+ years old who have been in the US for at least 5 years
Speak English	Dummy=1 if the individual speaks English; restricted to individuals 15+ years old
Literacy	Dummy=1 if the individual can read and write; restricted to individuals 15+ years old
Log Occupational Score	Logarithm of (0.01+occupational score); restricted to men 15-64 years old in labor force
In Labor Force	Dummy=1 if a man (15-64) is in labor force. For 1900, due to data limitations, non-missing occupational scores is used
<i>Main Household Level Outcomes</i>	
Number of Children	Number of children in the household; restricted to households with both parents born in Italy, whose children were born in the US and were living in counties that, over the sample period, experienced only one church arrival, and no church exit
Average INI of Children	Average score of Italianness of children born to first-generation Italian parents; restricted to households with both parents born in Italy with at least one child born in the US before and at least one child born after the entry of the church. The sample is further restricted to individuals living in counties that, over the sample period, experienced only one church arrival, and no church exit
Panel B. Main County Level Variables	
County Population	County population in 1900
Urban Share	Urban share of the county population in 1900
Black share	African American share of the county population in 1900
Fraction of Immigrants	Fraction of immigrants over county population in 1900
Fraction of European Immigrants	Fraction of European immigrants over county population in 1900
Fraction of Italians	Fraction of Italian immigrants over county population in 1900
Fraction of Irish	Fraction of Irish immigrants over county population in 1900
Share Native Men 15-64 in Labor Force	Share of native men (15-64) in the labor force in 1900
Share Native Men 15-64 in Manufacturing	Share of native men (15-64) employed in manufacturing in 1900
Years w/ non-Italian Church	Number of years with at least one non-Italian church in the previous decade
Years w/ Railroad	Number of years a county has been connected to the railroad up to 1900
Italians' Regional Homogeneity	Herfindahl–Hirschman Index of Italian region of origin concentration in 1900
<i>Panel C. Additional Individual Characteristics</i>	
Male	Dummy=1 if the individual is male
Years in the US	Number of years spent in the US
In Manufacturing	Dummy=1 if a man (15-64) works in manufacturing
Married	Dummy=1 if an individual is married
Married to Italian	Dummy=1 if an individual is married to a first or second generation Italian immigrant; restricted to individuals 15+ years old

Notes: The table reports the description of the variables used in the paper. All dummies are multiplied by 100.

Table A.2. Additional Assimilation Outcomes

Dep. Variable:	(1)	(2)	(3)	(4)
	In Manufacturing	Unskilled	Literacy	Italian Occupational Index
Years w/ Italian Church	0.002** (0.001)	0.002* (0.001)	-0.001 (0.001)	0.053*** (0.019)
Mean Treatment	6.236	6.236	6.236	6.119
Mean Dep. Variable (1900)	0.117	0.603	0.599	4.132
Observations	1,760,957	1,760,957	1,760,957	1,419,196
State \times Decade FEs	Yes	Yes	Yes	Yes
County FEs	Yes	Yes	Yes	Yes
Individual Controls	Yes	Yes	Yes	Yes
County Controls \times Decade	Yes	Yes	Yes	Yes
County Linear Trends	Yes	Yes	Yes	Yes
Ever Treated	Yes	Yes	Yes	Yes

Notes: The table replicates the specification reported in column 4 of Table 5, focusing on first-generation Italian immigrant men of age 15 to 64. The dependent variable is a dummy equal to 1 (multiplied by 100) for being: *i*) in manufacturing (column 1); *ii*) unskilled (column 2); *iii*) literate (column 3). *Italian Occupational Index* is the fraction of Italian men in labor force holding a specific occupation over the fraction of the rest of the male population in the labor force, holding that occupation. This variable is defined for individuals who reported an occupation that was classified by the Census as of 1900. Individuals in the labor force, but with a “non-classified” occupation are excluded from the analysis for this variable, explaining why the number of observations in column 4 is lower than in previous columns. See Table 5 for the definition of regressors and controls. Standard errors, clustered at the county level, in parentheses. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.01$.

Table A.3. Integration with Other Immigrant Groups

	(1)	(2)	(3)	(4)	(5)
Ethnicity:	UK	Western Europe	Northern Europe	Central/East Europe	Russian Empire
Panel A.	Dep. Variable: Married to				
Years w/ Italian Church	-0.014*** (0.004)	-0.030*** (0.008)	-0.004* (0.002)	-0.013** (0.005)	0.001 (0.001)
Mean Treatment	7.190	7.190	7.190	7.190	7.190
Mean Dep. Variable (1900)	0.217	0.437	0.0580	0.200	0.014
Observations	1,760,274	1,760,274	1,760,274	1,760,274	1,760,274
Panel B.	Dep. Variable: Residential Integration				
Years w/ Italian Church	-0.027 (0.028)	0.013 (0.019)	-0.013 (0.021)	0.048 (0.035)	0.058 (0.038)
Mean Treatment	7.421	7.421	7.421	7.421	7.421
Mean Dep. Variable (1900)	4.011	2.173	2.056	4.192	2.963
Observations	1,006,112	1,006,112	1,006,112	1,006,112	1,006,112
State \times Decade FEs	Yes	Yes	Yes	Yes	Yes
County FEs	Yes	Yes	Yes	Yes	Yes
Individual Controls	Yes	Yes	Yes	Yes	Yes
County Controls \times Decade	Yes	Yes	Yes	Yes	Yes
County Linear Trends	Yes	Yes	Yes	Yes	Yes
Ever Treated	Yes	Yes	Yes	Yes	Yes

Notes: The table replicates the specification of Table 3, column 4, for intermarriage and residential integration between an Italian immigrant and individuals belonging to the group reported at the top of each column. See Table 3 for the sample considered in each Panel, the definition of the dependent variable, and the description of controls. Standard errors, clustered at the county level, in parentheses. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.01$.

Table A.4. Heterogeneity by Treatment Type

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. Variable:	Married to Native	Residential Integration	Naturalized	Speak English	Labor Force	Log Occ. Score
Years w/ Italian National Church	-0.110*** (0.013)	-0.507*** (0.087)	-0.624** (0.256)	-0.102 (0.136)	0.131** (0.054)	-0.013*** (0.004)
Years w/ Italian Priests	-0.040* (0.020)	-0.180* (0.103)	-0.359* (0.199)	0.061 (0.249)	0.258*** (0.070)	0.004 (0.008)
Years w/ non-Italian Church	0.005 (0.038)	-0.256 (0.169)	1.048** (0.407)	0.275 (0.289)	-0.047 (0.096)	-0.000 (0.010)
Mean Italian National Church	6.148	6.613	6.654	5.753	5.504	5.531
Mean Italian Priests	0.741	0.808	0.873	0.717	0.732	0.731
Mean non-Italian Church	7.576	8.159	8.456	7.175	7.041	7.059
Mean Dep. Variable (1900)	0.808	17.17	53.40	57.09	85.77	3.070
Observations	1,989,311	1,006,112	1,318,535	2,882,460	1,760,957	1,655,382
State \times Decade FEs	Yes	Yes	Yes	Yes	Yes	Yes
County FEs	Yes	Yes	Yes	Yes	Yes	Yes
Individual Controls	Yes	Yes	Yes	Yes	Yes	Yes
County Controls \times Decade	Yes	Yes	Yes	Yes	Yes	Yes
County Linear Trends	Yes	Yes	Yes	Yes	Yes	Yes
Ever Treated	Yes	Yes	Yes	Yes	Yes	Yes

Notes: The table replicates the specification in column 4 of Tables 3, 4, and 5, replacing the main regressor *Years w/ Italian Church* with the following three regressors: *i*) the number of years with at least one Italian national church (*Years w/ Italian national church*); *ii*) the number of years with at least one Italian priest (*Years w/ Italian priests*), but no Italian national church; *iii*) the number of years with at least one Catholic church (*Years w/ non-Italian church*), but no Italian national churches nor Italian priests. See the notes to Tables 3, 4, and 5 for the description of controls. Standard errors, clustered at the county level, in parentheses. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.01$.

Table A.5. Summary Statistics: Newspapers Sample

	Full sample			Newspapers sample		
	Mean	Std. Dev.	Obs.	Mean	Std. Dev.	Obs.
Panel A. County level characteristics						
Total Population	767,536	802,888	3,161,147	952,872	867,868	2,249,290
Immigrant Share	0.272	0.108	3,161,147	0.290	0.107	2,249,290
Italian Immigrant Share	0.043	0.025	3,161,147	0.046	0.025	2,249,290
Urban Share	0.776	0.282	3,161,147	0.815	0.252	2,249,290
Share Native Men 15-64 in Labor Force	0.873	0.055	3,161,147	0.873	0.054	2,249,290
Share Native Men 15-64 in Manufacturing	0.150	0.067	3,161,147	0.146	0.062	2,249,290
Panel B. Individual level characteristics						
Married to Native	1.122	10.533	2,157,540	1.028	10.089	1,538,992
Residential Integration	20.983	40.719	1,093,241	19.240	39.419	786,537
Naturalized	32.726	46.921	1,455,111	32.661	46.897	1,034,125
Speak English	61.049	48.764	3,161,147	61.300	48.706	2,249,290
Log Occupational Score	1.976	2.712	1,846,855	1.932	2.763	1,294,572
In Labor Force	94.052	23.652	1,963,683	93.983	23.779	1,377,451
Literacy	64.180	47.947	3,161,147	64.481	47.857	2,249,290
Male	63.581	48.120	3,161,147	62.734	48.351	2,249,290
Age	34.928	12.694	3,161,147	35.037	12.773	2,249,290
Years in the US	12.206	9.060	3,161,147	12.331	9.050	2,249,290

Notes: The table reports summary statistics for the full sample (columns 1 to 3) and for the 1,071 counties for which data on local newspapers were available through the website Newspapers.com (columns 4 to 6).

Table A.6. Baseline Results: Newspapers Sample

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. Variable:	Married to Native	Residential Integration	Naturalized	Speak English	Labor Force	Log Occ. Score
Years w/ Italian Church	-0.089*** (0.017)	-0.374*** (0.107)	-0.698*** (0.261)	-0.113 (0.176)	0.118 (0.072)	-0.010* (0.006)
Mean Treatment	7.102	7.621	7.765	6.691	6.485	6.509
Mean Dep. Variable (1900)	0.798	15.70	53.43	57.85	85.35	3.083
Observations	1,468,906	749,664	976,579	2,133,465	1,293,260	1,215,176
State \times Decade FEs	Yes	Yes	Yes	Yes	Yes	Yes
County FEs	Yes	Yes	Yes	Yes	Yes	Yes
Individual Controls	Yes	Yes	Yes	Yes	Yes	Yes
County Controls \times Decade	Yes	Yes	Yes	Yes	Yes	Yes
County Linear Trends	Yes	Yes	Yes	Yes	Yes	Yes

Notes: The table replicates results reported in column 4 of Tables 3, 4, and 5 restricting attention to individuals living in counties for which newspapers data are available. See notes to Tables 3, 4, and 5 for the description of regressors and controls. Standard errors, clustered at the county level, in parentheses. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A.7. Fertility and Naming Patterns

	(1)	(2)	(3)	(4)
Panel A.	Dep. Variable: Number of Children			
Years w/ Italian Church	-0.006 (0.009)	-0.006 (0.007)	0.002 (0.009)	-0.002 (0.009)
Mean Treatment	6.796	6.796	6.796	7.393
Mean Dep. Variable (1900)	1.106	1.106	1.106	1.127
Observations	1,114,715	1,114,715	1,114,715	1,024,816
Panel B.	Dep. Variable: Average INI of Children			
Years w/ Italian Church	0.035 (0.527)	0.037 (0.470)	0.391 (0.598)	-0.038 (0.610)
Mean Treatment	6.796	6.796	6.796	7.393
Mean Dep. Variable (1900)	51.77	51.77	51.77	53.12
Observations	1,114,715	1,114,715	1,114,715	1,024,816
State \times Decade FEs	Yes	Yes	Yes	Yes
County FEs	Yes	Yes	Yes	Yes
Individual Controls	Yes	Yes	Yes	Yes
County Controls \times Decade		Yes	Yes	Yes
County Linear Trends			Yes	Yes
Ever Treated				Yes

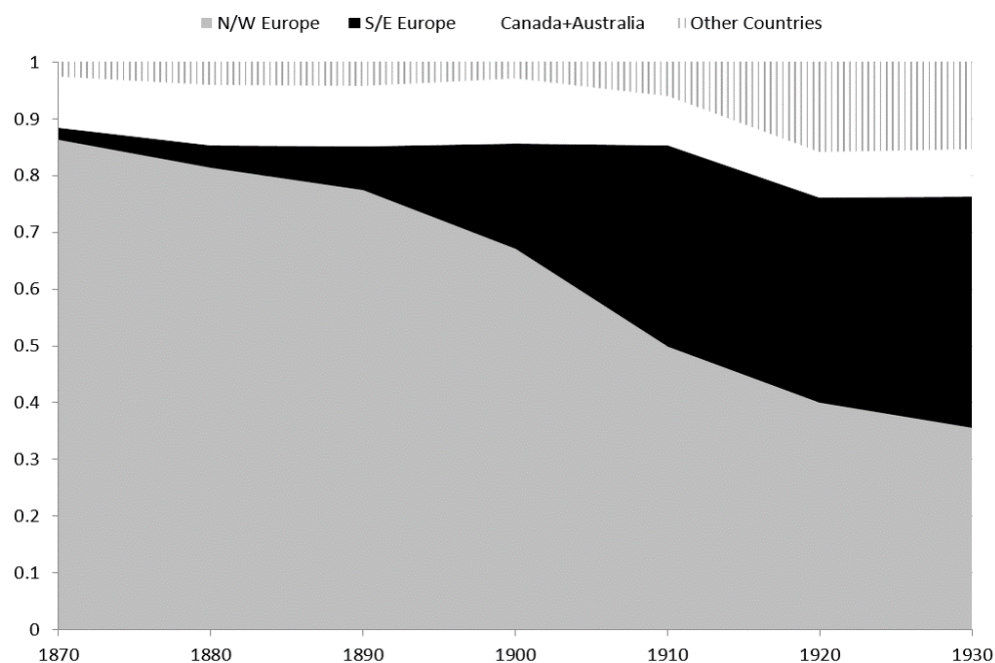
Notes: The table replicates the analysis conducted in Table 3, restricting the sample to households with both parents born in Italy and with at least one child born (in the US) before and at least one child born after the entry of the church. Panel B restricts attention to families with at least one child born in the US. *Number of Children* (resp. *Average INI of Children*) is the number of children (resp. the average INI of children) in the household born during the decade. See Table 3 for the description of regressors and controls. Standard errors, clustered at the county level, in parentheses. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.01$.

Table A.8. Literacy: Italian Immigrant Children

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Dep. Variable:	Literacy								
Sample:	Females and Males			Females			Males		
Years w/ Italian church	0.167 (0.119)	0.186 (0.138)	0.029 (0.138)	0.312** (0.142)	0.327** (0.154)	0.129 (0.158)	0.046 (0.153)	0.063 (0.173)	-0.060 (0.180)
Years w/ Italian church × English Laws		-0.061 (0.117)			-0.047 (0.120)			-0.054 (0.141)	
Years w/ Italian church × Presence of School			0.243*** (0.088)			0.319*** (0.116)			0.187* (0.111)
Age	10-14	10-14	10-14	10-14	10-14	10-14	10-14	10-14	10-14
Mean Treatment	5.270	5.270	5.270	5.270	5.270	5.270	5.270	5.270	5.270
Mean Dep. Variable (1900)	76.19	76.19	76.19	75.54	75.54	75.54	76.75	76.75	76.75
Observations	141,200	141,200	141,200	67,609	67,609	67,609	73,541	73,541	73,541
State × Decade FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
County FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Individual Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
County Controls × Decade	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
County Linear Trends	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Ever Treated	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

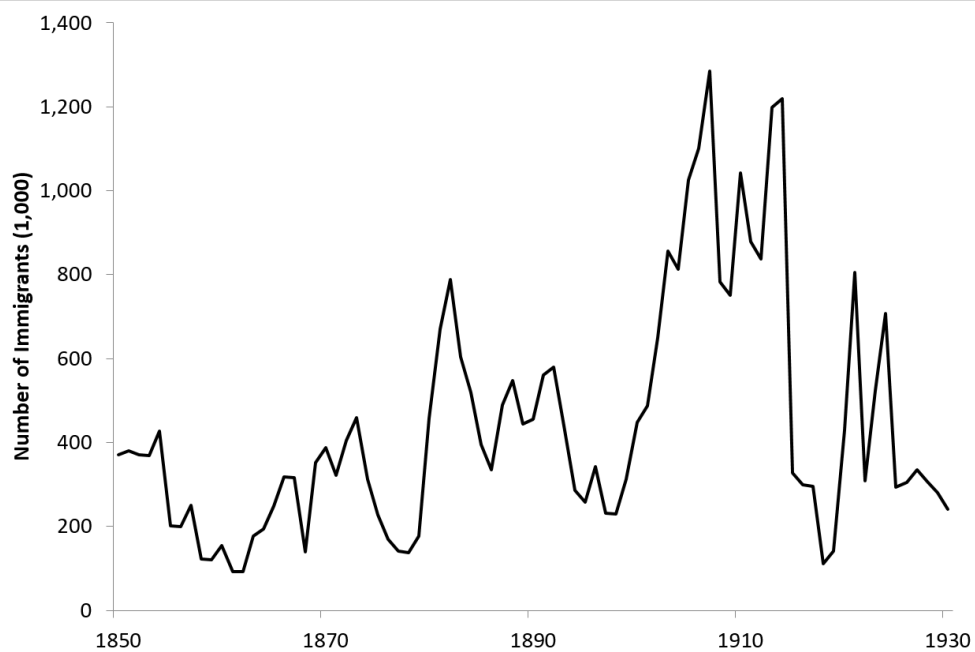
Notes: The sample includes first-generation Italian immigrants of age 10 to 14. The dependent variable is a dummy (multiplied by 100) equal to one if the individual is able to read and write. $1[English\ laws]$ is a dummy equal to one if the individual lives in a county belonging to a state with the requirement to teach (also) in English at the time of the Census year. The data comes from Edwards (1923). $1[Presence\ of\ School]$ is a dummy equal to one if the individual lives in a county that had at least one parochial school annexed to the Catholic parish for a number of years above the national median in the decade. The table estimates the same specification reported in column 4 of Table 4 (Panel B). See Table 4 for the description of controls. Standard errors, clustered at the county level, in parentheses. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.01$.

Figure A.1. Immigrants by Region of Origin and Decade



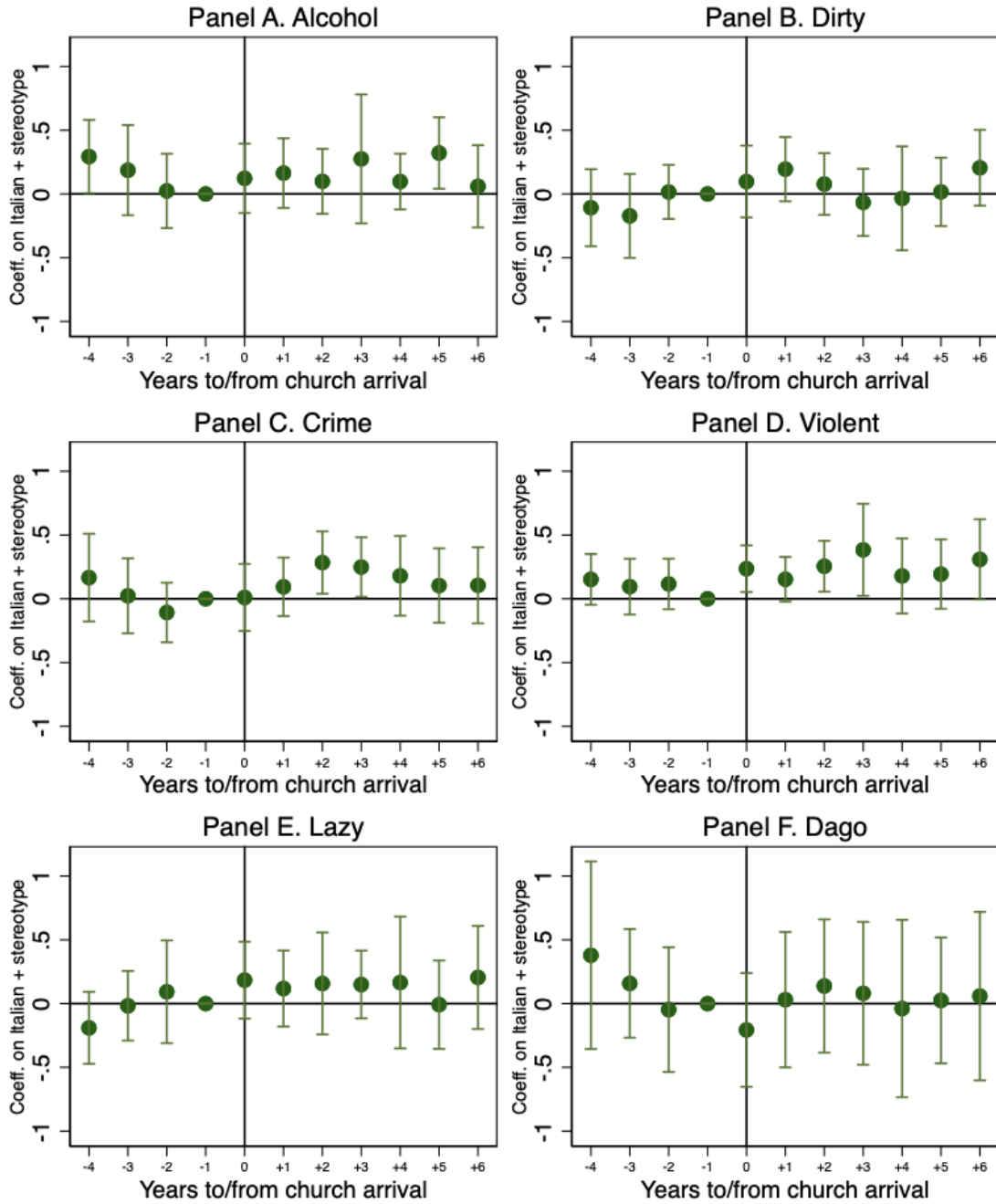
Notes: Share of immigrants (relative to the total foreign born population) living in the United States, by sending region and by decade. Source: Authors' calculations from Ruggles et al. (2020).

Figure A.2. Total Number of Immigrants (in Thousands)



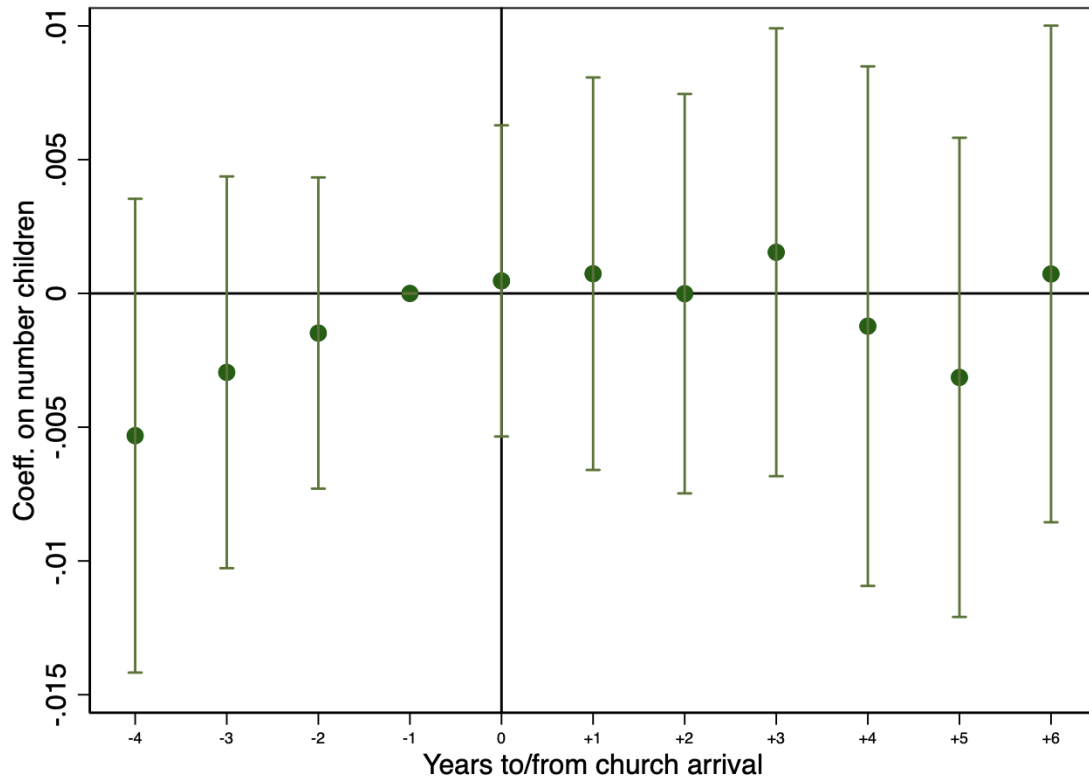
Notes: Annual inflow of immigrants to the United States (1850-1930). Source: Adapted from Tabellini (2020).

Figure A.3. Relative Frequency of (Single) Anti-Italian Terms in the Press



Notes: The figure plots the coefficient, with 95% confidence intervals, on leads and lags of a dummy equal to one for the entry of an Italian Catholic church in each county-(calendar) year. The dependent variable is the average frequency of joint mentions of the root of the word “Italian” and the keywords “Alcohol” (Panel A), “Dirty” (Panel B), “Crime” (Panel C), “Violent” (Panel D), “Lazy” (Panel E), and “Dago” (Panel F), scaled by the number of occurrences of the stereotypical keyword, in local newspapers of a county in a calendar year. The regression includes all controls listed in Figure 6. The vertical black line refers to the arrival of the church in the county.

Figure A.4. Church Entries and Number of Children



Notes: The figure plots the coefficient, with 95% confidence intervals, on leads and lags of a dummy equal to one for the entry of an Italian Catholic church in each county-(calendar) year. The dependent variable is the number of children in the household. The sample is restricted to: households with both parents born in Italy and whose children were born in the US; first church arrival in the county over the 1890-1920 period, conditional on having no churches between 1880 and 1890. The regression includes all controls listed in column 4 of Table 3, and the following additional variables: household fixed effects; fixed effects for gender, age, and years in the US for the household head. The vertical black line refers to the arrival of the church in the county.

B Appendix – Data

B.1 Residential Integration at the Individual Level

To estimate the effects of Italian Catholic churches on the social assimilation of Italian immigrants (Table 3), we construct a measure of residential integration at the individual level. To construct this variable, we follow Logan and Parman (2017), taking advantage of a peculiar characteristic of historical full count US Census manuscript files. Since enumeration occurred door-to-door up until 1960, it is possible to infer the identity of a given household’s neighbors relying on the ordering of respondents in manuscript records. Using this logic, we construct a variable that takes on the value of one if a first-generation Italian immigrant has at least one neighbor who is native of native parentage. The variable is defined for all households with at least one (and not necessarily both) observed neighbor. In Tables 7 and A.3, we construct a similar index, to measure the residential integration of Italians with other groups (e.g., non-native, non-Italian individuals; immigrants from different regions of origin; other Italians; etc.).

B.2 Italian Sounding Names

As discussed in the main text, we consider the “Italian content” of the name chosen by Italian immigrant parents for their offspring (born in the US). Since this choice involves their children and not immigrants themselves, naming might capture an indirect effect of Italian churches on assimilation, and may well follow from other assimilation outcomes, such as intermarriage with native-born spouses. Moreover, rather than reflecting assimilation “effort”, naming patterns should better capture the desire to transmit vertically the national culture.⁵⁸ Nonetheless, as long as parents are attached to their culture, choosing a non-ethnic name for their offspring is a costly assimilation decision. Moreover, there might be a penalty in the labor market, and more broadly in the social life, associated with a foreign-sounding name (Biavaschi et al., 2017). If parents were aware of this, such a penalty may proxy for the monetary value they assign to their children having a name indicative of their ethnic origin.

To capture the ethnic content of names, we compute an index of name distinctiveness that builds on what was first used in Fryer and Levitt (2004) for African Americans and, more recently, in Abramitzky et al. (2020), Fouka (2019), and Fouka et al. (2021)

⁵⁸This approach is widely used in the literature (Abramitzky et al., 2020; Fouka, 2019).

among others for European immigrants. Since we are specifically interested in Italian immigrants, we construct an Italian Name Index (INI). This index measures the frequency of a name within first-generation Italian immigrants relative to its frequency among both natives and first-generation immigrants of every nationality.⁵⁹ For each decade τ , we consider individuals born 20 years before as a reference group.

Formally, the index is computed as follows:

$$INI_{Name,\tau} = \frac{Pr(Name|Italians_{\tau})}{Pr(Name|Italians_{\tau}) + Pr(Name|Not\ Italians_{\tau})} \times 100$$

where $Italians_{\tau}$ refers to Italians born between τ and $\tau - 2$, and $Not\ Italians_{\tau}$ refers to natives and first-generation immigrants of every nationality (other than Italian) born between τ and $\tau - 2$. The index ranges from 0 to 100, with names never encountered among, respectively, Italians and non-Italians having a value of zero and 100.

We construct the INI for US-born children of an Italian-born father using the full count US Census (Ruggles et al., 2020) for the three decades between 1900 and 1920. Note, also, that we consider only first-generation immigrants as reference groups in order to capture what parents perceived as a “distinctive Italian” name when making the naming decision, without contamination from changes in naming patterns among US-born Italians. In practice, we construct a household-level average INI for each calendar year t . As explained in Section 4.2, we control for household fixed effects as well as for the number of kids in each year. Thus, the change in the household-level INI before and after the arrival of the church captures precisely the impact of the church on the name given by parents to the kid(s) born after the arrival of the church.

B.3 Identifying Italian Priests in the Catholic Directories

Italian priests were identified from the original Catholic directories *via* their last name. Almanacs reported for each year and parish the clergy list, i.e., the full names of all serving reverends preceded by the title “Rev.” (as an example, see Figure 3). Last names were then classified as Italian according to a Jaro-Winkler 99% similarity match with all last names of Italian immigrants recorded on the Ellis Island archives for the

⁵⁹Consistent with our definition of intermarriage, we define as natives those individuals who were born in the US from native parents. To avoid potentially confounding effects due to naming patterns among African Americans (Fryer and Levitt, 2004), we restrict attention to native whites.

period 1892-1924 (Florio, 2021).⁶⁰

The original Ellis Island list includes 421,826 distinct Italian last names, the three most frequent being Rossi, Russo, and Esposito. Since these records suffer from a high rate of misspellings, we only keep Italian last names that were still present in the Italian 2009 *Whitepages* directory. This is supposed to be mistake-free, although it may miss last names that disappeared during the 20th century. This step reduces the number of surnames on the list to 48,371. We also exclude last names terminating with a consonant, which was very unlikely for Italians who were migrating at that time (mostly from the South of Italy, Spitzer and Zimran, 2020). This further reduces the final list to 45,535 last names.

B.4 Herfindahl–Hirschman index of Regional Homogeneity

In order to measure the degree of regional homogeneity within the Italian community of each county, we exploit the geographical content embedded in the Italian family names of immigrants living there. One peculiar feature of Italy, due to its late unification and historical fragmentation, is the very high number of last names, and their high geographical clustering (Caffarellix and Marcato, 2008).

Ideally, one would measure the distribution of Italian surnames in Italy at the turn of the twentieth century, to infer the region of origin of Italian immigrants in the US. However, to the best of our knowledge, no such dataset exists. Hence, we rely on the Italian 2009 *Whitepages* directory, which contains aggregate data on almost 4 million landline owners by last name and municipality of residence. We acknowledge that the contemporaneous distribution of surnames in Italy is an imperfect proxy for their historical one, especially given the internal mobility flows that occurred after WWI and WWII. However, while internal migration in Italy may reduce the accuracy of our index, we have no reason to expect that this would bias any of our estimates.

With the aforementioned caveat in mind, we proceeded as follows. First, we computed the relative occurrence of each of the 20 Italian regions for every last name in the *Whitepages* dataset. Next, we merged these frequencies to the individual Census data of first-generation Italians via their last name, thereby assigning to each surname a probability of originating from a given Italian region. Then, we collapsed the data

⁶⁰The Jaro-Winkler similarity index is the inversion of the Jaro-Winkler edit distance between two strings (i.e., how dissimilar two strings are to one another by counting the minimum number of operations required to transform one string into the other), normalized between 0 and 1.

from the individual to the county level, in order to recover the relative frequency of each Italian region within the Italian community of each US county. Finally, we computed the Herfindahl–Hirschman index, which ranges from 0 (extreme heterogeneity) to 1 (extreme concentration).

We replicated this approach using last names from the universe of personal tax returns in 2005, covering over 11 million individual Italian taxpayers.⁶¹ Perhaps not surprisingly, the index computed using these data is very similar too that obtained with the *Whitepages*.

⁶¹Individual tax returns filed by all physical persons in Italy were briefly posted online by the Italian Revenue Agency (*Agenzia delle Entrate*) in 2008.

C Appendix – Robustness

This section describes the checks we performed to assess the robustness of our results.

Testing the identifying assumption. In addition to the evidence provided in Section 4.2.1, here we tackle the possibility that church exits might be endogenously determined by trends in assimilation of Italians within a given county. Although we lack a direct strategy to address this issue, we can nonetheless test whether results are robust to focusing on a sample of counties with at least one church entry but no exits within the decade. Reassuringly, Panel A of Table C.1 shows that this is indeed the case.⁶² That considering only entries – but not exits – leaves our results unchanged needs not be surprising. For one, even after a formal exit, the very same church may have remained open, even though it was no longer (formally) Italian. As long as the Italian community still represented the majority of that church, the fact that the church was not run by an Italian clergy anymore did not undo the mechanisms described in Section 6. Relatedly, even after the physical disappearance of a church, its legacy may have remained both within the Italian community and among natives (e.g., in the form of persistent negative stereotypes).

We then address recent concerns on DD settings with staggered treatment adoption. Specifically, de Chaisemartin and D’Haultfoeuille (2020) and Goodman-Bacon (2021), among others, have shown that in any two-way fixed effects estimate of DD already-treated units are kept as controls – something that might introduce bias in the presence of heterogeneous effects across groups experiencing treatment at different points in time. More generally, it can be shown that the two-way fixed effects estimate is a weighed sum of the average treatment effects (ATE) in each group and period, with weights that may be negative (in which case, for example, the estimated coefficient may be negative while all the ATEs are positive). As explained in the main text, our setting is further complicated by the fact that we observe multiple church entries and exits within the same decade. To tackle this issue, we re-frame our exercise into a staggered adoption setting by focusing on first church arrivals.

We then follow Cengiz et al. (2019) and Deshpande and Yue (2019) by using a stacked-by-event strategy, creating separate datasets where counties with a first church arrival in a Census year are considered treated, while counties that would eventually

⁶²Here, we estimate our preferred specification (column 4) reported in Tables 3 to 5, restricting attention to the sample just described.

experience a first church arrival in following decades (or never experience a church arrival) serve as controls.⁶³ In this setting, event-time dummies are specified relative to the specific year of treatment for that cohort. We then append all datasets to create a unique panel, and estimate our preferred DD specification. Results, reported in Panel B of Table C.1, verify that all coefficients are robust to this approach.

Definition of “exposure”. In addition to the exercise reported in Table A.4, in Table C.2, we experiment with two alternative measures of exposure to Italian Catholic churches. First, we consider the average number of Italian churches per year in each decade (Panel A). Second, we focus on the average number of Italian priests per year in each decade (Panel B). Differently from our baseline measure, which captures only the length of exposure, these alternative measures combine both the length and the intensity of exposure. Relative to the baseline specification, the coefficients for naturalization (column 3) become larger in magnitude, while those for occupational scores (column 6) are now smaller (in absolute value) and less precisely estimated. However, and reassuringly, all results remain qualitatively in line with those from the preferred specification.

White flight and additional robustness checks. In this paragraph, we address the potential concern that the arrival of Italian Catholic churches may have triggered white flight and other compositional changes between counties. For instance, one may be concerned that, after the arrival of a church, natives (or other immigrant groups) decided to leave the county. Alternatively, one may be worried that churches attracted Italians from other counties (however, see Figure 5 for evidence against this possibility). While any change happening within a county would be captured in our analysis, between-county changes would threaten the interpretation of our results.

In columns 1 to 3 of Table C.3, we estimate county-decade panel regressions for our most preferred specification, where the dependent variable is the log of county, immigrant, and Italian population respectively. The main regressor of interest is the baseline measure of exposure to Italian churches in a county-decade.⁶⁴ Reassuringly,

⁶³Estimates are not sensitive to the exclusion of never-treated counties (results available upon request).

⁶⁴Since regressions are at the county-decade level, we cannot include individual and household level controls. To keep the weighting scheme as close as possible to the individual level analysis, regressions are weighed by the number of observations included in the tables in the main paper (e.g., Tables 3, 4, and 5).

exposure to Italian churches is not associated with any change in the total, immigrant, or Italian population. In columns 4 to 6, we also verify that exposure to Italian churches did not alter the immigrant (column 4) or Italian (column 5) share of the county population, or the share of Italian immigrants, relative to the foreign born population (column 6).

Next, we explore the possibility that Italian churches changed sex ratios, i.e., the number of women relative to the number of men, in the county. This may be problematic in light of our results for intermarriage (Table 3). In Table C.4, we again estimate county-decade panel regressions for our preferred specification considering as dependent variable different measures of sex ratios. Reassuringly, exposure to Catholic churches has no impact on sex ratios defined for: the whole county (column 1), natives of native parentage (column 2), first and second generation Italians (column 3), first-generation Italians (column 4), all first and second generation immigrants (column 5), and all individuals in the age range 18-35 (column 6).

In addition, we deal with the possibility that Italian Catholic churches may have been selectively opening (earlier or later) in counties that were experiencing faster or slower economic growth. We proxy for the latter by constructing a measure of predicted growth using a Bartik approach, as in Sequeira et al. (2020). Specifically, we interact the 1900 employment share in each 3-digit industry in the county with the decadal national growth in that industry, and we then aggregate this over all industries within the same county (in each decade). We then augment the baseline specification (column 4) of Tables 3, 4, and 5 with this additional control, reporting results in Panel A of Table C.5. Reassuringly, all our estimates remain very close to those from our preferred specification.

Then, and along similar lines, we verify that results are unchanged when including a measure of predicted Italian, Irish, and European (omitting the previous two groups) immigration – all constructed using a leave-out Bartik approach (Card, 2001). In particular, we predict the number of Italian and Irish immigrants in each county-decade by interacting *i*) the share of immigrants of each group in that county in 1900 (relative to all immigrants from that group living in the US) with *ii*) the national inflow of immigrants from each group in the previous 10 years omitting those that eventually settled in that specific county. We predict the number of immigrants from each other European nationality by following the same steps, and then summing across all national groups to obtain the total number of European (non-Italian and non-Irish) immigrants in each county-decade (see also Tabellini, 2020, for more details). We then scale all measures

(Italian, Irish, European) of immigration by the 1900 county population to recover the predicted immigrant share in a county-decade. We then replicate our preferred specification by augmenting it with these additional controls. Also in this case, all results are unchanged.

Finally, Table C.6 documents that the statistical significance of our estimates is unchanged when clustering standard errors at the state (Panel A) and at the commuting zone (Panel B) level.

Table C.1. Robustness of DD Strategy

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. Variable:	Married to Native	Residential Integration	Naturalized	Speak English	Labor Force	Log Occ. Score
Panel A. Excluding Exits						
Years w/ Italian Church	-0.126*** (0.018)	-0.548*** (0.118)	-1.085*** (0.389)	-0.024 (0.172)	0.118* (0.067)	-0.018*** (0.004)
Mean Treatment	7.357	7.899	8.062	6.916	6.686	6.720
Mean Dep. Variable (1900)	0.793	16.58	53.57	57.23	85.60	3.065
Observations	1,397,703	709,987	903,419	2,013,180	1,205,761	1,133,113
Panel B. Stacked-by-Event Design						
Years w/ Italian Church	-0.124*** (0.014)	-0.436*** (0.072)	-0.376** (0.173)	0.042 (0.125)	0.117** (0.054)	-0.013*** (0.004)
Mean Treatment	5.767	6.324	6.388	5.272	4.949	4.977
Mean Dep. Variable (1900)	1.138	21.79	54.18	57.39	85.30	3.053
Observations	1,950,667	958,916	1,290,959	2,927,967	1,877,311	1,756,843
State \times Decade FEs	Yes	Yes	Yes	Yes	Yes	Yes
County FEs	Yes	Yes	Yes	Yes	Yes	Yes
Individual Controls	Yes	Yes	Yes	Yes	Yes	Yes
County Controls \times Decade	Yes	Yes	Yes	Yes	Yes	Yes
County Linear Trends	Yes	Yes	Yes	Yes	Yes	Yes
Ever Treated	Yes	Yes	Yes	Yes	Yes	Yes

Notes: The table replicates the specification in column 4 of Tables 3, 4, and 5. Panel A restricts to counties that ever had an Italian church over the sample period, and never experienced an exit; Panel B duplicates non-treated county-decade observations for each treatment cohort, and additionally includes event-time dummies relative to the specific year of treatment. See the notes to Tables 3, 4, and 5 for the description of controls. Standard errors, clustered at the county level, in parentheses. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.01$.

Table C.2. Heterogeneity by Type of Exposure

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. Variable:	Married to Native	Residential Integration	Naturalized	Speak English	Labor Force	Log Occ. Score
Panel A. Average Churches per Year						
Italian churches per year	-0.077*** (0.015)	-0.468*** (0.082)	-1.411*** (0.444)	-0.139 (0.226)	0.103** (0.050)	-0.006 (0.008)
Mean Treatment	4.395	4.780	4.661	4.124	3.831	3.860
Mean Dep. Variable (1900)	0.808	17.17	53.40	57.09	85.77	3.070
Observations	1,989,311	1,006,112	1,318,535	2,882,460	1,760,957	1,655,382
Panel B. Average Priests per Year						
Italian priests per year	-0.037*** (0.012)	-0.258*** (0.063)	-0.825*** (0.296)	-0.070 (0.123)	0.074** (0.034)	-0.003* (0.002)
Mean Treatment	7.873	8.560	8.290	7.380	6.799	6.847
Mean Dep. Variable (1900)	0.808	17.17	53.40	57.09	85.77	3.070
Observations	1,989,311	1,006,112	1,318,535	2,882,460	1,760,957	1,655,382
State × Decade FEs	Yes	Yes	Yes	Yes	Yes	Yes
County FEs	Yes	Yes	Yes	Yes	Yes	Yes
Individual Controls	Yes	Yes	Yes	Yes	Yes	Yes
County Controls × Decade	Yes	Yes	Yes	Yes	Yes	Yes
County Linear Trends	Yes	Yes	Yes	Yes	Yes	Yes
Ever Treated	Yes	Yes	Yes	Yes	Yes	Yes

Notes: The table replicates the specification in column 4 of Tables 3, 4, and 5 replacing the number of years with at least one Italian church (*Years w/ Italian Church*) with the average number of churches (resp. priests) per year during a decade in Panel A (resp. Panel B). See the notes to Tables 3, 4, and 5 for the description of controls. Standard errors, clustered at the county level, in parentheses. Significance levels: *** p<0.01, ** p<0.05, * p<0.01.

Table C.3. County Demographics and Church Exposure

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. Variable:	Log County Pop.	Log Imm. Pop.	Log Italian Imm. Pop.	Imm. Share of County Pop.	Italian Share of County Pop.	Italian Share of Imm. Pop.
Years w/ Italian Church	0.006 (0.008)	0.007 (0.009)	-0.003 (0.011)	0.055 (0.054)	-0.006 (0.021)	-0.037 (0.062)
Mean Treatment	7.416	7.416	7.416	7.416	7.416	7.416
Observations	5,285	5,285	5,285	5,285	5,285	5,285
State \times Decade FEs	Yes	Yes	Yes	Yes	Yes	Yes
County FEs	Yes	Yes	Yes	Yes	Yes	Yes
County Controls \times Decade	Yes	Yes	Yes	Yes	Yes	Yes
County Linear Trends	Yes	Yes	Yes	Yes	Yes	Yes

Notes: The table estimates county-decade panel regressions for counties with at least one Italian immigrant for whom outcomes are observed in Tables 3, 4, and 5. For the definition of the main regressor and the description of controls, see the notes to Table 3. All regressions are weighed by number of individuals included in the analysis reported in column 3 of Tables 3, 4, and 5. Standard errors, clustered at the county level, in parentheses. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.01$.

Table C.4. Sex Ratios

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. Variable:	(Women/Men) Ratio					
	All	Natives	Ita (1st&2nd gen)	Ita (1st gen)	All Immigrants	Young
Years w/ Italian Church	0.000 (0.002)	0.002 (0.002)	0.004 (0.002)	0.003 (0.002)	0.001 (0.002)	0.001 (0.002)
Mean Treatment	7.416	7.416	7.417	7.417	7.416	7.416
Observations	5,285	5,285	5,178	5,160	5,285	5,285
State \times Decade FEs	Yes	Yes	Yes	Yes	Yes	Yes
County FEs	Yes	Yes	Yes	Yes	Yes	Yes
County Controls \times Decade	Yes	Yes	Yes	Yes	Yes	Yes
County Linear Trends	Yes	Yes	Yes	Yes	Yes	Yes

Notes: The table estimates county-decade panel regressions for counties with at least one Italian immigrant for whom outcomes are observed in Tables 3, 4, and 5. The dependent variable is the number of women relative to the number of men in a county-decade, for each group reported at the top of the column. Sex ratios are computed focusing on individuals, belonging to each specific group, who are at least 15 years old in columns 1 to 5. Sex ratios in column 6 are computed only for individuals in the age range 15-35 (included). For the description of controls, see the notes to Table 3. All regressions are weighed by number of individuals included in the analysis reported in column 3 of Tables 3, 4, and 5. Standard errors, clustered at the county level, in parentheses. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.01$.

Table C.5. Controlling for Predicted Industry Growth and Italian Immigration

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. Variable:	Married to Native	Residential Integration	Naturalized	Speak English	Labor Force	Log Occ. Score
Panel A. Controlling for Predicted Industry Growth						
Years w/ Italian Church	-0.099*** (0.013)	-0.432*** (0.089)	-0.554** (0.216)	-0.080 (0.133)	0.154*** (0.049)	-0.011*** (0.004)
Mean Treatment	6.889	7.421	7.528	6.470	6.236	6.263
Mean Dep. Variable (1900)	0.808	17.17	53.40	57.09	85.77	3.070
Observations	1,989,311	1,006,112	1,318,535	2,882,460	1,760,957	1,655,382
Panel B. Controlling for Predicted Immigration						
Years w/ Italian Church	-0.099*** (0.013)	-0.434*** (0.088)	-0.555** (0.215)	-0.078 (0.133)	0.154*** (0.049)	-0.011*** (0.004)
Mean Treatment	6.889	7.421	7.528	6.470	6.236	6.263
Mean Dep. Variable (1900)	0.808	17.17	53.40	57.09	85.77	3.070
Observations	1,989,311	1,006,112	1,318,535	2,882,460	1,760,957	1,655,382
State \times Decade FEs	Yes	Yes	Yes	Yes	Yes	Yes
County FEs	Yes	Yes	Yes	Yes	Yes	Yes
Individual Controls	Yes	Yes	Yes	Yes	Yes	Yes
County Controls \times Decade	Yes	Yes	Yes	Yes	Yes	Yes
County Linear Trends	Yes	Yes	Yes	Yes	Yes	Yes
Ever Treated	Yes	Yes	Yes	Yes	Yes	Yes

Notes: The table replicates the specification in column 4 of Tables 3, 4, and 5, augmented with the predicted industry growth (Panel A) and Italian, Irish and other European migration (Panel B) constructed using a Bartik-approach as described in the text. See the notes to Table 3, 4, and 5 for the sample considered and the description of controls. Standard errors, clustered at the county level, in parentheses. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.01$.

Table C.6. Robustness Inference

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. Variable:	Married to Native	Residential Integration	Naturalized	Speak English	Labor Force	Log Occ. Score
Panel A. State Level Clustering						
Years w/ Italian Church	-0.098*** (0.017)	-0.436*** (0.075)	-0.546** (0.250)	-0.077 (0.121)	0.150** (0.073)	-0.010** (0.004)
Mean Treatment	6.889	7.421	7.528	6.470	6.236	6.263
Mean Dep. Variable (1900)	0.808	17.17	53.40	57.09	85.77	3.070
Observations	1,989,311	1,006,112	1,318,535	2,882,460	1,760,957	1,655,382
Panel B. Commuting Zone Level Clustering						
Years w/ Italian Church	-0.098*** (0.014)	-0.435*** (0.071)	-0.546*** (0.207)	-0.077 (0.108)	0.150*** (0.058)	-0.010*** (0.004)
Mean Treatment	6.889	7.422	7.528	6.471	6.237	6.263
Mean Dep. Variable (1900)	0.808	17.16	53.40	57.09	85.77	3.070
Observations	1,989,155	1,006,009	1,318,404	2,882,200	1,760,776	1,655,212
State \times Decade FEs	Yes	Yes	Yes	Yes	Yes	Yes
County FEs	Yes	Yes	Yes	Yes	Yes	Yes
Individual Controls	Yes	Yes	Yes	Yes	Yes	Yes
County Controls \times Decade	Yes	Yes	Yes	Yes	Yes	Yes
Fr. Italians/Europeans	Yes	Yes	Yes	Yes	Yes	Yes
County Linear Trends	Yes	Yes	Yes	Yes	Yes	Yes
Ever Treated	Yes	Yes	Yes	Yes	Yes	Yes

Notes: The table replicates the specification in column 4 of Tables 3, 4, and 5. Standard errors, in parentheses, are clustered at the state level in Panel A, and at the commuting zone level in Panel B. See the notes to Tables 3, 4, and 5 for the description of controls. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.01$.