

Leadership in Social Networks: Evidence from the *Forty-Eighters* in the Civil War*

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Abstract

A growing theoretical literature emphasizes that prominent individuals (‘leaders’) can be instrumental in changing behaviors and beliefs inside social networks. We test this assertion in the context of the U.S. Civil War. Our analysis is organized around the natural experiment of the “*Forty-Eighter*” anti-slavery campaigners’ settlement in the U.S., and their impact on the mobilization of Union Army volunteers. Towns where *Forty-Eighters* settled in the 1850s increased their enlistments by ten men per hundred adult males over the course of the war, or roughly eighty percent. The *Forty-Eighters*’ influence worked at least in part through the local press and local social clubs. In the army, *Forty-Eighter* officers reduced their companies’ desertion rate. In the long run, towns where *Forty-Eighters* settled were more likely to form a local branch of the National Association for the Advancement of Colored People.

Keywords: Leadership, Social Networks, Persuasion, Immigration

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1 Introduction

Between 1861 and 1865, the United States' North and South fought each other over the issue of slavery in the American Civil War. One in five adult males—2.2 million Northern men in total—took up arms to fight in the Union Army. Fighting was costly for men on both sides: In total, 620,000 men lost their lives, as many as in all other American wars combined ([Hacker, 2011](#)). At the same time, the financial incentives to fight in the war were low. Union Army privates earned about \$13 per month—less than a farmhand ([Edmunds, 1866](#), 512)—and payment was irregular.¹ Yet, almost 95 percent of Northern soldiers were volunteers. What, then, drove men to risk their lives in the fight against slavery and Southern secession, despite high personal costs and low economic rewards? We study the role that individual 'leaders' played in determining the enlistment decisions of men during this critical juncture in the nineteenth century.

A growing body of economic theory suggests that individual leaders can play an important role in shaping history by coordinating behaviors and beliefs in their social networks.² The literature suggests different mechanisms. Leaders might convince others in their social networks of their beliefs ([Murphy and Shleifer, 2004](#)); norms of conformity could make other agents coordinate on their actions ([Loeper, Steiner and Stewart, 2014](#)); or the visibility of their action could change the set of self-supporting beliefs and behaviors, i.e. the social norms, in society ([Acemoglu and Jackson, 2015](#)). Key characteristics of leaders include persuasiveness, communication skills, resoluteness and a willingness to lead by example ([Hermalin, 1998](#); [Dewan and Myatt, 2008](#); [Lazear, 2012](#); [Bolton, Brunnermeier and Veldkamp, 2012](#); [Akerlof and Holden, 2016](#)). While intuitive, it is difficult to objectively identify potential leaders and measure their effect on informal social networks. As a result, there is a lack of well-identified empirical support for the importance of individual leaders.³

This paper presents a unique empirical setting that allows us to get around these difficulties. We define leaders as individuals who participated in the German revolutions of 1848–49

¹In the South, there were stronger economic motives at least for some, since the war was about the survival of Southern institutions and property. [Hall, Huff and Kuriwaki \(2017\)](#) provide evidence showing that slave-ownership was a significant determinant of joining the Confederate army.

²The idea that individuals matter in history is of course not new, and has been around outside of economics since antiquity. However, 'great man' approaches to history lack the micro-foundations that can explain leadership as anything other than formal control over institutions, the government or the army.

³This is in contrast to well-established empirical evidence that leaders matter in the context of organizations or institutions ([Bertrand and Schoar, 2003](#); [Jones and Olken, 2005](#)).

and got expelled for their activities during this time. Defining leaders prior to their arrival in the U.S. overcomes the ‘reflection problem’ inherent in studying the effect of leaders on their social networks.⁴ By historical serendipity, the egalitarian and pro-republican convictions that got these *Forty-Eighters* expelled from Europe in 1849 mapped closely into the sectional political conflict that would come to a head in the U.S. a decade later.⁵ During the first few years after their arrival in the U.S., the *Forty-Eighters’* political convictions lay dormant as their lives were dominated by practical considerations. This changed when the Kansas-Nebraska Act ended the second American party system, blew the lid of the sectional political conflict around slavery, and led the *Forty-Eighters* to “revive the spirit of the failed struggle for liberty in the fight against slavery”.⁶

We will estimate the effect of whether *Forty-Eighters* lived in a town in the period 1856–1860 on that town’s volunteering rate for the Union Army during the Civil War from 1861–1865. Historical analyses of U.S. regions are usually conducted at the county level. By contrast, as a better approximation of local communities, we perform our analysis at the level of towns. This entailed geo-locating the universe of Northern towns reported in the 1850 and 1860 Census, creating a consistent crosswalk between them, and creating a town-level panel of the *Forty-Eighters* based on their biographies in [Zucker \(1950\)](#); [Wittke \(1970\)](#); [Raab \(1998\)](#); [Baron \(2012\)](#). To the best of our knowledge, ours is the first paper to undertake an empirical analysis at the level of what is approximately the universe of (Northern) U.S. towns in the 19th century.

Our main empirical concern is spatial sorting, i.e. that the *Forty-Eighters* might have settled in areas where anti-slavery and pro-republican convictions were independently becoming stronger. Their biographies suggest that the *Forty-Eighters’* initial settlement choices in the U.S. were dominated by economic necessities, and that work opportunities arose idiosyncratically, making the towns where *Forty-Eighters* settled an approximately random draw out of those towns whose characteristics would have attracted *all* German immigrants in the 1850s ([Wittke, 1970](#), 66). This interpretation of their biographies is well-supported by the historical narrative: German societies

⁴ The main concern if leaders emerge from within the social network where their impact is studied is that certain individuals may be labeled as leaders, but could have been just prominent flag-bearers rather than causes of the changes occurring around them. This is a version of the well-known ‘reflection problem’ ([Manski, 1993](#)).

⁵ In the words of A.E. Zucker, their foremost historian, “three aspects dominated the scene from which [the *Forty-Eighters*] fled into the freedom of the United States: liberty, democracy, and national unity” ([Zucker, 1950](#), p.9).

⁶ Quoted from [Baron \(2012, 3\)](#). The second American party system started in 1828 when the Democratic-Republican Party split into the Democratic and the Whig Party. By the 1856 presidential election, the Whigs had disappeared and the election was decided between the Democrats and two parties that had not yet existed in 1852, one of them the anti-slavery Republican Party.

in port cities had by 1847 begun forming ‘labor bureaus’ that actively connected new immigrants with individual employment offers in the Mid West, and the *Forty-Eighters* were particularly likely to move for such offers because of their lack of means or family ties in the U.S.⁷ This historical narrative suggests that endogeneity concerns may arise in our setting primarily to the extent that economic drivers of settlement in the early 1850s correlated with the strength of anti-slavery and pro-republican convictions in the latter half of the decade. This concern can be addressed by exploring what these factors were and controlling for them. We therefore compiled a rich set of town-level characteristics, including proxies for towns’ attractiveness to German immigrants, and estimate a simple location model that provides a sharp characterization of the correlates of the *Forty-Eighters’* settlement choices, and guides the choice of control variables in all our regressions, conditional on either state or county fixed effects.

This leaves the concern that the *Forty-Eighters’* might have moved selectively later in the 1850s, when political considerations could have potentially motivated them. We address this with an instrumental variable (IV) strategy based on the primacy of economic motives in their initial location choices and on the fact that later relocations by *Forty-Eighters* were mostly over short distances. Specifically, we use each U.S. town’s minimum distance to one of the *Forty-Eighters’* first towns of settlement as an instrument for whether a town was settled by *Forty-Eighters* in 1856–1861. Lastly, we employ a matching strategy that eliminates imbalances in observables between treatment and control towns and rerun the OLS and IV regressions on a matched subsample of towns.

To construct town-level data on Union Army enlistments, we cleaned the location-of-residence information reported in the Union Army Rosters, and created a cross-walk to towns reported in the Census. We then filled missing location-of-residence information by linking the Rosters to the Full-Count 1860 Census, and in a last step, spatially interpolated the towns of residence of remaining unlocated soldiers within each regiment. To the best of our knowledge, ours is the first paper to measure the spatial distribution of Union Army enlistment at any level of disaggregation.

Across identification strategies, we estimate that having one or more *Forty-Eighter* in town raised Union Army volunteering by between eight and fifteen soldiers per hundred adult men. This is a sizeable effect, as the mean enlistment rate in the data is thirteen per hundred. In log

⁷ The *German Society of New York* reported, “in 1850 and 1851 a sudden steep increase in requests for assistance to people totally deprived of all means, mostly political refugees flocking to America after the failure of the revolutions” (Wust, 1984, 31).

terms, a *Forty-Eighter* town had between fifty-five to seventy percent higher enlistments. We also find that the average volunteer in *Forty-Eighter* towns enlisted earlier, consistent with the view that early enlistment cohorts had stronger anti-slavery convictions (McPherson, 1997, ch1).

To get a better idea of the *Forty-Eighters'* influence on their social network, we predicted soldiers' ancestry from their names, using a machine-learning algorithm that was trained in the Full-Count 1860 U.S. Census. Their background suggests the *Forty-Eighters* might have been most influential in the German-American communities, but they also gave speeches and wrote articles in English (Curti, 1949; Wittke, 1970; Baron, 2012). Conditioning on each ancestry group's town-level population shares, the data suggests that the *Forty-Eighters* had a somewhat stronger effect on the enlistment of German-Americans, had their average effect on native Americans, and had a relatively lower effect on Irish men.

The historical narrative suggests the *Forty-Eighters* influenced men's volunteering through three specific channels, namely through their written treatises in local newspapers, as public speakers, and through their involvement in local social and political clubs, especially the *Turner Societies* ('Turnvereine').⁸ We can measure two of these channels, and show that the *Forty-Eighters* had sizable effects both on local German-language newspapers and on the formation of Turner Societies.

We also study whether the *Forty-Eighters'* leadership extended beyond the choice to enlist: we re-estimate the duration-analysis of soldier desertion in Costa and Kahn (2003), and add to this a test for whether *Forty-Eighter* commanding officers reduced their troops' desertion rates in battle. (We analyze the entire Union Army while Costa and Kahn (2003) perused a random sample.) We find that *Forty-Eighter* did have a significant negative effect on their companies' desertion rate.

As a final exercise, we investigate whether the *Forty-Eighters* had a permanent legacy in their towns of settlement. As a long-run outcome that ties closely into the anti-slavery issue, we use the formation of town-level chapters of the *National Association for the Advancement of Colored People* (NAACP), the first of which was founded in 1909. Despite the long time gap, we find strong evidence that NAACP chapters in *Forty-Eighter* towns were more likely to be founded, and they were founded at an earlier time. We cautiously interpret these longer-run effects as indicative for

⁸ Turner Societies frequently formed bodyguards at Lincoln's public appearances during his 1860 presidential campaign, at a time when violent outbreaks were the norm rather than the exception at such events. See section 2.

a lasting change in social norms.

Our paper speaks to different strands of the literature on networks and diffusion. First, it provides an empirical test for the broad hypothesis that individual leaders shape equilibrium behavior inside social networks (Galeotti and Goyal, 2010). Our findings relate to Murphy and Shleifer (2004) and Akerlof and Holden (2016) who emphasize that leaders' matter in in networks because of persuasion and communication. Their strong effect on the rise of local newspapers and Turner societies is clearly in line with this prediction.⁹ Our findings further relate to Loeper et al. (2014) and Acemoglu and Jackson (2015) who emphasize that leaders coordinate beliefs about acceptable behaviors and expectations on the behavior of others. While we cannot directly test this channel, narrative evidence from the historical records strongly supports this interpretation. An illustrative example is the *Forty-Eighter*' harsh criticism of their earlier German immigrants "for their indifference concerning the abolitionist crusade and their blind loyalty to a party [the Democrats] which once had espoused the political philosophy of Jefferson and Jackson, and now was controlled by Southern politicians and Northern doughfaces" (Wittke, 1970, 191). Finally, we connect to the literature on 'persuasion cascades' (Caillaud and Tirole, 2007). We find strong spatial clustering of residence-towns within regiments, implying that friends and neighbors enlisted jointly. In line with this, Mitchell (1990) and Costa and Kahn (2010, 51) emphasize that peer pressure played a major role in Civil War enlistees' motivations.

Second, we contribution to the literature on knowledge and belief diffusion, which frequently uses the arrival of narrowly defined immigrant groups as natural experiments to study the transmission of knowledge embedded in elites. Examples include Hornung (2014), who studies the late-17th-century migration of skilled Huguenots from France to Germany; Moser, Voena and Waldinger (2014), who look at the influx of German Jewish scientists into the U.S. after 1939; or Borjas and Doran (2012) who study the effect of the post-1990 influx of Russian mathematicians into the U.S. We use a similar exogenous immigration shock, but focus on the diffusion of beliefs and behavior instead of knowledge.

We also relate to other strands of literature, including a theoretical one on effective leadership

⁹ McPherson (1997, p.5) emphasizes the importance of the volunteers' "values rooted in the homes and communities from which they sprang to arms" and Costa and Kahn (2003) find ideology to be an important predictor of men's willingness to fight. Related to this, spur-of-the moment decisions to enlist following a stirring speech by a charismatic *Forty-Eighter* could certainly also explain part of the effects we find.

(Hermalin, 1998; Dewan and Myatt, 2008; Lazear, 2012; Bolton et al., 2012),¹⁰ an empirical one on formal leadership inside organizations or institutions (Bertrand and Schoar, 2003; Jones and Olken, 2005), and to a literature on persuasion, which is for the most part less focused on social interactions (DellaVigna and Gentzkow, 2010).

2 Background

2.1 The German Revolutions of 1848–1849

Beginning in the early 19th century, a new social and political movement across Europe started propagating a more Republican form of government that would result in a more balanced distribution of power between the ruling monarchs and their subjects.¹¹ In German lands, leaders of this movement varied in their aims from moderate liberals whose views were heavily influenced by the enlightenment to radical democrats whose ideas became formative for later socialist movements (Real, 1983, chIV). This movement gained momentum in the 1830s and 1840s. In German lands, its collision course with the establishment culminated in March 1848, when political unrest spilled over from France and sparked the *March Revolution*. The revolutions started with first uprisings in Baden and quickly spread to other states. We provide some discussion of the German revolutions in [Online Appendix A](#). For our purpose, the key observation is that they failed, and that by the summer of 1849 the revolutions' leaders had to flee from German lands. On July 12th 1849, the last revolutionary troops on German soil escaped to Switzerland.

By the late spring of 1849 began a period of systematic repression and persecution. Those involved in the revolutions who had not already fled were prosecuted, and either sentenced to long prison terms, or in some cases executed (Siemann, 2006).¹² Prison terms were often commuted for those who agreed to leave German lands for good (Reiter, 1992, p.218). Wittke (1973, 46-49) recounts how in Hessian courts, revolutionary "offenders were released on condition that they depart for America," and in Württemberg judges "inquired of rebels whether they preferred im-

¹⁰ This literature has identified competence (Lazear, 2012), resoluteness (Bolton et al., 2012), a 'sense of direction' (Dewan and Myatt, 2008), and a willingness to make sacrifices (Hermalin, 1998) as important leadership characteristics. Our evidence cannot directly speak to which of these characteristics mattered most.

¹¹ The movement also propagated a political union between the many German states.

¹² Raab (1998) discusses a large number of biographies of individuals involved in the revolutions. While information is fragmented, it is worth noting that of the 1,880 cases indicating an investigation for treason, only 21 mention a death-sentence.

migration to America to serving out their sentences, and when they chose the former offered them money for the journey.”

Even before systematic repression was organized in German lands, most of the revolutionary leaders and their followers had already fled across the border to Switzerland, one of only two republics in Europe at the time (Goodheart, 2011, 356), and the only country within reach that was sympathetic to the revolutions. In total, Swiss authorities estimated there were about 12,000 revolutionary refugees inside its borders in 1849 (Reiter, 1992, ch.E.V). Unfortunately for the revolutionaries, the Swiss authorities, however sympathetic, felt the fiscal burden of supporting such a high number of refugees and disputes over their settlement led to conflict between different Cantons as well as between the Cantons at large and the federal government (Jung, 2015; Nagel, 2012). On July 16th 1849, Swiss parliament passed an Act expelling 14 of the most prominent revolutionary leaders from its borders. Of these 14, listed in footnote 172 of Reiter (1992), ten ended up being among the *Forty-Eighters* we study. Explicitly stated in the act was the deliberation that if the revolutionary leaders were expelled, the rest would follow. Being landlocked, Switzerland negotiated precise terms with France under which revolutionaries could make their way to their port of embarkation in Le Havre, being accompanied by police all along the way (Reiter, 1992, 226). While England was in principle willing to accept the revolutionaries, the German and French governments pressured Switzerland to incentivize refugees to embark for the United States to remove the danger of them returning to German lands.¹³ In practice, this usually meant that the Swiss authorities would pay the expellees’ ship fare from Le Havre to the U.S. but not to any other destination (Reiter, 1992, 223). This expulsion is nicely illustrated in a contemporary political cartoon from 1849 (Figure Online Appendix Figure 1 in Online Appendix A) that depicts the absolutist rulers sweeping the leaders of the revolution out of Switzerland and then further out of Europe. To make sure the expellees remained in the U.S., German police authorities started circulating ‘black lists’ of revolutionaries after 1852.¹⁴ Of the almost 500 *Forty-Eighters* in our data,

¹³These fears were not unfounded. Carl Schurz’ Swiss journals reveal that many of the revolutionaries expected the German revolution to have a second coming very soon and that they would naturally be at the forefront of these renewed revolutions (Frei, 1977, 389). Quite a few expellees—those who had either their own means or financial support from other sources—therefore preferred initially to stay in London, awaiting a renewed revolutionary outbreaks. However, when Louis Napoleon’s coup d’etat ended France’s Second Republic in 1852, many of these holdouts gave up hope and set sail for the United States (Frei, 1977, 427).

¹⁴ Rupiaper (1977) emphasizes that these black lists were very incomplete. More important was their symbolic significance, signalling an intent to keep revolutionaries from returning to German lands for good.

less than ten ever returned to Germany again.

2.2 Defining the *Forty-Eighters*

Wittke (1970, 4) defines the *Forty-Eighters* as those German-Americans “who in some way actually participated in the liberal movements and the Revolutions of 1848 and 1849, and left their homes because of a conflict with the established authorities, or because they realized that henceforth it would be either too dangerous or too intolerable to remain.”

We adopt this definition and code up biographical information on the *Forty-Eighters* from the biographical compendia by Zucker (1950); Wittke (1970); Raab (1998); Baron (2012). We identified a total of 493 individuals, and completed their U.S. biographies through individual searches in genealogical online sources. (See also [Appendix A.1](#).)

A key feature of the natural experiment we are exploiting in this paper is that the *Forty-Eighters*’ strongly held beliefs of republicanism, liberty, and equality mapped cleanly into the political struggles in the U.S. in the decade after their arrival. This is important because it means not only that the *Forty-Eighters* were already marked out as potential leaders at the time of their arrival, but also that the issues they had fought for in Europe found a natural (and measurable) outlet in the U.S., as we will discuss next.

2.3 The *Forty-Eighters* and the Antebellum U.S. Political Conflicts

The hypothesis we want to test is that the *Forty-Eighters* were leaders in the sense of shaping people’s beliefs and behaviors in the years leading up to the Civil War. Given this hypothesis, it is important to provide an adequate discussion of the political struggles of the antebellum period. To remain succinct, we discuss here only the six years leading up to Lincoln’s election in November 1860. As added background, we discuss the decade 1844–1854 in [Online Appendix B](#).¹⁵ Readers interested in the more thorough history may want to read that appendix chapter before reading on. It is also worth restating that our empirics will focus on the *Forty-Eighters*’ local effects in the

¹⁵ This decade was extraordinarily politically complex, marking one of only two times in U.S. history when Congressional politics could not be summarized by one or two dimensions in the NOMINATE score method; in fact, the 1853–54 Congress required four dimensions to explain three-quarters of voting decisions (Poole and Rosenthal, 1991). 1854 marked the end of the ‘second American party system,’ the last time a major party dissolved. The second such chaotic time was 1828, which marked the end of the ‘first American party system,’ when the Federalist party dissolved and the Democratic-Republican Party split into the Democratic and the Whig Party.

towns they settled, whereas the following background section provides a discussion of national politics at the time, and the *Forty-Eighters'* involvement in it.

Halfway through the 1852–1856 presidential term, and after a period of relative quiet following the compromise of 1850, the slavery-issue re-emerged with never before seen force on the national stage as a result of the 1854 Kansas-Nebraska bill, which repealed the Missouri Compromise that had prohibited slavery in the North since 1820, and gave people in the territories of Kansas and Nebraska the choice of allowing slavery within their borders. This bill was seen as a major success of Southern slave power in Congress (Foner, 1970, 94). Over the next six years, the sectional conflict over slavery came to a head.

In 1855, violent conflicts in Kansas between pro- and anti-slavery settlers (“Bleeding Kansas”) gave birth to the new Republican Party, which combined Free-Soilers with disaffected Whigs and Democrats (Srinivasan, 2017, 120-121).¹⁶ Shortly after, the 1856 election marked a sea change in American politics, as it saw in the Whig Party the complete disappearance of a party that eight years earlier had won the presidency, while two out of the three major parties—the American Party and the Republican Party—had not even existed in 1852. The Democratic Party carried the election with 45 percent of the popular vote, with James Buchanan as the new president. The Republican Party did “remarkably well for a new party,” winning 33 percent of the popular vote (Foner, 1970, 130).¹⁷

These developments led many *Forty-Eighters* to—in Baron’s words—“revive the spirit of their failed struggle for liberty”, and to re-enter public life as anti-slavery campaigners. They helped to articulate a “rational” argument for emancipation by tying the slavery issue in with broader issues of liberty and equality, instead of the previously dominant puritan-moralistic argument, which was less palpable to many (Kamphoefner 2006, 3). Friedrich Kapp’s editorial in the *New York Abendzeitung* illustrates the *Forty-Eighters'* views: “The problem of slavery is not the problem of the Negro. It is the eternal conflict between a small privileged class and the great mass of the non-privileged, the eternal struggle between aristocracy and democracy” (quoted in Zucker, 1950,

¹⁶ 1854 also gave a rise to a short-lived effort by *Forty-Eighters* to form their own party, called the Louisville Platform. This quickly dissolved, however, since the *Forty-Eighters* found a natural political home in the Republican Party (Wittke, 1973, 164).

¹⁷ Two key factors worked against it in its challenge to the Democratic Party: first, the American Party which won 22 percent of the vote attracted large portions of the former Whig vote; second, internal strife in the Democratic Party over the slavery issue found its outlet in the Democratic primaries where the incumbent president was not re-elected, so that disaffected Democratic Party supporters mostly remained loyal to their party in 1856.

121). Such rational arguments for emancipation highlighted the logical inconsistency of a Republic based on liberty and equality that allowed slavery within its borders. This mattered because it ultimately implied legal inconsistencies that had to be resolved either in favor of republican institutions or in favor of slavery for all states in the Union. In March 1857, the Supreme Court's *Dredd Scott* decision seemed to do just that: it strengthened slave-owners' property rights in Northern states, and seemed to many to be a stepping stone to re-establishing slavery in the North. Its result was that Northerners came to increasingly view slavery as a threat to the Union's republican institutions themselves.¹⁸ Such fears grew because of a general view that the Buchanan administration was dominated by Southern slave power.¹⁹ In 1858, Lincoln's future Secretary of State Seward summarized these fears in a Congressional speech, foreseeing "an irrepressible conflict between opposing and enduring forces, [which] means the U.S. must and will, sooner or later, become either entirely a slave-holding nation or entirely a free-labor nation."

Americans, in the North especially, were keenly aware that their institutions were a "great experiment" that stood in stark contrast to the oligarchic and hereditary government that prevailed almost everywhere else (Doyle, 2014, 93-96). From 1857, the amalgamation of the issue of slave-emancipation with the defense of republican institutions dramatically increased popular opposition to Southern slavery.²⁰ Lincoln would repeatedly combine the issues of slavery and republicanism in his speeches, when he called the Union the "last best hope for the survival of republican government" (McPherson, 1997, 112),²¹ and famously in his Gettysburg address, when he promised "a new birth of freedom," and reminded soldiers that they fought so "that government of the people, by the people, for the people shall not perish from the earth."

A second aspect in which the *Forty-Eighters* became involved in national politics, especially after 1856, was in their efforts to sway the German-American vote for the Republican Party (Wittke

¹⁸ This included concerns that the African slave trade was going to be re-opened and that there would be attempts to destabilize nascent Latin American republicans and replace them with slave-holding oligarchies in the Southern mold.

¹⁹ Foner (1970, 100) notes that "two judicious observers of the politics of the 1850s, Roy Nichols and Allan Nevins, agree that during the Buchanan administration southern control of all branches of the federal government was virtually complete."

²⁰ This explains why many soldiers in their letters home professed to be fighting for liberty while relatively few initially professed to fight for "emancipation per se" (McPherson, 1997, 116-119). McPherson agrees with the assessment in Wiley (1952) that only one in ten Union soldiers "had any real interest in emancipation per se" but notes that this ratio increased sharply during the war.

²¹ These words are from Lincoln's December 1862 address to congress—one month before the Emancipation proclamation—where he wrote "we know how to save the Union [...] In giving freedom to the slave, we assure freedom to the free. [In doing so,] we shall nobly save, or meanly lose, the last best hope of earth."

1973, 14, Kamphoefner 2006, 4).²² German-Americans had traditionally supported the Democratic Party, and were additionally put off the Republican Party when after 1857 it absorbed large numbers of anti-immigrant 'Know-Nothings'.²³ To counteract this, the *Forty-Eighters* demanded a formal repudiation of nativism by the Republican Party at the 1860 Chicago convention; effectively "forcing the party to choose between Eastern nativists and the German vote in the West" (Wittke, 1973, 213). It is not our aim to weight in on whether the *Forty-Eighters'* demands were the main reason this formal repudiation came to pass, but pass it did, and became known as the "Dutch plank" in the Republican Party platform (Baron, 2012, 5).²⁴ And as a result of the Dutch plank, many German-American votes swung Republican, whilst the nativists "were absorbed into a party which made no concessions to them" (Foner, 1970, 258).²⁵

2.4 How the *Forty-Eighters* Influenced Their Social Networks

While the *Forty-Eighters'* early years in the U.S. were dominated by practical and professional concerns, they did, with time, involve themselves again more in political life, especially beginning in 1854. In the historical narrative three ways stand out in which they did so, which we now discuss in turn.

(i) Given that many had already been publicists and editors in Germany, the *Forty-Eighters* ended up being disproportionately represented in the newspaper business, where "they took control of the German newspapers, founded many new ones, and redirected public opinion" (Baron, 2012, 3). It is worth stressing that most German-language newspapers were in fact bilingual, and were read by both English-speakers and German-Americans. At this time, newspapers were becoming the most important source of information as well as a forum for public debate (Gentzkow,

²² This is characterized as the struggle between the new "Greens" and the old "Grays" (Wittke, 1973, 191).

²³ The American Part disintegrated in 1857, as many members came to view immigration as a secondary issue relative to slavery (Alsan, Eriksson and Niemesh, 2018).

²⁴ Wittke (1973, 213) lists the prominent attendees of the German Club's pre-convention 1860 meeting; they were almost to a man *Forty-Eighters*.

²⁵ One other thing that had changed in 1860 relative to 1856 was the Republican Party's presidential candidate: Abraham Lincoln was a shrewd politician but was also in many ways a surprise candidate, emerging only very late as a viable candidate. However, at a time when the Republican Party combined radical Abolitionists, conservative ex-Whigs, Nativists, and disenchanted ex-Democrats, with each group's favored candidate raising strong objections from one of the other factions, he was the ideal compromise candidate. As one observer put it, he was "the second choice of everybody" (Foner, 1970, 183, 213). Lincoln appears to have understood this before anyone else: Pratt's analysis of Lincoln's personal finances concluded that Lincoln had set his mind on the Republican presidential nomination by early 1859, the main evidence being that he took a secret ownership stake in the German-language *Illinois Staatszeitung* at that time.

Glaeser and Goldin, 2006; Gentzkow, Shapiro and Sinkinson, 2011). They were widely read, including by people of low educational or occupational status. Ulysses Grant later noted with pride that the Union Army was “composed of men [...] who knew what they were fighting for” and attributed this primarily to them reading the newspapers regularly (McPherson, 1997, 94). Evidence of the *Forty-Eighters*’ political writings in newspapers abounds. For example, when the Civil War broke out in April 1861, Ottilie Assing wrote in the *Allgemeine Zeitung* that “everyone whose sense of humanity and justice has not been poisoned by that national plague, slavery, must concede that the bloodiest war has to be favored over so called peace which we have ‘enjoyed’ under the slave-holders’ despotic rule” (Öfele, 2004, 2). And on the eve of Lincoln’s emancipation proclamation in the fall of 1862, Heinrich Börnstein wrote in the St Louis, Missouri *Anzeiger des Westens*: “The same Abraham Lincoln who has been much maligned by those skeptics who until only a few hours before the proclamation were ashamed to admit they had elected him president has now forced them to cast down the eyes in utter remorse. By this proclamation, Mr. Lincoln made [...] every soldier in this army into an emancipator, into a soldier of freedom.”

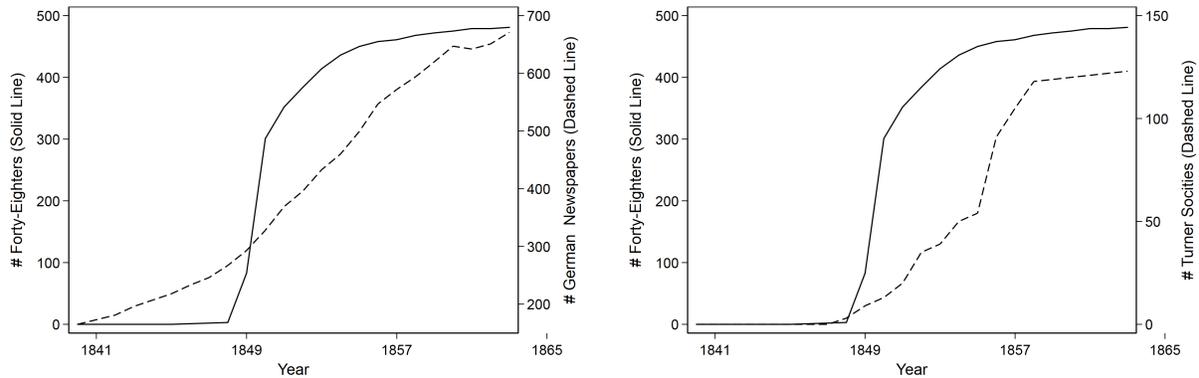
We are able to measure this channel, having coded up the town-level circulation of German-language newspapers and journals from Arndt (1965), which includes the full history of the German-American press.²⁶ The left panel of Figure 1 displays the time-series of the total number of German-language newspapers in the U.S. together with our data on the arrival of the *Forty-Eighters*.

(ii) Many *Forty-Eighters* used their oratorical skills to give public lectures, and as speakers (*Sprecher*) in the political clubs and societies that were common everywhere in the North at this time. Public speakers could appeal to the ‘emotional truth’ of an argument, and greatly influence the formation of beliefs. This was well understood and “agitation” was viewed as a critical political tool, abolitionist congressman Joshua Giddings calling it “the great and mighty instrument for carrying forward reforms” (Foner, 1970, 113).²⁷ As public speakers, the *Forty-Eighters* were at the forefront of the anti-slavery agitation, both in front of German-speaking and English-speaking audiences. For example, one observer wrote of Carl Schurz in 1860 that “of the Ger-

²⁶ Arndt lists all German-language newspapers and political journals, including the dates of their first and last issues.

²⁷ McPherson (1997, ch7–9) emphasizes the importance of ‘emotional truth’ in his analysis of soldier letters and diaries; stating that “the genuineness of [Civil War soldiers’ ideological] sentiments” can be hard for contemporary readers to understand, as “theirs was an age of romanticism” (p.100).

Figure 1: The *Forty-Eighters'* Arrival, German Newspapers, and Turner Societies



Notes: The left panel plots the arrival of the *Forty-Eighters* together with the growth of German Newspapers in the U.S. (scaled on the right axis). The vertical scale for German newspapers starts above zero, as the first ones had already been around since the 18th century. The right panel plots the arrival of the *Forty-Eighters* (scaled on the left axis) together with the emergence of the *Turner Societies* in the U.S., the first two of which were founded in 1848.

man speakers a man named Carl Schurz has acquired a great reputation. He even drew loud applause from the Americans for his speeches in English. The Democratic party though hates him all the more, especially the slaveholders.” (Kamphoefner, 2006, 38). Lincoln called Schurz “foremost among the Republican orators of the nation” (Wittke, 1973, 215). Other *Forty-Eighters* like Friedrich Schünemann-Pott gave lectures and speeches all over the North (Wittke, 1973, 130).

While these examples of speakers of national prominence are illustrative, it is worth noting that our identification strategy will mostly identify those less prominent *Forty-Eighters* whose effects were concentrated in the communities in which they lived.

(iii) The *Forty-Eighters* were also very active in the political and social life of German-American communities, especially in social and political clubs. Social clubs are often seen as as important transmission channels of beliefs, social norms and convictions (Putnam, 2001), and this certainly rings true in the period we study. Historians often describe American men in the 19th century as ‘joiners’,²⁸ because voluntary clubs and associations played such a prominent role in U.S. social life, a phenomenon which was noted as early as 1835 by de Toqueville. What was true of American men was even more true of German-American men. There was a phletoria of German social clubs and societies such as “free men’s societies”, “free congregations”, singing clubs, book clubs, shooting clubs etc. Bretting (1981, 201) lists over 50 German social clubs that existed between 1835 and

²⁸ See for example Neem (2009); White (2017).

1859 in Philadelphia alone. However, most of these traditional German-American clubs were not political (Wittke, 1973, ch10). German-American social life only became politicized with the emergence of Turner Societies (*Turnvereine*), the first of which was founded in 1848, followed by an explosion in their number in the 1850s.²⁹ Historians agree that *Forty-Eighters* were directly involved in founding many of them and in turning them into highly political organizations (Wittke 1973, ch11, Kamphoefner 2006, 4). The national convention of Turner Societies articulated a clearly abolitionist platform in 1855 (Wittke, 1973, 195); by 1856 Turners would frequently form bodyguards for anti-slavery activists during public speeches, in 1860 they made up Lincoln’s bodyguards at his inauguration (Zucker, 1950; Baron, 2012); and from 1861 on Turner societies would often enlist en bloc into the Union Army, forming so-called “Turner Regiments” (Hofmann 1995, 158; Levine 1980, p.256). Wittke (1970, 225) estimates that 60 percent to 80 percent of the Turners enlisted for the Civil War.

We are able to measure this channel, having coded up the founding of all U.S. Turner Societies from the annual reports of the national Turner Societies (Metzner, 1890—1894). The right panel of Figure 1 shows that the emergence of Turner Societies in the U.S. coincided with the *Forty-Eighters*’ arrival. It also shows their increased proliferation especially after 1856, when the *Forty-Eighters* re-engaged themselves with political life.

3 The Data

Two major data innovations were necessary for the empirical analysis that follows this section. One, while empirical analysis of the 19th century U.S. below the state-level normally peruses readily available county-level data,³⁰ we had to locate the *Forty-Eighters* at a level of spatial granularity that more plausibly reflects a ‘local community’ or social network. To do this, we constructed a georeferenced data set of all U.S. *towns* in 1850 and 1860. To the best of our knowledge, we are the first to perform a statistical analysis at what is approximately the universe of Northern towns in the 19th century. Two, to construct a meaningful outcome of the *Forty-Eighters*’ influence that

²⁹ The Turner movement emerged at the beginning of the 19th century in the German states during the time of the Napoleonic occupation with the goal to strengthen physical and moral powers through the practice of gymnastics. In German lands, the movement became more politicized during the 1830s and 1840s, and Turner Societies became important vehicles of political organization during the revolutions in Germany.

³⁰ The Census published aggregate county statistics for each each wave. These data were digitized in *Historical, Demographic, Economic, and Social Data: The United States, 1790-2002* (Haines, 2010).

varies at the level of local communities, we created a dataset of Union Army enlistments at the town-level. We are not aware of any other paper that measured the spatial distribution of Union Army enlistments at any level of spatial disaggregation level.³¹

In the following, section 3.1 describes the town-level data and section 3.2 describes the Union Army enlistment data, before we discuss the data on the *Forty-Eighters'* settlement in section 3.3.

3.1 U.S. Towns in 1850–1860

The first challenge with moving the analysis to the town-level is to establish the universe of U.S. towns that existed in the time spanning the *Forty-Eighters'* arrival and the Civil War. Present-day data does not provide a good guide: many places in the U.S. today were founded after 1860, and many place in the U.S. in 1860 were subsequently abandoned or incorporated into other places. Fortunately, the Census published town-level aggregates in hardcopy for precisely the years 1850 and 1860. This information has been digitized and is available in the ICPSR-dataset *Population of Counties, Towns, and Cities in the United States, 1850 and 1860* created by Fishman (2009). This data contains more than 10,000 towns, but the 1850 and 1860 cross-sections map poorly into each other. We manually cleaned the two cross-sections and created a cross-walk to improve the match.³² Additionally, we mapped the data from Fishman (2009) into the 1850 and 1860 Full-Count U.S. Census and created a cross-walk between these two data-sources. In the Northern states, we can map close to 100 percent of the Fishman (2009) towns to places in the Full-Count U.S. Census. Importantly, these make up over 90 percent of the Full-Count U.S. Census population, indicating that we capture almost the entire U.S. population in the North. The overlap in the Confederate States and in the West is much poorer, but this does not affect our analysis.³³

Finally, we geolocated the Fishman (2009) towns in the following three-stage procedure. First, we matched the universe of towns to the 2018 'U.S. Cities Database'. Next, we use google's geolocation service and manual checks on historical county maps to locate unmatched towns. With these two steps, we were able to locate 90 percent of all towns and 94 percent of all Northern

³¹ While voting data would be another interesting outcome given the historiography in sections 2.4 and 2.3, it is not available below the county- or congressional-district level.

³² The two main issues where incorporations (e.g. Brooklyn becoming part of NYC), and changing county-boundaries between the two waves.

³³ In the Confederate States, we can map 83 percent of the Fishman (2009) towns to places in the Full-Count U.S. Census. But only 29 percent of the Full-Count population lived in Fishman (2009) towns. This reflects the much lower share of the Southern population living in towns. In the West, the overlap was 68 and 57 percent respectively.

town in [Fishman \(2009\)](#).³⁴ Once we have geolocated all towns, we can supplement the town-level census data with spatial controls like the distance to rivers and railways or local temperature, precipitation and elevation.

3.2 The Union Army Data

3.2.1 Locating Enlisted Soldiers

The enlistment data stem from a newly digitized collection of the *Union Army Registers*, reports issued by each state's *Adjutant General's Office* at the end of the war. The reports provide information on all enlistments for the entire Union Army. Table 1 reports the total number of Union Army soldiers by state, the enlistment date of the tenth chronological percentile of enlisted men, the average enlistment date, as well as the enlistment men's population shares. The table divides states into Northern states, Confederate states, border states (who had slaves but did not secede from the Union), and Western states (most of which did not yet have statehood). Pro-Lincoln states where the Republican party had the biggest vote share also have the highest enlistment numbers relative to the population. They also have earlier enlistments. Outside of the Confederacy, border states were the most divided on the slavery issue and tended to have lower enlistment numbers relative to their population. (West Virginia was not a state yet in the 1860 Census.) Every Confederate state had some Union Army enlistments, but these occurred later. The majority of Southern enlistments to the Union Army occurred after the Union Army had defeated the bulk of Confederate forces in a state.

To derive the spatial distribution of enlistments from these data, we clean the residence information in the *Union Army Registers* and match them to the set of towns in [Fishman \(2009\)](#). For just under half the soldiers, the data report the county or state of residence but not the town. We fill in missing town-of-residence information by linking the *Registers* to the *1860 Full-Count U.S. Census*, 'blocking' soldiers by state and using their first name, last name, middle name, age, and (where available) location information for the record linkage. Match requirements are first name, middle name, last name, age, and—where available—county location. Matching is aided by the

³⁴ In all steps, we project the allocated coordinates into counties' polygons and only keep observations that are located in the correct county. Moreover, we drop duplicates in latitude and longitude because google might allocate the county-centroid to all unmatched towns within a county.

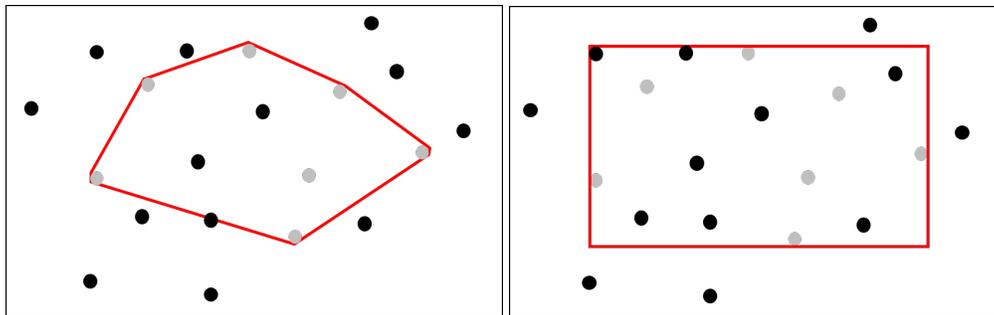
Table 1: Enlistment by State

State	Enlistment total	10th Perc. Enl-Date	Median Enl-Date	Enlistm./1860 Pop		Enlistment total	10th Perc. Enl-Date	Median Enl-Date	Enlistm./1860 Pop
<u>Core States</u>					<u>Confederate States</u>				
CONNECTICUT	39,202	25jun1861	28oct1862	4.3	ALABAMA	3,442	01oct1862	10mar1864	0.2
D.C.	11,433	16apr1861	07apr1862	7.6	ARKANSAS	12,889	16aug1862	13nov1863	1.5
ILLINOIS	226,922	25jul1861	04dec1862	6.6	FLORIDA	1,274	04jan1864	13may1864	0.5
INDIANA	185,774	17aug1861	02feb1863	6.9	GEORGIA	376	23mar1864	03sep1864	0.0
IOWA	70,982	16jul1861	06oct1862	5.3	LOUISIANA	35,128	01aug1862	25may1863	2.5
MAINE	55,859	15jul1861	16dec1862	4.4	MISSISSIPPI	15,668	27jul1863	14dec1863	1.0
MASSACHUSETTS	94,498	13jun1861	29sep1862	3.8	NORTH CAROLINA	2,968	27jun1862	05nov1863	0.1
MICHIGAN	82,121	12aug1861	06feb1863	5.5	SOUTH CAROLINA	3,552	31jan1863	20may1864	0.3
MINNESOTA	24,478	28sep1861	17feb1863	7.1	TENNESSEE	59,286	29may1862	13sep1863	2.7
NEW HAMPSHIRE	28,101	09aug1861	30dec1862	4.3	TEXAS	1,426	01nov1862	20may1863	0.1
NEW JERSEY	62,045	30may1861	06mar1863	4.6	VIRGINIA	3,683	20jun1862	06oct1863	0.1
NEW YORK	396,339	25may1861	29nov1862	5.1					
OHIO	299,457	13jun1861	10dec1862	6.4	<u>Western States</u>				
PENNSYLVANIA	354,625	01jul1861	13jan1863	6.1	CALIFORNIA	14,785	09sep1861	22mar1863	1.9
RHODE ISLAND	21,700	06jun1861	19oct1862	6.2	COLORADO	4,913	01dec1861	29jan1863	7.2
VERMONT	27,783	14aug1861	23oct1862	4.4	NEBRASKA	19,226	24jul1861	20oct1862	9.0
WISCONSIN	79,219	26aug1861	15mar1863	5.1	KANSAS	3,284	13jun1861	08nov1862	5.7
					NEVADA	8,073	01jul1861	04mar1862	4.3
<u>Border States</u>					NEW MEXICO	1,285	01jul1863	03sep1863	9.4
DELAWARE	11,800	22may1861	26jun1862	5.3	OREGON	2,121	21nov1861	21may1863	2.0
KENTUCKY	93,764	19sep1861	08mar1863	4.1	SOUTH DAKOTA	123	05dec1861	01may1862	2.5
MARYLAND	33,693	03sep1861	11feb1863	2.5	UTAH	126	13aug1864	29aug1864	0.2
MISSOURI	150,647	08may1861	17jun1862	6.4	WASHINGTON	1,064	27nov1861	18mar1864	4.6
WEST VIRGINIA	31,906	01jul1861	31aug1862						

Notes: This table reports the total number of Union Army soldiers by state, the enlistment date of the tenth chronological percentile of enlisted men, the average enlistment date, as well as the enlistment men's population shares. Data is from the *Adjutant General's Reports*. The table divides states into core/Northern states, border states (who had slaves but did not secede from the Union), Confederate states, and Western states (who did not yet have statehood). A notable feature of the data is that there were Union Army enlistments from every Confederate state.

fact that the Census was recorded just one year before the war broke out and the *Registers* include enlistees' age and middle name. [Appendix A.2.1](#) explains the details of our record-linkage procedure, including how the match threshold is set. The matching procedure only accepts unique matches and the match threshold is set sufficiently high that after extensive spot-checking, we are confident in the accuracy of the matches. To illustrate the derivation of match scores to the reader, [Table A1](#) in [Appendix A.2.1](#) reports on a random draw of three matches for each match score that occurs in our data above the threshold score where we keep matches. This procedure uniquely identifies 750,000 soldiers from the *Registers* inside the Full Count Census. For half of these men, the home-town information was previously missing, increasing the share of records with town-of-residence information to over two-thirds.

Figure 2: Spatial Interpolation of Soldiers' Residences

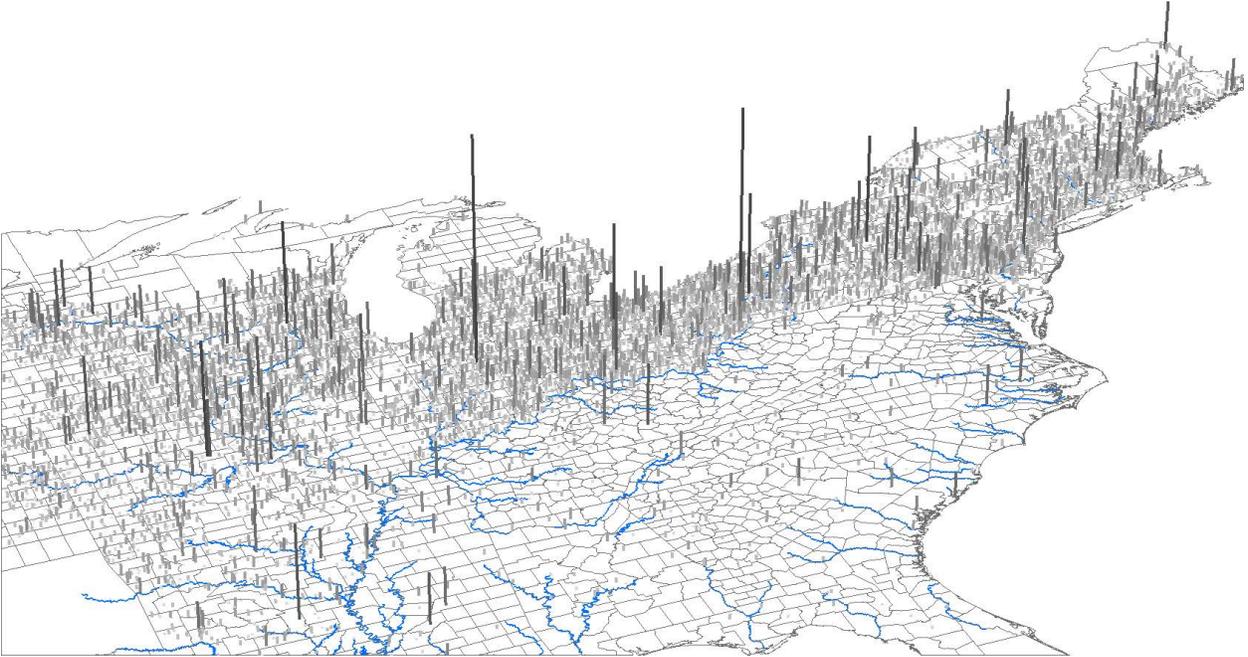


Notes: The left panel of this figure visualizes our favored approach where we calculate the convex hull around all observed enlistment locations in a given regiment r . This determines our enlistment area and we randomly allocate soldiers without location information to towns inside the enlistment area using the 1860 town population as weight. The right panel of this figure visualizes a simpler version of this polygon procedure where we delineate a regiment's enlistment area by a rectangle that spans the minimum and maximum coordinates of all observed enlistment towns for a given regiment r . Soldiers without location information are allocated as before.

To assign the remaining soldiers to a town of residence, we take advantage of the fact that regiments in the Union army were raised locally, most often from a small area encompassing no more than a few counties, and frequently no more than a few towns within a county ([Costa and Kahn, 2003, 524](#)). 'Local enlistment' means that the observed distribution of located soldiers' home-towns in a regiment is highly predictive of the unobserved distribution of unlocated soldiers' home-towns.³⁵ We consider two approaches which exploit the spatial clustering of enlistments to determine regiment r 's relevant 'enlistment area.' Both approaches are visually represented in

³⁵ The U.S. Army abandoned local enlistments only after D-day in World War II.

Figure 3: Mapping Enlistments



Notes: This figure displays the spatial distribution of our main outcome variable, i.e. enlistments per adult males. In addition, the figure displays rivers and 1860 county boundaries.

Figure 2. The light-gray dots represent the set of towns where we observe enlistments for regiment r (within a state s), and the black dots represent the remaining towns in the enlistment area where we do not observe enlistments.³⁶ Our preferred procedure to delineate an enlistment area is to calculate the convex hull of all (gray) locations with enlistment information. The resulting polygon is shown in the left panel of Figure 2. A simpler method to delineate the enlistment area is to calculate the rectangle that spans the minimum and maximum coordinates of all observed enlistment towns per regiment and state. The right panel of Figure 2 illustrates this. Once we have defined an enlistment area, we randomly assign unlocated cases to enlistment-area towns using their 1860 population as weights. The latter reflects the fact that larger towns enlisted more soldiers.

Figure 3 illustrates the resulting spatial distribution of enlistments across home towns. We recognize that it would be preferable to have all town-of-residence information completely reported in a single data source. However, we have no reason to believe that our treatment of interest

³⁶Regiments were recruited within states. If we observe home towns in more than one state in a regiment, we determine the most frequent home state and drop all enlistments from different home states.

Table 2: Enlistment by State

	<u>German</u>	<u>Irish</u>	<u>Other</u>	<u>Scandinavian</u>	<u>American</u>
Number:	502,018	722,860	20,486	92,749	912,862
Share in %:	22.3	32.11	0.91	4.12	40.55

Notes: This table reports on the distribution of predicted ancestries of soldiers. The shares of German-ancestry and Irish-ancestry soldiers considerably exceed reasonable estimates of immigrant shares in the Union Army. Because the machine learning algorithm infers ancestry from name alone, this reflects the long history of German and Irish immigration into the U.S.

should correlate with the reporting of residence in the Registers or with finding an individual in the Full Count Census. Consequently, having incomplete town-of-residence introduces classical measurement error in our outcome that makes us worry not about biased but about imprecise estimation results. It is not clear that spatial interpolation will necessarily improve this, so that section 4 will present results both for when town-level enlistments include interpolated soldiers and when they do not.

3.2.2 Soldiers' Ethnicity/Ancestry

The *Union Army Registers* contain exclusively military information (the units men belonged to, their rank, when they enlisted, their enlistment terms and whether they died, deserted, were wounded or mustered out at the end of their service). Aside from this, we only know the enlistees' age at enlistment, and town-of-residence. Fortunately, the reporting of birthplaces in the 1860 Full Count Census provides us with a natural training data set on which to train a machine-learning algorithm that can predict soldiers' ancestry from their names. Knowing soldiers' ancestry will prove useful in the following sections, for example in section 4.2, where we will ask if the *Forty-Eighters* had a disproportionate effect on German-Americans' enlistments and in section 4.4.

We group birthplaces into German, Irish, Italian, Scandinavian, American and 'Other Immigrants' in the Full-Count 1860 U.S. Census, and then train the algorithm to predict the relative probabilities of an individual belonging to each group. A detailed description of the machine-learning algorithm is provided in [Appendix A.3](#). In the training data, we accurately predict birthplace in more than ninety percent of the cases. We then apply the trained algorithm to our soldier data, and associated each soldier with a probability distribution of ancestries. The number of

Italians in the U.S. turned out to be so small in 1860 that we grouped them with the ‘Other’ category. Table 2 reports on the distribution of predicted ancestries. For the non-American groups, the predicted number for soldiers of each *ancestry* group is considerably larger than contemporary estimates of the number for soldiers of each *ethnicity*, which were compiled by the U.S. Sanitary Commission during the war (Kamphoefner (2006, 9), based on Gould (1869)). This is because the algorithm assigns many of the second and third-generation immigrants with typical German or Irish last names to their immigrant ancestry group, while they would have been recorded as American in official documents.

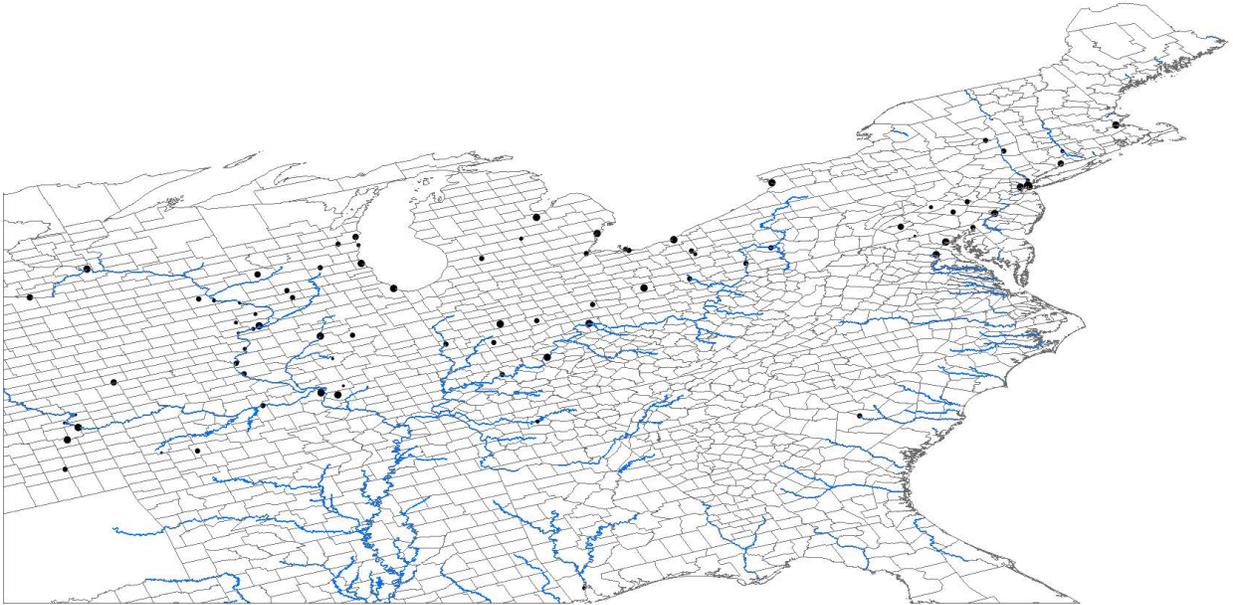
3.3 Measuring Treatment

Our treatment of interest is a locations’ exposure to *Forty-Eighters*. We collected detailed biographies for 493 *Forty-Eighters*, including their arrival port and residence locations before the beginning of the Civil War. Typically, the *Forty-Eighter* spent a short while in the arrival port—in the vast majority of cases New York City—before they went westward to wherever they found a job. The historical record suggests that the *Forty-Eighters* did not immediately get involved in the sectional political conflict smoldering in the U.S. They arrived penniless, had no social network and did not speak English. As a result, they were living from day to day with no time left to engage in the political process. However, over time they settled and when the Kansas-Nebraska Act ended the second American party system most *Forty-Eighters* were ready to reengage politically. For our purposes, towns are treated if they were exposed to at least one *Forty-Eighter* in the five years prior to the Civil war, i.e. between 1856-1861. Since the *Forty-Eighters* did not emerge as civic leaders over night, we further restrict our treatment to locations where they stayed for at least three years. This treatment definition leaves us with 74 Northern towns that were exposed to at least one *Forty-Eighter*. Figure 4 displays the spatial distribution of towns in the North where at least one *Forty-Eighter* settled.³⁷

Closer inspection of the number of *Forty-Eighters* across towns reveals a heavily right-skewed distribution. While we observe 74 towns with at least one *Forty-Eighter*, almost three-quarters of the *Forty-Eighters* went to (or stayed in) only six large urban centers: New York, Cincinnati, St.

³⁷ Ten other towns were located in the Confederate States or the West, and play no role in our analysis.

Figure 4: Spatial distribution of the *Forty-Eighters*



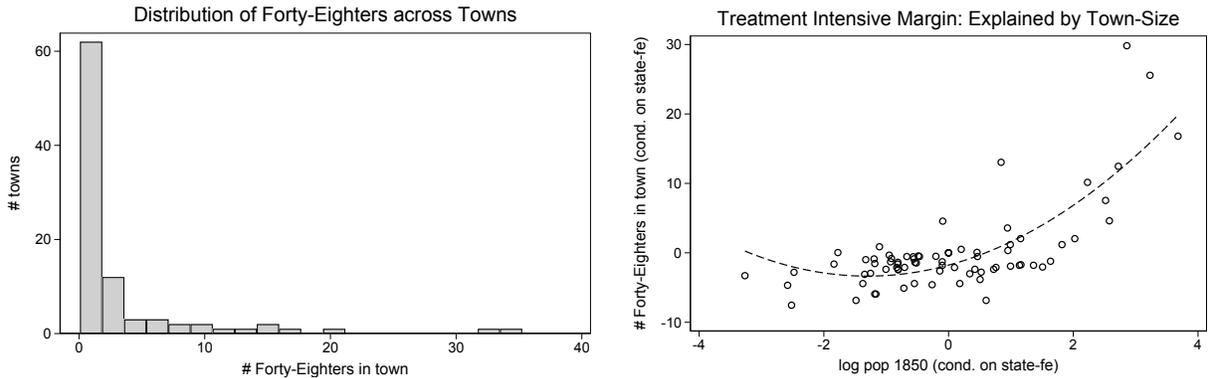
Notes: The map shows the spatial distribution of the towns in which *Forty-Eighters* settled. Larger bubbles indicate locations with more *Forty-Eighters*. In addition, the figure displays rivers and 1860 county boundaries.

Louis, Philadelphia, Baltimore, and Milwaukee. This skew is evident in the left panel of Figure 5.³⁸

Postponing a discussion of identification concerns to section 4, this skew raises the question which functional form to use. One concern is that towns with many *Forty-Eighters* would depress the estimated treatment effect if the treatment effect was erroneously assumed to be linear. A first inspection of the relationship between town size in 1850 and exposure to *Forty-Eighters* reveals an interesting pattern: for towns where at least one *Forty-Eighter* settled, the intensive margin of treatment (, i.e. the number of *Forty-Eighters*) is very well explained by a simple quadratic in their 1850 population size. This is evident in the right panel of Figure 5, which shows the fitted regression plot from a regression of the number of *Forty-Eighters* on state fixed effects and a town's 1850 population. Therefore, our approach to dealing with the skewed distribution is to focus on a simple binary *Forty-Eighter* indicator, conditional on the log of a town's 1850 population size in all

³⁸ New York City was the most important arrival port. In the *Germans to America* shipping-lists—discussed in section 4.2 and Appendix A.5.2—New York City alone accounts for 85 percent of the 4.1 million German arrivals between 1850 and 1894. It is thus not surprising that roughly one-quarter of the *Forty-Eighters* did not leave New York. In our analysis, we disregard NYC for two reasons. First, there is no plausible control town for the largest city. Second, New York was the biggest entry port so that a large portion of NYC soldiers enlisted straight after debarkation, i.e. did not represent the resident population. (We thank Dora Costa for pointing this out.)

Figure 5: Distribution of No. of *Forty-Eighters*



Notes: The left panel of this figure displays the distribution of the number of *Forty-Eighters* across treated towns. There are over 60 towns where one or two *Forty-Eighters* settled, as well as a number of towns where several settled. More than thirty *Forty-Eighters* settled in each of Cincinnati, and St Louis, Missouri, Twenty settled in Philadelphia, and Baltimore, Milwaukee and Davenport each had 15 or more. Among treated towns, the distribution of the number of *Forty-Eighters* was thus clearly skewed toward larger cities. (The left panel omits NYC where over 100 *Forty-Eighters* settled.) The right panel of the figure shows that a quadratic function of a town's 1850 population size fits the distribution of the number of *Forty-Eighters* very well.

regressions.³⁹ In robustness checks, we will alternatively drop towns that hosted a large number of *Forty-Eighters*.

In the following regressions, the exact number of treatment towns will vary with specifications. If we use state or county fixed effects, we will lose singletons like Washington DC and if we employ a matching strategy, all large towns will be omitted because conditional on regional fixed effects there will be no control group in the common support.⁴⁰ To account for this, we will consistently report the number of *Forty-Eighter* towns that provide identifying variation for each estimation result.

4 Results

In the following, section 4.1 discusses the potentially selective nature of the *Forty-Eighters'* towns of settlement. Section 4.2 presents estimates of our core results of the effect of the *Forty-Eighters* on town-level enlistment. Section 4.3 investigates mechanisms, where we estimate the effect of

³⁹ This captures the quadratic relation with town size since the log of population and the log of squared population are collinear.

⁴⁰ The following are the large towns that are dropped with matching: Baltimore MD, Brooklyn NY, Buffalo NY, Chicago IL, Cincinnati OH, Cleveland OH, Davenport IA, Detroit MI, Louisville KY, Milwaukee WI, Newark NY, Philadelphia PA, St Louis MO.

Forty-Eighters on the circulation of German-language newspapers and *Turner Societies*, as well as checking whether they had a more pronounced effect on German-American communities. The last two sections provide additional results that buttress our core findings. In section 4.4, we track the *Forty-Eighters* who enlisted in the Union Army themselves, and re-estimate the duration-analysis in Costa and Kahn (2003) with an indicator for having a *Forty-Eighter* commanding officer as an additional treatment. Section 4.5 investigates whether the *Forty-Eighters* had a long-run effect on the likelihood of a local NAACP chapter being founded after 1909.

4.1 Empirical Setup

To assess the *Forty-Eighters'* effect on Union Army enlistment enlistsments in town i , we estimate:

$$y_i = \beta \cdot D(\text{Forty-Eighter}_i > 0) + \mathbf{X}_i' \delta + \eta_s + \epsilon_i, \quad (1)$$

where our two primary outcomes based are the share of a town's adult male population that enlisted over the course of the war, and the log of enlistments. $D(\text{Forty-Eighter}_i > 0)$ is an indicator function that takes the value one if town i was settled by at least one *Forty-Eighter*, \mathbf{X}_i is a vector of town and county control variables, η_s are state (or county) fixed effects, and ϵ_i is an error term.

Our primary empirical concern is that the *Forty-Eighters* may have chosen where to settle based on the strength or growth of places' anti-slavery or pro-republican beliefs. This could create a bias in our estimation if we falsely attribute higher enlistments for the Union Army to the presence of *Forty-Eighters*. Their biographies suggest that the *Forty-Eighters'* initial settlement choices in the U.S. were dominated by economic necessities, and that work opportunities arose idiosyncratically, making the towns where *Forty-Eighters* settled an approximately random draw out of those towns which had characteristics that attracted *all* German immigrants in the 1850s (Wittke, 1970, 66). Concerns may thus arise if such characteristics correlated with the strength of anti-slavery and pro-republican convictions at the time. This concern can be addressed by exploring what these characteristics were and controlling for them.

The 'Core Controls': Unlike most immigrants at the time, the *Forty-Eighter* arrived in U.S. penniless and with no existing family ties (Wittke 1970, ch.6, Wust 1984, p.31). As a result, the first place they went to after leaving their port of debarkation was wherever they could find work.

They often meant moving somewhere to the Mid-West around German-American communities that were actively seeking German-speaking workers from port-cities. Labor bureaus operated by *German Societies* in port cities advertised these jobs and helped immigrants organize their trip inland.⁴¹ According to Wust (1984, p.32), this “employment service provided 2,200 jobs in 1846, 4,950 jobs in 1849 and 9,435 in 1853.”⁴² Their biographies clearly indicate that many *Forty-Eighters* found their first job with the help of other German-Americans. Key factors explaining where they moved inland were therefore (i) the presence of pre-existing German-American communities and (ii) the attractiveness of a town for newly arrived German immigrants. We constructed four variables to measure the existence of German American communities and a town’s overall attractiveness for German immigrants in the early 1850s. First, we measure each town’s distance to destination locations advertised in *Metzler’s Map for Immigrants*, the most widely circulated cartographic guide for German immigrants to the U.S. in the early 1850s. (We show the geo-referenced map in Appendix A.5 Figure A1.) Second, we measure the size of a town’s German community as measured in the 1850 *Full-Count U.S. Census*. Third, we measure the change in the size of German communities between the 1850 and 1860 *Full-Count U.S. Census*. Fourth, we measure each town’s intake of German immigrants arriving during the narrow time-window 1849–1851 that coincided with the *Forty-Eighters’* arrival. To create this control, we digitized the ‘Germans to America’ Shipping Indices from Glazier and Filby (1999) and Glazier (2005), and matched all immigrants arriving between 1849–1851 into the 1860 Full Count U.S. Census based on name, age, gender and birthplace.⁴³ In the short term, job opportunities for the *Forty-Eighters* were often limited to the same occupations where most immigrants found work, i.e. on the railroad, on farms, and as office clerks. Wittke (1970, p.66) describes the *Forty-Eighters* in the first few years after their arrival as “scholars able to quote Homer but forced to work with pick and shovel as day laborers on canals and railroads.” However, our biographical records suggests that they quickly put down their picks

⁴¹The German Societies themselves had a vital interest to move new immigrants inland because of two scandals, in 1847 and 1848, when groups of paupers from Grosszimmern and Griesheim in Hesse had arrived in New York City and refused to leave the city’s Poor House. The German Society was fiercely attacked by New York officials and newspapers, who accused the ‘Dutchmen’ of loading this group of paupers onto New York (Wust, 1984, p.30).

⁴²Wust (1984) mentions that the archives of the *German Society of New York City* held every annual report since 1845 at the time of his writing. Unfortunately, the society today has a staff of one, no archives and no library.

⁴³This fourth measure is particularly important because it addresses the concern that the *Forty-Eighters* co-located with other German immigrants arriving at the same time who might have shared their ideals of liberty and equality. If we did not account for this potential correlation, we would overstate the *Forty-Eighters’* true influence. The Shipping Lists and the matching procedure are discussed in Appendix A.5.2.

and shovels, and for the most part soon worked in teaching, journalism, publishing and the arts.⁴⁴ While the *Forty-Eighters* changed occupation, they tended to stay close to where they had first found work, often moving only to a neighboring town or county. So in the medium run, the *Forty-Eighters* may have been particularly attracted to towns that offered job opportunities for highly educated German immigrants. To control for the potentially different socio-political climate of such towns, we coded the 1850 town-level circulation of German-speaking newspapers and journals from [Arndt \(1965\)](#).⁴⁵ In addition, we also always include the log of a town's 1850 population because —conditional on being a *Forty-Eighter* town— [Figure 5](#) shows a strong quadratic relationship between the number of *Forty-Eighters* in a town and that town's population size. Together, these six factors make up our 'core controls', which we always incorporate into our analysis as either controls or matching variables.

Additional Controls: Beyond the set of core controls, we consider any additional observables that a variable selection algorithm finds to be predictive of the *Forty-Eighters'* settlement locations. These are chosen from a pool of town- and county-level controls from the following data sources: [Fishman \(2009\)](#) provides a set of town-level population control variables, including the female population share, the free colored and the slave population shares. In addition, Michael Haines shared 1840 town-level demographic information with us from a thus-far unpublished part of the data collection in [Haines \(2010\)](#). Having geo-located all [Fishman \(2009\)](#) towns, we can also calculate a rich set of geographic location factors comprising longitude and latitude, log elevation, the mean temperature and precipitation, and (log) distance to the coast, to the next navigable river and to the railway network in 1850 (provided by [Atack, 2015](#)), and the shortest distance to one of the four relevant arrival ports (Baltimore, New Orleans, New York and Philadelphia). In addition, we have a rich set of *county*-level controls for 1850 from [Haines \(2010\)](#), including the county population share living in towns with either more than 2,500 or more than 25,000 inhabitants, the share of foreign-born inhabitants, the size of the agricultural sector and the size of the manufacturing sector, and the number of churches. Finally, we peruse historical county-

⁴⁴The example of Hermann Raster illustrates this argument. Raster was a true intellectual. He spoke seven languages. He studied in Leipzig and Berlin, and he was part of a literature circle around Bettina von Arnim, a German writer and novelist who was known to support young talents. Raster was imprisoned because of his active role in the German Revolution, but he was released from prison in 1851 under the condition that he would leave Germany. He arrived in New York in July 1851. The only work he could find upon his arrival was as a wood-chopper on a farm near Tioga, Pennsylvania. However, by 1852 he had found employment as a newspaper editor.

⁴⁵[Arndt](#) lists all German-language newspapers and political journals, including the dates of their first and last issues.

Table 3: Balancing Table & Variable-Selection (Location) Model

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Control	Treated	balance-test Treated vs Control		Variable Selection Model			
fixed effects:	-	-	-	state	county	-	state	county
Share German-Born 1850	0.016 (0.056)	0.089 (0.112)	0.074*** (0.007)	0.075*** (0.007)	0.058*** (0.006)	0.101*** [0.008]	0.107*** [0.007]	0.112*** [0.002]
log dist: Metzler-Map Destinations	3.853 (0.849)	2.729 (2.073)	-1.124*** (0.100)	-1.177*** (0.085)	-0.707*** (0.050)	-0.007*** [0.009]	-0.006** [0.023]	-0.012** [0.028]
ΔShare German-Born 1860-1850	0.008 (0.056)	0.011 (0.126)	0.003 (0.007)	-0.002 (0.007)	-0.005 (0.007)	0.088* [0.055]	0.075 [0.112]	0.064* [0.080]
Germans-To-America 1849-52	0.209 (0.935)	23.662 (51.707)	23.453*** (0.490)	23.570*** (0.493)	20.673*** (0.485)	0.005*** [0.000]	0.005*** [0.000]	0.005*** [0.000]
Count German Newspapers 1850	0.011 (0.221)	2.176 (5.638)	2.165*** (0.058)	2.207*** (0.058)	1.905*** (0.055)	0.016* [0.062]	0.017* [0.059]	0.014 [0.278]
log Pop 1850	6.471 (1.137)	8.129 (1.949)	1.658*** (0.133)	1.858*** (0.099)	1.579*** (0.086)	0.008*** [0.000]	0.009*** [0.000]	0.011*** [0.000]
log dist nearest port	6.789 (0.426)	6.857 (0.494)	0.068 (0.050)	-0.035*** (0.013)	-0.003 (0.002)	0.009*** [0.008]		
log dist nearest navigatable river	3.672 (1.385)	2.615 (2.204)	-1.058*** (0.162)	-0.996*** (0.145)	-0.650*** (0.087)	-0.002** [0.019]	-0.002** [0.027]	-0.004** [0.023]
log dist nearest railway	3.853 (0.849)	2.729 (2.073)	-1.124*** (0.100)	-1.177*** (0.085)	-0.707*** (0.050)			
log dist nearest coast	4.690 (1.412)	4.001 (2.482)	-0.689*** (0.166)	-0.861*** (0.120)	-0.388*** (0.061)	-0.003* [0.067]	-0.003** [0.024]	-0.005** [0.043]
Latitude	41.369 (1.880)	40.928 (1.680)	-0.442** (0.219)	-0.202** (0.099)	-0.012 (0.015)	0.001* [0.077]		
Longitude	-83.202 (7.347)	-85.563 (6.987)	-2.360*** (0.857)	0.329** (0.150)	0.022 (0.019)			
log elevation	5.401 (0.678)	5.084 (0.817)	-0.317*** (0.079)	-0.339*** (0.060)	-0.105*** (0.031)	0.004** [0.019]	0.004** [0.023]	0.009*** [0.004]
mean temperature	93.173 (19.913)	104.238 (18.001)	11.065*** (2.321)	7.248*** (1.261)	1.924*** (0.431)			
County: Churches 1850	39.470 (42.431)	41.878 (52.339)	2.408 (4.956)	13.531*** (3.280)		-0.000*** [0.004]	-0.000*** [0.002]	
County: 1850-Share Pop in Places>25,000	0.010 (0.075)	0.108 (0.261)	0.098*** (0.009)	0.101*** (0.009)		-0.026 [0.194]	-0.023 [0.294]	
County: 1850-Share Pop in Places>2,500	0.057 (0.131)	0.212 (0.275)	0.154*** (0.015)	0.171*** (0.014)		0.022* [0.052]	0.023* [0.066]	
County: farmacies improved 1850	10.952 (2.468)	10.839 (1.416)	-0.113 (0.306)	0.502** (0.250)		-0.001* [0.050]		
County: share foreign born 1850	0.102 (0.102)	0.201 (0.147)	0.099*** (0.013)	0.081*** (0.011)		-0.027** [0.033]	-0.031** [0.042]	
County: manufacturing capital share foreign born 1	11.233 (4.697)	12.176 (3.956)	0.943 (0.579)	2.141*** (0.452)				
County: Colleges 1850	0.232 (0.586)	0.785 (1.375)	0.553*** (0.074)	0.580*** (0.071)				
Slave Pop Share 1850	0.010 (0.056)	0.004 (0.018)	-0.006 (0.007)	-0.007 (0.005)	-0.000 (0.003)			
Free Colored Pop Share 1850	0.008 (0.026)	0.022 (0.038)	0.014*** (0.003)	0.010*** (0.003)	0.009*** (0.002)	0.044 [0.202]		
%-Δ Pop 1850-1840	1.200 (0.945)	1.526 (0.749)	0.326*** (0.110)	0.066 (0.088)	0.148* (0.081)			
%-Δ Slave Pop 1850-1840	0.055 (0.438)	0.033 (0.703)	-0.022 (0.051)	-0.057 (0.042)	-0.010 (0.037)	-0.004* [0.057]	-0.005* [0.094]	-0.004 [0.231]
%-Δ Free Colored Pop 1850-1840	0.312 (1.013)	0.952 (1.137)	0.640*** (0.118)	0.594*** (0.117)	0.603*** (0.122)			
%-Δ Female White Pop 1850-1840	1.200 (0.944)	1.524 (0.747)	0.324*** (0.110)	0.064 (0.087)	0.155* (0.081)	0.004*** [0.001]	0.003*** [0.005]	0.004*** [0.005]
County: 1848 Vote-Share Democratic Party	44.702 (13.556)	44.878 (9.853)	0.176 (1.711)	-0.299 (1.224)	0.000 (0.000)			
County: 1848 Vote-Share Liberty Party	11.894 (13.189)	9.303 (9.922)	-2.591 (1.665)	-2.198* (1.201)	-0.000 (0.000)	-0.000*** [0.002]	-0.000** [0.049]	
R-Squared						0.220	0.218	0.250
Observations	11,568	74				9,883	9,907	11,517

Notes: This table reports on the control variables in our data and their relation to the treatment variable $D(\text{Forty-Eighter}_i > 0)$. Columns 1–2 report variable-averages for control and treated towns, with standard deviations in brackets. Columns 3–5 report Wald-tests of the equality of each variable across control and treated towns. Column 4 does so conditional on state fixed effects, and column 5 conditional on county fixed effects. Columns 6–8 report on the variables selected as predictors of $D(\text{Forty-Eighter}_i > 0)$, using STATA's `vselect` command, which uses the *Furnival-Wilson leaps-and-bounds algorithm* to select the set of control variables based on *Akaike's information criterion* for automated variable selection (Lindsey, Sheather et al., 2010). Column 6 includes no regional fixed effects, column 7 adds state fixed effects, column 8 adds county fixed effects.

level voting data for presidential elections from the dataset *Electoral Data for Counties in the United States: Presidential and Congressional Races, 1840-1972* (Clubb, Flanigan and Zingale, 1987).⁴⁶ This latter control is particularly valuable since it allows us to assess whether *Forty-Eighter* towns were initially different in political environments.

Table 3 reports on the control variables in our data and their relation to the treatment variable $D(\text{Forty-Eighter}_i > 0)$. The table omits variables in our data that never display any significant correlation with $D(\text{Forty-Eighter}_i > 0)$ in any of the exercises discussed below. The table is vertically segmented into the core controls, followed by geographic and climatic town-level controls, then county controls from Haines (2010), then controls for 1850 town-level demographics from Fishman (2009), and town-level controls for changes in demographics between 1840 to 1850. Lastly, we report on 1848 party vote-shares from (Clubb et al., 1987). Columns 1–2 report variable-averages for control and treated towns, with standard deviations in brackets. Columns 3–5 report Wald-tests of the equality of each variable across control and treated towns. Column 3 does so with no fixed effects. Column 4 repeats the exercise conditional on state fixed effects, and column 5 conditions on county fixed effects. The imbalance between treated and control towns decreases as we condition on finer-grained spatial fixed effects, moving from column 3 to 4 to 5. The core controls, as well as several others, remain unbalanced with county fixed effects.

In columns 6–8, we assess which of the controls remain imbalanced in a multivariate setting that relates the treatment to all controls simultaneously. This is done through a variable selection model that provides us guidance on which of the many controls should be included in our regressions; see notes to Table 3. We first run the variable selection model and then report the results of regressing $D(\text{Forty-Eighter}_i > 0)$ on the selected variables. For illustrative purposes, we first run the variable selection model with no fixed effects (column 6), followed by state fixed effects (column 7) and finally county fixed effects (column 8). The number of observations varies because the Haines (2010) data does not include some counties in our data. The historical voting data excludes a few more counties in addition. When we get to the main regressions, we will re-visit the resulting trade-off between increasing the number of controls and reducing the sample of available towns. A key observation in columns 6–8 is that the core controls are always selected by the model, as are a number of geographic characteristics. County controls are mechanically omitted

⁴⁶ This data-source is discussed in [Appendix A.4.1](#).

in column 8 because of the county fixed effects. The growth rate of a town's female population between 1840 and 1850 is also significantly predictive of $D(\text{Forty-Eighter}_i > 0)$. Interestingly, pre-arrival party vote-shares in columns 6 and 7 do not have the sign one would expect if the *Forty-Eighters* had settled into established abolitionist areas. This is consistent with the historical narrative in section 2.3, whereby the *Forty-Eighters* "rational" abolitionism ran anathema to the previously dominant puritan abolitionism, which the 1848 Liberty Party vote share would have picked up.⁴⁷

4.2 Core Results

Our first approach to identification is to perform OLS estimations of equation (1), letting our choices of control variables X_i be guided by the selection in columns 7–8 of Table 3.

Table 4 reports the results. In Panel A, we consider enlistments per adult males in a town as the outcome, In Panel B, we consider the natural log of enlistments instead. Columns 1–6 include state fixed effects and columns 7–8 include county fixed effects. We always condition on the set of core controls. In columns 2–4 we incrementally add the controls selected in column 7 of Table 3, first the town controls, then the county controls, then the 1848 vote-share controls. An apparent trade-off in doing so is that the sample shrinks with the inclusion of county controls because they are not available for all counties further west. It is therefore not clear whether the coefficients shrink in columns 3–4 because of the added controls or because of the changing sample. To investigate, columns 5–6 re-run the specification with fewer controls (column 2) on the smaller sample. Comparing column 5 with 3 and column 6 with 4 suggests that it is the sample selection and not the inclusion of additional controls that reduces the estimated coefficients relative to column 2. Because there is no reason to prefer the sample selection imposed by columns 3 and 4, we will from now focus on the specifications with core controls and town controls, i.e. columns 1–2 only. Columns 7–8 repeat these specification with county instead of state fixed effects. The estimated coefficients are remarkably robust to these much more fine-grained spatial fixed effects. We consider columns 1–2 and 7–8 our core specifications which we carry forward into the estimations

⁴⁷See [Online Appendix B](#) for a discussion of the Liberty Party. Its local vote share was likely explained mostly by western pockets of puritan settlements. [Foner \(1970, 107\)](#) quotes a contemporary observer: "almost every free state has its New England within its border", and argues that these "little New Englands" were everywhere the centers of abolitionism.

Table 4: Effect of *Forty-Eighters* on Union Army Enlistments

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PANEL A		<i>Enlistments / Male 1860-Pop</i>						
D(Forty-Eighters)	0.124*** [0.000]	0.124*** [0.000]	0.098*** [0.000]	0.102*** [0.000]	0.100*** [0.000]	0.104*** [0.000]	0.119*** [0.000]	0.117*** [0.000]
R-squared	0.092	0.095	0.098	0.100	0.096	0.097	0.354	0.355
PANEL B		<i>Log Enlistments</i>						
D(Forty-Eighters)	0.915*** [0.000]	0.926*** [0.000]	0.836*** [0.000]	0.884*** [0.000]	0.852*** [0.000]	0.886*** [0.000]	0.888*** [0.000]	0.880*** [0.000]
fixed effects	state	state	state	state	state	state	county	county
core controls	✓	✓	✓	✓	✓	✓	✓	✓
town controls		✓	✓	✓	✓	✓		✓
county controls			✓	✓				
vote-share controls				✓				
Observations	11,095	11,095	10,045	9,482	10,045	9,482	10,971	10,971
# Forty-Eighter Towns	72	72	66	63	66	63	68	68
R-squared	0.563	0.565	0.544	0.521	0.544	0.518	0.677	0.678

Notes: The table reports results estimating equation (1) on our two core outcomes of Union Army volunteering: the share of a town’s adult male population that enlisted overall (Panel A), and the log of enlistments (Panel B). Columns 1–6 include state fixed effects, columns 7–8 include county fixed effects. # *Forty-Eighter Towns* is the number of treated towns providing identifying variation in each specification. This varies with the controls included (columns 3–4 vs 1–2); it also varies with the inclusion of county fixed effects because some treated towns are singletons in their county. Standard errors are clustered at the county-level, *p-values* are reported in square brackets. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

that follow.

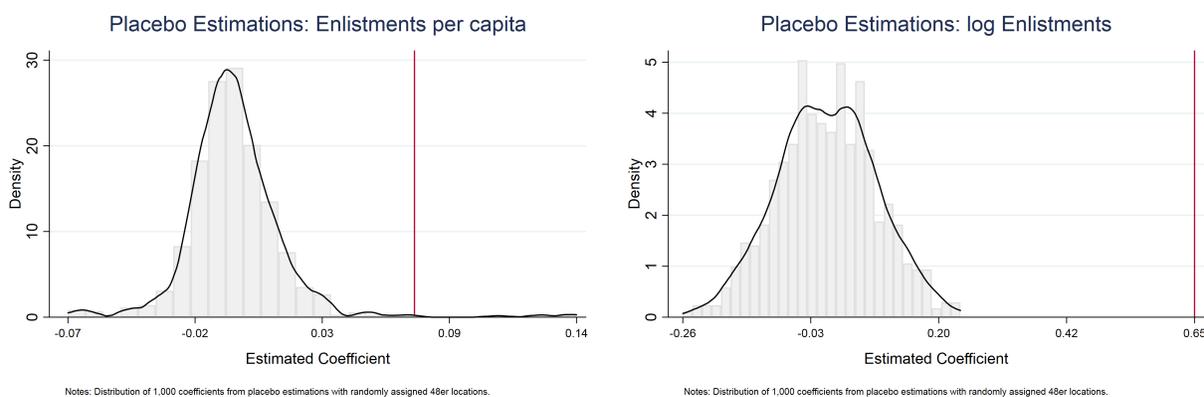
Our baseline OLS results in Panel A suggest that the *Forty-Eighters* increased enlistments in a town by eleven per hundred adult men or by about eighty percent. The estimates in Panels A and B are consistent with each other since the mean enlistment rate in our data is thirteen men per hundred adult males. We always report the number of *Forty-Eighters* that provide identifying variation in each specification, since this can vary with the controls and fixed effects that are included. For example, the number is lower with county fixed effects because some towns like Baltimore are singletons in their county.

To conserve space, we report the estimated coefficients on the controls included in Table 4 in [Online Appendix Table 1](#) and [Online Appendix Table 2](#). Of the core controls, the presence of German newspapers and Germans who newly arrived between 1850 and 1860 stand out as having a positive influence on enlistments. This is consistent with German newspapers overall taking an abolitionist stance during this time, and with the newer arrival cohorts being more anti-slavery than the older German American communities, which in the table show a negative association

with enlistments.

Within the core control, the 1849–1851 ‘Germans to America’ arrival cohorts deserve a brief separate investigation in our view. This is because we need to allow the possibility that the *Forty-Eighters* were the ‘tip of the iceberg’ of a broader wave of politically active German immigrants arriving at the same time. If that was so, then we would expect this broad 1849–1851 arrival cohort to have had an independent effect on enlistments, we would expect the inclusion of this cohort in the regressions to reduce the *Forty-Eighters*’ effect, and we would expect the 1849–1851 arrival cohort to stand out from earlier and later arrival cohorts in the regressions. It turns out that none of these three hypotheses is borne out in the data, as we show in [Online Appendix Table 3](#). We view the lack of these patterns as evidence against the notion that the *Forty-Eighters* were just the prominent spearhead of a larger group of politically active and influential immigrants from that period.

Figure 6: Placebo Estimations



Notes: The figure shows the distribution of 1,000 coefficients from placebo estimations where we replace the actual *Forty-Eighter* locations with an equal number of randomly drawn locations. The red line contrasts this distribution with the magnitude of the actual coefficient, for enlistments per adult men on the left-hand side, and for the log of enlistments on the right-hand side.

Placebo Estimations: Table 4 conveys a very robust association between *Forty-Eighters* and volunteering for the Union Army. As a further robustness check, we rule out spuriously correlated effects through a placebo test, replacing the actual *Forty-Eighter* locations with an equal number of randomly drawn locations, and then re-estimating equation (1) with this placebo treatment. We repeat this experiment 1,000 times, comparing the distribution of the estimated placebo effects to

the actual treatment effect. Figure 6 shows the result of this placebo exercise for the two main outcomes, per capita enlistments in the left panel, and the log of enlistments on the right panel. In both panels, the placebo distribution is centered around a mean of zero, and even the 99-th percentile of the distribution is far to the left of the actual estimated coefficients (displayed as a red line).

In [Online Appendix Table 4](#), we report further robustness checks to the baseline results in [Table 4](#). In Panel B of [Online Appendix Table 4](#), we drop all large treated cities where the number of *Forty-Eighter* exceeds nine and we worry that our binary treatment variable might not reflect the *Forty-Eighters'* influence appropriately. As one would expect, this reduces the estimated magnitude on the dummy specification (from twelve to ten per hundred, or from ninety to seventy-five percent in log terms), but without affecting the significance of the *Forty-Eighters'* impact. In Panels C–D, we report results where we spatially interpolate unlocated soldiers as described in [Figure 2](#). In expectation, this should reduce the sharpness of our results because interpolation by design smoothly allocated soldiers with missing town-of-residence information in space. For the per capita measure of enlistment, this has no effect on the estimated coefficients; for the log enlistment outcome it reduces the estimated coefficient by about twenty percentage points, but again without affecting the significance of the *Forty-Eighters'* estimated impact.

Other Enlistment Outcomes: We have in our data two more outcomes that are worth inspecting as a check on the core results. One is the average enlistment date in a town. Historians have argued that earlier enlistment cohorts were the most enthusiastic for the anti-slavery cause ([McPherson, 1997](#), ch1). If this is true, we also expect the *Forty-Eighters* to have led to earlier enlistment on average. This is what we find in columns 1–2 of [Table 5](#), where we report only on the two most conservative specifications with all controls. A second outcome pertains to the ancestry of enlisted men. While it is clear that the *Forty-Eighters* were not content with limiting their influence to German-American communities, we nonetheless would expect them to have had a more pronounced effect on their enlistment rates. We can test this because we have predicted soldiers' ancestry as described in [section 3.2.2](#). In columns 3–8, we report on the three biggest groups, dividing the number of each ancestry group's soldiers by a town's total number of soldiers to construct our outcome as an ancestry group's share of a town's soldiers.⁴⁸ For this outcome, we need to ad-

⁴⁸An alternative outcome would be to instead divide each ancestry group's enlistments by the number of men of

Table 5: Other Outcomes

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Outcome:	<i>Avg Enlistment Date in Days</i>		<i>Share German Ancestry / All Soldiers</i>		<i>Share American / All Soldiers</i>		<i>Share Irish Ancestry / All Soldiers</i>	
D(Forty-Eighters)	-54.770** [0.012]	-64.745*** [0.009]	0.003 [0.424]	0.003 [0.329]	-0.001 [0.671]	-0.001 [0.744]	-0.002 [0.634]	-0.003 [0.264]
Share German-Born 1860			0.001** [0.035]	0.001* [0.064]	-0.001** [0.015]	-0.001** [0.042]	-0.001* [0.082]	-0.000 [0.161]
Share Irish-Born 1860			-0.001*** [0.000]	-0.001*** [0.000]	0.000 [0.670]	-0.000 [0.607]	0.001*** [0.000]	0.001*** [0.000]
Share Other-Immigrant 1860			-0.000*** [0.000]	-0.000*** [0.000]	-0.001*** [0.000]	-0.001*** [0.000]	-0.001*** [0.000]	-0.001*** [0.000]
fixed effects:	state	county	state	county	state	county	state	county
core controls	✓	✓	✓	✓	✓	✓	✓	✓
town controls	✓	✓	✓	✓	✓	✓	✓	✓
Observations	11,031	10,904	11,095	10,971	11,095	10,971	11,095	10,971
# Forty-Eighter Towns	72	68	72	68	72	68	72	68
R-squared	0.159	0.316	0.244	0.460	0.320	0.487	0.202	0.394

Notes: This table reports results estimating equation (1) for a number of secondary outcomes. Each set of two columns re-runs the specifications in columns 2 and 8 of Table 4. # *Forty-Eighter Towns* is the number of treated towns providing identifying variation in each specification. Standard errors are clustered at the county-level, *p-values* are reported in square brackets. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

ditionally control for each ancestry group's immigrant-share in a town in the 1860 Census.⁴⁹ While the results are statistically imprecise, they do display the expected pattern: The *Forty-Eighters* were associated with a relative increase in German enlistments and a relative decrease in the share of enlisted men from the Irish as other big immigrant group. Because outcomes are shares, any increase in the German ancestry group must come from a decrease in another group. A plausible interpretation of the pattern in columns 3–8 is that the *Forty-Eighters* overall positive impact on enlistments can be broken down into them having had not impact on Irish men's enlistments, increasing American men's enlistment enough to keep their relative share of enlisted in a town constant, and increasing German men's enlistments somewhat more.

To confirm that the *Forty-Eighters* had sizeable effects on non-Germans, we also omit all 300,000 soldiers who we predict to be German-American from the data altogether before generating town-level enlistment figures. Panel E of [Online Appendix Table 4](#) reports on the results from doing that. For the log enlistment measure of enlistment, this has no impact, suggesting it is primarily

the same ancestry group (measured in the Full Count Census) to construct an ancestry-specific equivalent of our main outcome of interest. However, this induces variation in sample size driven by the fact that not all ancestry groups are represented in all towns

⁴⁹ The Census reports birthplace, not ancestry. By contrast, as discussed in section 3.2.2, Irish or German ancestry will be predicted for many second or third generation immigrants whom the Census simply reports as U.S.-born.

driven by American men. For the per capita measure of enlistment, this reduces the *Forty-Eighters'* estimated enlistment effect from twelve to ten men per hundred, without affecting the significance of the *Forty-Eighters'* estimated impact.

IV: The results so far assume that we can gain identification by conditioning on observable town characteristics. This leaves the possibility that the *Forty-Eighters'* might have moved selectively later in the 1850s, when political considerations could have potentially motivated them. We address this concern with an instrumental variable (IV) strategy that exploits the randomness in the location of *Forty-Eighters'* first jobs outside their port of debarkation and the fact that later relocations by *Forty-Eighters* were mostly over short distances. To determine the locations of first jobs, we screen the *Forty-Eighters'* biographies and select all locations of 'first settlement', which we define as locations that were at least one *Forty-Eighter's* first place of work outside of their debarkation port. Overall, we find sixty-six locations that match this criterion. For clarity, we let these sixty-six locations be indexed by $j \in \mathbb{J} = \{1, \dots, J\}$, and let the seventy-four treatment towns be indexed by $i \in \mathbb{I} = \{1, \dots, I\}$. We find that 20 percent (13/66) of the first locations in \mathbb{J} had no *Forty-Eighters* live in them during the period 1856-61. And among the treated locations, 30 percent (21/74) were not a first settlement.⁵⁰ Let the instrument town that is nearest to i be labeled $j(i)$. We define our instrument Z_i for each town i as its proximity to $j(i)$, where proximity is defined as inverted distance so that $Z_i = \frac{1}{d_{i,j(i)}}$ is distributed on $(0, 1]$.⁵¹

To the extent that any *Forty-Eighters* did move later in the 1850s because of socio-political considerations, our IV strategy gives us identification under the assumption that such unobserved socio-political characteristics were orthogonal to proximity to towns that were a *Forty-Eighter's* first place of employment, conditional on fixed effects and controls. We recognize that 53 of the 66 instrument-towns are also treated towns, and that for these towns, the IV strategy assumes that any unobserved socio-political characteristics that influenced enlistments were orthogonal to the characteristics that led to the town becoming a *Forty-Eighter's* first place of employment, conditional on fixed effects and controls. We can therefore alternatively define an alternative treatment variable that is an indicator for the 53 towns that are treatment and instrument towns, i.e. $j(i) = i$.

⁵⁰ More formally, there are 13 towns in $\mathbb{J} \setminus \mathbb{I}$, 21 in $\mathbb{I} \setminus \mathbb{J}$, and 53 in $\mathbb{I} \cap \mathbb{J}$.

⁵¹ We set a town's distance to itself to one mile so that the instrument is $= 1$ if $j(i) = i$, i.e. for towns that are treatment and instrument towns. We also constructed an alternative instrument that is the sum of inverted distances to all towns in \mathbb{J} , i.e. $Z'_i = \sum_{j \in \mathbb{J}} \frac{1}{d_{i,j}}$. This instrument delivered very comparable results.

Table 6: Instrumental Variable Results

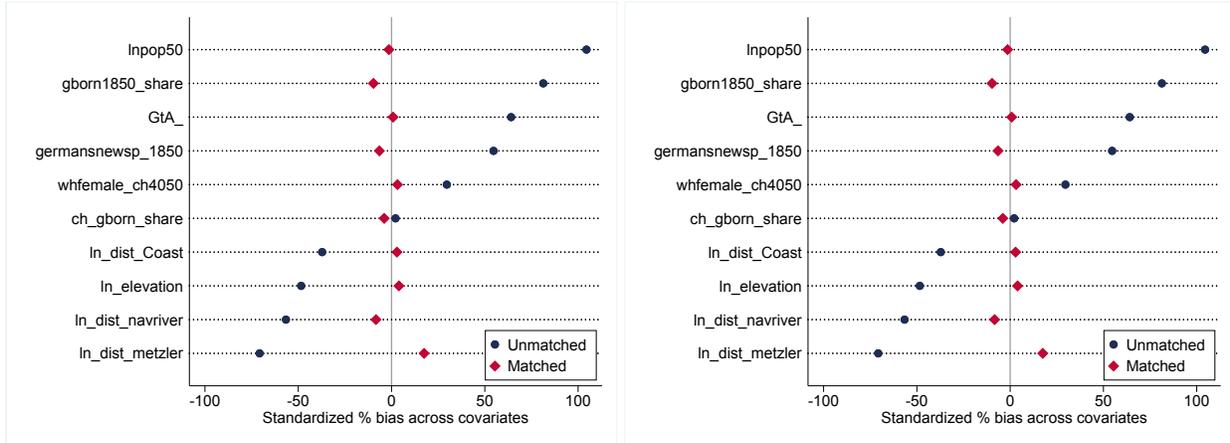
VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	<i>Enlistments / Male 1860-Pop</i>				<i>Log Enlistments</i>			
D(Forty-Eighters)	0.100*** [0.006]	0.093** [0.011]	0.117*** [0.001]	0.113*** [0.001]	0.873*** [0.001]	0.867*** [0.001]	0.800*** [0.000]	0.786*** [0.000]
fixed effects:	state	state	county	county	state	state	county	county
core controls	✓	✓	✓	✓	✓	✓	✓	✓
town controls		✓		✓		✓		✓
Observations	11,095	11,095	10,971	10,971	11,095	11,095	10,971	10,971
# Forty-Eighter Towns	72	72	68	68	72	72	68	68
FIRST STAGE:	0.549*** [0.000]	0.550*** [0.000]	0.549*** [0.000]	0.550*** [0.000]	0.613*** [0.000]	0.612*** [0.000]	0.613*** [0.000]	0.612*** [0.000]
Kleibergen-Paap F statistic	86.57	85.55	86.57	85.55	74.17	73.72	74.17	73.72

Notes: This table re-runs columns 1–2 and 7–8 of Panels A and B of Table 4, including identical controls and fixed effects. # *Forty-Eighter Towns* is the number of treated towns providing identifying variation in each specification. Standard errors are clustered at the county-level. *p-values* are reported in square brackets. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 6 reports on the IV results; columns 1–4 re-run columns 1–2 and 7–8 of Panel A in Table 4, columns 5–8 re-run columns 1–2 and 7–8 of Panel B in Table 4, including identical controls and fixed effects. For enlistments per adult males, the IV results are about twenty percent smaller than the OLS (e.g. $0.1 - 0.124/0.124$ in column 1). For log enlistments, the IV results are about five to ten percent smaller than the OLS (e.g. $(0.873 - 0.915)/0.915$ comparing column 5 of Table 6 to column 1 in Panel B of Table 4). The second panel of Table 6 reports the first stage coefficient, which suggests that having a town where *Forty-Eighters* first settled very close by or being such a town raised the probability of being t by between fifty and sixty percent.

Matching: Overall, across specifications and outcomes, the IV and OLS results are quite similar. This similarity suggests that, conditional on observed controls and region fixed effects, the *Forty-Eighters* did not select their towns of settlement based on unobservables that also drove enlistments. A remaining concern is that we are comparing a relatively small number of treated towns to a much larger number of control towns. As a result, the control pool can include towns with a covariate distribution that is quite different from the treated sample. This can affect the precision of the estimates or the outcome might be sensitive to small changes in the model specification (Imbens and Rubin, 2015). To address this concern, we employ propensity score matching (PSM) to create a control sample of cities whose distribution of observable covariates resembles the one of the treated *Forty-Eighter*-towns. In our baseline specification, we allow for five matches

Figure 7: Balancing Tests



Notes: Blue circles represent the average difference between treated and control towns in the full sample. Red diamonds show that balance is achieved across the core controls in the propensity-score matched sample. The left panel conditions on state fixed effects, the right panel on county fixed effects.

per observation and we restrict the pool of control towns to the same state (or county) as the treated town.⁵² This leaves us with 58 (22) treated towns and 186 (77) control towns for the case of state (county) fixed effects. Compared to previous results, we lose large towns because they are off the common support, i.e. have no suitable matching partner.⁵³

The propensity score matching dramatically improves the balancedness between treated and control towns, as illustrated in Figure 7. Both figures show the standardized percentage bias across matched covariates before and after propensity score matching.⁵⁴ In the left panel, we condition the matching on state fixed effects and in the right panel we use county fixed effects. Blue circles represent the average difference between treated and control towns before matching in the full sample. Here, the covariate distribution in treated and control towns is strongly imbalanced. Red diamonds show that balance is achieved across controls in the propensity-score matched sample with either set of fixed effects.

Table 7 reports the results of re-estimating the specifications thus far on the propensity-score-matched sample. We first focus on the specifications with state fixed effects in columns 1–4, where

⁵² Alternative specifications where we alter the number of matching partners do not lead to different results.

⁵³The *Forty-Eighter*-towns we loose are Baltimore MD, Brooklyn NY, Buffalo NY, Chicago IL, Cincinnati OH, Cleveland OH, Davenport IA, Detroit MI, Louisville KY, Milwaukee WI, Newark NY, Philadelphia PA, St Louis MO.

⁵⁴ Following Rosenbaum and Rubin (1985) and Imbens and Rubin (2015), we define the normalized difference associated with covariate X_k ($k = k \dots K$) as difference between the covariates in treated towns t and control towns c , i.e.

$$\hat{\Delta}_{ct} = \frac{\bar{X}_t - \bar{X}_c}{\sqrt{s_c^2 + s_t^2}/2}$$

Table 7: Propensity-Score Matched Sample Results

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	<i>Enlistments / Male</i>				<i>Enlistments / Male</i>			
Outcome:	<i>1860-Pop</i>		<i>Log Enlistments</i>		<i>1860-Pop</i>		<i>Log Enlistments</i>	
Panel A: OLS								
D(Forty-Eighters)	0.081*** [0.001]	0.085*** [0.000]	0.677*** [0.000]	0.693*** [0.000]	0.109** [0.046]	0.088* [0.093]	1.034*** [0.001]	0.807*** [0.004]
R-squared	0.449	0.499	0.716	0.731	0.777	0.789	0.848	0.857
Panel B: IV								
D(Forty-Eighters)	0.096** [0.013]	0.098** [0.010]	0.798*** [0.000]	0.800*** [0.000]	0.186** [0.010]	0.176** [0.020]	1.327*** [0.000]	1.184*** [0.001]
Kleibergen-Paap F statistic	932.8	869	932.8	869	136	200.3	136	200.3
fixed effects:	state	state	state	state	county	county	county	county
core controls	✓	✓	✓	✓	✓	✓	✓	✓
town controls		✓		✓		✓		✓
Observations	244	244	244	244	99	99	99	99
# Forty-Eighter Towns	58	58	58	58	22	22	22	22

Notes: Panel A of this table runs OLS on the PSM-matched sample. Panel B runs IV. Columns 1–4 repeat the main specifications (column 1–2 of Table 4) with state fixed effects. Columns 5–8 repeat the main specifications (column 7–8 of Table 4) with county fixed effects. # *Forty-Eighter Towns* is the number of treated towns providing identifying variation in each specification. Standard errors are clustered at the county-level. *p-values* are reported in square brackets. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

the PSM-matching retains 58 treated towns and 186 control towns, for a total of 244. For the per capita measure of enlistments, the OLS results in Panel A are about one-third smaller than they were in columns 1–2 of Table 4 (e.g. $(0.081 - 0.124)/0.124$). For the log enlistments measure, the OLS results in Panel A are about one-quarter smaller (e.g. $(0.677 - 0.915)/0.915$). For the IV, the estimates in columns 1–4 of Panel B of Table 7 are also marginally smaller than those in Table 6.⁵⁵ For completeness, columns 5–8 of Table 7 report on specifications with county fixed effects. Here the OLS results are similar to those in columns 7–8 of Table 4, and the IV results are around fifty percent larger than those in columns 3–4 and 7–8 of Table 6. While these estimates are always significant, we note that the PSM-matching only retains 22 treated towns and 77 control towns, for a total of 99, so that the results should be interpreted with caution.

In summary, the results in Tables 4, 6, and 7 consistently and robustly suggest that the settlement of *Forty-Eighters* increased enlistments rates by between eight to twelve men per hundred adult males, or by between seventy-five and one hundred percent. We now turn to a quantitative

⁵⁵ To be exact, the difference is $(0.096 - 0.1)/0.1 = -0.05$, comparing column 1 of Table 7 with column 1 of Table 6, and $(0.798 - 0.873)/0.873 = -0.09$, comparing column 3 of Table 7 with column 5 of Table 6.

investigation of the likely mechanisms that explained the *Forty-Eighters'* impact on men's enlistment choices.

4.3 Mechanisms

In section 2.4, we discussed that the historical narrative emphasizes three specific mechanisms by which the *Forty-Eighters* influenced their social networks: they worked or at least regularly wrote for newspapers; they were gifted orators and gave public speeches and lectures in English and German; and they were active in local social clubs, particularly the Turner Societies that were the primary German-American political clubs. In this section, we focus on the two mechanisms that we can measure, having coded up the annual town-level circulation of German-speaking newspapers and journals from Arndt (1965), and the annual distribution of town-level Turner Societies from the *Turner Society Foundation's* yearbook (Metzner, 1890–1894).

Table 8 reports estimations of the effect of the *Forty-Eighters* on these two mechanisms. Panel A reports on estimations with newspapers as the outcome. Panel B reports on estimations with Turner Societies as the outcome. Columns 1 and 2 report on specifications with all controls and either state or county fixed effects (equivalent to columns 2 and 6 in Table 4). Columns 3 and 4 report on IV estimations of those specifications (equivalent to columns 2 and 6 in Table 6). Columns 5 and 6 report on OLS and IV estimations of the matched sample with state fixed effects (equivalent to column 2 of Panel A and Panel B in Table 7). Additionally, we can analyze both mechanisms in a town-year panel because—unlike the enlistment outcomes—we observe them annually during the time the *Forty-Eighters* settled in the U.S. Columns 7 and 8 report on panel regressions of the outcome on a town-year specific dummy for *Forty-Eighter* settlement, where we let the time-window of the panel cover the years 1840–1861. In column 7 we include town and year fixed effects, in column 8 we include state-specific year fixed effects.

Across specifications 1–6, the results are fairly stable and always highly significant. As before, the matched-sample results provide the most conservative point estimates. They suggest that *Forty-Eighters* raised the likelihood of having a German newspaper by between twenty and forty percent, which is consistent with the historical record that they founded many new newspapers (Baron, 2012, 3). Importantly, 1850 newspapers are always conditioned on as part of the core controls and are unsurprisingly a powerful predictor of 1861 newspapers (unreported). *Forty-Eighters*

Table 8: Effect of *Forty-Eighters* on Turner Society Foundations and Newspapers

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PANEL A:		<i>D(German Newspapers 1861-64)</i>						
D(Forty-Eighters)	0.390*** [0.000]	0.320*** [0.000]	0.572*** [0.000]	0.372*** [0.000]	0.202*** [0.000]	0.205** [0.013]	0.218*** [0.000]	0.218*** [0.000]
Kleibergen-Paap Wald rk F statistic			97.57	87.43		136.3		
R-squared	0.272	0.417			0.667		0.810	0.811
PANEL B:		<i>D(Turner Society 1861)</i>						
D(Forty-Eighters)	0.237*** [0.000]	0.222*** [0.000]	0.420*** [0.000]	0.374*** [0.001]	0.155*** [0.006]	0.228*** [0.006]	0.321*** [0.000]	0.319*** [0.000]
Kleibergen-Paap Wald rk F statistic			97.57	87.43		136.3		
R-squared	0.196	0.269			0.514		0.461	0.465
fixed effects:	state	county	state	county	state	state	town + t	town + state*t
core controls	✓	✓	✓	✓	✓	✓		
town controls	✓	✓	✓	✓	✓	✓		
strategy:	OLS	OLS	IV	IV	Matching	Match-IV	Panel	Panel
Observations	11,095	10,971	11,095	10,971	244	244	260,169	260,169
# Forty-Eighter Towns	72	66	72	66	58	58	74	74

Notes: This table replicates previous specifications for two likely mechanisms of the *Forty-Eighters'* influence: The presence of a German newspaper in a town (Panel A), and the presence of a Turner Society (Panel B). Columns 1–2 report on the same specifications as columns 2 and 8 in Table 4. Columns 3–4 report on the corresponding IV specifications as columns 2 and 4 in Table 6. Columns 5–6 report on OLS and IV estimations of the matched sample in column 2 of Panel A and Panel B in Table 7. Columns 7–8 report on estimations from an annual town-panel. Standard errors are clustered at the county-level. *p-values* are reported in square brackets. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

also raised the likelihood of having a *Turner Society* in a town by an almost equal percentage.

In columns 7–8, we estimate remarkably similar magnitudes in a generalized difference-in-difference panel setting. This is reassuring because the specifications in columns 7–8 derive their identifying variation only within-town over-time.

4.4 In Battle

In this section, we study whether the *Forty-Eighters'* leadership extended beyond swaying people to enlist, by tracking those *Forty-Eighters* who enlisted in the Union Army themselves, and estimating their effect on desertion rates in the companies they fought in. We essentially re-estimate the duration analysis performed in [Costa and Kahn \(2003\)](#), just adding indicators for a *Forty-Eighter* commanding officers or private in a company.

While we have much biographical information on some *Forty-Eighters*, for most variables we cannot know how complete our information is. For example, we know of many *Forty-Eighters* who worked for or founded newspapers, but we have no way of verifying that we know of all *Forty-Eighters* who worked for newspapers. Information on the *Forty-Eighters'* involvement in the army is different in this respect: we observe the universe of Union Army soldiers, and we carefully gleaned it for matches to all of the *Forty-Eighters*. We therefore know precisely the 149 *Forty-Eighters* who enlisted in the Union Army. At some level, 149 struck us as low given the *Forty-Eighters* commitment to the anti-slavery cause. However, it is important to note that most *Forty-Eighters* were in their mid-forties or older when the Civil War broke out, which was an advanced age to serve in the Union Army: 95 percent of soldiers in our data were below 40 when they enlisted. In fact, the enlistment agencies discouraged men above 45 from enlisting unless they had military training ([Costa and Kahn, 2010](#), ch.5). As a result of these factors, the historical record suggests that individual *Forty-Eighters'* enlistment decision were primarily driven by whether they had a military background or not.⁵⁶

We split the *Forty-Eighters* who enlisted into commissioned officers who commanded compa-

⁵⁶ [Wittke \(1973, 22\)](#) notes that the *Forty-Eighters* had already divided into two 'types' with arguably different leadership styles in Germany, i.e. those "who belonged to local diets of the Frankfurt Parliament [or were] publicists and editors", and those who "commanded troops in the field". It was mostly the latter types who enlisted in the Union Army 15 years later. While we have no systematic data on their military training in Germany, we find a strong correlation between (possibly incomplete information on) having been involved in military altercations during the German revolutions and enlisting in the Civil War.

nies, i.e. had the rank of ‘captain’, and privates or lower-ranking non-commissioned officers, i.e. corporals or sergeants. There are 22 commanding officers and 75 lower-ranking officers and privates in our data. The remaining *Forty-Eighters* belonged to military staff that could not be linked to companies. These 97 *Forty-Eighters* belonged to 94 different companies; only company F of the 3rd Missouri Infantry, and company K of the 7th New York Infantry had two *Forty-Eighters* each in them.

We treat the presence of either a *Forty-Eighter* commanding officer or private as a company-level characteristic, following the literature on combat motivation, which treats companies as the units of “primary group cohesion” (McPherson 2003, 85, Costa and Kahn 2003). We also follow this literature in focusing on desertion as the outcome and interpreting it as an inverse measure of conviction.⁵⁷ In the following we essentially replicate the core empirical exercise in Costa and Kahn (2003). The main difference is that we have a much larger data set with much fewer controls.⁵⁸ We run the following Cox Proportional Hazard Model

$$\lambda(t) = \exp(x'_I \beta_I + x'_C \beta_C) \lambda_0(t), \quad (2)$$

where $\lambda(t)$ is the time elapsed to a soldier’s desertion (“time to failure”), $\lambda_0(t)$ is the baseline hazard, and a spell without desertion ends in a soldier either being killed, discharged due to wounds, taken prisoner of war, or being ‘mustered out’ after seeing out his enlistment term. The number of observed spells for which have an end-date and end-reason is just over 2 million men. I indexes individual variables, and C indexes company variables. The individual variables x_I are made up of a soldier’s ancestry as predicted by our machine-learning algorithm, his enlistment date, and his enlistment rank, captured as two binary variables for being a commanding officer or a private, with lower-ranking officers the omitted category. For company variables x_C , we approximate the core ethnic-fragmentation measure in Costa and Kahn (2003) by an ancestry-fragmentation measure of identical functional form: s_{ka} is ancestry group a ’s share of men in company k , so that the fragmentation index $FI_k = 1 - \sum_a s_{ka}^2$ is 0 if the company is completely

⁵⁷ In total, 8 percent of all soldiers deserted according to our data, which is slightly lower than estimates of around 10 percent that have been reported elsewhere (Costa and Kahn, 2003).

⁵⁸ Costa and Kahn (2003) peruse a a random sample of 303 companies, i.e. just over 30,000 men, which was collected as the ‘Early Indicators Project’, and for which a huge amount of additional data-sources were manually linked to the military reords. By contrast, we have data on the entire Union Army, but have only the information from the military records for both individuals and companies, as well as individual soldiers’ machine-learning-predicted ancestry.

homogenous and it is bounded above at 1. We add to this our company variables of interest, namely dummies for having a *Forty-Eighter* commanding officer in the company ($Forty-Eighter_k^o = 1$), and for having a *Forty-Eighter* in the company ($Forty-Eighter_k^p = 1$).

Table 9 presents the results of estimating equation (2). We report hazard rates, where a hazard rate of 1.5 means a fifty percent higher probability of desertion. As a baseline, we include only our treatment of interest in column 1. The estimate suggests that a *Forty-Eighter* commanding officer reduced desertion rates by thirty percent in their company, while a *Forty-Eighter* private of lower-ranking officer reduced them by seventeen percent. In columns 2–5 we add the other controls. This serves to check the robustness of the *Forty-Eighter*, as well as to check that the data overall aligns with the existing evidence. Column 2 shows that officers had the lowest desertion rate and privates the highest. Commanding officers were only five percent as likely to desert as the omitted category of lower-ranking officers, and far less likely than privates. Column 3 shows that all immigrants had higher desertion rates relative to American men, but Germans had the lowest desertion rates among immigrants. They were 19 percent more likely to desert than American men, while Scandinavian, Irish and Italian men were respectively 48, 66, and 100 percent more likely to desert. This mirrors the results in [Costa and Kahn \(2003\)](#) who actually state as an explanation that “Germans who fled the revolutions of 1848 were more likely than Irish or British immigrants who migrated for economic reasons to view the United States as the best hope for the survival of a form of republican government.” Column 4 shows that soldiers who enlisted in the first year of the war (the omitted category) were least likely to desert, consistent with historians’ assessment that they had the highest level of enthusiasm for the war ([McPherson, 2003](#), ch1). In 1863, desertion rates were highest, consistent with generally low morale in that year following the costly battles of Antietam and Fredericksburg ([Öfele, 2004](#), 83). Desertion in 1865 was higher primarily because soldiers who considered the war over did not wait to be mustered out before returning home for the harvest. Column 5 adds ancestry fragmentation, the core variable in [Costa and Kahn \(2003\)](#). The estimate implies that a completely homogenous company ($FI_k = 0$) had a 10 percent lower desertion rate than a counterfactual company made up of three equal-sized ancestry groups ($FI_k = 1 - 3 \times 0.33^2 = 0.67$) would have had. Despite our treatment variable’s thin support in the data (with only 94 out of thousands of companies having a *Forty-Eighter*), its estimated effect is surprisingly robust across these specifications. We view this as tentative support for the hy-

Table 9: Desertion of Individual Soldiers

	(1)	(2)	(3)	(4)	(5)
Outcome:			D(Desertion)		
<i>Forty-Eighter</i> Captain in Company	0.70*** [0.000]	0.69*** [0.000]	0.71*** [0.000]	0.77*** [0.003]	0.75*** [0.001]
<i>Forty-Eighter</i> Private in Company	0.83*** [0.000]	0.84*** [0.000]	0.87*** [0.002]	0.92* [0.064]	0.89** [0.015]
D(Officer)		0.05*** [0.000]	0.05*** [0.000]	0.05*** [0.000]	0.05*** [0.000]
D(Private)		2.42*** [0.000]	2.40*** [0.000]	2.29*** [0.000]	2.30*** [0.000]
Omitted: American Soldier					
German Soldier			1.19*** [0.000]	1.20*** [0.000]	1.20*** [0.000]
Scandinavian Soldier			1.48*** [0.000]	1.46*** [0.000]	1.47*** [0.000]
Irish Soldier			1.66*** [0.000]	1.67*** [0.000]	1.68*** [0.000]
Other Immigrant Soldier			2.00*** [0.000]	1.98*** [0.000]	1.99*** [0.000]
Omitted: year==1861					
year==1862				1.10*** [0.000]	1.10*** [0.000]
year==1863				2.00*** [0.000]	2.01*** [0.000]
year==1864				1.19*** [0.000]	1.19*** [0.000]
year==1865				2.14*** [0.000]	2.14*** [0.000]
Ancestry Fragmentation					1.28*** [0.000]
Observations	2,034,475	2,034,475	2,034,475	2,034,475	2,034,475

Notes: The table reports hazard rates from a Cox Proportional Hazard Model. The outcome of interest is the time elapsed to a soldier's desertion ("time to failure"). A spell can alternatively end in a soldier being killed, discharged due to wounds, taken prisoner of war, or being 'mustered out' after seeing out his enlistment term. The number of observations is the number of spells for which have an end-date and end-reason. p-values for robust standard errors are reported in brackets. *** p<0.01, ** p<0.05, * p<0.1.

pothesis that the leadership qualities that allowed the *Forty-Eighter* to influence men to enlist also carried over into other, arguably more testing, settings.

4.5 Long Run Effects

As a final exercise, we ask whether the *Forty-Eighters* left a *permanent* legacy in their towns of settlement. As a long-run outcome that ties closely into the slavery issue, we consider the formation of local chapters of the *National Association for the Advancement of Colored People* (NAACP). The NAACP was formed on February 12th, 1909 (intentionally coinciding with Lincoln’s 100th birthday) to advance political, educational, social, and economic equality for African Americans.⁵⁹ It was the earliest and for many decades the only national political organization that actively pursued the attainment of racial equality. We peruse a dataset on the formation of local NAACP branches, for which we again had to create a crosswalk to the Fishman (2009) towns.⁶⁰

Table 10: Town-Level NAACP Chapters as an Outcome

Outcome:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	<i>D(NAACP founded in town)</i>						<i>Year Founded</i>	
D(Forty-Eighters)	0.376*** [0.000]	0.371*** [0.000]	0.340*** [0.000]	0.439*** [0.000]	0.350*** [0.000]	0.144** [0.012]	-2.430 [0.474]	-5.673 [0.261]
fixed effects:	state	state	county	state	county	state	state	state
core controls	✓	✓	✓	✓	✓	✓	✓	✓
added controls		✓	✓	✓	✓	✓	✓	✓
Strategy:	OLS	OLS	OLS	IV	IV	Matching	OLS	IV
Observations	11,640	11,095	10,971	11,095	10,971	244	274	274
# Forty-Eighter Towns	72	72	66	72	66	58	41	41
Kleibergen-Paap Wald rk F statistic				105.4	94.97			66.33
R-squared	0.149	0.156	0.240			0.611	0.180	

Notes: Columns 1, 2, 3 report on the same specifications as columns 1, 2, 6 in Table 4. Columns 4–5 report on the same IV specifications as columns 2 and 6 in Table 6. Column 6 reports the matched sample specification in column 2 of Table 7 Panel A. Standard errors are clustered at the county-level. *p-values* are reported in square brackets.

Our main outcome of interest is whether a town had a local chapter of the NAACP in the 1909–1965 period that our data covers. In the following we simply re-estimate equation 1 for this long-run outcome. We recognize that one might want to make changes to the empirical setup given the long-run nature of this outcome. For example, one might want to transform the treatment variable

⁵⁹By the early 1960s it lost much of its importance to new-found organizations that were more directly involved in the Civil Right struggle.

⁶⁰A research team at the University of Washington has digitized the time-line of NAACP branches from the NAACP’s Annual Reports and branch directories, and made this collection available for download.

of interest to distinguish *Forty-Eighters* who stayed in their towns long after the Civil War; or add additional control variables to capture events that occurred after the Civil War. However, given the paper's focus, and that this is the last set of empirical results, we believe it is more transparent and appropriate to re-run the exact same specifications as before.

Columns 1–3 in Table 10 repeat the OLS specifications in columns 1, 2, and 8 of Table 4. Columns 4–5 repeat the IV specifications in columns 2 and 4 of Table 6. Across columns 1–5, the estimated coefficients suggest that *Forty-Eighter*-towns were about 35 percent more likely to see the founding of a local chapter of the NAACP sixty or seventy years later. Column 6 repeats the core specification on the matched sample, equivalent to column 2 of Table 7. The effect is considerably smaller in column 6, where larger towns are omitted in the propensity-score matched sample. In this sample of smaller towns only, *Forty-Eighter*-towns were only about 15 percent more likely to see the founding of a local chapter. The effect of propensity-score matching on the estimated coefficient is this much more pronounced than it was for our previous results. Our interpretation of this fact is that de-selecting the largest towns in 1850 is likely to affect the *Forty-Eighters'* estimated long-run impact more than it affects their short-run impact. This is because 20th-century outcomes like the founding of an NAACP chapter largely depended on a town's 20th-century population size, and because towns that were large in 1850 were all still very large in the middle of the 20th century, whereas towns that were smaller in 1850 varied a lot in their subsequent long-run growth trajectory. Given the sample selection, we therefore view the estimated coefficient in column 6 as a lower bound. Finally, in columns 7–8 we also consider the founding year of a town's NAACP chapter as an added outcome, with the sample naturally limited to towns that ever had a chapter. The coefficient has the expected sign, but it is imprecisely estimated.

5 Discussion and Conclusion

A growing body of theoretical literature on social networks points to the importance of individual leaders in the formation and equilibrium selection of beliefs, behaviors and social norms. However, in contrast to an abundant literature on leadership in formal organizations like corporations or governments, there is no rigorous empirical evidence for the importance of leadership inside social networks. This is in large part due to the difficulty of assigning the label 'leader' to individ-

uals, and to the 'reflection problem' of not knowing whether someone who is viewed as a leader is in fact a driver or perhaps merely a symbol of change. In studying the effect of the *Forty-Eighters* on enlistments for the Union Army, we have a setting that addresses these difficulties because leaders are defined ex-ante based on their actions prior to joining the social networks in which we study them.

This allows us to provide empirical evidence for the importance of informal leadership at a critical juncture in 19th century history. Across a wide range of specifications and identification strategies, we robustly find that the *Forty-Eighters* Union Army volunteering in a town by between eight and fifteen soldiers per hundred adult men, or by around seventy percent in log terms. Evidence on mechanisms and auxiliary outcomes is presented to buttress our core findings.

References

- Acemoglu, Daron and Matthew O Jackson**, "History, Expectations, and Leadership in the Evolution of Social Norms," *Review of Economic Studies*, 2015, 82 (2), 423–456.
- Akerlof, Robert and Richard Holden**, "Movers and shakers," *The Quarterly Journal of Economics*, 2016, 131 (4), 1849–1874.
- Alsan, Marcella, Katherine Eriksson, and Gregory T. Niemesh**, "The Causes and Consequences of Nativism in the United States: Evidence from the Know-Nothing Party," 2018.
- Ambekar, Anurag, Charles Ward, Jahangir Mohammed, Swapna Male, and Steven Skiena**, "Name-ethnicity classification from open sources," in "Proceedings of the 15th ACM SIGKDD international conference on Knowledge Discovery and Data Mining" ACM 2009, pp. 49–58.
- Arndt, Karl John Richard**, *German-American newspapers and periodicals, 1732-1955: history and bibliography*, Vol. 1, Johnson Reprint Corp., 1965.
- Atack, Jeremy**, "Historical Geographic Information Systems (GIS) database of Steamboat-Navigated Rivers During the Nineteenth Century in the United States," September 2015.
- Bahdanau, Dzmitry, Kyunghyun Cho, and Yoshua Bengio**, "Neural machine translation by jointly learning to align and translate," *arXiv preprint arXiv:1409.0473*, 2014.
- Bailey, Martha, Connor Cole, Morgan Henderson, and Catherine Massey**, "How well do automated linking methods perform in historical samples? Evidence from new ground truth," *Unpublished manuscript*, 2017.
- Barney, Robert Knight**, "Knights of Cause and Exercise: German Forty-Eighters and Turnvereine in the United States during the Antebellum Period," *Canadian Journal of History of Sport*, 1982, 13 (2), 62–79.
- Baron, Frank**, "Abraham Lincoln and the German Immigrants: Turners and Forty-Eighters," 2012.
- Bertrand, Marianne and Antoinette Schoar**, "Managing with Style: The Effect of Managers on Firm Policies," *Quarterly Journal of Economics*, 2003, 118 (4).
- Bolton, Patrick, Markus K Brunnermeier, and Laura Veldkamp**, "Leadership, coordination, and corporate culture," *Review of Economic Studies*, 2012, 80 (2), 512–537.
- Borjas, George J and Kirk B Doran**, "The Collapse of the Soviet Union and the Productivity of American Mathematicians," *The Quarterly Journal of Economics*, 2012, 1143, 1203.
- Bretting, Agnes**, *Soziale probleme deutscher einwanderer in New York city: 1800-1860*, Vol. 2, Steiner-Verlag Wiesbaden, 1981.
- Caillaud, Bernard and Jean Tirole**, "Consensus building: How to persuade a group," *The American Economic Review*, 2007, pp. 1877–1900.
- Chang, Jonathan, Itamar Rosenn, Lars Backstrom, and Cameron Marlow**, "ePluribus: Ethnicity on Social Networks," *ICWSM*, 2010, 10, 18–25.
- Chiu, Jason PC and Eric Nichols**, "Named entity recognition with bidirectional LSTM-CNNs," *arXiv preprint arXiv:1511.08308*, 2015.

- Clubb, Jerome M, William H Flanigan, and Nancy H Zingale**, "Electoral data for counties in the United States: Presidential and congressional races, 1840-1972," 1987.
- Costa, Dora L and Matthew E Kahn**, "Cowards and Heroes: Group Loyalty in the American Civil War," *The Quarterly Journal of Economics*, 2003, 118 (2), 519–548.
- and —, *Heroes and cowards: The social face of war*, Princeton University Press, 2010.
- Curti, Merle**, "The Impact of the Revolutions of 1848 on American Thought," *Proceedings of the American Philosophical Society*, 1949, 93 (3), 209–215.
- Dahlinger, Charles William**, *The German Revolution of 1849: Being an Account of the Final Struggle, in Baden, for the Maintenance of Germany's First National Representative Government*, Putman's, 1903.
- DellaVigna, Stefano and Matthew Gentzkow**, "Persuasion: empirical evidence," *Annu. Rev. Econ.*, 2010, 2 (1), 643–669.
- Dewan, Torun and David Myatt**, "The Qualities of Leadership: Direction, Communication, and Obfuscation," *American Political Science Review*, 2008, 102 (3), 351–368.
- Doyle, Don H**, *The cause of all nations: An international history of the American civil war*, Basic Books, 2014.
- Edmunds, James Madison**, *Statistics of the United States,(including Mortality, Property, & C.) in 1860*, US Government Printing Office, 1866.
- Feigenbaum, James J**, "A Machine Learning Approach to Census Record Linking," Technical Report, Working Paper 2016.
- Ferrie, Joseph P**, "A new sample of males linked from the public use microdata sample of the 1850 US federal census of population to the 1860 US federal census manuscript schedules," *Historical Methods: A Journal of Quantitative and Interdisciplinary History*, 1996, 29 (4), 141–156.
- Fishman, Michael J**, "Population of Counties, Towns, and Cities in the United States, 1850 and 1860. ICPSR09424-v2," *Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor]*, 2009, pp. 02–17.
- Foner, Eric**, *Free Labor, Free Soil, Free Men: The Ideology of the Republican Party Before the Civil War*, New York: Oxford University Press, 1970.
- Frei, Juerg**, *Schweizerische Fluechtlingspolitik nach der Revolution von 1848 und 1849*, Dissertation, University of Zurich, 1977.
- Galeotti, Andrea and Sanjeev Goyal**, "The law of the few," *The American Economic Review*, 2010, 100 (4), 1468–1492.
- Gentzkow, Matthew, Edward L. Glaeser, and Claudia Goldin**, "The Rise of the Fourth Estate. How Newspapers Became Informative and Why It Mattered," in "Corruption and Reform: Lessons from America's Economic History" NBER Chapters, National Bureau of Economic Research, Inc, 2006, pp. 187–230.
- , **Jesse M Shapiro, and Michael Sinkinson**, "The Effect of Newspaper Entry and Exit on Electoral Politics," *American Economic Review*, 2011, 101 (7), 2980–3018.

- Glazier, Ira A.**, *Germans to America Series II: the 1840s*, Scarecrow Press, 2005.
- **and P. William Filby**, *Germans to America Series I: Lists of Passengers Arriving at US Ports, 1850-1897*, Scarecrow Press, 1999.
- Goodheart, Adam**, *1861: The Civil War Awakening*, Vintage, 2011.
- Gould, Benjamin A.**, *Investigations in the Military and Anthropological Statistics of American Soldiers*, Published for the U. S. sanitary commission, by Hurd and Houghton. Cambridge: Riverside Press, 1869.
- Hacker, J David**, “A census-based count of the Civil War dead,” *Civil War History*, 2011, 57 (4), 307–348.
- Haines, Michael R.**, “Inter-university Consortium for Political and Social Research. Historical, Demographic, Economic, and Social Data: The United States, 1790–2002,” *Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor]*, 2010, pp. 05–21.
- Hall, Andrew B, Connor Huff, and Shiro Kuriwaki**, “When Wealth Encourages Individuals to Fight: Evidence From the American Civil War,” 2017.
- Harris, J Andrew**, “What’s in a name? A method for extracting information about ethnicity from names,” *Political Analysis*, 2015, 23 (2), 212–224.
- Hermalin, Benjamin E.**, “Toward an economic theory of leadership: Leading by example,” *American Economic Review*, 1998, pp. 1188–1206.
- Hochreiter, Sepp and Jürgen Schmidhuber**, “Long short-term memory,” *Neural computation*, 1997, 9 (8), 1735–1780.
- Hofmann, Annette R.**, “The turners’ loyalty for their new home country: Their engagement in the American civil war,” *The International Journal of the History of Sport*, 1995, 12 (3), 153–168.
- Hornung, Erik**, “Immigration and the Diffusion of Technology: The Huguenot Diaspora in Prussia,” *The American Economic Review*, 2014, 104 (1), 84–122.
- Imbens, Guido W. and Donald B. Rubin**, *Causal Inference for Statistics, Social, and Biomedical Sciences: An Introduction*, Cambridge University Press, 2015.
- Jones, Benjamin F and Benjamin A Olken**, “Do Leaders Matter? National Leadership and Growth Since World War II,” *The Quarterly Journal of Economics*, 2005, 120 (3), 835–864.
- Jung, Joseph (Hrsg.)**, *Digitale Briefedition Alfred Escher, Launch Juli 2015 (laufend aktualisiert)*, Zürich: Alfred Escher-Stiftung, 2015.
- Kamphoefner, Walter**, *Germans in the Civil War: The Letters They Wrote Home*, New York: University of North Carolina P, 2006.
- Kim, Yoon, Yacine Jernite, David Sontag, and Alexander M Rush**, “Character-Aware Neural Language Models,” in “AAAI” 2016, pp. 2741–2749.
- Lazear, Edward P.**, “Leadership: A personnel economics approach,” *Labour Economics*, 2012, 19 (1), 92–101.

- Lee, Jinhyuk, Hyunjae Kim, Miyoung Ko, Donghee Choi, Jaehoon Choi, and Jaewoo Kang,** "Name Nationality Classification with Recurrent Neural Networks," 2017.
- Levine, Bruce,** *The Spirit of 1848*, University of Illinois Press, 1980.
- Lindsey, Charles, Simon Sheather et al.,** "Variable selection in linear regression," *Stata Journal*, 2010, 10 (4), 650.
- Loeper, Antoine, Jakub Steiner, and Colin Stewart,** "Influential Opinion Leaders," *The Economic Journal*, 2014, 124 (581), 1147–1167.
- Manski, Charles F,** "Identification of endogenous social effects: The reflection problem," *The review of economic studies*, 1993, 60 (3), 531–542.
- McPherson, James M,** *For Cause and Comrades: Why Men Fought in the Civil War*, Oxford University Press, 1997.
- , *Battle Cry of Freedom: The Civil War Era*, Oxford University Press, 2003.
- Metzner, Heinrich,** *Jahrbücher der Deutsch-Amerikanischen Turnerei*, Heinrich Metzner, New York, 1890—1894.
- Mikolov, Tomas, Martin Karafiát, Lukas Burget, Jan Cernock, and Sanjeev Khudanpur,** "Recurrent neural network based language model," in "Interspeech," Vol. 2 2010, p. 3.
- Mitchell, Reid,** "The Northern Soldier and His Community," 1990.
- Moser, Petra, Alessandra Voena, and Fabian Waldinger,** "German Jewish émigrés and US invention," *The American Economic Review*, 2014, 104 (10), 3222–3255.
- Murphy, Kevin M. and Andrei Shleifer,** "Persuasion in Politics," *American Economic Review*, May 2004, 94 (2), 435–439.
- Nagel, Daniel,** *Von republikanischen Deutschen zu deutsch-amerikanischen Republikanern: ein Beitrag zum Identitätswandel der deutschen Achtundvierziger in den Vereinigten Staaten 1850-1861* Mannheimer historische Forschungen, Röhrig Universitätsverlag, 2012.
- Neem, Johann N,** *Creating a Nation of Joiners: Democracy and Civil Society in Early National Massachusetts*, Vol. 163, Harvard University Press, 2009.
- Öfele, Martin,** *German-speaking Officers in the United States Colored Troops, 1863-1867*, University Press of Florida, 2004.
- Poole, Keith T and Howard Rosenthal,** "Patterns of congressional voting," *American Journal of Political Science*, 1991, pp. 228–278.
- Pratt, Harry Edward,** *The Personal Finances of Abraham Lincoln*, The Abraham Lincoln Association, 1943.
- Putnam, Robert D,** *Bowling alone: The collapse and revival of American community*, Simon and Schuster, 2001.
- Raab, Heinrich,** "Revolutionare in Baden 1848/49," *Biographisches Inventar für die Quellen im Generallandesarchiv Karlsruhe und im Staatsarchiv Freiburg (Veröffentlichungen der Staatl. Archivverwaltung Baden-W., 48)*, Stuttgart: Kohlhammer, 1998.

- Real, Willy**, *Die Revolution in Baden, 1848/49*, Kohlhammer, 1983.
- Reiter, Herbert**, *Politisches Asyl im 19. Jahrhundert: Die deutschen politischen Flüchtlinge des Vormärz und der Revolution von 1848/49 in Europa und den USA*, Berlin: Duncker & Humblot, 1992.
- Rosenbaum, Paul R. and Donald B. Rubin**, "Constructing a control group using multivariate matched sampling methods that incorporate the propensity score," *American Statistician*, 1985, 39 (1), 33–38.
- Rupieper, Hermann-Josef**, "Die Polizei und die Fahndungen anlässlich der deutschen Revolution von 1848/49," *VSWG: Vierteljahrschrift für Sozial-und Wirtschaftsgeschichte*, 1977, 64 (H. 3), 328–355.
- Sariyar, Murat and Andreas Borg**, "The RecordLinkage Package: Detecting Errors in Data.," *R journal*, 2010, 2 (2).
- Siemann, Wolfram**, *1848/1949 in Deutschland und Europa*, Schöningh Verlag, 2006.
- Srinivasan, Bhu**, *Americana: A 400-year History of American Capitalism*, Penguin, 2017.
- Treeratpituk, Pucktada and C Lee Giles**, "Name-Ethnicity Classification and Ethnicity-Sensitive Name Matching.," in "AAAI" 2012.
- Valentin, Veit**, *Geschichte der deutschen Revolution von 1848-1849. 1. Bis zum Zusammentritt des Frankfurter Parlaments*, Ullstein, 1930.
- Wasi, Nada, Aaron Flaaen et al.**, "Record linkage using stata: Pre-processing, linking and reviewing utilities," *Stata Journal*, 2015, 15 (3), 672–697.
- Werbos, Paul J**, "Backpropagation through time: what it does and how to do it," *Proceedings of the IEEE*, 1990, 78 (10), 1550–1560.
- White, Richard**, *The Republic for which it Stands: The United States During Reconstruction and the Gilded Age, 1865-1896*, Oxford University Press, 2017.
- Whitridge, Arnold**, *Men in Crisis: The Revolutions of 1848*, C. Scribner's Sons, 1949.
- Wiley, Bell**, "life of Billy Yank, the common soldier of the Union," 1952.
- Wittke, Carl Frederick**, *Refugees of Revolution: The German Forty-Eighters in America*, Greenwood Press, 1970.
- , *The German-language press in America* number 47, Ardent Media, 1973.
- Wust, K.**, *Guardian on the Hudson: The German Society of the City of New York, 1784-1984*, The Society, 1984.
- Zucker, Adolf Eduard**, *The Forty-Eighters: Political Refugees of the German Revolution of 1848*, Columbia University Press, 1950.

Appendix A Data

Appendix A.1 The *Forty-Eighters*

We started with the 318 accounts listed in the explicitly biographical book by [Zucker \(1950\)](#). We complement this source with names from [Wittke's \(1970\)](#) book on the *Forty-Eighters'* influence in U.S. politics, which includes over 400 individual names. [Raab's \(1998\)](#) index of revolutionaries in the German state of Baden gives us another 43 names. Finally, [Baron's \(2012\)](#) book includes a name index with over 300 *Forty-Eighters*. All three sources overlap in large part with [Zucker \(1950\)](#), but each also contains some new names. In total, we end up with a list of just over 500 individuals, and we completed their U.S. biographies through individual searches in genealogical online sources. [Ancestry.com](#) to follow these individuals over their life and code their locations in Germany and the United States. We can locate 493 in the towns they settled in. In [Online Appendix E](#), we list in abbreviated form the biographies of the *Forty-Eighters*.

Appendix A.2 The Union Army Data

Appendix A.2.1 Full-Count Census Linkage for the Union Army Data

For record-linkage, we use STATA's command `dtalink`, which has substantial advantages over other record-linkage packages in terms of the control it offers. For each string, variable a positive weight for a match and a negative weight for a mismatch are specified. Negative weights for mismatches are appropriate when the fact of a not-exactly matching variable is a strong indication of a non-match. For example, initials should be expected to match between records for the same person. Positive weights for matches are appropriate when the fact of an exactly matching variable is a strong indication of a match, but the absence of a match is not a strong indication of a mismatch. For example, a non-matching first name should not receive a negative weight because first names are prone to being abbreviated, i.e. Bartholomew can become Bart, or Charles can become Chad. To account for this, one can create an extra variable consisting of the first, say, three letters of a first name, so that Bartholomew matches Bart, and Charles matches Chad. The only commonly abbreviated name we found that is not captured by this rule is William so that we changed William to Wm in all data-sets.

For numeric variables, one can additionally define a 'caliper', which is an allowed deviation from an exact match. For example, in the Full-Count census, birth year is given, but in the Army register we constructed birth year as enlistment-age minus the year of enlistment. This latter constructed variable can easily be off by one year in either direction so that it is important to allow a caliper of 1 in the matching, i.e. 1840 and 1841 as well as 1840 and 1839 are considered exact matches, but 1839 and 1841 are not.

The exact variables and weights we settled on are:

- last name 11 -6
- last name initials 5 -1
- firstname 5 0
- firstname first three 5 -1
- firstname-initials 5 -2
- middlename-initials 2 -2

- year-of-birth YOB 5 -1 1
- YOB 0 -4 3
- town-name 5 -3
- county string-code 5 -3

Missing variables generate no weight. So a located soldier whom we find in the same town in the Full-Count census, receives a 5-point-higher weight from this match, but a soldier who is unlocated in the Army register does not receive a negative weight for this missing data-point. Since we are matching two data-sets in which one record uniquely identifies a person, we used 1:1 matching, so that every master-data-observation is matched to at most one using-data observation, and this using observation has its highest match-score in this pairing. The match-score cutoff we chose is 30. Given the weights listed above, 30 is a high match-score for soldiers who have no location information in the army registers. We are therefore very confident that matches of 30 or above are correct. It is important that we prevent matching location information from dominating poorly-matching name-matching: this is achieved by the negative weights on non-matching last names and non-matching middle-name initials.

Appendix A.3 Inferring Soldiers' Ancestry Using Machine Learning

This section describes how we trained a Machine Learning Algorithm on the 1860 Full Count U.S. Census (where we observe place of birth) and then applied the trained algorithm to the Union Army Enlistment Data discussed in [Appendix A.4](#) (where we do not observe place of birth). A vast corpus of computer science and statistical learning literature is devoted to the question if characters of a word can be used to investigate how words are classified. In comparison to proper nouns of other types (such as company names), personal names have many more conventional structures than others. For example, German names tend to end with "berg" or "mann", while Mexican names often end with "guez" or "arro". At the same time, naming conventions become less stable and much more difficult to identify when a model predicts a specific nationality given a specific individual name.

Despite the availability and simplicity of name data, few studies utilize personal names to predict individual nationality or ethnicity. Using decision trees, [Ambekar, Ward, Mohammed, Male and Skiena \(2009\)](#) and [Treeratpituk and Giles \(2012\)](#) classify ethnic groups on a corpus of news data. [Chang, Rosenn, Backstrom and Marlow \(2010\)](#) develop a Bayesian classifier with name data from the U.S. Census. [Harris \(2015\)](#) predicts ethnicity based on proportions of each unique name within ethnic groups.

One of the key challenges with predicting nationality based on name information is that important patterns (i.e., combinations of n specific name characters, n -grams) are not known a priori. The standard way developed in statistics and econometrics to approach this problem includes two-steps. In a first step, all potential combinations of characters of a given length n , n -grams, are extracted from the corpus of names and are used as binary covariates. In the next step, a statistical model (e.g., logistic regression, ridge-regression, random forest, etc) is applied to the processed data to calculate predictions. This approach, however, requires a significant computation capacity and often fails even on industrial supercomputers.

[Mikolov, Karafiát, Burget, Cernock and Khudanpur \(2010\)](#) and [Bahdanau, Cho and Bengio \(2014\)](#) show that recurrent neural networks are cost-effective alternatives to other approaches to language modeling. Recurrent neural networks iteratively introduce additional n -grams as covariates, update the prediction and keep them only if the quality of prediction increased higher than

Table A1: Sample of linked Individuals

Army Rosters Data										Census Data									
first name	last name	enlistm. date	enlistm. age	county of residence	state of residence	dtalink score	first name	last name	birthyear	town of residence	county of residence	state of residence							
Lewis	Wentworth	04feb1864	18		OH	30	Lewis	Wentworth	1848	Caryall	Paulding	OH							
Daniel	Williams	30aug1863	19		MA	30	Daniel	Williams	1847	Concord	Middlesex	MA							
Milo	Kemp	14aug1864	21		OH	30	Milo	Kemp	1845	Dayton	Montgomery	OH							
James P	Henry	06dec1864	22		NY	31	James	Henry	1843	North Salem	Westchester	NY							
Thomas	Johnson	27mar1865	.		PA	31	Thomas	Johnson	1834	Tyrone	Blair	PA							
Thomas	Brennan	01aug1862	.		LA	31	Thomas	Brennan	1851	New Orleans	Orleans	LA							
Peter H	Williams	06sep1861	19		OH	32	Peter H	Williams	1844	Uniopolis	Auglaize	OH							
James H	Danner	15aug1864	28		OH	32	James H	Danner	1839	Raccoon	Gallia	OH							
Joseph C	Smith	20aug1861	25		NY	32	Joseph C	Smith	1833	Hector	Schuyler	NY							
Charles W	Scott	27oct1864	.		NY	33	Charles W	Scott	1848	Warwarsing	Ulster	NY							
Charles D	Zane	19aug1861	.		NJ	33	Charles D	Zane	1844	Upper Penn's Neck	Salem	NJ							
Jose M	Garcia	31may1862	.		NM	33	Jose M	Garcia	1817	Hamlet Of La Bolsa	Valencia	NM							
William	Hinton	21jun1861	34	Centre	PA	35	Wm	Hinton	1830	Snowshoe	Centre	PA							
Francis	Bates	09aug1861	37	Houghton	MI	35	Francis	Bates	1827	Portage	Houghton	MI							
Elias	Bedleman	22feb1864	34	Dauphin	PA	35	Elias	Bedleman	1832	Middletown	Dauphin	PA							
William	Morgan	02sep1864	23		NY	36	Wm	Morgan	1841	Chesterfield	Essex	NY							
Ralph	Norton	20jan1864	37		NY	36	Ralph	Norton	1828	Manlius	Onondaga	NY							
Hiram	Coolidge	21mar1864	19		OH	36	Hiram	Coolidge	1845	Paris	Union	OH							
John L	Miller	12jan1862	18	Monroe	MI	37	John L	Miller	1847	La Salle	Monroe	MI							
Levi T	Greenlee	28oct1861	20	Wayne	IA	37	Levi T	Greenlee	1843	Benton	Wayne	IA							
Wesley A	Harbeson	02oct1863	18	Lee	IA	37	Wesley A	Harbeson	1847	Harrison	Lee	IA							
Thomas C	Cory	07sep1861	23		OH	38	Thomas C	Cory	1838	Cranberry	Crawford	OH							
Napoleon B	Carpenter	26aug1861	24		NY	38	Napoleon B	Carpenter	1838	New York	New York	NY							
Luther B	Phelps	23aug1862	22		NY	38	Luther B	Phelps	1841	Gouverneur	St Lawrence	NY							
John	Brunner	17jun1863	22	Lebanon	PA	41	John	Brunner	1841	Swatara	Lebanon	PA							
John	Phillips	21jul1862	21	Mahaska	IA	41	John	Phillips	1842	Oskaloosa	Mahaska	IA							
Edward	Larkins	21may1861	28	Wayne	MI	41	Edward	Larkins	1832	Plymouth	Wayne	MI							
Edward P	Clark	19jun1861	28	Washtenaw	MI	43	Edward P	Clark	1833	Ann Arbor	Washtenaw	MI							
Nathan W	Brock	23may1864	39	Dallas	IA	43	Nathan W	Brock	1824	Dallas	Dallas	IA							
George W	Webb	18oct1863	18	Pope	AR	43	George W	Webb	1845	Illinois	Pope	AR							

Notes: To illustrate with examples how match scores vary in the linkage procedure outlined in [Appendix A.2.1](#), this table reports on a random sample of three matches for each match-score that is observed in the data.

a certain threshold. Thus, they effectively keep and operate over important patterns only. [Bahdanau et al. \(2014\)](#) show that recurrent neural networks outperform most of the standard models of statistical learning on large-size data-sets for tasks such as machine translation while not suffering from over-fitting (see also, [Hochreiter and Schmidhuber \(1997\)](#)). [Kim, Jernite, Sontag and Rush \(2016\)](#), [Chiu and Nichols \(2015\)](#), and [Lee, Kim, Ko, Choi, Choi and Kang \(2017\)](#) use character level embedding with a recurrent neural network for a set of classification tasks, including personal name classification.

We build on the results from [Hochreiter and Schmidhuber \(1997\)](#), [Chiu and Nichols \(2015\)](#), and [Lee et al. \(2017\)](#) to develop a recurrent neural network based model which predicts nationality using an individual's first and last name. Using character embedding, our model automatically extracts character-level features for the first and last name to predict the propensity with which a person belongs to a specific nationality (Germany, Scandinavia, Italy, Ireland, or 'Other/USA'). We trained our model with back-propagation through time ([Werbos, 1990](#)).

Appendix A.4 Historical Town and County Controls

At the city level, we observe only population counts by race and gender, from [Fishman \(2009\)](#). We thank Michael Haines for sharing his cleaned version of the 1850 and 1860 town-level data. In addition, we geo-coded the location of all towns, which allows us to calculate a rich set of geographic location factors. These include longitude and latitude, log elevation, the mean temperature and precipitation, and the following set of (log) distance variables: distance to the coast, to the next navigable river, and the railway network in 1850 (provided by [Atack, 2015](#)).

Appendix A.4.1 Historical County-Level Controls

In addition, we gleaned the following 1850 county-level controls from the *Historical, Demographic, Economic, and Social Data: The United States, 1790-2002* ([Haines, 2010](#)):

- Economic: urbanization, manufacturing employment and output, farmland's share of area, farm equipment value
- Demographic: population size, foreign born, German-born, churches
- Voting: Party vote-shares by presidential election

Appendix A.5 Factors Attracting the *Forty-Eighters* into Specific Towns

Appendix A.5.1 *Metzler's Map for Immigrants*

A novel control variable that we are introducing for this paper is *Metzler's Map for Immigrants*; see [Figure A1](#). This map was published in Germany in 1853 to show emigrants the main travel routes across the ocean to the U.S. and within the U.S. along with some information about fares. Based on this map, we calculate all cities' distance to the nearest city on Metzler's map.

Appendix A.5.2 Mapping the *Germans to America* Shipping Lists into U.S. Towns

Here we describe the *Germans to America* passenger arrival lists, and the matching process to link them to Germans in the Full-Count 1860 Census.

The 'Germans to America' Shipping Lists are the universe of 4 million Germans who arrived in the U.S. between 1840 and 1896. The collection is split into an 1840–1849 collection ([Glazier,](#)

Figure A1: Metzler's Map for Immigrants



Notes: This map depicts the second edition of Metzler's *Auswanderer Karte*, published in 1853.

2005), and an 1850–1896 collection [Glazier and Filby \(1999\)](#), roughly two meters of book in total, neatly organized in chronological fashion. From digitized the years 1848–1852, and then linked these arrival records to the universe of German-born in the Full-Count 1860 Census.

The algorithm performs the following steps:

1. clean name and location information
2. split the sample into male and female sub-samples
3. use Stata's `reclink2` command ([Wasi, Flaaen et al., 2015](#)) to match passenger list and Census information via bi-gram based on
 - first name [6] and last name [16]
 - age in 1860 [14]
 - first letter of first name [3] and last name [3] (blocking variables)

where numbers in brackets are the relative weight with which each variable enters the matching algorithm.

4. assess match quality by computing
 - the token soundex of first and surname
 - the age difference between passenger and Census match

and keep those matches where the token soundex of both first and surname is non-zero and the age difference is within a ± 2 years interval.

Step 1 helps to improve the match quality. Step 2 reduces the dimension of the matching problem. Step 3 matches names of individuals in the passenger lists and the Census by computing a bi-gram score. The choice of matching variables was mainly determined by information that was available in both datasets. First name, last name, and age are typical quantities to match on (e.g. [Feigenbaum \(2016\)](#)). Note that we did not transform the names by using the soundex or NYSIIS algorithm. While transforming names into phonetic codes helps with spelling mistakes,⁶¹ it also removes useful information. Mikail and Michael will have the same soundex code because they sound similar even though one name is probably of Russian origin whereas the other one is not. It has been shown that matching on soundex- or NYSIIS-transformed names typically performs worse than matching on untransformed names ([Bailey, Cole, Henderson and Massey, 2017](#)).

The choice of weighting different variables is somewhat arbitrary. There is more variation in surnames than first names, hence the difference in information content motivates the difference in weights but there is no explicit guidance on the use of weights. [Wasi et al. \(2015\)](#) and the documentation of the Stata command `reclink2` provide a discussion.

Blocking on the first letter of first and surname reduces the dimension of the matching problem but will miss individuals who have a ypin in the first letter of their names.⁶² Otto will match with Otho but not with Utto.

⁶¹Phonetic codes assign a unique code to names that sound similar. For example, the soundex code C365 includes Catharina, Catharine, Cathrin, Cathrine, ...

⁶²Blocking means that a potential match has to agree on certain criteria to be considered as a valid match. Observations which do not agree on the chosen criteria are discarded and the dimension of the matching problem is reduced. Blocking is commonly used in record linking (see [Sariyar and Borg \(2010\)](#)).

Step 4 seeks to reduce the false positive rate, i.e. matches that were made but which are not correct. Matches were dropped if the soundex of first and surname was zero, and if the matched Census observation was outside a ± 2 years interval around the age of the corresponding passenger. Hence matches of John Smith aged 31 with Henry Smith (31) or John Smith (35) would have been discarded while a match with John Smith (32) would have been kept. Such criteria are also used in the machine learning algorithm by Feigenbaum (2016) even though he applies these filters before performing the match in order to reduce the dimensionality of the matching problem.

Because of a lack of one gold standard method for performing record linkage, there are several different algorithms which are often tweaked and altered by following applications. We discuss these in [Online Appendix C](#).

Appendix A.6 Turner Societies

German immigrants had a strong sense for cultural heritage, and social organizations as they knew them from home were one way to preserve this heritage. These clubs included card clubs, music societies, sharpshooter organizations, library associations, and so-called *Turnvereine* ('Turner Societies'). The latter were probably the most prominent kind of social clubs, and certainly the most political ones. Many *Forty-Eighters* were members of them if not their founders. One of the first Turner Societies was founded in Cincinnati in 1849 by Friedrich Heckler, a prominent *Forty-Eighter* who had led the revolution in the German state of Baden (Barney, 1982). Subsequently, more Turner Societies were founded across the entire U.S., thus creating a social network with substantial political leverage.

The origin of the Turner Society goes back to Friedrich Ludwig Jahn—sometimes referred to as *Turnvater* Jahn—who defined gymnastic principles for physical fitness. He opened a first outdoor gymnasium (*Turnplatz*), in Berlin-Hasenheide in 1811 and the Turner movement spread quickly to other locations in Germany. What sounds like a leisure movement focused on athletics was in reality a highly political movement. Jahn was a patriot who believed that physical education would raise young gymnasts physical and moral powers and their sense for national identity. In this way, he was hoping to prepare them for military service and the liberation of the German lands from Napoleon and France. But Jahn was also a liberal thinker who dreamed of overthrowing the feudal order of serfdom and reorganizing Germany into a unified nation state, a republic. While the Prussian authorities supported the first purpose, they were less impressed with the nationalist movement and banned *Turnen* between 1819-1842. After the ban was lifted, Turner Societies became centers of political discussions and activities and it is not surprising that they were the breeding ground for the revolution. Many *Forty-Eighters* were members of the Turner Societies in Germany.

Upon their arrival, the *Forty-Eighters* established the Turner movement in the United States, and the nationwide Turner network helped them spread their liberal ideals. Among their main goals was to fight American nativism and to abolish slavery. Consequently, most Turners were active supporters of the newly founded Republican Party during the 1850s and 60s. Among others, they helped protecting anti-slavery activists during public speeches; Turners were Lincoln's bodyguards for his first inauguration (Zucker, 1950; Baron, 2012) and when the Civil War started in 1861, they formed special "Turner Regiments" (Hofmann 1995, p.158, Wittke 1970, p.225 estimates that 60 percent to 80 percent of the Turners enlisted for the Civil War.

Online Appendix

to

**“Leadership and Social Norms:
Evidence from the *Forty-Eighters* in the Civil War”**

Online Appendix A The 1848–1849 Revolutions in Germany

Somewhat surprised by the revolutionary movement, rulers of smaller German states—what we know as Germany today comprised 39 independent states which were part of the German Confederation—were fast to give in. Eventually, also King Frederick William IV of Prussia agreed to pass a constitution, establish a parliament, and support German unification. In March 1849, almost one year after the beginning of the revolution, the Constitutional Assembly in Frankfurt issued a first constitution. It was designed as foundation of a liberal constitutional state with a strong parliament to control the government and the Prussian king at its head. 28 of the German states passed the constitution but the Prussian king, despite his earlier agreement, refused to “pick up a crown from the gutter” and rejected the constitution on 28 April 1849. In the following counter-revolution, the absolutist rulers fought the revolutionaries and re-established the situation before the March Revolution. After some last uprisings, most notably in Baden, Palatine, Saxony and Württemberg, the revolutionary momentum eventually abated in the summer of 1849.⁶³

When the Prussian-led troops eventually quelled the last uprisings in the southwest of Germany, several thousand German revolutionaries escaped to Switzerland. There are different reasons why Switzerland was a good choice for the revolutionaries. Importantly, it was geographically close, considered a safe country of asylum, and, following the so-called *Sonderbund War* (‘Sonderbundkrieg’),⁶⁴ Switzerland had already transformed into a federal republic with a democratic constitution. However, the substantial inflow of revolutionaries from German states, Italy and France presented a serious organizational and financial challenge to Switzerland. Even worse, the refugees presence raised concerns that Prussia and Austria could use their military power to force Switzerland to expel or deliver the revolutionaries. Faced with this threat, Switzerland put pressure on regular soldiers, who had little to fear, to return to their home countries. Leaders of the revolution like Gustav Struve, Lorenz Brentano or August Willich were expelled and, with the help of France, shipped to the United States. As a result, the number of German refugees in Switzerland decreased rapidly from more than 8350 at the beginning of September 1849 to roughly 2,000 in January 1850 and as little as 883 refugees in August 1850 (Jung, 2015; Nagel, 2012; Reiter, 1992). This expulsion is nicely illustrated in a cartoon (Figure [Online Appendix Figure 1](#)) where Prussian soldiers led by Friedrich Wilhelm IV of Prussia sweep the revolutionaries out of Europe.

While the majority of revolutionaries emigrated straight to the United States, a smaller fraction went on exile in London, hoping to spark another revolution in Europe. However, with the French coup d’état of 2 December 1851 which led to the proclamation of the Second French Empire, they abandoned this hope and many followed their comrades to the United States (Nagel, 2012). This explains why we observe a second wave of indigent immigrants of German heritage around that time.

⁶³See Dahlinger (1903), Valentin (1930) and Whitridge (1949) for seminal accounts of the revolutions of 1848–1849.

⁶⁴The *Sonderbund War* ended the attempted succession of seven Catholic Cantons into a separate alliance (‘Sonderbund’) which was formed in opposition to a new Constitution for the Swiss Confederation proposed by the Protestant cantons.

Figure Online Appendix Figure 1: Cartoon by Ferdinand Schröder on the end of the revolution in Europe in 1849



Notes: The political cartoon by Ferdinand Schröder titled "Rundgemälde von Europa im August MDCCCXLIX" shows how the absolutistic rulers force the *Forty-Eighters* to leave Europe on a boat from Le Havre. It was first published in *Düsseldorfer Monatshefte*, 1849.

Online Appendix B The Slavery Issue in U.S. Politics Up to 1856

After being relatively absent from public debate for the first half-century of the United States' existence, slavery entered politics in a big way in 1844 when Martin van Buren lost his seemingly secure Democratic nomination for the presidency on Southern Democratic agitation because he had opposed the immediate annexation of Texas into the Union as a slave-state. 1844 also saw the first time a national party—the Liberty Party—entering the presidential race with an explicit abolitionist platform.

During the 1844–1848 presidential term, both major parties—the Whigs and the Democrats—started to strain over the slavery issue, and saw defections of so-called 'Conscience Whigs' and 'Barnburner Democrats' to third-party coalitions. In the lead-up to the 1848 presidential election, the Free-Soil Party emerged as a major third party out of a coalition of the Liberty party, 'Conscience Whigs' and 'Barnburner Democrats.' During the campaign of 1848, the term "slave power" came into heavy use as a description of the out-sized influence that Southern plantation owners appeared to have on the federal government. In the 1848 election, the Free-Soil Party obtained 10 percent of the popular vote, and it was the last election where the Whig Party won.

The 1848–1852 presidential term marked a period of relative quiet on the slavery issue, with many 'Conscience Whigs' and 'Barnburner Democrats' returning to their respective parties, largely due to the two main parties' "compromise of 1850", which allowed California to join the Union as a non-slave state while strengthening in return the enforcement of Fugitive Slave Acts in the North (Srinivasan, 2017, 115-119). In the 1852 presidential election, the Free-Soil Party obtained less than five percent of the popular vote and subsequently disappeared from the political landscape. The Democratic Party won the popular vote.

During the 1852–1856 presidential term, the issue of slavery re-emerged with doubled impetus, primarily as a result of the 1854 Kansas-Nebraska bill, which repealed the Missouri Compromise that had prohibited slavery in the North since 1820, and gave people in the territories of Kansas and Nebraska the choice of allowing slavery within their borders. This bill was seen as a major success of Southern slave power in Congress (Foner, 1970, 94). It and the resulting violent conflicts in Kansas throughout 1855 between pro- and anti-slavery settlers gave birth to the new Republican Party, which combined Free-Soilers with newly disaffected Whigs and Democrats (Srinivasan, 2017, 120-121).⁶⁵ This time, the corrosive force on the Whig Party was lethal, and the Whig Party completely disintegrated within a year. Conservative Whigs tended to join the newly formed nativist American (also called 'Know-Nothing') Party. Many did so less out of strong nativist sentiments but rather because they viewed nativism as a pressure valve that could circumvent the sectional conflict over slavery that they rightly viewed as a threat to the Union (Foner, 1970, 196). (On the Eastern Seaboard, the Know Nothing Party had genuinely strong popular support, largely due to the rapid increase in Irish and German immigration (Alsan et al., 2018).)

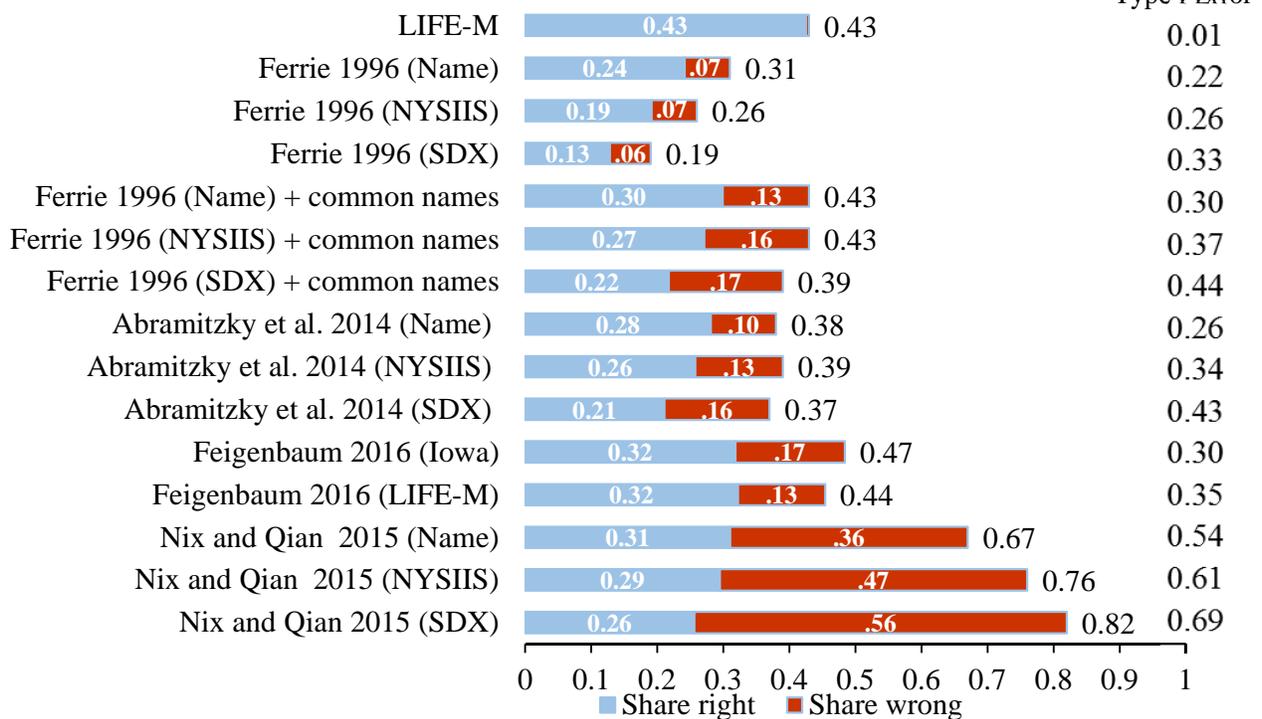
⁶⁵ 1854 also gave a rise to a short-lived effort by *Forty-Eighters* to form their own party, called the Louisville Platform. This quickly dissolved, however, since the *Forty-Eighters* found a natural political home in the Republican Party (Wittke, 1973, 164).

Online Appendix C Alternative Linkage Methods for Robustness Checks

One problem with record linkage methods is that we do not yet have a commonly agreed method to perform the matching process. This has led to the development of different algorithms which are often tweaked and altered by the following applications. [Bailey et al. \(2017\)](#) review several of these methods and show that no algorithm can consistently produce samples that are representative of the underlying population. This includes linking records by hand. Secondly, most methods produce high rates of false links and these linking errors are not random but related to baseline characteristics of individuals. Figure [Online Appendix Figure 2](#) from [Bailey et al. \(2017\)](#) summarizes the performance of different record linkage algorithms by plotting their share of correct and incorrect matches, and the type I error rate.

The lowest error rate is achieved by [Ferrie \(1996\)](#) who links only individuals with uncommon names. This reduces the dimensionality problem, issues of name ties, and produces fairly accurate matches. A natural robustness check is thus to re-link the passenger lists and Census data using his approach. The downside is the reduction in sample size and an arbitrary choice of what defines an *uncommon* name. The robustness check in this section follows the spirit of [Ferrie \(1996\)](#) by selecting uncommon names from the passenger lists which are the top 10 and 20% of uncommon names in the frequency distribution of surnames. After this selection has been made, the steps from the previous matching algorithm are followed.

Figure Online Appendix Figure 2: Match Rates and False Links across Record Linkage Methods



Notes: Comparison of different record linkage algorithms using the ground truth data from the LIFE-M survey. Type I errors are the false match rate over the total match rate and measure the chance of false positives, i.e. matches that were made when they should not. Methods are compared using original names, and names that were transformed via phonetic score using NYSIIS or soundex (SDX). The algorithms are described in detail in [Bailey et al. \(2017\)](#).

Online Appendix D Robustness Checks and Additional Results

Table Online Appendix Table 1: Estimated coefficients on control variables included in Table 4 Panel A

Outcome:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	<i>Enlistments / Male 1860-Pop</i>							
gborn1850_share	-0.170*** [0.000]	-0.154*** [0.000]	-0.049 [0.183]	-0.033 [0.401]	-0.138*** [0.001]	-0.133*** [0.003]	-0.035 [0.272]	-0.040 [0.215]
ln_dist_metzler	-0.005 [0.201]	-0.004 [0.296]	-0.003 [0.540]	-0.002 [0.667]	-0.004 [0.339]	-0.003 [0.443]	-0.005 [0.144]	-0.003 [0.487]
ch_gborn_share	-0.110*** [0.008]	-0.102** [0.015]	-0.010 [0.824]	0.010 [0.833]	-0.071 [0.138]	-0.059 [0.242]	0.017 [0.635]	0.018 [0.607]
GtA_	-0.000 [0.140]	-0.000 [0.259]	-0.000 [0.783]	-0.000 [0.990]	-0.000 [0.292]	-0.000 [0.455]	-0.000 [0.584]	-0.000 [0.576]
germansnewsp_1850	0.004 [0.135]	0.004 [0.153]	0.004 [0.121]	0.004 [0.107]	0.005* [0.096]	0.005* [0.081]	0.005 [0.243]	0.005 [0.177]
lnpop50	-0.010 [0.102]	-0.012* [0.052]	-0.012* [0.085]	-0.016** [0.030]	-0.011 [0.115]	-0.015** [0.045]	0.003 [0.494]	0.001 [0.819]
ln_dist_navriver		-0.007** [0.046]	-0.007* [0.065]	-0.008* [0.062]	-0.007* [0.087]	-0.007* [0.079]		-0.007** [0.015]
ln_dist_Coast		0.007** [0.046]	0.004 [0.315]	0.004 [0.304]	0.007* [0.087]	0.007 [0.118]		-0.006 [0.564]
ln_elevation		-0.007 [0.197]	-0.003 [0.608]	-0.004 [0.502]	-0.006 [0.254]	-0.007 [0.233]		0.001 [0.894]
whfemale_ch4050		-0.005 [0.157]	-0.001 [0.647]	-0.002 [0.546]	-0.003 [0.380]	-0.003 [0.320]		-0.005 [0.107]
churches_1850			0.000* [0.092]	0.000* [0.098]				
urb_ini			-0.037 [0.287]	-0.036 [0.307]				
urb_alt_ini			0.025 [0.280]	0.032 [0.187]				
foreignb_ini			-0.127*** [0.000]	-0.144*** [0.000]				
voteshareREP_ini				0.000 [0.823]				
fixed effects	state	state	state	state	state	state	county	county
core controls	✓	✓	✓	✓	✓	✓	✓	✓
town controls		✓	✓	✓	✓	✓		✓
county controls			✓	✓				
vote-share controls				✓				
Observations	11,095	11,095	10,045	9,482	10,045	9,482	10,971	10,971
# Forty-Eighter Towns	72	72	66	63	66	63	68	68
R-squared	0.092	0.095	0.098	0.100	0.096	0.097	0.354	0.355

Notes: The table reports on the control variables included in the baseline Table 4, Panel A. Columns 1–6 include state fixed effects, columns 7–8 include county fixed effects. # *Forty-Eighter Towns* is the number of treated towns providing identifying variation in each specification. This varies with the controls included (columns 3–4 vs 1–2); it also varies with the inclusion of county fixed effects because some treated towns are singletons in their county. Standard errors are clustered at the county-level, *p-values* are reported in square brackets. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table Online Appendix Table 2: Estimated coefficients on control variables included in Table 4 Panel B

Outcome:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	<i>Log Enlistments</i>							
gborn1850_share	-0.329 [0.274]	-0.207 [0.491]	0.167 [0.567]	0.382 [0.204]	0.003 [0.993]	0.084 [0.790]	-0.138 [0.657]	-0.158 [0.613]
ln_dist_metzler	-0.028 [0.191]	-0.029 [0.177]	-0.014 [0.512]	-0.006 [0.773]	-0.020 [0.354]	-0.012 [0.578]	-0.001 [0.968]	0.007 [0.776]
ch_gborn_share	0.010 [0.974]	0.103 [0.732]	0.669** [0.040]	0.952*** [0.006]	0.547* [0.085]	0.728** [0.029]	0.314 [0.337]	0.320 [0.333]
GtA_	0.002 [0.446]	0.002 [0.331]	0.003 [0.198]	0.004 [0.140]	0.002 [0.326]	0.003 [0.243]	0.005 [0.108]	0.006 [0.105]
germansnewsp_1850	0.031 [0.113]	0.028 [0.155]	0.033* [0.094]	0.034* [0.088]	0.032* [0.096]	0.034* [0.085]	0.051 [0.106]	0.055* [0.092]
lnpop50	0.911*** [0.000]	0.904*** [0.000]	0.897*** [0.000]	0.864*** [0.000]	0.898*** [0.000]	0.872*** [0.000]	0.959*** [0.000]	0.950*** [0.000]
ln_dist_navriver		-0.009 [0.564]	-0.013 [0.410]	-0.015 [0.347]	-0.010 [0.525]	-0.011 [0.516]		-0.052*** [0.001]
ln_dist_Coast		0.051*** [0.000]	0.046*** [0.002]	0.062*** [0.000]	0.051*** [0.000]	0.052*** [0.001]		0.019 [0.332]
ln_elevation		-0.067** [0.037]	-0.060* [0.074]	-0.089*** [0.008]	-0.070** [0.031]	-0.076** [0.022]		-0.003 [0.919]
whfemale_ch4050		-0.007 [0.644]	0.000 [0.993]	-0.003 [0.834]	-0.002 [0.893]	-0.007 [0.663]		-0.024* [0.096]
churches_1850			-0.000 [0.859]	-0.000 [0.805]				
urb_ini			-0.304 [0.252]	-0.304 [0.250]				
urb_alt_ini			0.264 [0.125]	0.340* [0.053]				
foreignb_ini			-0.269 [0.257]	-0.413 [0.111]				
voteshareREP_ini				0.005*** [0.001]				
fixed effects	state	state	state	state	state	state	county	county
core controls	✓	✓	✓	✓	✓	✓	✓	✓
town controls		✓	✓	✓	✓	✓		✓
county controls			✓	✓				
vote-share controls				✓				
Observations	11,095	11,095	10,045	9,482	10,045	9,482	10,971	10,971
# Forty-Eighter Towns	72	72	66	63	66	63	68	68
R-squared	0.563	0.565	0.544	0.521	0.544	0.518	0.677	0.678

Notes: The table reports on the control variables included in the baseline Table 4, Panel B. Columns 1–6 include state fixed effects, columns 7–8 include county fixed effects. # *Forty-Eighter Towns* is the number of treated towns providing identifying variation in each specification. This varies with the controls included (columns 3–4 vs 1–2); it also varies with the inclusion of county fixed effects because some treated towns are singletons in their county. Standard errors are clustered at the county-level, *p-values* are reported in square brackets. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table Online Appendix Table 3: The Effect of the Broader Wave of German Immigrants

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel A	<i>Enlistments / Male 1860-Pop</i>						
D(Forty-Eighters)	0.119*** [0.000]				0.124*** [0.000]	0.123*** [0.000]	0.123*** [0.000]
Germans-To-America 1849-51		0.000 [0.442]			-0.000 [0.140]		
Germans-To-America 1845-47			0.000 [0.461]			-0.000 [0.204]	
Germans-To-America 1853-55				0.000 [0.373]			-0.000 [0.209]
Panel B	<i>Log Enlistments</i>						
D(Forty-Eighters)	0.934*** [0.000]				0.915*** [0.000]	0.909*** [0.000]	0.913*** [0.000]
Germans-To-America 1849-51		0.007** [0.015]			0.002 [0.446]		
Germans-To-America 1845-47			0.009** [0.014]			0.003 [0.303]	
Germans-To-America 1853-55				0.004** [0.024]			0.001 [0.400]
fixed effects	state	state	state	state	state	state	state
core controls minus 'GtoA'	✓	✓	✓	✓	✓	✓	✓
town controls	✓	✓	✓	✓	✓	✓	✓
Observations	11,095	11,095	11,095	11,095	11,095	11,095	11,095
# Forty-Eighter Towns	72				72	72	72

Notes: This table investigates the possibility that the *Forty-Eighters* were the ‘tip of the iceberg’ of a broader wave of politically active German immigrants arriving at the same time. If that was so, then we would expect the broad 1849–1851 arrival cohort to have had an independent effect on enlistments, we would expect the inclusion of this cohort in the regressions to reduce the *Forty-Eighters’* effect, given the co-location, and we would expect the 1849–1851 arrival cohort to stand out from earlier and later arrival cohorts in the regressions. To test this we separately consider the 1849–1851, the 1845–1847, and the 1853–1855 arrival cohorts’ locations in this table, where we assign a dummy to each town that receives any Germans from the ship-lists in a given arrival cohort. In column 1, we estimate the effect of the *Forty-Eighters* on enlistment when none of the three immigrant cohorts are included. Columns 2–4 estimate the effect of each of the broad waves when the the *Forty-Eighters* are not included in the regressions. Columns 5–7 add the *Forty-Eighters*. We find that the effect of the *Forty-Eighters* in column 1 is not markedly higher than in columns 5–7, implying that the omission of the broader German immigrant waves does not create a confounder problem. By contrast, the effect of the broader German immigrant groups on enlistments is markedly affected by the inclusion of the *Forty-Eighters*, i.e. comparing columns 2–4 to columns 5–7. This is especially true in Panel B. Lastly, there is no marked difference between the three separate arrival waves, indicating that outside of the *Forty-Eighters*, German immigrants 1849–1851 were not politically influential. Standard errors are clustered at the county-level, *p-values* are reported in square brackets. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table Online Appendix Table 4: Robustness Checks for Table 4

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	<i>Enlistments / Male 1860-Pop</i>				<i>Log Enlistments</i>			
Panel A: Base								
D(Forty-Eighters)	0.124*** [0.000]	0.124*** [0.000]	0.119*** [0.000]	0.117*** [0.000]	0.915*** [0.000]	0.926*** [0.000]	0.888*** [0.000]	0.880*** [0.000]
Observations	11,095	11,095	10,971	10,971	11,095	11,095	10,971	10,971
#48ers	72	72	68	68	72	72	68	68
Panel B: Drop Big Cities								
D(Forty-Eighters)	0.104*** [0.000]	0.102*** [0.000]	0.098*** [0.000]	0.095*** [0.000]	0.736*** [0.000]	0.740*** [0.000]	0.744*** [0.000]	0.733*** [0.000]
Observations	11,085	11,085	10,963	10,963	11,085	11,085	10,963	10,963
#48ers	62	62	61	61	62	62	61	61
Panel C: Interpolate Polygon								
D(Forty-Eighters)	0.110*** [0.000]	0.112*** [0.000]	0.110*** [0.000]	0.108*** [0.000]	0.652*** [0.000]	0.669*** [0.000]	0.655*** [0.000]	0.654*** [0.000]
Observations	11,583	11,583	11,462	11,462	11,584	11,584	11,463	11,463
#48ers	72	72	70	70	72	72	70	70
Panel D: Interpolate Rectangle								
D(Forty-Eighters)	0.113*** [0.000]	0.113*** [0.000]	0.115*** [0.000]	0.112*** [0.000]	0.656*** [0.000]	0.663*** [0.000]	0.657*** [0.000]	0.653*** [0.000]
Observations	11,602	11,602	11,480	11,480	11,603	11,603	11,481	11,481
#48ers	72	72	70	70	72	72	70	70
Panel E: No Germans								
D(Forty-Eighters)	0.097*** [0.000]	0.097*** [0.000]	0.096*** [0.000]	0.094*** [0.000]	0.916*** [0.000]	0.925*** [0.000]	0.890*** [0.000]	0.881*** [0.000]
Observations	11,095	11,095	10,971	10,971	11,095	11,095	10,971	10,971
#48ers	72	72	68	68	72	72	68	68
fixed effects:	state	state	county	county	state	state	county	county
core controls	✓	✓	✓	✓	✓	✓	✓	✓
town controls		✓		✓		✓		✓

Notes: The table reports robustness checks for the baseline results in Table 4. In each panel reported here, columns 1–4 re-run columns 1–2 and 7–8 of Panel A in Table 4, and columns 5–8 re-run columns 1–2 and 7–8 of Panel B. Standard errors are clustered at the county-level, *p-values* are reported in square brackets. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Online Appendix E Individual Biographies

Here we list all *Forty-Eighters* sorted by last name and (first name). We further list location information, i.e. each individual's town, county and state of residence at each point in time.

- ALMSTEDT** (HEINRICH) 1849-1870: *Louis, Missouri.* •
Washington, DC, District Of Columbia; 1871-1884: Saint Louis, St. Louis, Missouri. •
- AMSBURG** (GEORGE VON) 1859-1864: *Hoboken, Hudson, New Jersey; 1865-1876: Jersey, Hudson, New Jersey.* •
- ANGELRODT** (ERNST) 1850-1869: *Hermann, Gasconade, Missouri.* •
- ANNEKE** (EMIL P.) 1849-1850: *New York, New York, New York; 1851-1855: Minersville, Schuylkill, Pennsylvania; 1856-1856: Detroit, Wayne, Michigan; 1857-1866: Lansing, Ingham, Michigan; 1867-1870: Grand Rapids, Kent, Michigan; 1871-1888: East Saginaw, Saginaw, Michigan.* •
- ANNEKE** (FRITZ) 1850-1872: *Milwaukee, Milwaukee, Wisconsin.* •
- ANNEKE** (MATHILDE FRANZISKA GIESLER-) 1850-1884: *Milwaukee, Milwaukee, Wisconsin; 1853-1865: Newark, Essex, New Jersey.* •
- ANSCHUETZ** (CARL) 1858-1870: *New York, New York, New York.* •
- ANSELM** (ALBERT) 1852-1878: *Davenport, Scott, Iowa; 1879-1902: Saint Louis, St. Louis, Missouri.* •
- ARNOLD** (FRANZ) 1850-1885: *Chicago, Cook, Illinois.* •
- ASSING** (OTTILE) 1852-1855: *New York, New York, New York; 1855-1883: Hoboken, Hudson, New Jersey.* •
- AULENBACH** (KARL) 1850-1881: *Zanesville, Muskingum, Ohio.* •
- BACKHOFF** (FRANZ) 1852-1863: *Saint Louis, St. Louis, Missouri.* •
- BALATKA** (HANS) 1861-1899: *Chicago, Cook, Illinois.* •
- BARUS** (KARL) 1857-1902: *Cincinnati, Hamilton, Ohio.* •
- BAUER** (CARL FRIEDRICH) 1850-1885: *Pittsburg, Allegheny, Pennsylvania; 1886-1888: Milwaukee, Milwaukee, Wisconsin.* •
- BAUER** (LOUIS) 1850-1902: *Saint Louis, St. Louis, Missouri.* •
- BAUMBACH** (LUDWIG VON) 1858-1883: *Milwaukee, Milwaukee, Wisconsin.* •
- BAYRHOFER** (KARL THEODOR) 1853-1888: *Monroe, Green, Wisconsin.* •
- BECKER** (AUGUST) 1854-1860: *Baltimore, Ind. City: Baltimore, Maryland; 1861-1871: Cincinnati, Hamilton, Ohio.* •
- BECKER** (GOTTFRIED) 1861-1867: *Chicago, Cook, Illinois.* •
- BEHLENDORF** (FREDERICK) 1861-1869: *Saint Louis, St. Louis, Missouri; 1870-1872: Chicago, Cook, Illinois; 1873-1889: Grand Rapids, Kent, Michigan.* •
- BEHR** (ALFRED VON) 1861-1863: *Saint Louis, St. Louis, Missouri.* •
- BEHR** (HANS HERMANN) 1851-1904: *San Francisco, San Francisco, California.* •
- BEHRENDT** (KARL HERMANN) 1852-1878: *New York, New York, New York.* •
- BERENDS** (JULIUS) 1854-1875: *San Antonio, Bexar, Texas; 1876-1891: Cincinnati, Hamilton, Ohio.* •
- BERGER** (HEINRICH) 1849-1902: *New York, New York, New York.* •
- BERGMANN** (CARL) 1850-1876: *New York, New York, New York.* •
- BERNAYS** (CARL L.) 1849-1861: *Saint Louis, St. Louis, Missouri; 1862-1879: Washington, DC, District Of Columbia.* •
- BEST** (ADAM) 1849-1880: *Cincinnati, Hamilton, Ohio.* •
- BEST** (MICHAEL) 1853-1865: *Saint Louis, St. Louis, Missouri; 1862-1906: Saint Louis, Ind. City: St. Louis, Missouri.* •
- BETZ** (PHILIPP) 1853-1902: *Davenport, Scott, Iowa.* •
- BEYSCHLAG** (CARL) 1852-1866: *Indianapolis, Marion, Indiana; 1867-1902: Saint Louis, St. Louis, Missouri.* •
- BIEBUSCH** (HENRY) 1850-1882: *Lawrence, Douglas, Kansas.* •

- BIELING** (JOHANN H.) 1850-1902: *New York, New York, New York.* •
- BIEN** (JULIUS) 1850-1909: *New York, New York, New York.* •
- BINDER** (HEINRICH) 1853-1865: *Chicago, Cook, Illinois; 1866-1870: Saint Louis, St. Louis, Missouri; 1871-1888: Detroit, Wayne, Michigan; 1889-1901: New York, New York, New York.* •
- BISKY** (FRIEDRICH LUDWIG) 1851-1860: *Columbus, Franklin, Ohio; 1861-1863: New York, New York, New York.* •
- BLANDWOSKI** (CONSTANTIN) 1851-1861: *New York, New York, New York.* •
- BLENKER** (LUDWIG) 1851-1863: *New York, New York, New York.* •
- BLESCH** (PHILIP) 1850-1907: *Columbus, Franklin, Ohio.* •
- BLOEDE** (GUSTAV) 1851-1902: *New York, New York, New York.* •
- BLUME** (ERNST CHRISTIAN FRIEDRICH) 1850-1902: *Baltimore, Ind. City: Baltimore, Maryland.* •
- BOEBEL** (HANS) 1866-1902: *Milwaukee, Milwaukee, Wisconsin.* •
- BOERNSTEIN** (HEINRICH) 1850-1892: *Saint Louis, St. Louis, Missouri.* •
- BOGEN** (LUDWIG) 1865-1886: *New Ulm, Brown, Minnesota.* •
- BOLLMANN** (LOUIS) 1850-1902: *Bloomington, Monroe, Indiana.* •
- BONDI** (AUGUST) 1849-1856: *Saint Louis, St. Louis, Missouri; 1857-1870: Walker, Ellis, Kansas; 1871-1880: Walnut, Crawford, Kansas; 1881-1907: Salina, Saline, Kansas.* •
- BRAND** (FR.) 1850-1902: *Boston, Suffolk, Massachusetts.* •
- BRAUSE** (CARL VON) 1850-1902: *Manitowoc, Manitowoc, Wisconsin.* •
- BRENDEL** (FRIEDRICH) 1851-1852: *Saint Louis, St. Louis, Missouri; 1853-1912: Peoria, Peoria, Illinois.* •
- BRENTANO** (LORENZ) 1851-1859: *Kalamazoo, Kalamazoo, Michigan; 1860-1891: Chicago, Cook, Illinois.* •
- BRETHAUER** (OTTO) 1849-1882: *New York, New York, New York.* •
- BRICKEL** (ANDREW) 1850-1898: *New York, New York, New York; 1899-1902: Buffalo, Erie, New York.* •
- BRODBECK** (CONRAD) 1850-1902: *Dayton, Montgomery, Ohio.* •
- BROOKMAN** (ANTON) 1850-1903: *Newark, Essex, New Jersey.* •
- BRUHL** (GUSTAV) 1850-1902: *Cincinnati, Hamilton, Ohio.* •
- BUSH** (ISIDOR) 1850-1898: *Saint Louis, St. Louis, Missouri.* •
- BUTZ** (CASPAR) 1850-1854: *Detroit, Wayne, Michigan; 1855-1885: Chicago, Cook, Illinois.* •
- CALBE** (WILHELM LOEWE) 1850-1902: *New York, New York, New York.* •
- CANISIUS** (THEODORE) 1859-1859: *Marine, Madison, Illinois; 1860-1885: Springfield, Sangamon, Illinois.* •
- CLAUSSEN** (HANS REIMER) 1851-1894: *Davenport, Scott, Iowa.* •
- CONHEIM** (MAX) 1850-1902: *New York, New York, New York.* •
- CONRAD** (CONSTANTIN) 1850-1850: *New Orleans, Orleans, Louisiana; 1851-1858: Cincinnati, Hamilton, Ohio; 1859-1905: Pittsburg, Allegheny, Pennsylvania.* •
- D'UTASSY** (FREDERICK GEORGE) 1849-1892: *New York, New York, New York.* •
- DAENZER** (CARL) 1855-1872: *Saint Louis, St. Louis, Missouri.* •
- DECKELMAN** (HENRY) 1850-1902: *Leavenworth, Leavenworth, Kansas.* •
- DEGENER** (EDUARD) 1851-1877: *New Braunfels, Comal, Texas; 1878-1890: San Antonio, Bexar, Texas.* •
- DEMBITZ** (LOUIS) 1850-1902: *Louisville, Jefferson, Kentucky.* •
- DENGLER** (ADOLF) 1849-1884: *Bellville, St. Clair, Illinois.* •
- DENZLER** (FRIEDRICH) 1849-1902: *Leavenworth, Leavenworth, Kansas.* •
- DERLETH** (ALOIS) 1850-1860: *Saint Louis, Ind. City: St. Louis, Missouri.* •
- DESHAUER** (JOSEPH) 1850-1902: *Chicago, Cook, Illinois.* •
- DETTWEILER** (HERMANN) 1850-1878: *Louisville, Jefferson, Kentucky.* •
- DIEPENBECK** (RUDOLF) 1851-1875: *Detroit, Wayne, Michigan.* •

DIETRICH (HEINRICH) 1849-1902: *New York, New York, New York.* •

DIETSCH (THEODOR) 1850-1857: *Louisville, Jefferson, Kentucky.* •

DIETZ (JOHANN W.) 1855-1855: *New York, New York, New York*; 1856-1870: *Burlington, Des Moines, Iowa*; 1871-1902: *Chicago, Cook, Illinois.* •

DIETZSCH (EMIL) 1854-1890: *Chicago, Cook, Illinois.* •

DOEHN (RUDOLF) 1849-1895: *Saint Louis, St. Louis, Missouri.* •

DOLLMATSCH (R.) 1850-1902: *Saint Louis, St. Louis, Missouri.* •

DOMSCHKE (BERNARD) 1851-1854: *Boston, Suffolk, Massachusetts*; 1855-1869: *Milwaukee, Milwaukee, Wisconsin.* •

DORSCH (EDUARD) 1850-1870: *New York, New York, New York*; 1871-1887: *Monroe, Monroe, Michigan.* •

DOUAI (CARL DANIEL ADOLF) 1853-1853: *New Braunfels, Comal, Texas*; 1854-1856: *San Antonio, Bexar, Texas*; 1857-1860: *Boston, Suffolk, Massachusetts*; 1861-1888: *New York, New York, New York.* •

DREIHAUS (GEORG) 1849-1870: *Philadelphia, Philadelphia, Pennsylvania.* •

DRESEL (JULIUS) 1849-1861: *New Braunfels, Comal, Texas*; 1862-1869: *San Antonio, Bexar, Texas*; 1870-1891: *Sonoma, Sonoma, California.* •

DRESEL ([FRIEDRICH] OTTO) 1850-1853: *Massillon, Stark, Ohio*; 1854-1881: *Columbus, Franklin, Ohio.* •

DULON (RUDOLF) 1854-1877: *New York, New York, New York.* •

ECKSTEIN (FRIEDRICH) 1852-1902: *Cincinnati, Hamilton, Ohio.* •

EHRHART (LORENZ) 1850-1908: *Allegheny, Allegheny, Pennsylvania.* •

EICKEMEYER (RUDOLF) 1851-1854: *New York, New York, New York*; 1855-1895: *Yonkers, Westchester, New York.* •

EICKHOFF (ANTON) 1849-1850: *New Orleans, Orleans, Louisiana*; 1851-1861: *Saint Louis, St. Louis, Missouri*; 1862-1901: *New York, New York, New York.* •

EIFLER (KARL) 1850-1888: *New York, New York, New York.* •

EISENLOHR (GUSTAV WILHELM) 1851-1860: *New Braunfels, Comal, Texas*; 1861-1880: *Cincinnati, Hamilton, Ohio*; 1881-1881: *Dallas, Dallas, Texas.* •

ELSNER (HUGO VON) 1849-1896: *Bloomington, Mclean, Illinois.* •

ENGELHARDT (LUDWIG) 1850-1902: *New York, New York, New York.* •

ENGELMANN (ADOLF) 1849-1890: *Belleville, St. Clair, Illinois.* •

ENGELMANN (PETER) 1851-1902: *Milwaukee, Milwaukee, Wisconsin.* •

ESSELEN (CHRISTIAN) 1853-1853: *New York, New York, New York*; 1854-1859: *Detroit, Wayne, Michigan.* •

FABER (PAUL) 1849-1891: *St. Paul's, Ramsey, Minnesota.* •

FAEHTZ (ERNST F.) 1851-1865: *Elkton, Cecil, Maryland*; 1866-1882: *Baltimore, Ind. City: Baltimore, Maryland.* •

FALLER (ALOYS) 1849-1870: *Warsaw, Hancock, Illinois*; 1871-1882: *New York, New York, New York.* •

FEIGEL () 1850-1902: *Newark, Essex, New Jersey.* •

FEIN (GEORG) 1846-1860: *Baltimore, Ind. City: Baltimore, Maryland*; 1861-1869: *Bellville, St. Clair, Illinois.* •

FEJERVARY (NICHOLAS) 1850-1895: *Davenport, Scott, Iowa.* •

FIALA (JOHANN T.) 1853-1873: *Saint Louis, St. Louis, Missouri*; 1874-1911: *San Francisco, San Francisco, California.* •

FIEDLER (ANTON B.) 1853-1897: *Chicago, Cook, Illinois.* •

FINK (ALBERT) 1850-1857: *Baltimore, Ind. City: Baltimore, Maryland*; 1858-1897: *Louisville, Jefferson, Kentucky.* •

FISHER (ADAM) 1850-1902: *Leavenworth, Leavenworth, Kansas.* •

FLAD (HENRY) 1850-1865: *New York, New York, New York*; 1866-1898: *Saint Louis, St. Louis, Missouri.* •

FOERSCH (J. A.) 1850-1902: *New York, New York, New York.* •

FORSCH (LOUIS) 1850-1902: *New York, New York, New York.* •

FRAHM (MATHIAS) 1850-1899: *Davenport, Scott, Iowa.* •

FRANK (AARON) 1850-1902: *New York, New York, New York.* •

FRANKFURTH (WILHELM) 1849-1885: *Milwaukee, Milwaukee, Wisconsin.* •

FRATNY (FRIEDRICH) 1850-1902: *Milwaukee, Milwaukee, Wisconsin.* •

FREUDENBERG (CARL GOTTFRIED) 1849-1885: *New York, New York, New York.* •

FRICKE (HEINRICH C.) 1854-1880: *Chicago, Cook, Illinois.* •

FUESTER (ANTON) 1850-1881: *New York, New York, New York.* •

GAMBS (JOHANNES) 1858-1879: *New York, New York, New York.* •

GAYLORD (L. F.) 1850-1902: *Leavenworth, Leavenworth, Kansas.* •

GEBRAETZ (GEORG) 1876-1881: *Newark, Essex, New Jersey.* •

GEHM (CARL) 1850-1902: *Bellville, St. Clair, Illinois.* •

GEIWITZ (GEORG) 1849-1890: *Baltimore, Ind. City: Baltimore, Maryland.* •

GERHARD (FRIEDRICH) 1850-1902: *New York, New York, New York.* •

GERHARDT (JOSEPH) 1852-1881: *Washington, DC, District Of Columbia.* •

GERNSBACH (WEIL VON) 1850-1902: *San Francisco, San Francisco, California.* •

GERWIG (ADOLF) 1850-1862: *Cincinnati, Hamilton, Ohio.* •

GIESLER (E.) 1850-1902: *New York, New York, New York.* •

GILLIG (KARL EMIL) 1851-1861: *Milwaukee, Milwaukee, Wisconsin; 1862-1883: Peoria, Peoria, Illinois.* •

GILSA (LEOPOLD VON) 1853-1870: *New York, New York, New York.* •

GINDELE (JOHN G.) 1853-1872: *Chicago, Cook, Illinois.* •

GIRSCH (FREDERICK) 1850-1870: *New York, New York, New York; 1871-1891: East Chester, Westchester, New York; 1892-1895: Pelham, Westchester, New York.* •

GOEHLMANN (MARTIN G.) 1858-1885: *Waterford, Clinton, Iowa.* •

GOEPPER (WILHELM) 1849-1879: *Louisville, Jefferson, Kentucky.* •

GOHRINGER (KARL) 1867-1902: *Pittsburg, Allegheny, Pennsylvania.* •

GOLDMARK (JOSEPH) 1851-1881: *New York, New York, New York.* •

GRAF (KARL) 1850-1885: *Cincinnati, Hamilton, Ohio.* •

GREINER (THEODOR LUDWIG) 1850-1902: *Newark, Essex, New Jersey.* •

GROSCHEL () 1850-1902: *New York, New York, New York.* •

GRUBER (HEINRICH) 1850-1902: *Brooklyn, Kings, New York.* •

GUELICH (THEODOR) 1852-1861: *Davenport, Scott, Iowa; 1862-1893: Burlington, Des Moines, Iowa.* •

GUENTHER (JOHANN GEORG) 1849-1872: *Milwaukee, Milwaukee, Wisconsin.* •

HAAS (HEINRICH C.) 1850-1902: *Leavenworth, Leavenworth, Kansas.* •

HACKELMANN (P. A.) 1850-1902: *Rushville, Rush, Indiana.* •

HAGEN (THEODOR) 1855-1871: *New York, New York, New York.* •

HAIMBACH (PHILIPP) 1852-1904: *Philadelphia, Philadelphia, Pennsylvania.* •

HAMM (THEODOR) 1855-1903: *St. Paul'S, Ramsey, Minnesota.* •

HAMMER (ADAM VON) 1849-1878: *Saint Louis, St. Louis, Missouri.* •

HAMMERMEISTER (HEINRICH) 1850-1860: *New York, New York, New York.* •

HARTMANN (KARL) 1849-1863: *Cleveland, Cuyahoga, Ohio.* •

HARTMANN (MORITZ) 1856-1902: *Lawrence, Douglas, Kansas.* •

HARTUNG (ADOLPH VON) 1876-1902: *Baltimore, Ind. City: Baltimore, Maryland.* •

HASSAUREK (FRIEDRICH) 1850-1885: *Cincinnati, Hamilton, Ohio.* •

HATTERSCHEIDT (JOHN P.) 1850-1902: *Cincinnati, Hamilton, Ohio; 1858-1859: Leavenworth, Leavenworth, Kansas.* •

HAUSSNER (CHARLES FREDERICK) 1856-1866: *Chicago, Cook, Illinois; 1867-1911: Chicago, Hamilton, Illinois.* •

HECKER (FRIEDRICH) 1850-1881: *Bellville, St. Clair, Illinois.* •

HEDDE (FRITZ) 1855-1857: *Davenport, Scott, Iowa*; 1858-1908: *Grand Island, Hall, Nebraska.* •

HEILPRIN (MICHAEL) 1857-1902: *New York, New York, New York.* •

HEINZEN (KARL PETER) 1851-1853: *New York, New York, New York*; 1854-1859: *Louisville, Jefferson, Kentucky*; 1860-1880: *Boston, Suffolk, Massachusetts.* •

HELFENSTEIN (J.) 1850-1902: *New York, New York, New York.* •

HENNE (ROBERT) 1852-1885: *Davenport, Scott, Iowa.* •

HEXAMER (ADOLF) 1849-1859: *New York, New York, New York.* •

HEXAMER (ALEXANDER) 1850-1902: *New York, New York, New York.* •

HEXAMER (ERNST) 1849-1856: *New York, New York, New York*; 1857-1912: *Philadelphia, Philadelphia, Pennsylvania.* •

HEXAMER (FRITZ M.) 1849-1895: *New York, New York, New York*; 1896-1910: *Stamford, Fairfield, Connecticut.* •

HEXAMER (WILHELM) 1849-1859: *New York, New York, New York*; 1860-1870: *Hoboken, Hudson, New Jersey.* •

HIELSCHER (THEODOR) 1852-1864: *Indianapolis, Marion, Indiana*; 1865-1870: *Chicago, Cook, Illinois*; 1871-1873: *New Ulm, Brown, Minnesota*; 1874-1900: *Minneapolis, Hennepin, Minnesota*; 1901-1907: *Eagle Pass, Maverick, Texas.* •

HILLGAERTNER (GEORG) 1854-1862: *Chicago, Cook, Illinois*; 1863-1865: *Saint Louis, St. Louis, Missouri.* •

HIRSCHFIELD (JOSEPH) 1850-1902: *New York, New York, New York.* •

HOBELMANN (FRIEDRICH AUGUST) 1850-1902: *Cincinnati, Hamilton, Ohio.* •

HOCHHEINER (HENRY) 1850-1912: *Baltimore, Ind. City: Baltimore, Maryland.* •

HOFF (HEINRICH) 1850-1852: *New York, New York, New York.* •

HOFFBAUER (WILHELM) 1851-1860: *Saint Louis, St. Louis, Missouri*; 1861-1875: *Guttenburg, Clayton, Iowa*; 1876-1892: *Dubuque, Dubuque, Iowa.* •

HOFFMANN (ERNST F.) 1849-1876: *New York, New York, New York*; 1877-1902: *Davenport, Scott, Iowa.* •

HOFFMANN (FRANCIS) 1850-1902: *Chicago, Cook, Illinois.* •

HOFFMANN (GEORG RICHARD) 1850-1902: *Louisville, Jefferson, Kentucky.* •

HOHLFELD (JOHANN F.) 1849-1861: *Saint Louis, St. Louis, Missouri.* •

HOMBURG (CONRADIN) 1850-1902: *Indianapolis, Marion, Indiana.* •

HOTTINGER (ANTON) 1852-1852: *Pittsburg, Allegheny, Pennsylvania*; 1853-1856: *Cincinnati, Hamilton, Ohio*; 1857-1862: *Guttenburg, Clayton, Iowa*; 1863-1911: *Chicago, Cook, Illinois.* •

HUHN (HEINRICH) 1863-1865: *Saint Louis, St. Louis, Missouri*; 1866-1902: *Washington, Franklin, Missouri.* •

HUTH () 1850-1902: *Boston, Suffolk, Massachusetts.* •

JACOBI (ABRAHAM) 1854-1919: *New York, New York, New York.* •

JACOBI (FRITZ) 1850-1902: *New York, New York, New York.* •

JACOBS (WILHELM HEINRICH) 1851-1882: *Milwaukee, Milwaukee, Wisconsin.* •

JAZELLA (APPOLONIA) 1850-1902: *New York, New York, New York.* •

JERZMANOWSKI (JOSEPH) 1850-1902: *New York, New York, New York.* •

KAEMMERLING (GUSTAV) 1849-1902: *Troy, Perry, Indiana.* •

KAHN () 1850-1902: *New York, New York, New York.* •

KAHRMANN (J. S.) 1850-1902: *Davenport, Scott, Iowa.* •

KALISCH (ISIDOR) 1850-1880: *New York, New York, New York*; 1881-1886: *Newark, Essex, New Jersey.* •

KAMM (FRIEDRICH) 1850-1902: *New York, New York, New York.* •

KAPFF (EDUARD) 1849-1902: *New York, New York, New York.* •

KAPFF (SIXTUS) 1849-1877: *New York, New York, New York.* •

KAPP (FRIEDRICH) 1851-1884: *New York, New York, New York.* •

KAUFMANN (SIGISMUND) 1849-1889: *New York, New York, New York.* •

KAUFMANN (THEODOR) 1851-1864: *New York, New York, New York*; 1865-1866: *Saint Louis, St. Louis, Missouri*; 1867-1896: *Boston, Suffolk, Massachusetts.* •

KELLNER (GOTTLIEB THEODOR) 1852-1856: *New Ulm, Brown, Minnesota*; 1857-1898: *Philadelphia, Philadelphia, Pennsylvania.* •

KIEFER (CHRISTIAN FRIEDRICH) 1850-1878: *Philadelphia, Philadelphia, Pennsylvania.* •

KIEFER (HERMANN) 1850-1889: *Detroit, Wayne, Michigan*; 1890-1911: *Ann Arbor, Washtenaw, Michigan.* •

KILLIAN (JOSEPH) 1850-1902: *Allentown, Lehigh, Pennsylvania.* •

KLEINER (MEINRAD) 1850-1873: *Cincinnati, Hamilton, Ohio.* •

KLIPPART (J. H.) 1850-1878: *Cleveland, Cuyahoga, Ohio.* •

KNODERER (Carl August) 1850-1863: *Reading, Berks, Pennsylvania.* •

KOB (CHARLES FRIEDRICH) 1850-1855: *Hartford, Hartford, Connecticut*; 1856-1857: *Boston, Suffolk, Massachusetts*; 1858-1858: *Atchison, Atchison, Kansas*; 1859-1861: *Leavenworth, Leavenworth, Kansas.* •

KOCH (EDMUND IGNATZ) 1851-1902: *New York, New York, New York.* •

KOCH (RUDOLF) 1850-1902: *New York, New York, New York.* •

KOENIG (F. C.) 1856-1877: *Peoria, Peoria, Illinois.* •

KOERNER (GUSTAV) 1834-1834: *Saint Louis, St. Louis, Missouri*; 1835-1896: *Bellville, St. Clair, Illinois.* •

KOERNER (JOSEPH ALOYS) 1851-1882: *New York, New York, New York.* •

KORNER (HERMANN JOSEPH ALOYS) 1852-1902: *New York, New York, New York.* •

KOVEN (WILHELM) 1850-1902: *New York, New York, New York.* •

KOZLEY (EUGEN ARTHUR) 1849-1883: *New York, New York, New York.* •

KRACKOWITZER (ERNST) 1850-1857: *Brooklyn, Kings, New York*; 1858-1875: *New York, New York, New York.* •

KRAUS (ALBERT) 1850-1902: *Benton, Dallas, Missouri.* •

KREISMAN (HERMANN) 1850-1902: *Chicago, Cook, Illinois.* •

KREZ (KONRAD) 1852-1854: *New York, New York, New York*; 1855-1885: *Sheboygan, Sheboygan, Wisconsin*; 1886-1897: *Milwaukee, Milwaukee, Wisconsin.* •

KRIEGE (HERMANN) 1850-1850: *New York, New York, New York.* •

KROEGER (JACOB) 1849-1885: *Davenport, Scott, Iowa.* •

KRUER (A.) 1850-1902: *New York, New York, New York.* •

KRYZANOWSKI (WLADIMIR) 1849-1878: *Washington, DC, District Of Columbia*; 1879-1887: *New York, New York, New York.* •

KUDLICH (HANS) 1854-1917: *Hoboken, Hudson, New Jersey.* •

LAMBACH (HEINRICH) 1849-1899: *Davenport, Scott, Iowa.* •

LANGE (ALBERT) 1850-1869: *Terre Haute, Vigo, Indiana.* •

LANGE (JOHANN FRIEDRICH GOTTLÖB LANGE) 1850-1879: *New York, New York, New York.* •

LAUENSTEIN (KARL) 1850-1902: *Cincinnati, Hamilton, Ohio.* •

LEHLBACH (FRIEDRICH AUGUST) 1850-1875: *Newark, Essex, New Jersey.* •

LEIST (FRIEDRICH) 1849-1902: *Baltimore, Ind. City: Baltimore, Maryland.* •

LESER (FRITZ) 1854-1880: *Saint Louis, St. Louis, Missouri*; 1881-1902: *Philadelphia, Philadelphia, Pennsylvania.* •

LEUCHTWEISS (AUGUST) 1849-1902: *Cincinnati, Hamilton, Ohio.* •

LEUSSLER (ROBERT) 1849-1873: *Saint Louis, St. Louis, Missouri.* •

LEXOW (FRIEDRICH) 1853-1861: *New York, New York, New York*; 1862-1870: *Jersey, Hudson, New Jersey*; 1871-1872: *North Bergen, Hudson, New Jersey.* •

LEXOW (RUDOLF) 1852-1902: *New York, New York, New York.* •

LIEBER (OSCAR MONTGOMERY) 1851-1862: *Columbia, Richland, South Carolina.* •

LIEVRE (EUGENE) 1850-1902: *New York, New York, New York.* •

LINDEMAN (GEORGE) 1850-1902: *Cincinnati, Hamilton, Ohio.* •

LINDEMANN (HERMANN VON) 1850-1893: *Saint Louis, Ind. City: St. Louis, Missouri.* •

LOEHR (FERDINAND VON) 1853-1877: *San Francisco, San Francisco, California.* •

LOES (FRANZ E.) 1853-1883: *Philadelphia, Philadelphia, Pennsylvania.* •

LOEWE AUS CALBE (WILHELM) 1854-1886: *New York, New York, New York.* •

LOHMANN (HEINRICH) 1850-1889: *Baltimore, Ind. City: Baltimore, Maryland.* •

LOOS (ALEXANDER) 1853-1870: *Hudson, Columbia, New York; 1871-1877: Philadelphia, Philadelphia, Pennsylvania.* •

LOOSE (HEINRICH) 1849-1882: *New York, New York, New York.* •

LOWENBERG (FRANZ SCHMIDT VON) 1850-1853: *Saint Louis, St. Louis, Missouri.* •

LUCAS (JACOB) 1852-1861: *Saint Louis, St. Louis, Missouri; 1862-1870: Peoria, Peoria, Illinois; 1871-1902: Pekin, Tazewell, Illinois.* •

LUDVIGH (SAMUEL) 1850-1869: *Baltimore, Ind. City: Baltimore, Maryland.* •

LUEDEKING (CARL) 1852-1885: *Saint Louis, St. Louis, Missouri.* •

LUNGKWITZ (HERMANN) 1851-1891: *Fredericksburg, Gillespie, Texas.* •

MAAS (BENJAMIN) 1850-1850: *New York, New York, New York; 1851-1891: New Orleans, Orleans, Louisiana.* •

MAERKLIN (EDUARD) 1849-1892: *Milwaukee, Milwaukee, Wisconsin.* •

MAISCH (JOHN MICHAEL) 1851-1893: *Philadelphia, Philadelphia, Pennsylvania.* •

MARX (JOSEPH E.) 1850-1902: *Toledo, Lucas, Ohio.* •

MATZKA (GEORG) 1854-1883: *New York, New York, New York.* •

MAYERHOEFER (WILHELM) 1849-1877: *New York, New York, New York; 1878-1880: Louisville, Jefferson, Kentucky.* •

MEHL (JOHN) 1850-1902: *New York, New York, New York.* •

MEHL (MARTIN) 1850-1902: *New York, New York, New York.* •

MEINIGER (KARL) 1849-1883: *Cincinnati, Hamilton, Ohio.* •

MELOSCH () 1850-1902: *New York, New York, New York.* •

MENNINGER (JOHN) 1850-1902: *New York, New York, New York.* •

MERSEY (AUGUST) 1856-1866: *Bellville, St. Clair, Illinois.* •

METTERNICH (GERMAIN) 1852-1862: *New York, New York, New York.* •

MEYER (HERMANN) 1853-1902: *New York, New York, New York.* •

MIEDING (KARL) 1850-1902: *Milwaukee, Milwaukee, Wisconsin.* •

MILLER (HEINRICH) 1850-1896: *Louisville, Jefferson, Kentucky.* •

MINDING (JULIUS) 1850-1902: *New York, New York, New York.* •

MOHR (CHARLES THEODOR) 1853-1857: *Louisville, Jefferson, Kentucky; 1858-1900: Mobile, Mobile, Alabama; 1901-1901: Ashville, Buncombe, North Carolina.* •

MOLITOR (STEPHAN) 1850-1873: *Cincinnati, Hamilton, Ohio.* •

MORDES (FLORIAN) 1850-1850: *New Braunfels, Comal, Texas.* •

MORWITZ (EDWARD) 1851-1893: *Philadelphia, Philadelphia, Pennsylvania.* •

MOSCHZISKER (FRANZ A. VON) 1853-1863: *Baltimore, Ind. City: Baltimore, Maryland; 1864-1867: Washington, DC, District Of Columbia; 1868-1871: Philadelphia, Philadelphia, Pennsylvania; 1872-1876: Rochester, Monroe, New York; 1877-1880: Utica, Oneida, New York.* •

MUELLER (CHRISTIAN L. H.) 1850-1902: *Davenport, Scott, Iowa.* •

MUELLER (EDUARD) 1850-1871: *New York, New York, New York; 1872-1886: Rochester, Monroe, New York.* •

MUELLER (JACOB) 1850-1905: *Cleveland, Cuyahoga, Ohio.* •

MUELLER (NIKOLAUS) 1849-1875: *New York, New York, New York.* •

MUELLER (WILHELM) 1849-1902: *Baltimore, Ind. City: Baltimore, Maryland.* •

MUHLGBACH (JOSEPH) 1850-1858: *New York, New York, New York.* •

MULD (L.) 1850-1902: *New York, New York, New York.* •

MURER (JOHN) 1855-1856: *New York, New York, New York; 1857-1902: Buffalo, Scott, Iowa.* •

NAST (THOMAS) 1851-1857: *New York, New York, New York.* •

NEUBERT (KARL) 1850-1902: *Bellville, St. Clair, Illinois.* •

NEUSTAEDTER (JOHANN ALBERT) 1852-1885: *Saint Louis, St. Louis, Missouri.* •

NIX (JACOB) 1849-1897: *New Ulm, Brown, Minnesota.* •

OBERMANN (KARL) 1852-1901: *Cincinnati, Hamilton, Ohio.* •

OELS (ADOLPH ROSIER VON) 1851-1852: *New York, New York, New York.* •

OLSHAUSEN (THEODOR) 1852-1856: *Davenport, Scott, Iowa; 1857-1869: Saint Louis, St. Louis, Missouri.* •

OSTERHAUS (PETER JOSEPH) 1850-1861: *Bellville, St. Clair, Illinois; 1862-1917: Saint Louis, St. Louis, Missouri.* •

OSWALD (MICHAEL) 1850-1902: *Lawrence, Douglas, Kansas.* •

OTTENDORFER (OSWALD) 1851-1900: *New York, New York, New York.* •

PABISCH (FRANZ JOSEPH) 1863-1879: *Cincinnati, Hamilton, Ohio.* •

PEISSNER (ELIAS) 1850-1863: *Schenectady, Schenectady, New York.* •

PELZ (EDUARD) 1851-1876: *New York, New York, New York.* •

PETERS (CHRISTIAN H. F.) 1868-1890: *Kirkland, Oneida, New York.* •

PETERSEN (LORENZ) 1855-1880: *Springfield, Cedar, Iowa.* •

PETRI (RICHARD) 1851-1857: *Fredericksburg, Gillespie, Texas.* •

PETZ () 1850-1902: *Leavenworth, Leavenworth, Kansas.* •

PEYER (JOHANNES) 1850-1902: *Cincinnati, Hamilton, Ohio.* •

PFAENDER (WILHELM) 1849-1850: *Cincinnati, Hamilton, Ohio; 1851-1905: New Ulm, Brown, Minnesota.* •

PFEIFFER (P.) 1850-1902: *Boston, Suffolk, Massachusetts.* •

PFEIFLER (ALEXANDER) 1852-1902: *Cincinnati, Hamilton, Ohio.* •

PILAT (IGNAZ ANTON) 1852-1870: *New York, New York, New York.* •

PLESSNER (MICHAEL CARL THEODOR) 1850-1894: *Saginaw, Saginaw, Michigan.* •

POESCHE (THEODOR) 1854-1858: *Philadelphia, Philadelphia, Pennsylvania; 1859-1863: Saint Louis, Ind. City: St. Louis, Missouri; 1864-1899: Washington, DC, District Of Columbia.* •

POHLE (CARL ADOLF JULIUS) 1849-1859: *New York, New York, New York.* •

POMUTZ (GEORGE) 1850-1882: *New Buda, Decatur, Iowa.* •

POSCHNER (FRIEDRICH) 1849-1873: *Cincinnati, Hamilton, Ohio.* •

PRAGER (DAVID) 1850-1902: *Lawrence, Douglas, Kansas.* •

PRAHL (CHARLES) 1854-1900: *New York, New York, New York; 1901-1904: Clinton, Hunterdon, New Jersey.* •

PRANG (LOUIS) 1851-1909: *Boston, Suffolk, Massachusetts.* •

PREETORIUS (EMIL) 1855-1905: *Saint Louis, St. Louis, Missouri.* •

PREISER () 1850-1902: *Cincinnati, Hamilton, Ohio.* •

PREUSSNER (CARL) 1850-1902: *Milwaukee, Milwaukee, Wisconsin.* •

PUCHNER (RUDOLF) 1851-1913: *New Holstein, Calumet, Wisconsin.* •

QUERNER (EMIL) 1853-1886: *Philadelphia, Philadelphia, Pennsylvania.* •

RAMMING (HEINRICH) 1852-1856: *New York, New York, New York; 1857-1902: Davenport, Scott, Iowa.* •

RANST () 1850-1902: *Leavenworth, Leavenworth, Kansas.* •

RAPP (WILHELM) 1853-1891: *Baltimore, Ind. City: Baltimore, Maryland; 1892-1907: Chicago, Cook, Illinois.* •

RASTER (HERMANN) 1852-1867: *New York, New York, New York; 1853-1853: Buffalo, Erie, New York; 1868-1891: Chicago, Cook, Illinois.* •

- RAU** (GOTTLIEB) 1850-1902: *New York, New York, New York.* •
- RAUCH** (CHARLES) 1853-1902: *St. Paul's, Ramsey, Minnesota.* •
- REIBETANTZ** (CARL JULIUS) 1849-1894: *Baltimore, Ind. City: Baltimore, Maryland.* •
- REICHARD** (JOSEPH MARTIN) 1850-1872: *Philadelphia, Philadelphia, Pennsylvania.* •
- REICHARDT** (FRIEDRICH) 1850-1876: *Cincinnati, Hamilton, Ohio.* •
- REICHMANN** (RUDOLPH) 1881-1908: *Toledo, Tama, Iowa.* •
- REIFSCHNEIDER** (FELIX) 1850-1902: *New York, New York, New York.* •
- REITER** (PHILIPP) 1850-1902: *Philadelphia, Philadelphia, Pennsylvania.* •
- RESCH** (KARL) 1850-1902: *Louisville, Jefferson, Kentucky.* •
- RICHTER** (ERHARD) 1850-1902: *New York, New York, New York.* •
- RIEPE** (WILHELM) 1850-1902: *Davenport, Scott, Iowa.* •
- RIETZ** (CARL) 1850-1877: *Saginaw, Saginaw, Michigan; 1878-1902: Chicago, Cook, Illinois.* •
- RITTER** (LOUIS) 1855-1902: *Cleveland, Cuyahoga, Ohio.* •
- RITTIG** (JOHANN) 1853-1857: *Cincinnati, Hamilton, Ohio; 1858-1885: New York, New York, New York.* •
- RITTLER** (A. W.) 1850-1872: *New York, New York, New York.* •
- ROCHOTTE** (HEINRICH) 1850-1902: *Cleveland, Cuyahoga, Ohio.* •
- ROESER** (CARL) 1854-1873: *Manitowoc, Manitowoc, Wisconsin; 1874-1897: Washington, DC, District Of Columbia.* •
- ROESER** (OTTO) 1851-1885: *Saginaw, Saginaw, Michigan.* •
- ROESLER** (GUSTAV ADOLF) 1851-1855: *New York, New York, New York.* •
- ROESSLER** (FRIEDRICH) 1854-1870: *New York, New York, New York.* •
- ROGGENBUCKE** (OSKAR VON) 1855-1860: *New Braunfels, Comal, Texas; 1861-1883: Comfort, Kendall, Texas.* •
- ROMBAUER** (ROBERT J.) 1849-1902: *Saint Louis, St. Louis, Missouri.* •
- ROMBAUER** (THEODORE) 1850-1855: *Davenport, Scott, Iowa.* •
- ROSA** (RUDOLF VON) 1851-1865: *Washington, DC, District Of Columbia; 1866-1902: New York, New York, New York.* •
- ROSER** (KARL) 1854-1902: *Milwaukee, Milwaukee, Wisconsin.* •
- ROSKOTEN** (ROBERT) 1850-1897: *Peoria, Peoria, Illinois.* •
- ROSSWOG** (CONSTANTIN) 1849-1902: *New York, New York, New York.* •
- ROTHACKER** (WILHELM) 1851-1859: *Wheeling, Ohio, West Virginia.* •
- ROTHE** (EMIL) 1850-1852: *New York, New York, New York; 1853-1869: Watertown, Jefferson, Wisconsin; 1870-1895: Cincinnati, Hamilton, Ohio.* •
- ROTTECK** (CARL) 1858-1859: *Muscatine, Muscatine, Iowa; 1860-1860: Burlington, Des Moines, Iowa; 1861-1902: Keokuk, Lee, Iowa.* •
- RUDOLPH** (JOSEPH) 1850-1853: *Cincinnati, Hamilton, Ohio; 1854-1854: Saint Louis, St. Louis, Missouri; 1855-1855: Dubuque, Dubuque, Iowa; 1856-1902: Chicago, Cook, Illinois.* •
- RUHL** (KARL) 1850-1852: *New York, New York, New York; 1853-1902: Philadelphia, Philadelphia, Pennsylvania.* •
- RUPPIUS** (OTTO) 1853-1864: *Milwaukee, Milwaukee, Wisconsin.* •
- RUSCH** (NICHOLAS) 1848-1863: *Davenport, Scott, Iowa; 1864-1864: New York, New York, New York.* •
- RUTHS** (PHILIPP) 1850-1874: *Cincinnati, Hamilton, Ohio.* •
- SAHM** (KARL) 1854-1883: *New York, New York, New York.* •
- SALOMON** (CARL EBERHARD) 1850-1881: *Saint Louis, St. Louis, Missouri.* •
- SALOMON** (EDWARD) 1856-1869: *Milwaukee, Milwaukee, Wisconsin; 1870-1908: New York, New York, New York.* •
- SALOMON** (FRIEDRICH S.) 1851-1860: *Manitowoc, Manitowoc, Wisconsin; 1861-1880: Saint Louis, St. Louis, Missouri; 1881-1897: Salt Lake City, Salt Lake, Utah.* •
- SANDER** (ENNO) 1854-1912: *Saint Louis, St. Louis, Missouri.* •

- SCHADE** (LOUIS) 1852-1903: *Washington, DC, District Of Columbia; 1857-1858: Chicago, Cook, Illinois; 1859-1859: Burlington, Des Moines, Iowa.* •
- SCHADT** (OTTO) 1849-1902: *Saint Louis, Ind. City: St. Louis, Missouri.* •
- SCHEFFELT** (MICHAEL) 1850-1853: *Bufalo, Erie, New York.* •
- SCHEIBEL** (G.) 1850-1902: *New York, New York, New York.* •
- SCHEM** (ALEXANDER JAKOB) 1850-1881: *Carlisle, Cumberland, Pennsylvania.* •
- SCHIEFERDECKER** (JULIUS) 1872-1881: *Milwaukee, Milwaukee, Wisconsin.* •
- SCHIEREN** (JOHN NIKOLAUS) 1857-1863: *New York, New York, New York.* •
- SCHIMMELPFENNIG** (ALEXANDER) 1854-1865: *Philadelphia, Philadelphia, Pennsylvania.* •
- SCHLAEGER** (EDUARD) 1853-1854: *Wheeling, Ohio, West Virginia; 1855-1902: Chicago, Cook, Illinois.* •
- SCHLEICHER** (KARL) 1849-1882: *Westfield, Sauk, Wisconsin.* •
- SCHLUND** (FIDEL) 1849-1867: *Chicago, Cook, Illinois; 1868-1882: Newark, Essex, New Jersey.* •
- SCHMIDT** (CARL WILHELM) 1852-1887: *Cleveland, Cuyahoga, Ohio.* •
- SCHMIDT** (ERNST) 1858-1900: *Chicago, Cook, Illinois; 1864-1870: Saint Louis, St. Louis, Missouri.* •
- SCHMITT** (FRANZ) 1850-1902: *New York, New York, New York.* •
- SCHMITT** (NIKOLAUS) 1849-1869: *Philadelphia, Philadelphia, Pennsylvania.* •
- SCHMOLZE** (KARL HEINRICH) 1849-1859: *Philadelphia, Philadelphia, Pennsylvania.* •
- SCHNAUFFER** (CARL HEINRICH) 1852-1854: *Baltimore, Ind. City: Baltimore, Maryland.* •
- SCHNEIDER** (GEORG) 1850-1851: *Saint Louis, St. Louis, Missouri; 1852-1905: Chicago, Cook, Illinois.* •
- SCHNEIDER** (JOHANN) 1850-1858: *New Braunfels, Comal, Texas; 1859-1862: Austin, Travis, Texas.* •
- SCHNEIDER** () 1850-1902: *New York, New York, New York.* •
- SCHOEPF** (ALBIN FRANCIS) 1859-1902: *Washington, DC, District Of Columbia.* •
- SCHOLER** (JACOB) 1855-1860: *New York, New York, New York; 1861-1885: Littlestown, Adams, Pennsylvania.* •
- SCHOTT** (CHARLES ANTHONY) 1849-1901: *Washington, DC, District Of Columbia.* •
- SCHRAIDT** (KASPAR) 1853-1886: *Danbury, Ottawa, Ohio.* •
- SCHRAMM** (KARL) 1850-1902: *New York, New York, New York.* •
- SCHROEDER** (FREDERICK A.) 1850-1899: *Brooklyn, Kings, New York.* •
- SCHROETER** (EDUARD) 1851-1853: *Milwaukee, Milwaukee, Wisconsin; 1854-1902: Westfield, Sauk, Wisconsin.* •
- SCHUENEMANN-POTT** (FRIEDRICH) 1855-1881: *Philadelphia, Philadelphia, Pennsylvania.* •
- SCHUETTNER** (NIKOLAUS) 1849-1870: *Saint Louis, St. Louis, Missouri.* •
- SCHULTZ** (EDUARD) 1849-1902: *Milwaukee, Milwaukee, Wisconsin.* •
- SCHULTZ** (HERMANN THEODORE) 1851-1902: *Austin, Travis, Texas.* •
- SCHURZ** (CARL) 1853-1855: *Philadelphia, Philadelphia, Pennsylvania; 1856-1866: Watertown, Jefferson, Wisconsin; 1867-1867: Detroit, Wayne, Michigan; 1868-1877: Saint Louis, St. Louis, Missouri; 1878-1881: Washington, DC, District Of Columbia; 1882-1906: New York, New York, New York.* •
- SCHUSSELE** (CHRISTIAN) 1849-1879: *Philadelphia, Philadelphia, Pennsylvania.* •
- SCHUSTER** (CHRISTIAN F.) 1849-1870: *New York, New York, New York; 1871-1904: Brattleborough, Windham, Vermont.* •
- SCHWAN** (HEINRICH) 1850-1905: *Cleveland, Cuyahoga, Ohio.* •
- SEEGER** () 1850-1902: *Cincinnati, Hamilton, Ohio.* •
- SEELAND** () 1850-1902: *Leavenworth, Leavenworth, Kansas.* •
- SEIFFERT** (KARL) 1851-1881: *Newark, Essex, New Jersey.* •

SEILER (SEBASTIAN) 1861-1890: *New Orleans, Orleans, Louisiana.* •

SENGES (ADAM) 1854-1902: *New York, New York, New York.* •

SERENBETZ (FRANCIS) 1850-1902: *Humboldt, Allen, Kansas.* •

SERODINO (HERMANN FRANZ) 1850-1879: *Cincinnati, Hamilton, Ohio.* •

SIBER (EDUARD) 1871-1902: *Cincinnati, Hamilton, Ohio.* •

SIGEL (FRANZ) 1853-1860: *New York, New York, New York; 1861-1865: Saint Louis, St. Louis, Missouri; 1866-1870: Baltimore, Ind. City: Baltimore, Maryland; 1871-1902: Morrisania, Bronx, New York.* •

SOHNER (KARL) 1851-1902: *Indianapolis, Marion, Indiana.* •

SOLGER (REINHOLD) 1854-1863: *Boston, Suffolk, Massachusetts; 1864-1866: Washington, DC, District Of Columbia.* •

SORGE (FRIEDRICH ADOLPH) 1853-1862: *New York, New York, New York; 1863-1906: Jersey, Hudson, New Jersey.* •

STADLER (WILHELM) 1850-1902: *New York, New York, New York.* •

STAHEL-SZAMWALD (JULIUS) 1860-1912: *New York, New York, New York.* •

STARKLOFE (HUGO) 1850-1902: *Saint Louis, St. Louis, Missouri.* •

STEINBERG (T. J.) 1850-1902: *Lawrence, Douglas, Kansas.* •

STEINWEDEL (WILHELM) 1849-1902: *Quincy, Adams, Illinois.* •

STENGEL (WILHELM) 1851-1879: *Louisville, Jefferson, Kentucky.* •

STIFEL (CHARLES G.) 1850-1900: *Saint Louis, St. Louis, Missouri.* •

STIGER (JOSEPH LEOPOLD) 1850-1902: *Cleveland, Cuyahoga, Ohio.* •

STILL (GEORGE W.) 1850-1902: *Leavenworth, Leavenworth, Kansas.* •

STOCKMANN (C. O.) 1856-1873: *New Haven, New Haven, Connecticut.* •

STOECKEL (GUSTAVE) 1850-1907: *New Haven, New Haven, Connecticut.* •

STRAUBENMUELLER (JOHANN) 1855-1863: *Baltimore, Ind. City: Baltimore, Maryland; 1864-1897: New York, New York, New York.* •

STRAUCH (ADOLPH) 1853-1883: *Cincinnati, Hamilton, Ohio.* •

STRUVE (AMALIA) 1852-1862: *New York, New York, New York.* •

STRUVE (GUSTAV) 1852-1870: *New York, New York, New York.* •

SZOLD (BENJAMIN) 1860-1902: *Baltimore, Ind. City: Baltimore, Maryland.* •

TAFEL (ALBERT) 1850-1902: *Cincinnati, Hamilton, Ohio.* •

TAFEL (GUSTAV) 1849-1908: *Cincinnati, Hamilton, Ohio.* •

TAFEL (HUGO) 1850-1902: *Cincinnati, Hamilton, Ohio.* •

TAFEL (KARL) 1850-1851: *Cincinnati, Hamilton, Ohio; 1852-1902: Sandusky, Erie, Ohio.* •

TAFEL (LEONHARD) 1873-1902: *New York, New York, New York.* •

TAFEL (RICHARD) 1850-1902: *Cincinnati, Hamilton, Ohio.* •

TAFEL (RUDOLPH) 1850-1902: *Cincinnati, Hamilton, Ohio.* •

TAUSSIG (JAMES) 1849-1902: *Saint Louis, St. Louis, Missouri.* •

TESOR (AUGUST) 1850-1902: *New York, New York, New York.* •

THALMESSINGER (MEYER) 1849-1906: *New York, New York, New York.* •

THELEN () 1850-1902: *Leavenworth, Leavenworth, Kansas.* •

THIEME (AUGUST) 1850-1879: *Cleveland, Cuyahoga, Ohio.* •

TIEDEMANN (HEINRICH) 1849-1902: *Philadelphia, Philadelphia, Pennsylvania.* •

TRAU (JOHANN PHILIPP) 1851-1883: *Philadelphia, Philadelphia, Pennsylvania.* •

TUERCKE (KARL AUGUST) 1859-1886: *Cincinnati, Hamilton, Ohio.* •

TYSSOWSKI (IVAN) 1850-1902: *New York, New York, New York.* •

TZSCHIRNER (HERMANN) 1850-1902: *New York, New York, New York.* •

UHL (JAKOB) 1850-1902: *New York, New York, New York.* •

UJHAZY (LASZLO) 1850-1850: *New York, New York, New York; 1851-1870: New Buda, Decatur, Iowa.* •

ULFFERS (HERMANN) 1875-1879: *Detroit, Wayne, Michigan.* •

ULKE (HENRY) 1853-1860: *New York, New York*; 1861-1910: *Washington, DC, District Of Columbia.* •

UMBSCHIEDEN (FRANZ) 1853-1874: *Newark, Essex, New Jersey.* •

UNGER (PETER) 1849-1902: *Baltimore, Ind. City: Baltimore, Maryland.* •

VALENTINY (KARL HEINRICH) 1851-1882: *New York, New York, New York.* •

VARGA (FRANK) 1850-1902: *New Buda, Decatur, Iowa.* •

VETTE (WILHELM) 1849-1871: *Detroit, Wayne, Michigan*; 1872-1885: *Milwaukee, Milwaukee, Wisconsin.* •

VILLARD (HENRY) 1854-1900: *Cincinnati, Hamilton, Ohio.* •

VILTER (ERNEST) 1850-1902: *Lawrence, Douglas, Kansas.* •

VIOLAND (ERNST) 1850-1875: *Peoria, Peoria, Illinois.* •

VOGT (WILHELM) 1850-1871: *Louisville, Jefferson, Kentucky.* •

VOLCK (ADELBERT JOHN) 1850-1880: *Dayton, Montgomery, Ohio*; 1881-1912: *Baltimore, Ind. City: Baltimore, Maryland.* •

VORTRIEDE (HEINRICH KARL JULIUS) 1858-1899: *Buffalo, Erie, New York.* •

WAGNER (HEINRICH WALDEMAR) 1860-1902: *New York, New York, New York.* •

WAGNER (PHILIPP) 1850-1895: *Boston, Suffolk, Massachusetts.* •

WAGNER (WILHELM) 1852-1877: *Freeport, Stephenson, Illinois.* •

WANNER (GOTTLIEB) 1851-1879: *Cincinnati, Hamilton, Ohio.* •

WAPPICH (LEOPOLD) 1849-1902: *Buffalo, Erie, New York.* •

WEBBER (J. B.) 1850-1902: *Farmersburg, Clayton, Iowa.* •

WEBER (GUSTAV CARL ERICH) 1850-1853: *Saint Louis, St. Louis, Missouri*; 1854-1856: *New York, New York, New York*; 1857-1912: *Cleveland, Cuyahoga, Ohio.* •

WEBER (JACOB) 1850-1902: *New York, New York, New York.* •

WEBER (MAX) 1851-1901: *New York, New York, New York.* •

WEDEKIND (FRIEDRICH WILHELM) 1850-1865: *San Francisco, San Francisco, California*; 1866-1888: *New York, New York, New York.* •

WEDISWEILER () 1850-1902: *New York, New York, New York.* •

WEIGEL (PHILIPP F.) 1851-1881: *Saint Louis, St. Louis, Missouri*; 1882-1902: *Denver, Denver, Colorado.* •

WEIL (L.) 1850-1902: *Leavenworth, Leavenworth, Kansas.* •

WEILER (HENRY) 1850-1902: *Lawrence, Douglas, Kansas.* •

WEITLING (WILHELM) 1847-1871: *New York, New York, New York.* •

WERMERSKIRCH (WM. M.) 1850-1902: *New York, New York, New York.* •

WERNERT (J. B.) 1850-1902: *Cincinnati, Hamilton, Ohio.* •

WESENDONCK (HUGO) 1850-1860: *Philadelphia, Philadelphia, Pennsylvania*; 1861-1900: *New York, New York, New York.* •

WEYDEMEYER (JOSEPH) 1852-1865: *New York, New York, New York*; 1856-1858: *Milwaukee, Milwaukee, Wisconsin*; 1859-1860: *Chicago, Cook, Illinois*; 1866-1866: *Saint Louis, St. Louis, Missouri.* •

WIEDINGER (BERNHARD MARIA) 1852-1860: *Philadelphia, Philadelphia, Pennsylvania*; 1861-1861: *Saint Joseph, Buchanan, Missouri*; 1862-1894: *Chicago, Cook, Illinois.* •

WIEDRICH (MICHAEL) 1851-1899: *Buffalo, Erie, New York.* •

WIESNER (ADOLPH) 1851-1860: *Baltimore, Ind. City: Baltimore, Maryland.* •

WILHELMI (FRANZ) 1850-1868: *Saint Louis, St. Louis, Missouri*; 1869-1870: *Saint John'S, Franklin, Missouri*; 1871-1883: *Washington, Franklin, Missouri.* •

WILLICH (AUGUST) 1854-1858: *New York, New York, New York*; 1859-1878: *Cincinnati, Hamilton, Ohio.* •

WILLMAN (ANDREAS) 1850-1902: *New York, New York, New York.* •

WILSON (B.) 1850-1902: *New York, New York, New York.* •

WISS (GEORGE EDWARD) 1850-1902: *Baltimore, Ind. City: Baltimore, Maryland.* •

WISSERT (JOSEPH) 1850-1902: *New York, New York, New York.* •

WITTICH (ALBERT) 1849-1877: *Cincinnati, Hamilton, Ohio.* •

WOHLGEMUTH (F.) 1850-1902: *New York, New York, New York.* •

WOLFF (ALBERT) 1853-1902: *St. Paul's, Ramsey, Minnesota.* •

WRATISLAW (EDWARD C.) 1849-1867: *New York, New York, New York; 1868-1871: Bridgeport, Fairfield, Connecticut; 1872-1902: New Haven, New Haven, Connecticut.* •

WUTSCHEL (FRANZ) 1849-1902: *New York, New York, New York.* •

ZENTMAYER (JOSEPH) 1856-1888: *Philadelphia, Philadelphia, Pennsylvania.* •

ZERRAHN (CARL) 1855-1909: *Boston, Suffolk, Massachusetts.* •

ZIEGLER (KARL T.) 1849-1882: *Newark, Essex, New Jersey.* •

ZIMMERMANN (JOHANN) 1849-1884: *Cincinnati, Hamilton, Ohio.* •

ZIPPERLEN (ADOLPH) 1850-1905: *Franklin, Summit, Ohio.* •

ZITZ (FRANZ H.) 1856-1861: *New York, New York, New York; 1862-1877: Jersey, Hudson, New Jersey.* •

ZITZER (JOHANN) 1850-1865: *Carlisle, Cumberland, Pennsylvania; 1866-1883: Baltimore, Ind. City: Baltimore, Maryland.* •

ZUNDT (ERNST ANTON) 1858-1858: *Green Bay, Brown, Wisconsin; 1859-1864: Milwaukee, Milwaukee, Wisconsin; 1865-1868: Saint Louis, Ind. City: St. Louis, Missouri; 1869-1902: Jefferson, Cole, Missouri.* •