Understanding the Success of the Know-Nothing Party*

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June 2020

Abstract

The Know-Nothing Party swept to power in the Commonwealth of Massachusetts in 1854, running on a staunchly anti-Catholic and anti-Irish platform. In this paper, we examine the contribution of various factors that have been hypothesized to contribute to the party's success. We digitize several censuses to develop exposure measures of shocks to labor supply and demand as well as measures of Irish assimilation and the fiscal burden associated with foreign-born paupers. Consistent with Fogel's hypothesis, we find labor market crowd-out from the Irish is positively correlated with Know-Nothing vote shares. Yet, as emphasized by Mulkern (1990) industrialization and associated deskilling of the labor force was as important. These two forces played a decisive role in some, but not all, years of the Know-Nothing's electoral success and stronghold locations were unaffected by both. Lastly, we find migration and occupational upgrading partially offset the negative correlation between Irish labor crowd-out and the evolution of wealth for native-born men.

JEL Classification Codes: J61, D72, N00
Keywords: Populism, Nativism, Economic Inequality

*We thank seminar participants at UC-Davis, the 2017 NBER DAE Egg Timer, All U.C. Economic History Conference, EHA, University of Wisconsin, Virginia Tech, Australian National University, NHH, and Paris School of Economics. We appreciate comments from Christian Dippel, Marianne Page, and Giovanni Peri. Brian Lee, Morgan Foy, Anlu Xing and Joyce Kim provided excellent research assistance. We also thank many students at UC Davis and Stanford who helped digitize censuses. Funding from the Stanford Institute of Policy and Economic Research is gratefully acknowledged.

> *A general view of the Nativist Movement in American politics has many points of interest for the student of history, and not a few instructive lessons probably applicable to future conditions. Movements of this nature are quite likely to recur; if perhaps, in a somewhat varied and feebler form, nevertheless in their salient characteristics, closely modeled after the Know-Nothing Party of 1854.*

Desmond (1904, 3)

I Introduction

To what extent is nativist voting behavior driven by labor market competition or technological shocks to production versus non-labor market factors, such as ethnic or racial animus? This question has been at the core of much research attempting to understand such tendencies.[1] The breakdown of the Second Party System comprised of Democrats and Whigs and the emergence of the Know-Nothing Party in the mid-19th century provides a unique opportunity to deepen our understanding. The Know-Nothings were the first major avowedly nativist party to achieve widespread electoral success in the United States. Their takeover was preceded by structural changes to the New England economy and massive immigration.

Our setting is Antebellum Massachusetts, which represented a "striking victory" for the Know-Nothing movement (Fogel 1989, 372).[2] In 1854, the Know-Nothing party secured all but three seats in the Massachusetts legislature and won the governorship with over 60% of the vote. These gains were set against a backdrop of rapid industrialization. The share of labor force in agriculture in the Commonwealth fell from 0.57 in 1820 to 0.15 by 1850 with 65% of the decline occurring between 1840 and 1850 (Field 1978, 153). Field attributes the rapid sectoral shift to competition from Midwestern agricultural products with increased East-West trade from improved transportation networks (see also Atack *et al.* (2010)). Although some of this labor was absorbed via an exodus to the frontier, credit and information constraints coupled with opportunities in cities slowed adjustment along this margin and aided urbanization.[3] By 1840, Massachusetts was the most densely populated state in the nation at 127 inhabitants per square mile [4]

[1] See Scheve & Slaughter (2001) and Autor *et al.* (2016).

[2] The Know-Nothing movement in Massachusetts, described in more detail in Section II, included a coalition with free soilers, abolitionists and progressives who favored anti-corruption, secret ballots and rights for labor (i.e. an anti-Whig agenda). But as is clarified by their loyalty oath and statement of party principle, the major plank that united all lodges was the anti-Irish Catholic agenda.

[3] According to Field (1978), such failures would explain why the overall "land abundant" U.S. industrialized at all. Other well-documented factors that contributed to the growth in establishment size in manufacturing, included the development of financial markets (Rousseau & Sylla 2005), and legal changes in business organization (Lamoreaux 2006; Hilt 2008).

[4] See Table XII in De Bow (1854, 40).

Production shifted to factories and increased the demand for less skilled labor (Atack *et al.* 2005). The factory and putting out systems primarily displaced semi-skilled (i.e. artisan) labor leading to a "hollowing out" of the occupational structure (Katz & Margo 2013).[5] Although this process was occurring in many Northern states at the time (see (Temin 1999)); the Commonwealth was at the leading edge of industrialization.

On the labor supply side, a shock came in the form of mass migration of Irish. An estimated one million Irish fled their homeland during the Potato Famine of 1846 (see Figure 1). Over the period 1841 to 1851, Boston absorbed over 100,000 Irish immigrants, and by 1855 the Irish comprised one-quarter of the city's overall population and 85% of its foreign-born population (Handlin (1959) quoted in Shannon). The Irish immigrants into Massachusetts were generally lower-skilled than the German "forty-eighters" or the British (Ferrie 1997; see also Dippel & Heblich 2019).[6]

In addition to being poorer and less-skilled, a key characteristic shared by Famine refugees was their religious tradition. Roman Catholicism, with its allegiance to the Pope, was viewed as a threat to the founding principles of separation of church and state espoused by the young nation. Know-Nothings feared that lax naturalization laws would allow the new arrivals to convert their democracy into a papist state. Though, according to Mulkern (1990, 79), "there was no substantive Irish vote in Massachusetts in the early 1850s" and it would take a quarter century for the group to become a major voting bloc in the state. Just as concerning was the threat the Irish influx might pose to native workers. As described by Haynes (1897) "Hardly less pronounced, though certainly less well-grounded, than the fear of the immigrant as a voter was the fear of the immigrant as a wage earner...the rank and file of the laboring class proved themselves devoted believers in the wage fund theory."[7]

Haynes' view was that the antebellum economy could absorb the migrants, while opening up better opportunities for native workers as supervisors. Haynes (1897, 75) defended his position quoting Edward Everett Hale from *Letters on Irish Immigration* (1852)

[5]Field (1978) argues that Massachusetts farming involved expertise and thus any movement out of the agriculture sector furthered overall deskilling.

[6]Figure A2 demonstrates the difference between the literacy rates of native and foreign-born by state. Massachusetts stands out as a state where the percent of native-born illiterate was quite low but the foreign-born illiterate were very high. The relatively high level of literacy among the native-born population and of periodicals provide additional historical context. These figures suggest that nativism did not arise in Massachusetts because the state was uniquely uneducated or lacked access to a variety of viewpoints in the press. Individual-level data show the members of Know-Nothing lodges were drawn mainly from the mechanic occupational class.

[7]These views were also expressed in the press: *[T]he enormous influx of foreigners will in the end prove ruinous to American workingmen by reducing the wages of labor to a standard that will drive them the farm and workshops altogether* from the Sun (1854) quoted in Ferrie (1996, 7).

who states: "They (the Irish) do the manual labor. It does not follow that natives who must otherwise have performed it, do nothing or starve. They are simply pushed up into foremen of factories, superintendents of farms, railroad agents, machinists, inventors, etc."[8]

A century later, the question of whether direct competition for jobs between Irish and native-born worker contributed to the wave of support for the Know-Nothing party remained unsettled. Fogel noted (1992, 6): "It is unlikely that the nativist political movement would have come close to the northern successes it obtained in 1853-1855 without the pressures on labor markets generated by the massive immigration of 1848-1854....". The prominence of labor market explanations was not without detraction (Foner 1970). Mulkern notes that other states experienced mass immigration yet did not turn with such enthusiasm to Know-Nothingism. Mulkern (1990, 5) writes:

> *Explosive urban and industrial growth had thrust the Commonwealth into the forefront of the industrializing states in the antebellum period, creating, in the process, wrenching social and economic dislocations. The failure of the established parties to mount a significant response to the myriad issues and problems spawned in the matrix of modernization weakened partisan attachments and set the rank and file of the established parties on a quest for a political vehicle that would make a difference in their lives. In 1854, such a vehicle materialized in the form of an antiparty, antipolitician populist movement that promised to cleanse the statehouse of corruption and self-serving political careerists and turn the government over to the people..."*

One key question - not answered directly by our analysis but discussed extensively by historians is why the party came to party *precisely* in 1854?[9] Both industrialization and immigration accelerated into the years immediately preceding it, and anti-Catholic sentiments as well as nationalism had been percolating for years. However, as edified by Tyler Anbinder, there was another important development in the early 1850s: the collapse of the Whig party, precipitated by the death of key leaders (Daniel Webster and Henry Clay), the admission of California into the U.S., and the subsequent compromises by the Whigs on the expansion of slavery. The Whigs and Democrats had failed farmers who were losing ground to competitors from the Midwest, laborers who had yet to see limits on work day hours or other basic protections enacted, and semi-skilled workers who were frustrated

[8]Haynes also cites lectures by Carroll D. Wright at Johns Hopkins as corroborating his stance. Indeed empirical evidence for such an effect is found by Tabellini (2020) during the epoch of mass migration extending from the latter part of the 19th to the early 20th century.

[9]See Foner (1970) for a detailed account of the break down of the Second Party system and the rise of the Republican Party to replace the Whigs. Fogel (1989) provides a similar discussion but emphasizes the potential role of economic factors.

by the move towards mass production. The Know-Nothings emerged from secret societies and seized on the political vacuum and discontent with the second party system.

In this paper, we examine the relative importance of industrialization related deskilling and labor market crowdout on the success of the Know-Nothing Party. To do so, we digitize annual votes for Governor at the town-level for over 300 municipalities in Massachusetts during the 1850s as well as votes on the Know-Nothing sponsored amendment to the state constitution for a literacy test for new voters. We also digitize the party affiliations of town representatives for five years. Our primary outcome and proxy for Know-Nothingism is the gubernatorial vote share.[10]

To construct the exposure variables, we digitize the 1845 Census of Manufacturers from Massachusetts in its entirety, the 1855 Census of Manufactures for the state of Massachusetts and approximately 300,000 individual occupations from the 1855 Population Census of Massachusetts. We also use the 100% population census from IPUMS for the state of Massachusetts for the years 1840 and 1850. Following Autor *et al.* (2016), these census data are used to produce cross-sectional measures of exposure to labor market shocks and test which, if any, were of political consequence.

Our measure of exposure to deskilling is constructed by weighting the state-level shift in average establishment size between 1845 and 1855 with the town-specific specialization in a given industry in 1845. The exposure of native workers to immigrant labor market competition is similar in that state-level shifts are weighted by local shares and summed. The state-level 1850 to 1855 shift in Irish-born within an occupation relative to initial labor force in that occupation is multiplied by the 1850 town-specific native-born occupational shares.

Our identifying assumption is that, conditional on other variables that proxy for competing explanations, such as fiscal drain and (lack of) cultural assimilation, these indices capture the casual effect of crowd-out and deskilling on political outcomes. This is potentially a more tenuous assumption than papers using modern data given that our sample is limited to historical Massachusetts and the number of distinct occupational skills and industries is more compressed than studies using data from more recent periods. However, one advantage of our context is the Know-Nothings considerable attention to the Irish low-skill immigrant. This allows us to test whether results are similar when using German and British shifts in place of Irish in the crowd-out index. Moreover, since our sample excludes Boston and our weighted average consists of native not immigrant shares, identification threats arising from ecological factors that might have attracted early Irish

[10]Recall that they won almost every local state election and vote data for such positions were only sporadically archived over our period of study.

immigrants to a given township are not quite as troublesome at least for this measure.

With respect to the deskilling index, the identification concern still consists of potentially endogenous local shares but is further complicated by the notion that low-skill migrants spurred industrialization (Rosenbloom 2002). Indeed, Sequeira *et al.* (2020) document how immigration during the Age of Mass Migration (1860-1920) increased the number of manufacturing establishments, and, by 1930, increased output per capita. To address the former concern, we digitize the earliest possible Manufacturing Census to construct our industrial shares and use categories of seven occupations reported in the 1840 census as a control. To address the question of endogenous industrialization – we test whether changes in the average establishment size or value per capita are correlated with Irish immigration. We find no evidence of this.

Our main findings support Fogel's view that direct labor market competition from low-skill Irish immigration had a positive and significant effect on nativist sentiment and aided the Know-Nothing party. A one-standard deviation increase in labor market crowd-out was associated with about a 3.5 percentage point increase in the Know-Nothing vote share in 1854. However, consistent with Mulkern, deskilling associated with industrialization played an equally prominent role, with a one standard deviation associated with approximately a 1.4 percentage point increase in Know-Nothing vote shares. The two estimates are not distinguishable statistically. Taken together, labor market competition and deskilling explain approximately 15% of the mean Know-Nothing vote share in 1854 and were decisive in certain years.

Our findings are robust to the inclusion of county fixed effects, controlling for Irish immigration and proxies for Irish enfranchisement, urbanization, voting patterns as well as measures of fiscal burden and assimilation. In addition, we find much weaker and statistically insignificant effects of British or German labor market crowdout on nativism. We also fail to find evidence that Irish crowdout or deskilling positively predicted voting behavior a decade prior to the Know-Nothing victory. The results are unaffected by using or including employment shares by industry constructed with the 1840 Population census.[11] Finally, we find no evidence that Irish immigration aided industrialization in the short-run. We cannot, of course, rule out manufacturing growth over a longer time horizon. In the near term (one decade) we find that crowdout depresses the wealth of native-born men. Though, as argued by Haynes (1897), these effects are partially offset by migration and upskilling.

When examining stronghold locations – townships that continued to support the Know-

[11]Note that we cannot construct our crowdout measure using these shares though because they do not provide ethnicity.

Nothing party even when there was a viable alternative for progressive and abolitionist voters in the Republican party – the explanatory power of economic factors is significantly diminished. Taken together, these findings may indicate in some areas – nativist political behavior is immune to economic pressures.

An exploration of heterogeneity reveals that crowdout strongly interacts with the percent Irish in a given location. Whereas deskilling (which captures movement into larger central establishments) interacts strongly with the growth of cottage or "putting out" systems. As discussed by Hazard (1913) in her detailed examination of the boots and shoe industries in New England, cottage industries represented a step in the evolution from home to factory production.

To better characterize the Know-Nothing members we digitize the membership lists. Building off the work of Tyler Anbinder, we link the lists to Census data. Know-Nothings members were mainly drawn from the semi-skilled mechanic professions – professions that would have been affected by deskilling.[12] We find that crowd-out pushes voters away from the Whig Party and towards alternative third parties in the early 1850s, even before the Know-Nothings emerged. By examining town-level legislators over time, we find that most Know-Nothings were not involved with politics in 1853. However, those that were involved were former Whigs.

The Know-Nothings lost power in 1857, defeated by the nascent Republican party. Yet a constitutional amendment for a literacy voting test was passed by the General Court of the Commonwealth. Economic factors cease to have predictive power in the explaining this outcome once conditioning on past Know-Nothing vote shares. Although most Know-Nothing legislators attrit from the sample, we do find movement from the Know-Nothing to the Republican ranks.

The rest of the article is structured as follows. First we provide historical background on the Irish immigration and the long history of anti-Catholic sentiment in the United States. We then move to discussing industrialization and deskilling in antebellum Massachusetts and the success of the Know-Nothings. In Section III, we introduce the data we use in the analysis and the construction of the indices. Section IV describes the empirical framework. Section V reports the results and Section VI concludes.

II Historical Background

In this section, we discuss key historical factors postulated to have contributed to the rise of the Know-Nothing party. First, we describe Irish immigration and explore the fears it

[12]Prior vote shares from any of the major parties are not highly predictive of Know-Nothing vote shares once conditioning on economic factors. Without including the deskilling and Irish crowdout variables, the outcome is positively correlated with Free Soilers.

engendered such as pauperism, labor market competition and "papist" enfranchisement. We next turn to discussing broader changes in the economy including the shift to factory production and their ramifications for skilled and unskilled native workers. Finally, we describe the Know-Nothing platform and link archival data from membership lists to census manuscripts to explore the characteristics of secret lodge members.

II.A Irish Immigration and Native Fears

The Know-Nothing party's success came on the heels of upheaval due to increasing numbers of immigrants entering the state after the Irish famine and the German revolutions. At the national level, immigration increased from approximately 100,000 over the twenty year period between 1790 to 1810 doubling to 200,000 between 1820 and 1830, nearly 800,000 between 1830 and 1840 and around 1.5 million in the decade prior to the Know-Nothing victory (Gardner 1855).

Irish immigration flows accounted for much of that surge, picking up in 1845, slowing down in the 1850s, but remaining high thereafter. In Massachusetts, immigrants moved to Boston, but also to manufacturing hubs and mill towns which stretched across the state – see Figure 4 panel (A). Over 40 percent of the working age male population of Boston was foreign-born by 1850, with this growing to 48 percent by 1860. This rapid demographic change stirred long held fears in the native, mostly Protestant, population about Catholics.[13]

Anti-Catholicism: Anti-Catholic prejudice permeated the culture of the colonies well before Famine-induced immigration.[14] Early Americans feared that Catholics lacked experience with democratic institutions of government, which the colonists had fought for, and the early Americans had sustained. Many in New England believed immigration could lead to the U.S. becoming a Papal state, despite the fact that Roman Catholic power – as proxied by Church property value – was not unusually high in the region, as evidenced by its location on the distribution of valuations across states (Figure 2 Panel B).

For the most part, Protestants made up the early settlers in New England coming from areas recently emerging from the Reformation, religious purges, and wars in Europe. Much of the hatred stemmed from the anti-national nature of the Catholic church combined with the fear that Catholicism was a force to overthrow Protestant governments (Billington 1938). The early United States experienced periodic outbursts of violence aimed at Catholics between the 1820s and 1840s. The first recorded attack on Catholics

[13]The port of Boston recorded 5,560 immigrants in 1840 jumping to nearly 30,000 by 1849 (Shattuck (1845) quoted in Meckel (1985, 400).

[14]An early policy manifestation of this suspicion was the Alien Act of 1798, a response by the Adams administration to refugees from the French revolution agitating for U.S. involvement in their civil war (Whi 1855, 22-23).

was the burning down of the Ursuline Convent in Charlestown, near Boston, in 1834. Two years later, "The Awful Disclosures of Maria Monk" – a book describing horrific abuses in a convent became the most widely read contemporary book in the country.[15]

Fear of the Irish Voter: These deep-seated concerns about the inability of the Catholic to embrace democracy were stoked by the flood of Irish immigrants. Allowing the Irish to vote could jeopardize the separation of church and state, a concern highlighted in Gardner's inauguration speech: "Believing these dangers and probabilities real, it is a solemn duty to restrict alien franchise, that while entire toleration is granted to others to worship their Maker according to the dictates of their own judgment, we preserve the same right to us and ours untrammeled and unendangered (Gardner 1855)."

There was also a well-founded concern among abolitionists that the Irish would favor the Fugitive Slave Law and the Kansas-Nebraska Act.[16] A proposed new state constitution in 1853 of the Democratic, Free-Soil, and "Locofoco" coalition aimed to reform the state political system and overhaul representation by giving more representation to rural areas where Democrats held a stronghold. Nativist language was used in the defense of this reapportionment.[17] When the constitution failed to pass, many contemporaries of the time blamed the Irish vote in Boston (O'Connor 1983). Indeed, the Catholic newspaper, *The Pilot* did delight in the defeat of the Constitution (as quoted in Oconnor1983), "The new Constitution rejected! Waterloo defeat of the Coalition!". More recent analyses have suggested that turnout among Whig strongholds was a more decisive factor (Sweeney 1976); with Irish shares not correlating strongly with the vote percent (see Figure 4 panel (B)). However, given the *perception* that the Irish vote helped defeat the Constitution – we use "nay" votes as measure of organized Irish electoral power in our empirical exercise.

Fear of the Irish Pauper: Massachusetts town authorities were the first line of aid for the indigent. Towns were incentivized to deny settlement to immigrants, thereby seeking reimbursement for support provided from state authorities. A report to the legislature captured the scale of the problem. Over 10,000 people without legal residence in the state applied for poor relief in 1851, with 8,527 being foreign-born or children of the foreign-born. That year Massachusetts (towns and state inclusive) spent $212,000 on paupers without legal residence (Report of the Joint Committee to the Senate, April 29, 1852,

[15] Actions taken by the Catholic church in the early 1850s did not abate Protestant concerns. The Catholic clergy began to work towards ecclesiastical ownership of church property in 1852.

[16] An Irish militia in Massachusetts, the *Columbian Artillery*, prevented the *Sons of Liberty* from freeing an imprisoned fugitive slave from Virginia so that he would not have to return to his master. See www.masshist.org/object-of-the-month/march-2017.

[17] From the Free-soiler newspaper, *Commonwealth*, quoted by Sweeney (1976, 126) "what with vast accommodation of capital on one hand and the influx of a poor, ignorant foreign population on the other they [cities] no longer represent the Historical Massachusetts."

Boston Advertiser, May 8, 1852).[18] Figure 3 Panel (A) from the 1850 census indeed demonstrates that foreign-born paupers dominated native born and Massachusetts was second only to New York in the total annual cost to support the pauper population.

Town coffers were strained by immigrant arrivals, and the system of reimbursement led to conflict and fraud. The state response to the "futile struggle between the towns and the Commonwealth over the support of unsettled paupers was the opening in 1855 of three large (but not large enough) almshouses," (Meltsner 2012, 70). The constant friction between towns and the state about the adjustments of the per capita reimbursements eased after the almshouses opened, though not before cementing the stereotype of the Irish as beggars, paupers and criminals.

Fear of the Irish Laborer: Know-Nothing newspapers frequently cited the threat the Irish immigrant posed to the native worker. As stated by Henry Gardner in his acceptance speech for Governor in 1855, "The present European immigration is deeply prejudicial to the fair remuneration of American labor. The mechanic, the artisan, the agriculturist, daily suffer from its influence...Those who hourly feel the oppressing competition of alien labor...properly believe that their own as well the interests of the Republic demand that their elective franchise should be exercised for the protection of American labor (Gardner 1855)."

According to Fogel, this fear was indeed well-founded: "[T]he timing of immigration and the distribution of immigrants over space are very important for understanding the economic distress suffered by native northern labor during the last two decades of the antebellum era, and of the political realignments stimulated by this distress," (Fogel 1992, 17). Since the Irish immigrants were generally low-skilled, direct job competition and economic distress would have predicted to be worse for this group of native workers. Yet, precisely the group Gardner references, artisans, mechanics and agriculturalists, who were considered semi- to high- skill at the time, would have been affected by changes to the Massachusetts economy that began decades earlier.[19]

[18] Legislative efforts aimed to stem the tide of Irish paupers backfired. An 1848 law created a Superintendent of Alien Passengers to inspect all ships carrying immigrants before allowing them to land in a Massachusetts port. Passengers deemed unlikely to become paupers were charged $2 a head from the ship-owner. For alien passengers thought likely to become a burden to any city or town at any time in the future, the Superintendent required a bond from the ship-owner of $1,000 (Haynes 1897, 76). The per head charge and size of the bond was onerous compared to those legislated in New York, leading to the practice of landing in New York passengers headed to Massachusetts with the remainder of the journey over rail. In this case, New York received the benefit of the bond and fees without any of the expenditure risk (Haynes 1897).

[19] According to our data, the occupations listed by Gardner experienced only slight increases in the share Irish (see Figure 7).

II.B Industrialization and Deskilling in Antebellum Massachusetts

As early as the mid-1820s, manufacturing had grown to be the largest sector of the Massachusetts economy. Industrial statistics taken in 1845 and 1855 showed the value of manufacturing output increased from $83 million to $215 million 10 years later (nominal dollars). The 1850 U.S. Manufacturing Census showed Massachusetts as the undisputed leader of textile and boot and shoe manufacturing, the first and third largest industries in the country.

A number of other industries grew rapidly during this period, with many using the factory system. Field, in a series of papers, described the sectoral shift from agriculture to industry in antebellum Massachusetts, finding that the process overall was deskilling. Field (1980, 165) writes:

> *[A] very large share of manufacturing employment in the period of early industrialization in Massachusetts was in industries which, because of the nature of the materials being processed, were then, and are today, relatively unskilled industries. Second, a relatively small share – perhaps 5 percent of the manufacturing labor force, ...was employed in the relatively high-skill machine-building industry.*

The rise of manufacturing meant population growth in cities. The proportion of the population living in towns of 2,500 residents or more increased from 11 percent in 1790 to 23 percent in 1820, to 50 percent in 1850 (see Figure 5). With the exception of Rhode Island, Massachusetts was the most urbanized state, and faced the most rapid increase in urbanization. Indeed, although by 1850 Massachusetts had the largest percent Irish, it was not very different from New York or Rhode Island in that regard (they were all around 12% - see Figure 2 Panel A). Mulkern points out these other states did not overwhelmingly elect nativist leaders. Instead, he argues it was the "transcendent force of modernization" including "explosive urban and industrial growth" - and the "failure of the established parties to mount a significant response" that led to their dominance in the Bay state.

II.C Conceptual Framework: Crowd-out, Deskilling and Native-born Living Standards

Our framework for understanding this time period is a model in which deskilling and immigration create differential shocks to high-skill and low-skill labor markets, thereby affecting their equilibrium wages (see Figure 6). Deskilling would have reduced demand for semi-skilled workers thus depressing their wages. This would have been exacerbated by competition from immigration, though Irish were generally involved in low-skill jobs. On the other hand, deskilling was complementary to low-skill workers at the time, pushing out the demand for factory workers. Although this alone might have increased equi-

librium low-skill wages, an increase in supply of Irish workers could still lead to a lower overall equilibrium wage.

We lack high-quality, high-frequency wage data during this time period which would allow us to accurately test these hypotheses. Wage data for this time period has been criticized for not accurately capturing the living standards of ordinary workingmen and generally being of low frequency and quality (Fogel 1992, 482-84). One notable exception is the series created by Margo & Villaflor (1987) using payroll data from civilian members of the US Army. Based on these data, wages of artisans and laborers fell by 18% and 10%, in the Northeast over the 1848 to 1855 period. Fogel remarks these are likely underestimates as they are not adjusted for unemployment. Moreover this figure neglects to other margins of adjustment - such as migration and occupational upgrading by the native-born.

Ferrie (1997) examines the specific question of whether immigration depressed native incomes in the antebellum period.[20] Ferrie constructs a sample of approximately 3,000 adult native-born men linked across the 1850 and 1860 decennial censuses and imputes their incomes using occupation codes. Ferrie finds a positive effect of foreign-born on occupational upgrading of native-born low-skill workers but a negative effect for skilled workers. We return to this discussion-born to competition from Irish labor.

II.D Know-Nothing Origins, Principles and Platform

The Know-Nothing party grew from the union of oath-bound secret societies that merged into the Order of the Star-Spangled Banner.[21] The party was organized into local lodges with chiefs appointed by the state leader. Because lodge members were not sworn to secrecy, they were instructed to say that they "knew nothing" about the party if queried. The members stopped supporting other candidates and began to field their own when the Whigs became particularly precarious.

Nationally, the Know-Nothings captured nine gubernatorial seats, dozens of national legislative seats and mayorships along the Eastern sea border. Less than two years after its formation, the party had branches in every state and claimed over 1 million members (Gienapp 1985). Nowhere did the party enjoy such unparalleled success as in Massachusetts, as described by Mulkern (1990, 76):

> *...the American party had managed the greatest election upset in the history of the state. Every constitutional state officer, the entire congressional delegation, all forty*

[20] Two other notable historical references are Goldin (1994) and Hatton & Williamson (1998) who find that mass immigration at the turn of the 20th century had a negative effect on native wages, in contrast to many contemporary results which generally find a positive effect. These differences may be related to the demand for low-skill labor at different points in time.

[21] The other prominent entity being the Order of United Americans (Desmond 1904, 52).

state senators, and all but 3 of the 379 representatives bore the Know-Nothing stamp. Henry Gardner's 63% majority and his 81,500 vote total for governor were the largest ever. He carried every city and all but twenty of the state's more than three hundred towns.

Once in power the Know-Nothings pursued the platform outlined in Gardner's inaugural speech - including circumscribing foreign enfranchisement. The party pushed for a constitutional amendment for a literacy test for new voters – which was ultimately successful. But was not able to push through an amendment that immigrants must wait 21 years from entry before gaining suffrage. Other legislation targeting Catholics included nunnery inspections, the banning of militias, and the daily reading of the King James bible in public schools. The Know-Nothings of Massachusetts also absorbed progressive elements of the Whig and Democratic party - and under their leadership, funding for schools and hospitals was increased, while anti-corruption reforms were enacted and taxes raised.[22]

Know-Nothing structure centered around the lodges which were established in each town. Membership required being a native-born citizen, a Protestant, born of Protestant parents, and not married to a Roman Catholic.[23] According to Desmond (1904, 52), the Know-Nothings were unique from other secret orders such as the Free Masons in that they were dedicated to political advancement. The oath used to induct members required them to "not vote or give your influence for any man for any office in the gift of the people, unless he be an American-born citizen in favor of Americans ruling America, nor if he a Roman Catholic." Only native-born Protestants could be supported for public office and political appointments (Massachusetts Constitution of the State Council, 1854; Connecticut Constitution of the State Council, 1854).

II.E Membership Lists

What type of men joined the secret lodges of the Know-Nothing party? We replicate and extend the analysis of Anbinder (1992) who first linked Know-Nothing members listed in chapter books to their records in the decennial U.S. census manuscripts. Membership lists from local chapters are preserved for only a few cities and towns. We digitized the names of the first 200 members of the East Boston Membership list, and hand-matched them to the 1850 census, locating 53 of them. This procedure enables us to identify the age, occupation,

[22]Many of the promises of labor reform went unfulfilled. These included a secret ballot for laborers and 10-hour workdays. Although political insiders predicted the American party would be the future major oppositional power to the Democratic party - replacing the beleaguered Whigs, within three years the party had all but disbanded in the wake of the growing Republican Party.

[23]Strictness on native-born parentage varied across states. Connecticut required that a member's parents also be native-born Protestants. Massachusetts initially required one set of grandparents to be native-born. Indiana chapters did not even require the member to be native-born as these chapters recruited from a population whose ancestry's only recently arrived in the U.S. (Massachusetts Register, 1853-1862)

and real estate wealth of the members of the party. Relative to the average 18-65 year old man in East Boston, members of the party are slightly older (36 versus 33 years old), slightly more likely to hold a profession rather than being a common laborer, and have about the same average occupational income (occscore). Over 10 percent of Know-Nothing members report positive real estate wealth, relative to 3.6 percent of male residents of East Boston.

Using list data from Worcester and an algorithm detailed in the appendix, we located 253 unique individuals in archival records, extracting information on their birth year, occupation and place of birth. The occupational distribution for Worcester is shown in Figure 7 and can be compared to the occupation distribution. Members of the Know-Nothing party were much more likely to be mechanics than those in the general population, where mechanics includes carpenters, mechanics, blacksmiths, wheelwrights, etc. We conclude from this preliminary comparison that Know-Nothing party members were average working class men, not poor, but not the elite members of Boston society either. This provides some suggestive evidence that at least part of the Know-Nothing success was displacement of skilled workers by mechanized production complementary to low-skill workers. To investigate this further, we turn to our regression analysis.

III Data and Measurement

III.A Election Returns Data

Our primary outcome variable is town-level gubernatorial race vote counts for the Know-Nothing candidate published in the *The Massachusetts Register (1853-1862)*. We digitized votes using hand-double-entry, and verified the data with original hand-written returns for the 1854 and 1857 elections held at the Massachusetts State Archives. Massachusetts provides the finest geographic detail for election returns during the period based on using the town as the primary political unit (see Figure 10). Summary statistics for election returns are reported in Appendix Table 11.

The town is a meaningful unit of analysis reflecting the economic and political environment. Massachusetts uses the town as the primary political and economic unit. Censuses of social statistics and population, and local elections are conducted at the town level. Know-Nothing vote share is calculated as the number of votes for the Know-Nothing candidate divided by the total votes in the town. The benefit of election data is that it measures actual behavior as opposed to self-reported perceptions, since the latter can be contaminated with demand bias.[24]. One drawback of using vote data as a proxy for anti-immigrant

[24]Opinion polls provide another measure of the extent of nativist views and are commonly used in the modern literature (Hainmueller & Hopkins 2014; Inglehart & Norris 2016)

sentiment is that voters select a candidate based on a bundle of attributes such as valence as well as policy positions, and thus, votes for the Know-Nothing Party might not solely reflect nativist opinions.

III.B Exposure to Immigrant Labor Market Competition:

Town-level exposure to Irish labor market competition is measured as the change in the number of Irish-born workers in each skill cell between 1850 and 1855 normalized by total employment in that cell in 1850, and weighted by the skill cell's share in each local labor market's initial native-born employment:[25]

$$\textit{Crowdout}_i = \sum_j \frac{L^{1850,i}_{Native,j}}{L^{1850,i}_{TotNative}} \cdot \frac{(L^{1855,Mass}_{Irish,j} - L^{1850,Mass}_{Irish,j})}{L^{1850,Mass}_{Total,j}} \quad , \tag{1}$$

where i indexes local labor markets, j represents skill groups, and the time step is between the 1850 Federal Census and the 1855 Massachusetts Census. Figure 9 demonstrates the mean shares of native by occupation at the state-level and the state-level shift. Although we are using town-level shares, it provides a visualization of the variation in the shift and a summary of the native distribution.

Skill-groups are defined by broad occupational categories, comparable across datasets: agriculturalists, boot and shoe makers, factory operatives, laborers, manufacturers, mariners, low-skill mechanics, high-skill mechanics, merchants, professionals, and miscellaneous.[26] We restrict the microdata to men of working ages between 18 and 65. Female employment is heavily concentrated in boot and shoe and the straw hat making industries as well as represented in textile mills. We add the former to a cottage employment control.[27] Moreover, women did not have suffrage rights for state and presidential elections in Massachusetts at this time. The voting data does include the political views of women, except through the extent that men took them, or the economic effects of immigration on women's labor market outcomes, into account.

State-level changes in foreign-born penetration for each skill group are constructed from a combination of the 1850 complete count census provided by IPUMS, and the 1855

[25] Acemoglu & Restrepo (2017) and Collins & Niemesh (2019) use a similar construction of local *exposure* to a labor market shock, industrial robots in manufacturing and labor unions, respectively. See also Card & Peri (2016) for the link to theory.

[26] The eleven broad categories correspond to those used in the published aggregate statistics of the 1855 Massachusetts census. We use these to verify that our data digitization of the microdata aligns closely with the published aggregates. Card (2001) and Friedberg (2001) used occupations as a meas0ure of skill when estimating the impact of immigration in the modern United States.

[27] We have experimented with also including female in the shift for crowdout, however, since employment was only asked of men ages 15 and older in the 1850 census, the shares and the shift would not align. When we nevertheless include them, it does not affect the magnitude or significance of the results.

Massachusetts Population Census microdata provided by FamilySearch.org (Ruggles *et al.* 2018; FamilySearch 2016). The latter required digitizing the 1855 Massachusetts microdata, hand-entering occupations for 300,000 working age men.[28]

Figure 9 shows Irish are often listed as laborers (i.e. factory hands), whereas most native born are employed as either craftsmen or operatives, together comprising the mechanics category.[29] Variation in $Crowdout_i$ across local labor markets comes from variation in the local skill-structure of employment during the initial period, prior to the Irish immigration.[30]

III.C Exposure to Deskilling

Exposure to deskilling follows the general setup of equation 5 – state-specific average establishment size are interacted with lagged, local industry employment shares:

$$\textit{Deskilling}_i = \sum_k \frac{L_k^{1845,i}}{L_{Tot}^{1840,i}} \cdot \left(\frac{L_k^{1855,Mass}}{N_k^{1855,Mass}} - \frac{L_k^{1845,Mass}}{N_k^{1845,Mass}} \right) \quad , \tag{2}$$

where i denotes town, k denotes industry, L denotes employment and N represents the number of establishments. The initial industry shares by town are constructed from town-level reports in the 1845 Massachusetts Manufacturing Census, which were hand-entered (Palfrey 1846). Note that the denominator for the share of employed is taken from the 1840 census. This is so we could normalize by all employment in both manufacturing and agriculture, since the latter is not reported in the manufacturing census.

We focus on average establishment size since many economic historians view it as a signpost of industrialization. For instance, Atack *et al.* (2004) demonstrate that average establishment wage declines with establishment size consistent with deskilling.[31] To operationalize this measure, we digitized town-level aggregate reports from the 1837, 1845, and 1855 Massachusetts censuses of manufacturing (Palfrey 1846; DeWitt 1856).

The average establishment size over time in the 1837, 1845 and 1855 manufacturing census is shown in Figure 8 and is shifting rightward over time. Our preferred specification uses the shares available from 1845, and shifts from 1845-55, as this specification

[28] First, occupation strings were coded into the 1880 specific IPUMS occupation codes (OCC). The 1850 IPUMS complete count census microdata contains OCC codes. For both the 1850 and 1855 data, we then constructed the state-level foreign-born (or Irish) proportion in each of the 11 broad occupation categories.

[29] This category includes carpenters, blacksmiths, and all jobs ending in "maker" such as papermaker, bootmaker etc.

[30] Recall that Boston, which is likely playing a major role in state-level occupational shifts, is not included in our dataset.

[31] Additionally, see Sokoloff (1984) Goldin & Sokoloff (1984), and Atack *et al.* (2010). The average establishment size increased from around 20 to 35 over 1837 to 1855 – thus further evidence than Massachusetts was well on the path to industrialization before the Irish famine.

provides the most industrial detail and coverage of manufacturing employment.[32] Note that the distribution is shifting to the right over time consistent with larger establishments.

III.D Control Variables

We collect a variety of town-level characteristics from various sources. The Data Appendix provides details on the construction and sources of all control variables. Summary statistics for all control variables are reported in Appendix Table 12.

To capture urbanization more broadly, we include an urban indicator for having greater than 2,500 individuals in 1855. We also include the town-level number of manufacturing establishments per capita in 1855. Finally, we include the 1840 share of the population that is involved in manufacturing and the number of individuals in cottage employment in 1837. The latter is defined as those in industries dominated by women that lack establishments, so that they are part of the putting out system. [33] In robustness checks we include log population in 1855.

We also include the share of town population in 1855 that was born in Ireland (see Figure 4). This variable is meant to distinguish our crowdout measure from simply having more Irish immigrants. It also partially may capture Irish voting patterns, though in robustness checks we include a variable which does that a bit better: the 1853 vote for a new Massachusetts Constitution. This Constitution would have given more power to the rural areas in the state, and was opposed by the Whig Party. It was rumored that an alliance between the Whig leadership and the Boston Archbishop increased the nay vote among the Irish and narrowly defeated the change. Re-analysis since that time has shown that the Irish were likely not pivotal but it still represents the perception that Irish enfranchisement was altering the outcomes of elections (see Chapter 2 of Mulkern (1990)). A map of the nay vote is shown in Figure 4.

Many contemporaries were worried the Irish could not assimilate to the democratic tenets of the U.S. To proxy for assimilation – we construct measures of the fraction of Irish-born immigrants granting their U.S. born children traditionally Irish names, using methods described in Abramitzky *et al.* (2019). Some of the more Irish names include Brigit and Pat, whereas less Irish names are Willie and Georgeanna.

From the 1850 Census of Social Statistics schedules we digitized the number and nativity of paupers by town as a measure of the fiscal burden posed by Irish immigration. Included in our control set is an indicator for *any* foreign pauper in the town as the dis-

[32] We explore other year combinations in robustness checks.

[33] Cottage industries include: boots and shoes (71% of all cottage employment); straw bonnets and hats (27%); snuff, tobacco, and cigars ($< 1\%$); whips; port-monnaies, pocket-books, etc. ($< 1\%$); clothing ($< 1\%$); bookbinding ($< 1\%$). The boot and shoe, and straw bonnet and hat industries make up 45 percent of total manufacturing employment in the state. See Appendix for more details.

tribution is highly skewed. However, normalizing foreign paupers by ratable polls (as a measure of population of taxable adults/voting population) or total pauper population does not alter our main results.

We also compute the share of men who were in the following seven activities: manufacturing, commerce, agriculture, mining, river navigation, ocean navigation and professional staff/engineering using the IPUMS 1840 Population Census schedule for Massachusetts.

For placebo outcomes, we digitize additional vote data from ten years before the rise of the Know-Nothing party – including the Whig and Democratic vote share in 1844. In robustness checks, we use the earlier vote shares for Whigs from 1844 as a control for pre-existing variation in voting patterns. There is some narrative evidence that the Whigs were the home of the anti-catholic nativists (Mulkern 1990), and this control potentially captures any pre-existing "cultural" nativist sentiment separate from that driven by economic factors, specifically Irish labor market crowdout from the post-1845 influx of Irish immigrants. We also construct *placebo exposures* to labor market crowdout from the British and Germans separately and combined.

Finally, we enter data on the governorship election for every year from 1852 to 1859. We also obtain data on the voting behavior of representatives in the legislature for the 1857 literacy test Amendment.

IV Empirical Framework

To test the relative importance of crowd-out, deskilling and non-economic factors to the Know-Nothing ascendancy in Massachusetts, we estimate:

$$KnowNothingShare_{i,1854} = \alpha + \tau \textit{Crowdout}_i + \gamma \textit{Deskilling}_i + X_i\beta' + \delta_{county} + \varepsilon_i \quad (3)$$

where X includes the elements described above, and δ_{county} is a set of county indicators. Our primary outcome of interest is the Know-Nothing rise to power in 1854, shown Figure 10 Panel A.

Identification of τ and γ, the coefficients of interest, comes from within-county variation in the exposure to direct Irish labor market competition and deskilling, conditional on X_i. Regressions are weighted by eligible voters by town from the registration reports (i.e. ratable polls). As the governor was elected by popular vote on an annual basis, weighting provides a better proxy for what drove the outcome of the election. In addition, some of the towns are small – and weighting helps reduce the noise in our estimates. Because we drop Boston from the main analysis, we reduce concerns of one major outlier driving the results. But we also show results without weighting in robustness checks. Both

the deskilling and crowdout measures are standardized to have mean zero and standard deviation of one.

Identification of τ and γ as the causal effect of labor market crowd-out and deskilling rely on our construction of indices using time-lagged shares and state-level shifts and the conditional independence assumption. Still, the occupational and industrial composition that identifies these indices is not randomly assigned. To increase our confidence in the estimates, we develop alternative measures of labor market crowd-out that use placebo immigrant groups as shifters - such as the Germans/British. We also permute the towns shares for both the labor crowd-out and deskilling index. See below for details.

Although lagged values of indices reduce simultaneity bias, they engender the concern that native workers might move between the time of our shocks and the Know-Nothing vote. In the best case scenario, this would only lead to measurement error in our exposure estimates. However, the moves may be systematic; indeed they may be *caused* by crowd-out or deskilling. "Hard-core" nativists could continue to stay in areas affected by a shock, or move in a coordinated fashion to a largely unaffected area thereby accounting for the estimates we obtain.

V Results

V.A Main Results

Results from estimating equation (3) are in Table 1. The outcome for the table is the share of votes for the Know-Nothing candidate, Gardner in 1854. As we move across the columns, we add additional controls. In Column (1) we include only our deskilling and crowdout index. We find that a one standard deviation increase in Labor Market Crowdout increases the Know-Nothing vote share by 3.1 percentage points. Similarly, a one standard deviation increase in the deskilling index increases the vote share by 0.8 percentage points. A Wald test rejects the null that the coefficients are different (p-value = 0.029).

In column (2) we add county fixed effects (combining Dukes and Nantucket for 13 indicator variables). Column (3) adds the controls for urbanization we discussed above, an indicator for towns with greater than 2,500 people in 1850; the employment in cottage industries in 1845; and manufacturing establishments per capita at the town level in 1855. Column (4) adds the percent Irish in 1855; column (5) adds the controls for culture and fiscal burden. Finally, column (6) adds share of employment in manufacturing and in agriculture as recorded in the 1840 U.S. census. The results across all columns are fairly consistent and column (6) is our preferred specification. The magnitude of the crowdout effect is roughly double the effect of deskilling for a one standard deviation increase in the variables, respectively. However, the Wald test that the coefficients between crowdout and

deskilling is only marginally statistically significant when the full controls are included.

Despite thier seemingly similar magnitudes, the economic factors are not highly correlated nor are they driven by outliers. Figure 11 panel (A) and (B) demonstrates the marginal effect of crowdout and deskilling holding all other variables constant from our preferred specification (column (6)). The unadjusted scatter plot between the two measures is shown in Panel (C). Deskilling takes on zeros in some locations (therefore is set to the minimum when standardizing) either because the industrial employment shares are empty in the 1845 census or average establishment size in an industry did not increase over 1845-55 (i.e. the shift was zero).[34]

To benchmark their relative importance, we conduct a counterfactual exercise that corresponds to a case where Irish immigration was nonexistent between 1850-55, and manufacturing establishment size remained unchanged between 1845-55. We obtain coefficient estimates using our observed data, then set each observation, for one exposure at a time, to the sample minimum and predict the outcome. The counterfactual Know-Nothing vote share drops 5% when deskilling is set to its minimum and approximately 10% when crowdout is so minimized. We find that these factors were not decisive in 1854, when the Know-Nothing party victory was overwhelming - but as the support began to wane in subsequent years, reshuffling Know-Nothing votes from economic factors to other parties would have changed the electoral outcome.[35]

V.B Robustness and Falsification Checks

We next check that our results are not overly sensitive to different specifications. Table 2 reports these exercises. In column (1) we add the vote share from the constitution of 1853 as a proxy for perceived Irish enfranchisement. Moving to column (2) we add the historical vote for the Whigs in 1844. Neither of these additions change the results significantly. Columns (3) and (4) expand the control set for urbanization by adding an indicator for a mill town and the log of 1855 population. The results are fairly constant. Column (5) and (6) provide additional controls for the economic environment of given towns. Column (5) controls for native labor demand by using the change in employment of natives between 1850 and 1855 across all industries normalized by their initial value. Column (6) accounts for early industrial development by including all categories reported in the 1840 Population Census are Manufacturing, Commerce, Professional, River Transportation, Ocean Transportation, Mining, and Agriculture. Finally in column (7), we drop weighting by

[34]Out of 106 industries listed, establishments were reported for 62 in both 1845 and 1855. Six of the remaining industries are considered cottage industries with shift equal to zero as deskilling was already complete by 1845.

[35]We reach this conclusion by setting each economic factor to the minimum, predicting votes and reallocating the votes to other parties.

eligible voters. The standard errors increase and the magnitudes do decline, but not substantially.

As an additional robustness check we permute the indices across towns. Figure 12 presents the distribution of coefficients on deskilling and crowdout. The results obtained in Table 1 are in the tails of the distribution.

Placebo Outcomes and Exposures: Table 3 repeats our main specification from Table 1 with Democratic Governor Vote Share in 1844 and Whig Vote Share in 1844 as the outcome (columns (1) and (2), respectively). We fail to find strong evidence that either factor predicts Democratic votes. The deskilling variable continues to have no effect for the outcome of 1844 Whig Vote Share, and, although crowdout is significant, it has the wrong sign. Note that we include the 1844 Whig vote share as a control in a robustness check in Table 2, to which our main results are robust.

We exploit the anti-Irish and Catholic sentiment at the center of the Know-Nothing platform to construct placebo *exposures* for crowdout from non-Irish immigrants. In our setting, there is little overlap in the occupational structure of German and Irish immigrants. Figure 13 demonstrates that almost 60% of the Irish were laborers compared to only 20% of Germans. Germans were more likely to be employed as mechanics (40%) than Irish (20%). Moreover, there were far fewer German immigrants to Massachusetts than the Irish (see Figure 13 Panel (B)). Although Germans tended to be Catholic as well, their much smaller numbers might not have provoked as much hostility from natives.

Columns (3) to (5) of Table 3 examine additional placebo crowdout measures using the shift for Germans, British and the two groups combined. The coefficients on these "falsification" crowdout measures are about 50% as large as the one for Irish. Note that the shifts for these groups are smaller but are somewhat correlated with Irish shifts, particularly for factory operatives (see Figure 13 Panel (C)). The fact that the distribution of skill/occupations in Panels (A) and (B) are so different across ethnic groups, but the shifts are similar suggests that there was growing demand for labor in these occupations – potentially independent from the Irish per se; a point we turn to next.

Spatial Correlation: Regressions with geographic data for dependent and independent variables may lead to spuriously low estimated standard errors and incorrect inference (Kelly 2019). We apply multiple methods to assess whether spatial correlation in our data poses an issue for inference. Overall, we conclude it is not a threat to causal inference in our application. First, we estimate the spatial correlation of residuals from our preferred specification from Column (6) of Table 1. Panel A of Table 5 reports Chi-square statistics and p-values for Moran's I for different distance cutoffs. There is evidence of the potential for bias from spatial correlation, although not of the large size found in a num-

ber of papers by Kelly (2019). The null of no spatial correlation is rejected at very short distances, such as 20km, but allowing for correlation of residuals as longer distances we fail to reject the null. For reference, Massachusetts is 296km East to West and 186km North to South. In general, the tests indicate that our data do not suffer from a high degree of spatial correlation.

We provide further evidence by constructing standards errors to account for spatial autocorrelation using the method developed by Conley (1999). As can be seen in Panel B of Table 5, the standard errors are insensitive to allowing for spatial autocorrelation. Moreover, when using Conley standard error estimates, Kelly (2019) argues that a large distance cutoff should be used, one that is wide enough to capture the relevant spatial correlation. In our application, wider distance windows yield lower standard error estimates.

Finally, in Panel C of Table 5, we directly control for the spatial lag of the exposure variables of interest. The inclusion of spatial lags does not change the interpretation of the effects of exposure to Irish labor market crowd out or deskilling in manufacturing. Moreover, we find no evidence of spatial spillovers for crowd out, and only slight evidence of local spillovers for the deskilling index.

V.C Short- and Medium-term Effects on Industrialization and Native-born Living Standards

One threat not addressed in the robustness analyses above is whether the Irish aided in industrialization. Furthermore, no evidence has been presented that demonstrates native-born workers materially suffered from these economic exposures. We address both these issues in this section.

Did the Irish Cause Short-Run Industrialization? Irish immigrants were not more likely to settle in areas that experienced faster industrialization between 1845 and 1855, suggesting that immigration did not lead to short-run industrialization. Table 4 investigates whether Irish settlement patterns predict either levels or changes in manufacturing measures. In column (4), we find that percent Irish in 1855 is negatively associated with the number of manufacturing establishments per capita in 1855, and in column (4) is positively associated with the dollar value of manufacturing output per capita in 1855. These results are consistent with Irish immigrants being more likely to reside in larger cities, mill towns, and mill villages with a small number of large establishments. However, the more relevant test is whether the level or change in Irish employment predicts *growth* in manufacturing. We find no evidence that this was the case for the change in establishments in columns (2) and (3), or for the change in output value in columns (5) and (6).

Effects of State-level Irish Crowdout on Native Wealth, Migration and Occupational

Upgrading

Although the results in Table 4 suggest that there was no short-run benefit to industrialization from Irish immigration, there could still have been effects on the native-born. As discussed above, we lack detailed wage data from this period, but there are other margins of adjustment we can explore.

Following Ferrie (1997) we construct a linked sample of 50,663 native-born Massachusetts men from the 1850 to 1860 Census. The individual-level data on economic outcomes and occupation enables us perform an analysis using a crowdout measure specific to the individuals' occupational group as defined in 1850. Such an analysis is not possible with aggregate town-level voting outcome data. Specifically, we define state-level crowdout as the 1850 to 1855 growth of Irish-born into the native individual's 1850 occupational group.[36]

The economic outcomes of interest include wealth in 1860 (dollar value of personal and real estate property), occupational upgrading (an increase in the wealth score of the occupation between 1850 and 1860) and migration. Migration is an indicator for any individual who has changed towns between the two censuses, approximately 60% of movers migrate within state. All regressions condition on town and age group fixed effects as well as 1850 real estate wealth and an indicator for any positive amount of property in 1850.

The results are gathered in Table 10. In column (1), a one standard deviation increase in crowdout reduces wealth by 25%. In column (2), we add an indicator for whether the individual moved and the interaction between crowdout and migration. We find that the negative effects of crowdout on wealth are mitigated to some extent by migration. Similarly, in column (3) the negative effects of crowdout on wealth are offset by occupational grading.[37] Column (4) to (6) replicate the results from columns (1) to (3) for the outcome of any positive wealth in 1860. Column (7) demonstrates that a one standard deviation increase in crowdout increases the propensity to move by .5 percentage points (2%). In column (8), a one-standard deviation increase in Irish crowdout is associated with a 13.5 percentage point increase in occupational upgrading (48%).

V.D Strongholds, Heterogeneity and Turnout

Although the Know-Nothings lost popular support rather quickly (compare their vote Share in 1854 to 1857 in Table 6), some voters clearly continued to prefer them – despite

[36]This is the state-level change in Irish-born individuals in occupational group j between 1855 to 1850 divided by total occupation in occupational group j.

[37]There are differences between there are differences in the two adaptations to economic pressures, whereby the main effect of moving is negative but of occupational upgrading is positive on wealth (though these must be interpreted with caution as they do not take into account the interaction and we do not have instruments for either).

having alternatives in the new Republican party to the Whig hegemony. We turn our attention to understanding whether economic factors have predictive power in "stronghold locations". Since there is no universally accepted definition of a stronghold location - we use several. These definitions all share the general notion that a stronghold is a place where Know-Nothing support is consistently, relatively high. We then use such definitions to examine whether the Know-Nothing rise in 1854 in stronghold locations is affected by economic factors.

These results are gathered in Table 7. The outcome is the Know-Nothing vote share in 1854. Column (1) replicates the preferred specification from Table 1 column (6) for comparison. In Column (2) we define Stronghold as a town that was in the upper 75th percentile of the Know-Nothing vote share in both 1854 as well as in 1855 – when there existed another viable alternative for abolitionists and progressives in the Republican candidate. Column (3) uses a definition of stronghold based on the other year a Republican candidate was fielded – 1857. Finally column (5) defines a stronghold as a place that was in the top 50th percentile of Know-Nothing votes in every year from 1854 to 1858. A map of these locations according to this last definition is shown in Panel (D) of Figure 10.

Across all columns, we see a pattern in which economic factors, particularly crowdout, seem less relevant in predicting Know-Nothing early success in stronghold locations. In the last column – among locations where the vote shares are more reliably at the upper end of the distribution for Know-Nothings – there is no effect of crowdout or deskilling once adding the main and marginal effect.

In sum, our results document a brief jolt of Know-Nothing support related to both long-simmering (i.e. industrialization and deskilling) and more acute (i.e. immigration and crowdout) economic changes. This support was brief however and economic factors do not well explain nativist patterns for the most ardent supporters. Importantly, these suggest that our economic exposure measures are not capturing cultural anti-Catholic nativism, which the strongholds represent.

In Table 8 we examine whether interactions with our main economic factors can further elucidate the relationship between crowdout, deskilling and the Know-Nothing vote share in 1854. In column (1) we find that there is not a strong interaction between deskilling and crowdout. This may now not be very surprising since the two measure are not highly correlated and are designed to pick up different shocks for different skill levels in the occupational distribution (see Figure 11 Panel (C)).

Column (2) demonstrates that crowdout has a larger effect where there are more Irish living in a location. Evaluated at the 75th percentile share Irish in 1855 (approximately .25) - the results suggest that a one standard deviation increase in crowdout would in-

crease Know-Nothing vote share by about seven percentage points. The next column of interest is the interaction of deskilling with cottage industries. Our main specification includes a lagged control for cottage employment, and in this interaction we assess whether the growth in cottage industries interacts with the shift towards factory production. We find suggestive evidence that these two effects are indeed multiplicative. Lastly, we test whether there is an interaction between lack of assimilation, fiscal burden and crowdout or deskilling. Using the measures we have at hand for these postulated "non-economic" factors – we fail to find consistent support for their importance in the movement.

We find no evidence that Irish labor market crowdout and deskilling in manufacturing increased the Know-Nothing vote share by increasing voter turnout. Table 9 reports regression results using turnout in a given election year as the dependent variable in our preferred specification from column (6) in Table 1. In general, deskilling and crowdout do not strongly predict turnout. If anything, increased crowdout reduced turnout, working against Know-Nothing success. These results are consistent with economic factors increasing Know-Nothing vote share through the movement of marginal voters away from the other established parties.

V.E Results in Broader Context: the Dynamics of Realignment

In this section, we place our results in the broader context of the realignment and disruptions occurring in the lead-up to the Civil War. In the 1850s, it became increasingly difficult for a national party to straddle the North and South regions of the United States. The Whig party dissolved after its capitulation on the expansion of slavery caused many Northerners to abandon it. The collapse of the Whigs coupled with changing views on slavery, immigration and labor reform created an opportunity for new parties to emerge: including the Free Soilers, Know-Nothings, and (later) the Republicans. In Massachusetts, the platforms of all three parties overlapped to some extent. For instance, before the emergence of the Know-Nothing party, the anti-slavery Free Soilers embraced pro-labor reforms and provided the workingman with an alternative to the feckless Democratic party.[38]

Table 6 reports vote shares for gubernatorial elections between 1852 and 1858 with bold font denoting winners. The table reveals the fluidity that characterized this time period. The Whigs were the dominant party prior to 1854, but the Free Soil party began to gain momentum with over 20% of the vote share in the early 1850s. Free Soil momentum stalled with the entrance of the Know-Nothings in 1854. The Know-Nothings held the Governor's office from 1854-1856. The Republicans gained control of all branches of power in 1857,

[38] According to (Mulkern 1990), the Whigs were the party of Boston capital, they were against the 10-hour workday and land redistribution in the West, and in favor of the Tariff. The Free Soilers, on the other hand, ran on pro-labor and anti-corruption platform in Massachusetts.

and continued to hold power in Massachusetts for decades thereafter.

How did the economic forces described above affect voters over time? Figure 14 plots the estimated coefficients and confidence intervals for crowdout and deskilling for the Know-Nothing party. The results demonstrate that economic factors were important for the years in which they were in power (1854 to 1857, see Panels (A) and (B)). Once they lost power, however, economic factors cease to be predictive of vote share. In sharp contrast to the effect of economic factors on nativist vote share, Panel (C) demonstrates that pauperism and assimilation were never important predictors in *any* year.

Figure 15 repeats the exercise for years 1852 to 1859 and for all parties. Consistent with (Mulkern 1990), we find that labor market crowdout moved voters away from the Whig party.[39] Those votes went towards the upstart pro-labor party of the time, the Free Soil party. However, in 1854, crowdout shifted voters towards the Know-Party party. In Panel (B) we find that deskilling slightly shifted voters to the Democratic Party but this changed in 1854 with the appearance of the Know-Nothing party.

The findings on Know-Nothing voters are similar to those on Know-Nothing legislators. Using data on town-level representatives from the elections of 1853 to 1857, we find that almost all Know-Nothing legislators who had prior experience in the General Court (11 individuals), defected from the Whig Party. For those Know-Nothing legislators that survived the party's demise, they moved to the Republican party (see Figure 16 Panel (B)).

VI Conclusion

This paper investigated the economic factors that contributed to the rise of the Know-Nothing party in antebellum Massachusetts. Consistent with Fogel's hypothesis, we find strong support for the notion that labor market competition among low-skill workers was an important factor accounting for approximately 10% of the rise. However, the process of factory production and deskilling that had started at least two decades before the great waves of Irish immigration also played a key role. Counterfactual estimates shutting down deskilling suggest that Know-Nothing support would have been 5% lower in the absence of drastic structural change to the economy.

Our findings fit into a larger narrative that revisits the antebellum period. Labor historians had long maintained that, despite positive income growth, many workers still struggled to maintain a decent standard of living. Economists were skeptical until Fogel (1992) uncovered a pattern of declining heights that led to a reassessment of the period.[40] Semi-skilled workers, "the hollowed out", had already experienced two decades of rapid structural change from the movement to cottage production and were starting to see jobs move

[39] Since the vote shares sum to one, the votes must go to some pary.

[40] There is some debate now on this re-assessment.

into centralized establishments. Although we detected adaptive responses by native-born men to economic pressures such as occupational upgrading and migration, there was still a electoral response. Economic factors only predict Know-Nothing vote shares for a handful of years but are decisive in some of them. Yet stronghold locations were never affected by economic circumstances during any election cycle. Taken together, these results suggest that economic factors may tip marginal locations/communities into a nativist movement and generate electoral success.

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VII Tables

Table 1: Main Findings – Know-Nothing Rise, 1854 Vote Share

	(1)	(2)	(3)	(4)	(5)	(6)
Irish Labor Crowdout	0.031***	0.034***	0.033***	0.034***	0.034***	0.035***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.010)
Deskilling Index	0.008**	0.009**	0.009**	0.015***	0.014***	0.014**
	(0.003)	(0.004)	(0.005)	(0.005)	(0.005)	(0.006)
County FE	No	Yes	Yes	Yes	Yes	Yes
Urbanization	No	No	Yes	Yes	Yes	Yes
Pct Irish 1855	No	No	No	Yes	Yes	Yes
Culture & Fiscal Burden	No	No	No	No	Yes	Yes
Share Mfg & Ag 1840	No	No	No	No	No	Yes
No. of Observations	307	307	307	307	307	307
R-squared	0.056	0.189	0.189	0.199	0.193	0.188
P-value	0.029	0.018	0.033	0.103	0.106	0.093
Mean of Dept. Var	0.628	0.628	0.628	0.628	0.628	0.628

Notes: Table reports OLS estimates from Equation 3. The outcome across all specifications is the Share of Know-Voting Vote for Governor in Massachusetts in 1854. Please see text for the formal definition of Crowd-out and Deskilling. Urbanization controls refer to an urban indicator (population > 2500 in 1855), number employed in cottage industries (1837), share native males employed in manufacturing (1850) and establishments per capita (1855). Culture and Fiscal Burden control include an indicator for housing a foreign-born pauper in a given town and the assimilation index based on names of children of Irish-born parents. Share manufacturing and share agriculture are based on the 1840 census which asked employment at the household level. Regressions are weighted by ratable polls (similar to a measure of potential voters). Robust standard errors are in parentheses. * ** *** refer to statistical significance at the 10, 5 and 1 percent level, respectively.
Sources: See data appendix for a detailed list of data sources.

Table 2: Robustness Checks

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
			Added Controls				
	Irish Enfranchisement	Share Whig 1844	Mill Town Indicator	Log Population 1855	Native Labor Demand	All Sector Shares 1840	No Weights
Irish Labor Crowdout	0.034***	0.034***	0.033***	0.034***	0.035***	0.028***	0.020*
	(0.010)	(0.010)	(0.011)	(0.010)	(0.011)	(0.010)	(0.011)
Deskilling Index	0.014**	0.014**	0.012*	0.014**	0.014**	0.009	0.011
	(0.006)	(0.006)	(0.007)	(0.006)	(0.006)	(0.006)	(0.007)
Const. Vote 1853	0.024						
	(0.070)						
Share Whig 1844		-0.069					
		(0.075)					
Mill			0.019				
			(0.019)				
Log Population 1855				-0.011			
				(0.016)			
Native Labor Demand					0.007		
					(0.024)		
County FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Urbanization	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pct Irish 1855	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Culture & Fiscal Burden	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Share Mfg & Ag 1840	Yes	Yes	Yes	Yes	Yes	Yes	Yes
All Sector Shares	No	No	No	No	No	Yes	No
No. of Observations	307	307	307	307	307	307	307
R-squared	0.186	0.189	0.188	0.187	0.186	0.216	0.153
P-value	0.098	0.115	0.089	0.123	0.094	0.118	0.523

Notes: Table reports OLS estimates from Equation 3. The outcome across all specifications is the Share of Know-Voting Vote for Governor in Massachusetts in 1854. Please see text or data appendix for the formal definition of Crowdout and Deskilling. Urbanization controls refer to an urban indicator (population > 2500 in 1855), number employed in cottage industries (1845), share native males employed in manufacturing (1850) and manufacturing establishments per capita (1855). Culture and Fiscal Burden control include an indicator for housing a foreign-born pauper in a given town and the assimilation index based on names of children of Irish-born parents. Share manufacturing and share agriculture are based on the 1840 census which asked employment at the household level. Each column is a slightly different specification indicated by the column table. Column (1) includes a proxy for Irish enfranchisement – the constitutional vote of 1853. Column(2) includes the Share Whig vote in 1844 as a control for historical voting patterns. Column (3) includes an indicator for mill town. Column (4) includes log population 1855. Column (5) includes a proxy for native labor demand - the shift in native men in manufacturing between 1850 and 1855. Column (6) includes employment shares that span all categories in the 1840 census. Column (7) is unweighted. Regressions are weighted by ratable polls (similar to a measure of potential voters) except column (7). Robust standard errors are in parentheses. * ** *** refer to statistical significance at the 10, 5 and 1 percent level, respectively.
Sources: See data appendix for a detailed list of data sources.

Table 3: Placebo Outcomes and Exposures

	(1)	(2)	(3)	(4)	(5)
	Placebo Outcomes		Placebo Crowdout Exposures		
	1844 Democrats	1844 Whig	British Crowdout	German Crowdout	German & British Crowdout
Irish Labor Crowdout	0.007	-0.016*	0.033***	0.034***	0.033***
	(0.010)	(0.010)	(0.012)	(0.011)	(0.012)
Deskilling Index	0.003	0.005	0.013*	0.013*	0.013*
	(0.008)	(0.008)	(0.007)	(0.007)	(0.007)
British Labor Crowdout			0.004		
			(0.010)		
German Labor Crowdout				0.004	
				(0.010)	
British & German Crowdout					0.004
					(0.010)
County FE	Yes	Yes	Yes	Yes	Yes
Urban Indicator	Yes	Yes	Yes	Yes	Yes
Pct Irish 1855	Yes	Yes	Yes	Yes	Yes
Culture & Fiscal Burden	Yes	Yes	Yes	Yes	Yes
Share Mfg & Ag 1840	Yes	Yes	Yes	Yes	Yes
No. of Observations	307	307	307	307	307
R-squared	0.181	0.170	0.186	0.186	0.186
P-value			0.138	0.079	0.127

Notes: Table reports OLS estimates from Equation 3. The outcome varies across the first two columns and is given as the column heading. The outcome for columns (3) to (5) is the share of Know-Nothing vote in 1854 but British crowdout (column (3)), German Crowdout (column (4)) and British-German crowdout (column (5)) are added as controls. Please see text for the formal definition of Crowdout and Deskilling. Urbanization controls refer to an urban indicator (population > 2500 in 1855), number employed in cottage industries (1837), share native males employed in manufacturing (1850) and establishments per capita (1855). Culture and Fiscal Burden control include an indicator for housing a foreign-born pauper in a given town and the assimilation index based on names of children of Irish-born parents. Share manufacturing and share agriculture are based on the 1840 census which asked employment at the household level. Regressions are weighted by registered voters. Robust standard errors are in parentheses. * ** *** refer to statistical significance at the 10, 5 and 1 percent level, respectively.

Table 4: Short-Run Industrial Response to Irish Immigration

	(1) 1855 Estab. p.c.	(2) Δ 1855-45 Estab. p.c.	(3) Δ 1855-45 Estab. p.c.	(4) 1855 Value p.c.	(5) Δ 1855-45 Value p.c.	(6) Δ 1855-45 Value p.c.
Percent Irish 1855	-0.018***	-0.006		3.267***	1.362	
	(0.005)	(0.005)		(0.852)	(0.873)	
Δ Share Mfg Labor Irish Males			0.004			0.557
			(0.004)			(0.702)
County FE	Yes	Yes	Yes	Yes	Yes	Yes
Urban Indicator	Yes	Yes	Yes	Yes	Yes	Yes
Culture & Fiscal Burden	Yes	Yes	Yes	Yes	Yes	Yes
Share Mfg & Ag	Yes	Yes	Yes	Yes	Yes	Yes
No. of Observations	307	307	307	307	307	307
R-squared	0.318	0.338	0.336	0.626	0.204	0.194

Notes: Table reports OLS estimates on the relationship between industrialization and the percent of Irish in 1855 (columns (1) (2) (4) and (5)) or the change in share manufacturing labor comprised of Irish males (columns (3) and (6)). The other controls are as described in the notes for Table 1. Regressions are weighted by registered voters. Robust standard errors are in parentheses. * ** *** refer to statistical significance at the 10, 5 and 1 percent level, respectively.

Table 5: Robustness to Spatial Correlation

	(1)	(2)	(3)	(4)	(5)
	Distance Cutoff				
	20km	50km	100km	150km	None
Panel A: Moran's *I* Statistic of Global Correlation					
Chi-square	4.43	2.99	2.60	2.32	2.44
p-value	0.04	0.08	0.11	0.13	0.12
Panel B: Standard Errors Adjusted for Spatial Correlation					
Irish Labor Crowdout	0.035***	0.035**	0.035**	0.035**	0.035***
	(0.011)	(0.014)	(0.015)	(0.014)	(0.005)
Deskilling Index	0.014**	0.014**	0.014***	0.014***	0.014***
	(0.006)	(0.006)	(0.005)	(0.004)	(0.002)
Panel C: Local Spillovers of Crowdout and Deskilling					
Irish Labor Crowdout	0.029**	0.034***	0.033***	0.031***	0.033***
	(0.012)	(0.011)	(0.011)	(0.011)	(0.011)
Deskilling Index	0.014**	0.014**	0.015***	0.015***	0.015**
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Lagged Crowdout	0.017	-0.003	0.008	0.015	0.006
	(0.018)	(0.022)	(0.022)	(0.024)	(0.024)
Lagged Deskilling	0.027	0.023	0.025	0.033*	0.032*
	(0.016)	(0.015)	(0.018)	(0.018)	(0.018)
County FE	Yes	Yes	Yes	Yes	Yes
Urbanization	Yes	Yes	Yes	Yes	Yes
Pct Irish 1855	Yes	Yes	Yes	Yes	Yes
Culture & Fiscal Burden	Yes	Yes	Yes	Yes	Yes
Share Mfg & Ag 1840	Yes	Yes	Yes	Yes	Yes

Notes: The outcome across all specifications is the Share of Know-Voting Vote for Governor in Massachusetts in 1854. Panel A reports results from estimating Moran's I using residuals from equation 3 from Column 6 of Table 1, and an inverse distance weighting matrix. Panel B adjusts standard errors for spatial autocorrelation using the procedure developed by Conley (1999) and weighting matrix with a linear distance decay. Panel C estimates a SLX model using an inverse distance weighting matrix and includes first-order spatial lags of the two exposure variables of interest. Regressions are weighted by ratable polls in 1854. * ** *** refer to statistical significance at the 10, 5 and 1 percent level, respectively.

Table 6: Massachusetts Gubernatorial Election Outcomes, 1852-1858

	(1) 1852	(2) 1853	(3) 1854	(4) 1855	(5) 1856	(6) 1857	(7) 1858
Share of state-wide votes							
Know-Nothing	.	.	**0.63**	**0.38**	**0.59**	0.29	0.10
Whig	**0.45**	**0.46**	0.21	0.10	0.05	.	.
Democrat	0.28	0.27	0.11	0.25	0.25	0.24	0.32
Republican	.	.	.	0.27	.	**0.47**	**0.58**
Free Soil	0.26	0.23	0.05	.	.	.	.

Notes: State-wide vote shares (including Boston). Winning party in bold. An empty cell implies no votes cast for the party in that year.
Sources: Various issues of the *Massachusetts Register* (1853-1860).

Table 7: Predictors of Know-Nothing Rise in Stronghold Locations

	(1) All towns	(2) Stronghold 75^{th}pctile 1854 & 1855	(3) Stronghold 75^{th}pctile 1854 & 1857	(4) Stronghold 75^{th}pctile 1854 & 1858	(5) Stronghold $>$ 50^{th}pctile every year
Irish Labor Crowdout	0.035***	0.029***	0.037***	0.040***	0.033***
	(0.010)	(0.010)	(0.010)	(0.010)	(0.011)
Deskilling Index	0.014**	0.014***	0.012**	0.012**	0.014**
	(0.006)	(0.005)	(0.005)	(0.006)	(0.007)
Stronghold1		0.167***			
		(0.013)			
Stronghold1xCrowdout		-0.030**			
		(0.015)			
Stronghold1xDeskill		-0.021			
		(0.013)			
Stronghold2			0.166***		
			(0.016)		
Stronghold2xCrowdout			-0.044**		
			(0.020)		
Stronghold2xDeskill			-0.047***		
			(0.010)		
Stronghold3				0.136***	
				(0.019)	
Stronghold3xCrowdout				-0.063***	
				(0.021)	
Stronghold3xDeskill				0.008	
				(0.021)	
Stronghold4					0.092***
					(0.019)
Stronghold4xCrowdout					-0.029
					(0.024)
Stronghold4xDeskill					-0.018**
					(0.008)
Full Controls	Yes	Yes	Yes	Yes	Yes
No. Stronghold	.	40	26	22	34
No. Observations	307	300	300	300	307
R-squared	0.188	0.382	0.317	0.275	0.230

Notes: Table reports OLS estimates on the relationship between Share of Gubernatorial Votes for 1854 Know Nothing Candidate and the Irish Labor Crowdout and Deskilling Index. Urbanization controls include an indicator for urban center defined as.

Table 8: Heterogeneity

	(1) Deskill x Crowdout	(2) Crowdout x Irish	(3) Deskill x Irish	(4) Crowdout x Cottage	(5) Deskill x Cottage	(6) Crowdout x Assim.	(7) Deskill x Assim.	(8) Crowdout x Pauper	(9) Deskill x Pauper
Irish Crowdout	0.032***	-0.001	0.035***	0.037***	0.034***	-0.016	0.035***	0.010	0.035***
	(0.011)	(0.017)	(0.010)	(0.011)	(0.011)	(0.063)	(0.010)	(0.017)	(0.010)
Deskilling Index	0.010	0.013**	0.027**	0.014**	0.008	0.014**	-0.005	0.013**	0.024
	(0.007)	(0.006)	(0.014)	(0.006)	(0.007)	(0.006)	(0.058)	(0.006)	(0.021)
CrowdoutxDeskill	0.009								
	(0.005)								
CrowdoutxIrish		0.273***							
		(0.090)							
DeskillxIrish			-0.059						
			(0.056)						
CrowdoutxCottage				-0.014					
				(0.019)					
DeskillxCottage					0.035**				
					(0.015)				
CrowdoutxAssim.						0.074			
						(0.094)			
DeskillxAssim.							0.028		
							(0.086)		
CrowdoutxPauper								0.039**	
								(0.019)	
DeskillxPauper									-0.011
									(0.021)
Full Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Estimate	0.040	0.272	-0.024	0.023	0.069	0.058	0.063	0.049	0.024
Standard Error	0.009	0.077	0.055	0.018	0.018	0.033	0.087	0.012	0.022

Notes: Table reports OLS estimates from Equation 3. The outcome across all specifications is the Share of Know-Voting Vote for Governor in Massachusetts in 1854. Please see text for the formal definition of Crowdout and Deskilling. Each of these indices is interacted and the name of the interaction is given by the column heading. Irish is the share of population that is Irish-born in 1855 (ranges from 0-1). Cottage industry employment in 1845 is measured in thousands of employed. Pauper is an indicator for the presence of any foreign-born pauper in 1850. See the text and data appendix for detailed explanations of variable construction. Regressions are weighted by ratable polls (similar to a measure of potential voters). Robust standard errors are in parentheses. * ** *** refer to statistical significance at the 10, 5 and 1 percent level, respectively.
Sources: See data appendix for sources.

Table 9: Turnout by Year

	(1) 1852 Turnout	(2) 1853 Turnout	(3) 1854 Turnout	(4) 1855 Turnout	(5) 1856 Turnout	(6) 1857 Turnout
Irish Labor Crowdout	-0.013*	-0.015*	-0.017*	-0.007	-0.007	-0.000
	(0.007)	(0.008)	(0.009)	(0.010)	(0.010)	(0.010)
Deskilling Index	-0.004	-0.002	0.000	0.005	-0.001	0.007
	(0.007)	(0.008)	(0.008)	(0.012)	(0.011)	(0.012)
County FE	Yes	Yes	Yes	Yes	Yes	Yes
Urban Indicator	Yes	Yes	Yes	Yes	Yes	Yes
Pct Irish 1855	Yes	Yes	Yes	Yes	Yes	Yes
Culture & Fiscal Burden	Yes	Yes	Yes	Yes	Yes	Yes
Share Mfg & Ag 1840	Yes	Yes	Yes	Yes	Yes	Yes
No. of Observations	307	306	307	306	307	306
R-squared	0.480	0.412	0.198	0.277	0.337	0.269
P-value	0.304	0.174	0.096	0.308	0.600	0.522

Notes: Table reports OLS estimates from Equation 3. The outcome varies across the columns and is given by the column heading. All specifications follow 3 Please see notes from Table 1 or the Appendix for further details. Robust standard errors are in parentheses. * ** *** refer to statistical significance at the 10, 5 and 1 percent level, respectively.

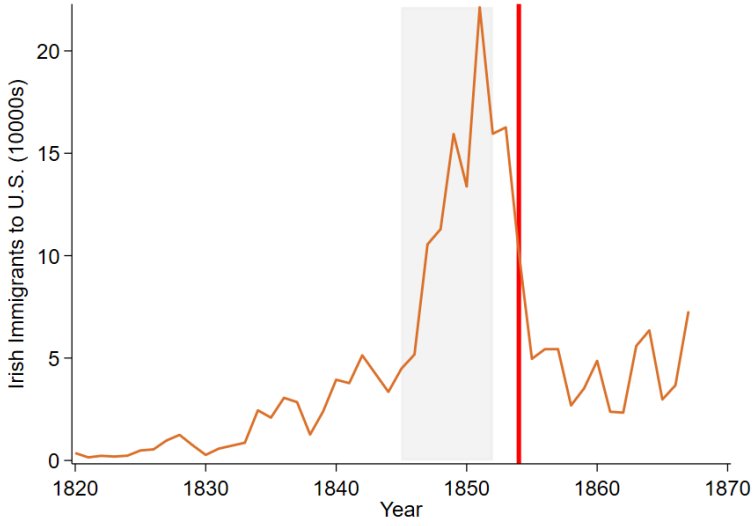
Table 10: Effects of State-level Irish Crowdout on Native Wealth, Migration and Occupational Upgrading

	Ln(Total Wealth, 1860)			Any Wealth in 1860 (=1)			Moved (=1)	Occupational Upgrade
Irish Labor State Crowdout	-0.250***	-0.344***	-0.566***	-0.018***	-0.023***	-0.042***	0.005*	0.135***
	(0.023)	(0.030)	(0.032)	(0.003)	(0.003)	(0.004)	(0.003)	(0.006)
Crowdout X Moved (=1)		0.281***			0.015***			
		(0.036)			(0.005)			
Moved (=1)		-0.496***			-0.049***			
		(0.068)			(0.010)			
Crowdout X Occ. Upgrade			0.358***			0.027***		
			(0.040)			(0.005)		
Occ. Upgrade			0.768***			0.064***		
			(0.041)			(0.006)		
Town FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Age Group FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Ln(Real Property, 1850)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Any Real Property, 1850 (=1)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Observations	50663	50663	50663	50663	50663	50663	50663	50663
Mean of Dept. Var	5.874	5.874	5.874	0.796	0.796	0.796	0.265	0.282

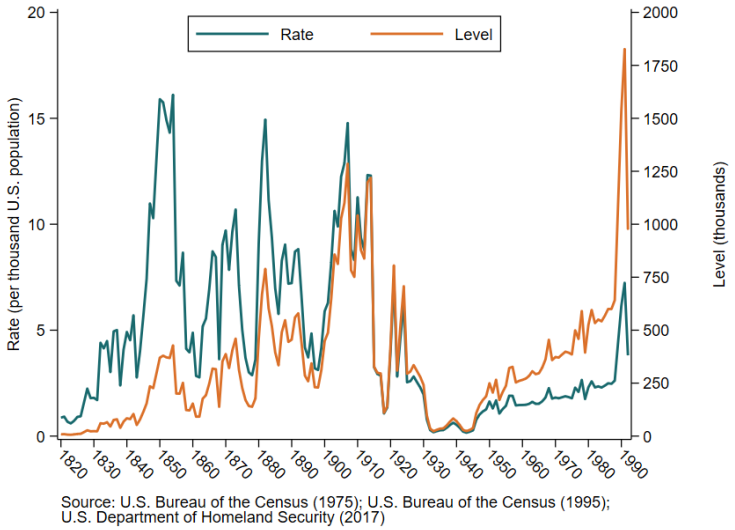
Notes: Observations represent native-born Massachusetts men linked in the 1850 and 1860 censuses. Crowdout is the state-level shift of Irish into the occupation of the native-born individual in 1850. All regressions include controls for town fixed effects, age group fixed effects and property wealth in 1850. Standard errors are clustered at the town level are in parentheses. * ** *** refer to statistical significance at the 10, 5 and 1 percent level, respectively.

Figure 1: Irish Immigration into U.S.

Panel (A): Irish Immigration 1820 – 1870

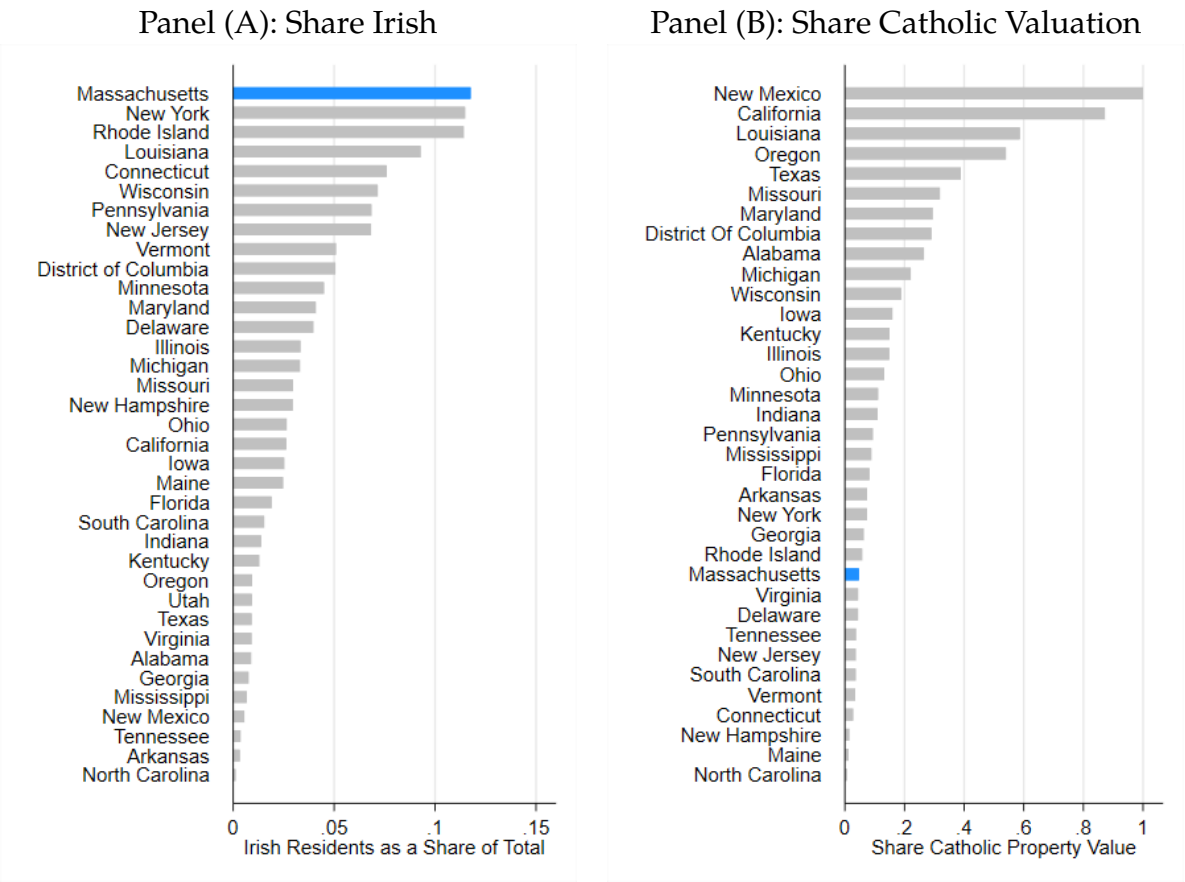


Panel (B): Immigration Inflows 1820 – 2000



Notes: Shaded area is the timing of the Potato Famine in Ireland (1845-1852). Dark red line is the timing of the Know-Nothing landslide in Massachusetts. *Source: International Migrations, Vol I: Statistics* Walter F. Willcox 1929.

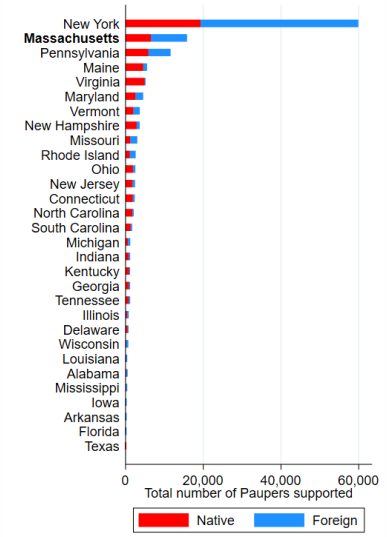
Figure 2: State Characteristics



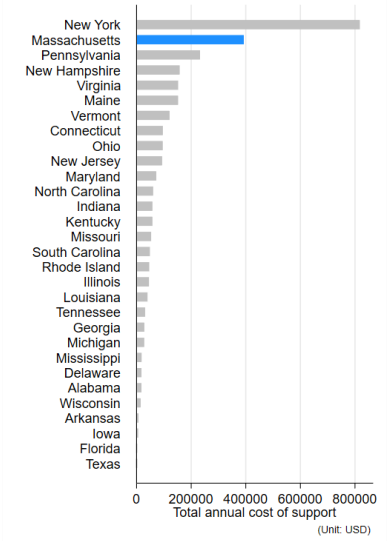
Notes: Data from 1850 U.S. Census. Panel (A) descibes the share of population that is Irish-born, Panel (B) describes the share of church property value that is owned by Roman Catholics.

Figure 3: Pauperism and Criminals

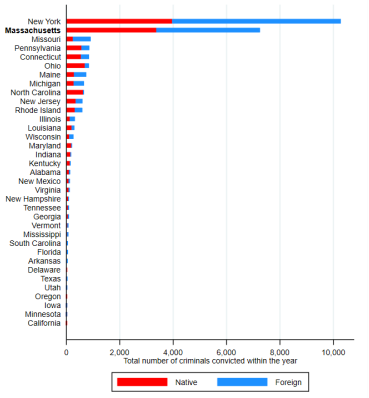
Panel (A): Total Number of Paupers Supported



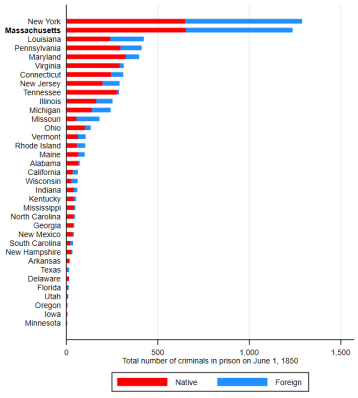
Panel (B): Total Annual Cost of Support



Panel (C): Total Number of Criminals Convicted



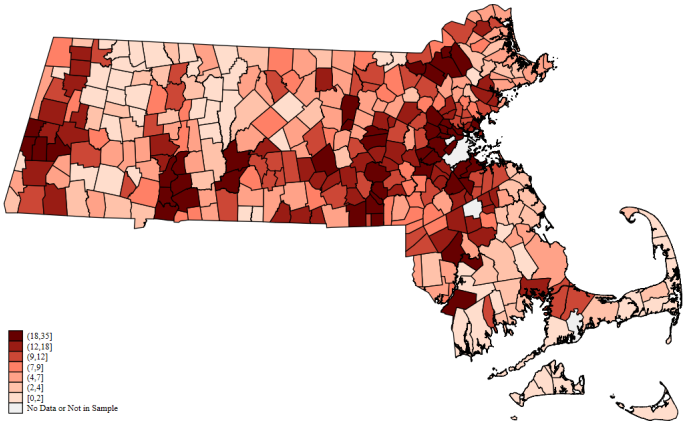
Panel (D): Total Number of Criminals In Prison



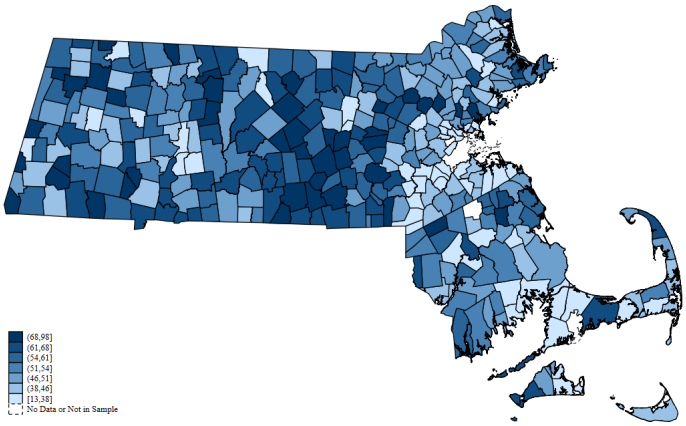
Notes: Data from Table CLXXIII. Pauperism in the United States, 1850. Panel (A) describes the whole number of native and foreign Paupers supported in whole or part within the year ending June 1, Panel (B) describes an annual cost of support. Data from Table CLXXVI. Statistics of Criminals. Panel (C) describes the whole number of criminals convicted within the year of 1850, Panel (D) describes the whole number of criminals in prison on June 1, 1850.

Figure 4: Percent Irish and Nay Votes

Panel (A): Percent Irish (1855)

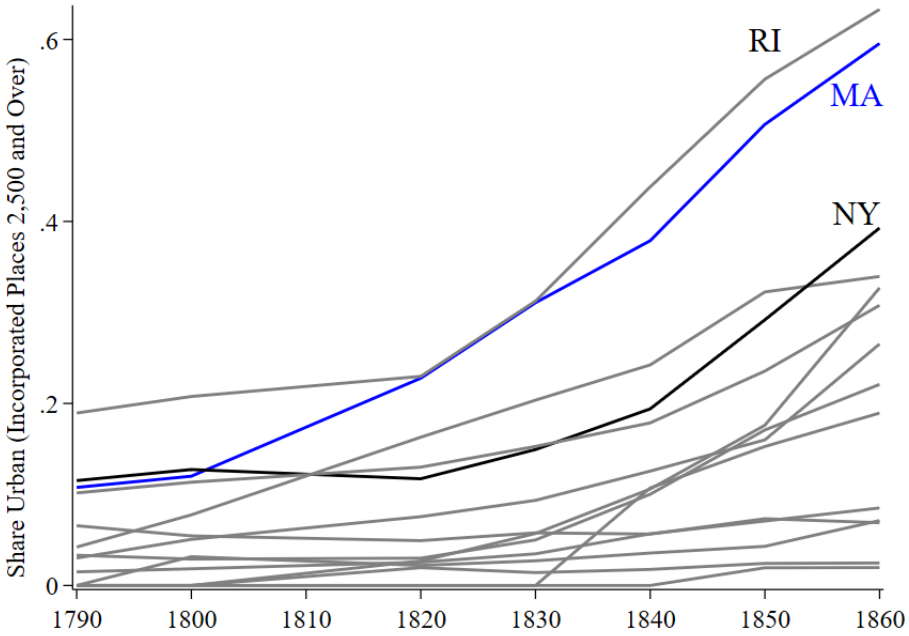


Panel (B): Percent Vote Nay 1853 Constitution



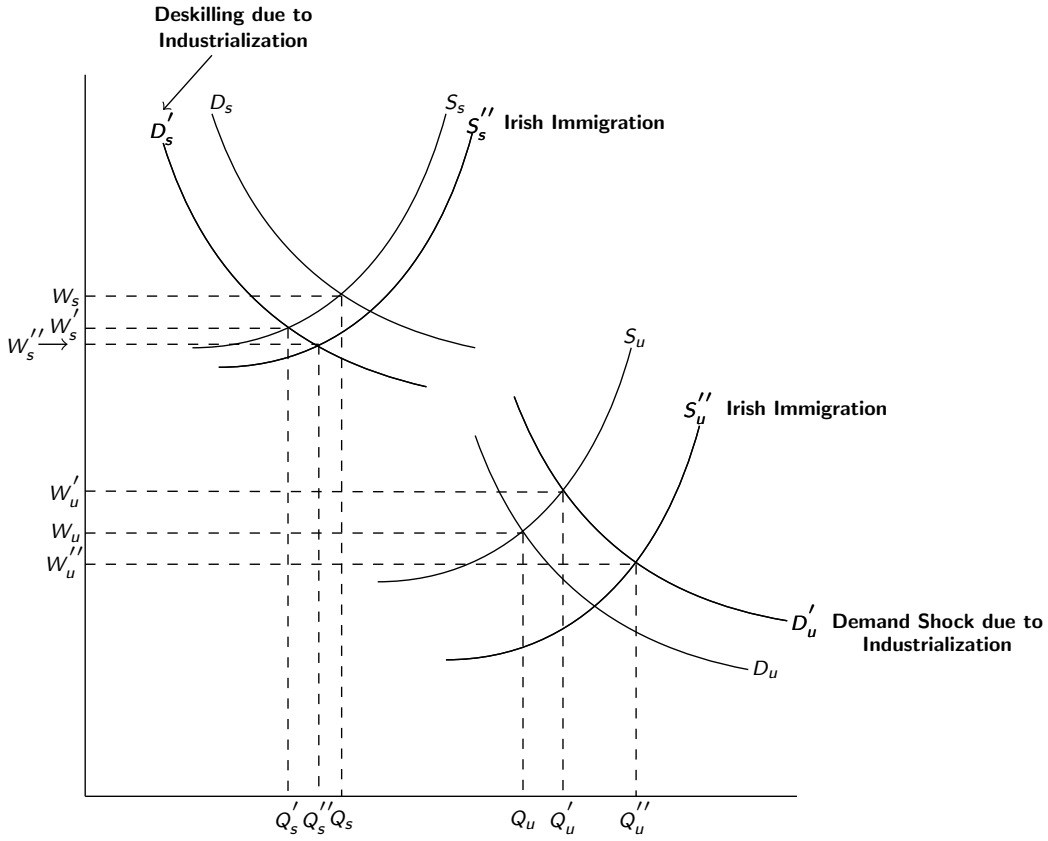
Note: Data from for Panel (A) from the 1855 Massachusetts Census and data from Panel (B) are from the *Daily Advertiser*. Values for Boston are not included in the maps.

Figure 5: Urbanization Rates by State (1790-1860)



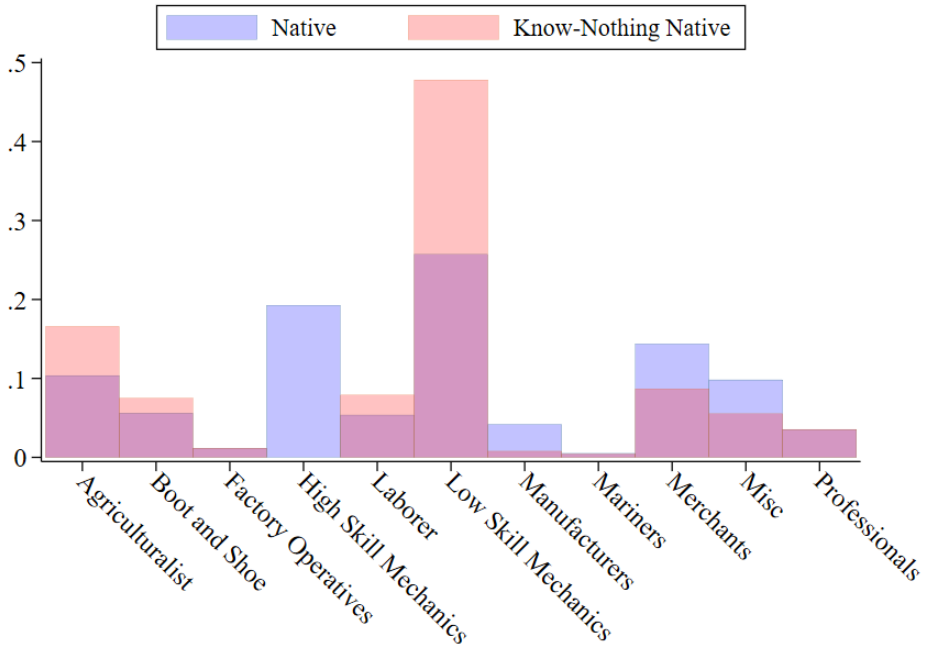
Notes: Blue line is Massachusetts. Black line is New York. *Source*: Author calculation from 1790 - 1860 Census: US Population Data provided by NHGIS

Figure 6: Conceptual Framework



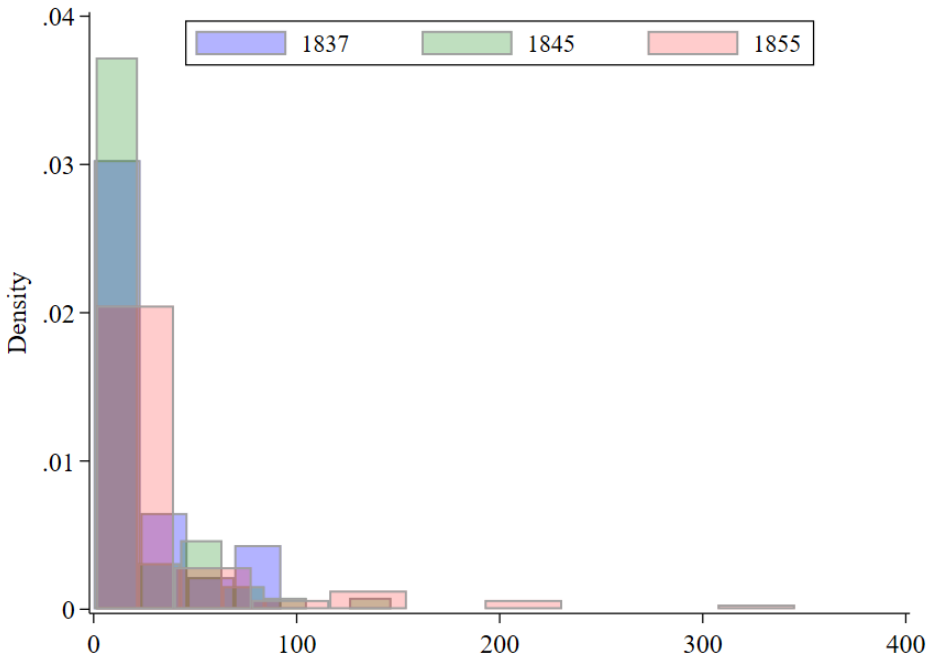
Notes: Supply and Demand Shocks in Antebellum Massachusetts.

Figure 7: Occupational Distribution for Know-Nothing Members and All Native Males in Massachusetts



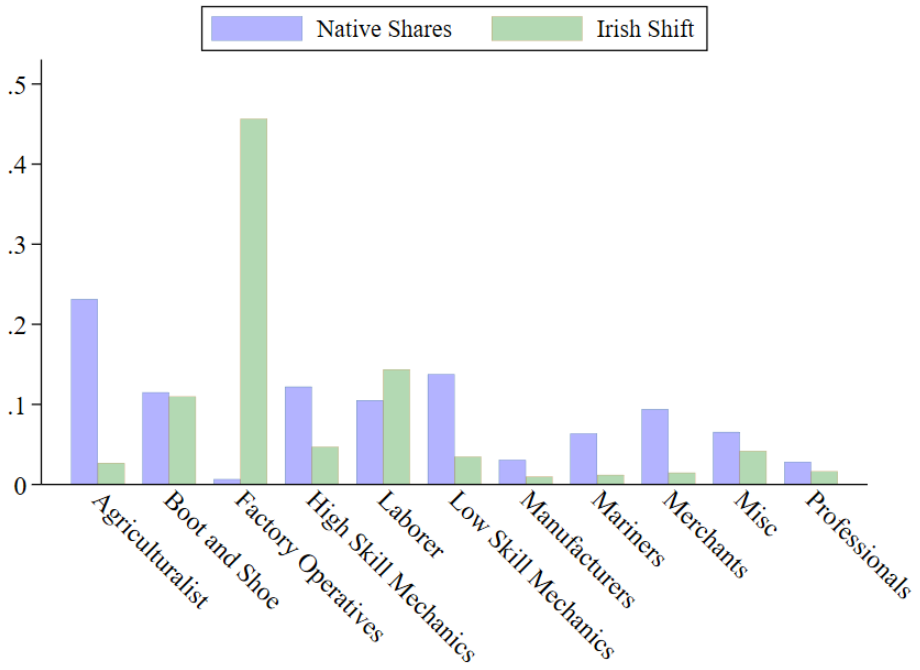
Notes: Data from Archives of Massachusetts Historical Society provided by Tyler Anbinder. Blue bars describe the occupational distribution for Know-Nothing members using lists from Worcester and grey bars provide the same for the Commonwealth of Massachusetts.

Figure 8: Change in Average Establishment Size, Massachusetts



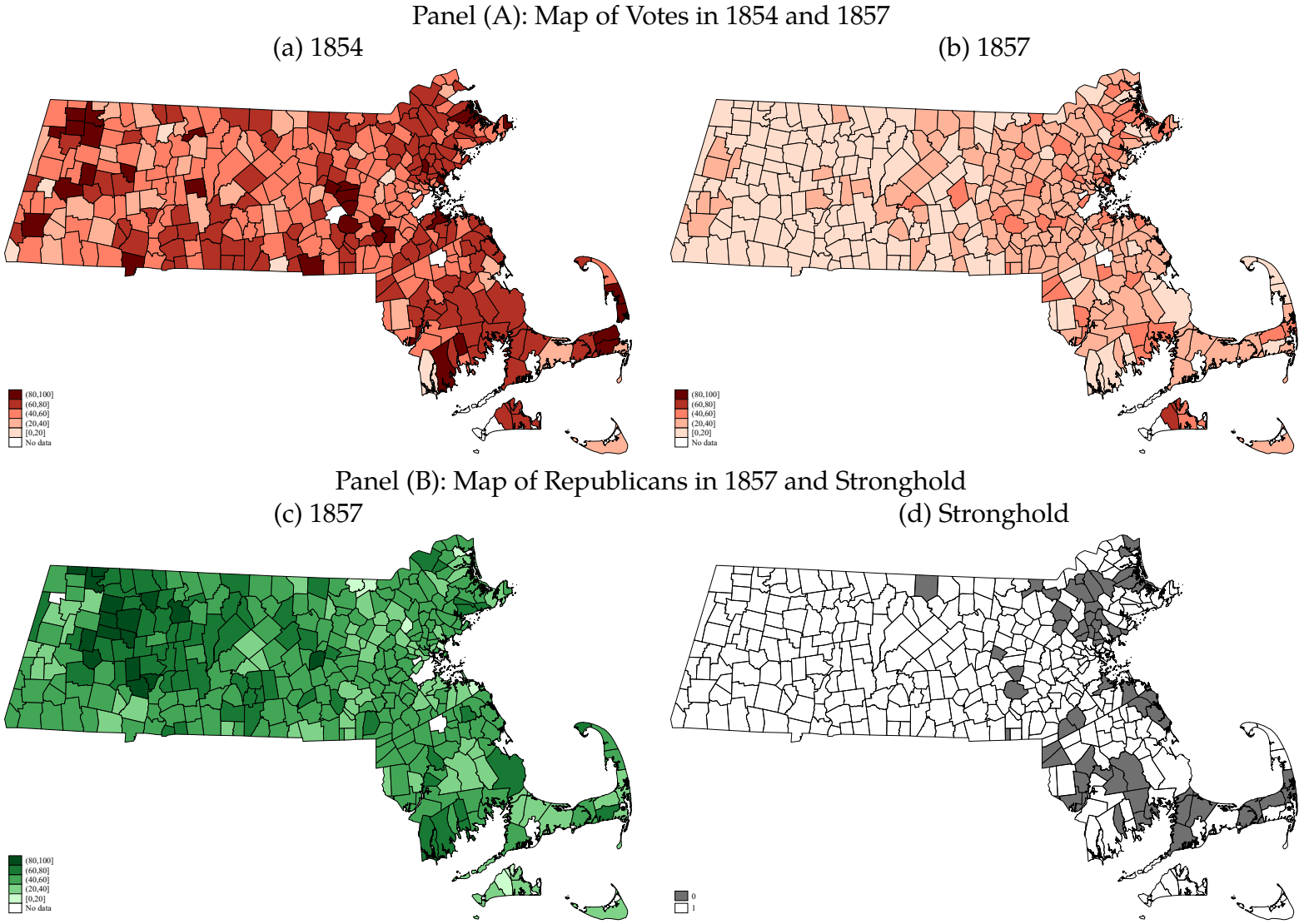
Notes: Data from the Massachusetts Manufacturing Census in 1837, 1845 and 1855. Histogram of average establishment size (number of workers per establishment by industry) over the three time periods.

Figure 9: Irish Shift (1850 to 1855) and Baseline (1850) Share Native in Occupational Categories



Notes: Figure depicts the state-level Irish shift across 10 occupational categoires used in Equation 1. Baseline native employment shares in 1850 (males 15-65 years of age) average across state. The actual crowdout measure uses town-level variation in native shares. *Source: Massachusetts and Federal Population Censuses*, 1850-1855.

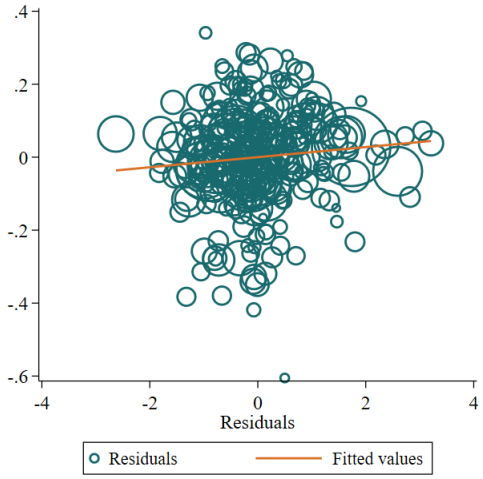
Figure 10: Know Nothing Gubernatorial Votes Over Time (Percent)



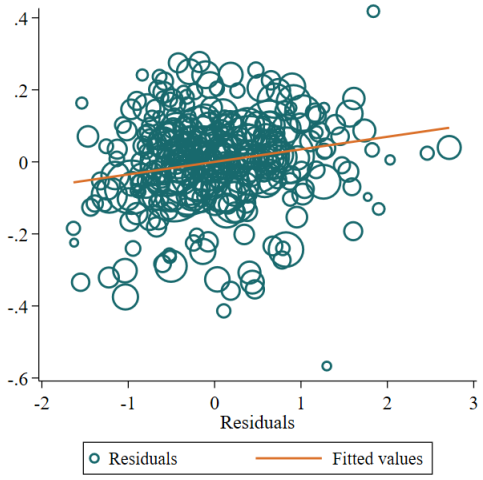
Note: Color scheme held constant across exhibits (a)-(c) with breakpoints at 0, 20, 40, 60, 80 and 100. Stronghold defined as municipalities where the Know-Nothing vote is greater than 50 pctile in every year. *Sources*: Thirteenth Report to the Legislature of Massachusetts, Relating to the Registry and Returns of Births, Marriages, and Deaths, 1855 and Sixteenth Report to the Legislature of Massachusetts, Relating to the Registry and Returns of Births, Marriages, and Deaths, 1858.

Figure 11: Correlation Plots: Rise of Know Nothing

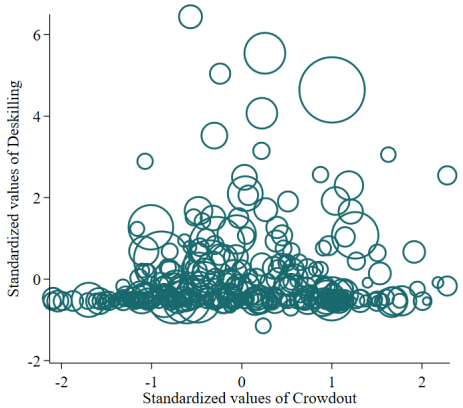
Panel (A): Crowdout



Panel (B): Deskilling

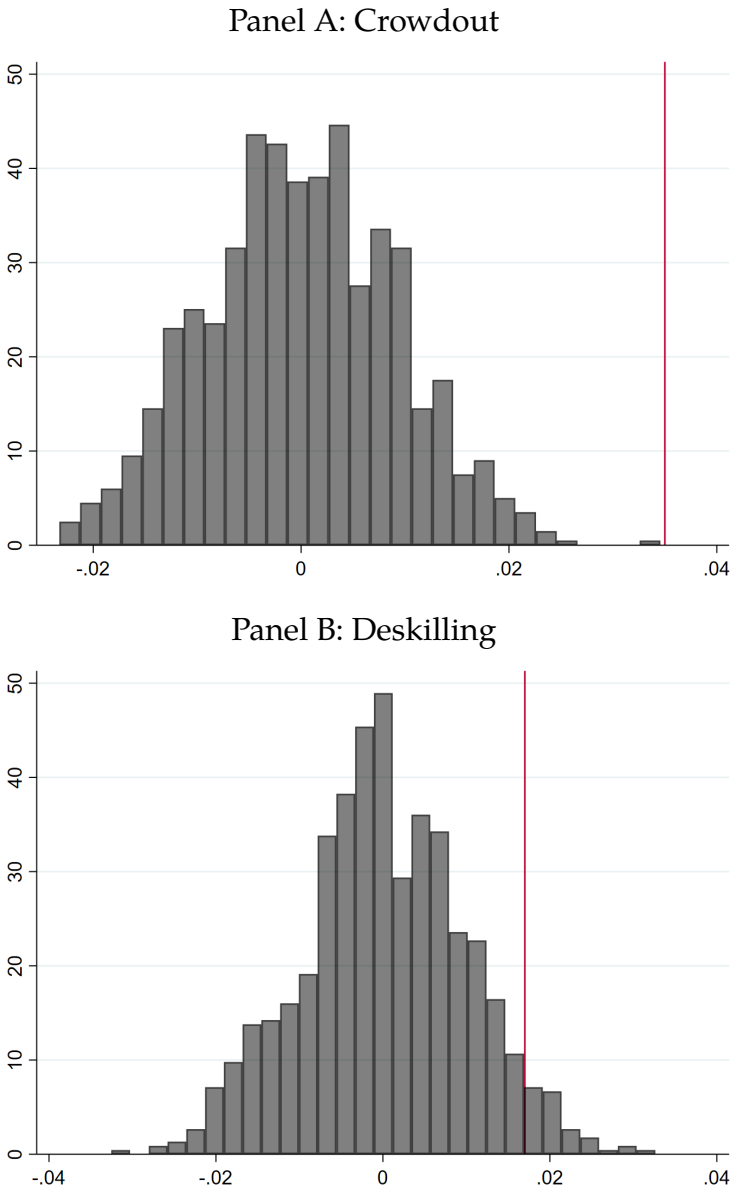


Panel (C): Correlation between Crowdout and Deskilling



Note: Partial correlation plots from the 3 between crowdout in Panel (A) and deskilling in (B) and the outcome of Share Know-Nothing votes for Governor in Massachusetts, 1854. Panel (C) depicts a simple correlation between crowdout and deskilling. See text for details.

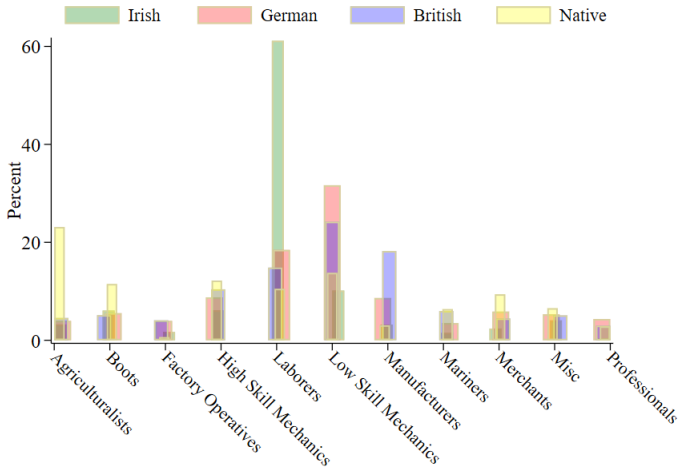
Figure 12: Permutation Tests



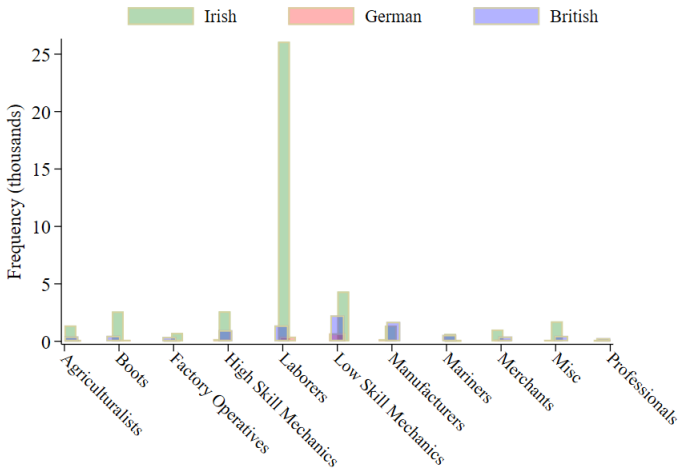
Notes: Distribution of coefficients from permutation test of crowd-out and deskilling indicies, respectively.

Figure 13: Occupations by Ethnicity

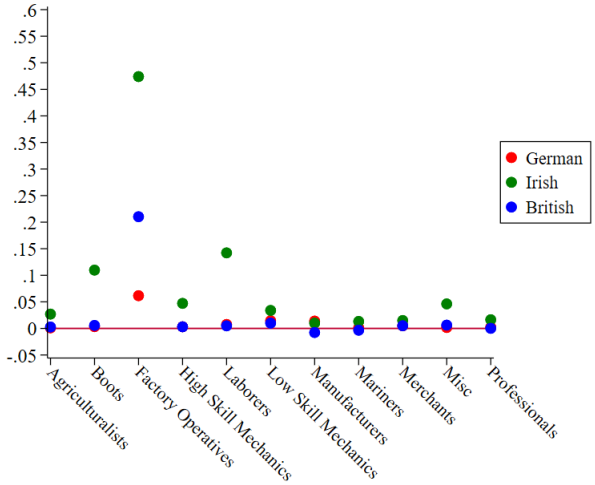
Panel A: Percent of Ethnicity in an Occupation



Panel B: Frequencies of Ethnicity in an Occ

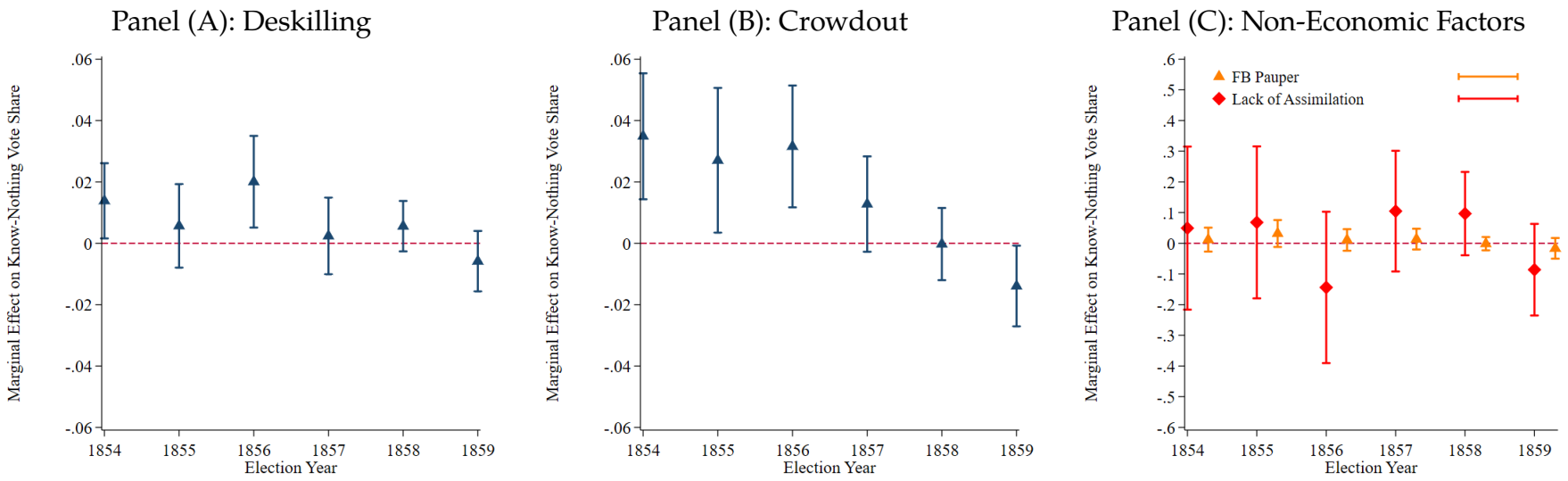


Panel C: Shift by Ethnicities



Notes: Distribution of occupations by Ethnicity in 1850 (Panel (A)) – frequencies in Panel (B). Panel (C) demonstrates the shift for each occupational group by ethnicity.

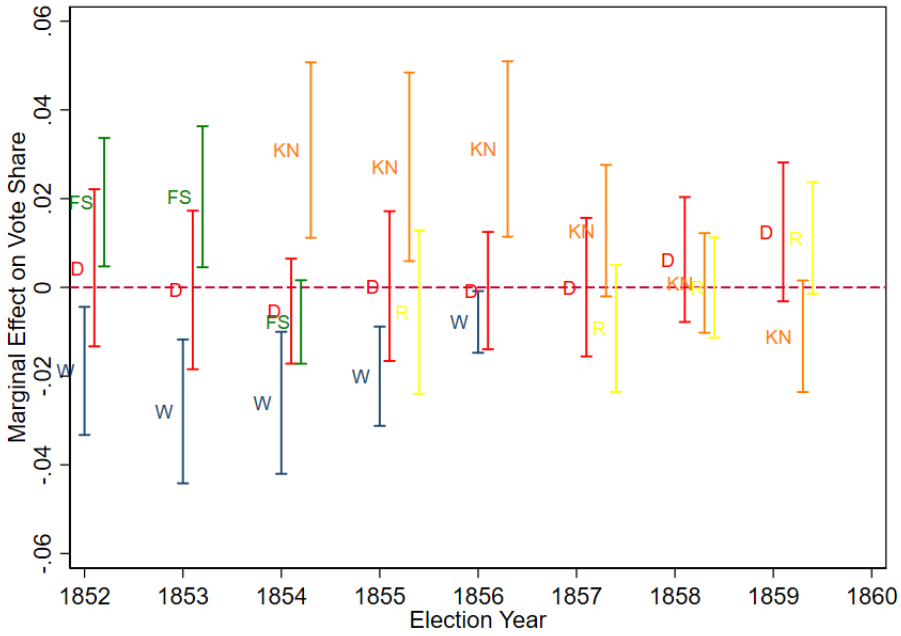
Figure 14: Regression Results: Hypothesized Factors



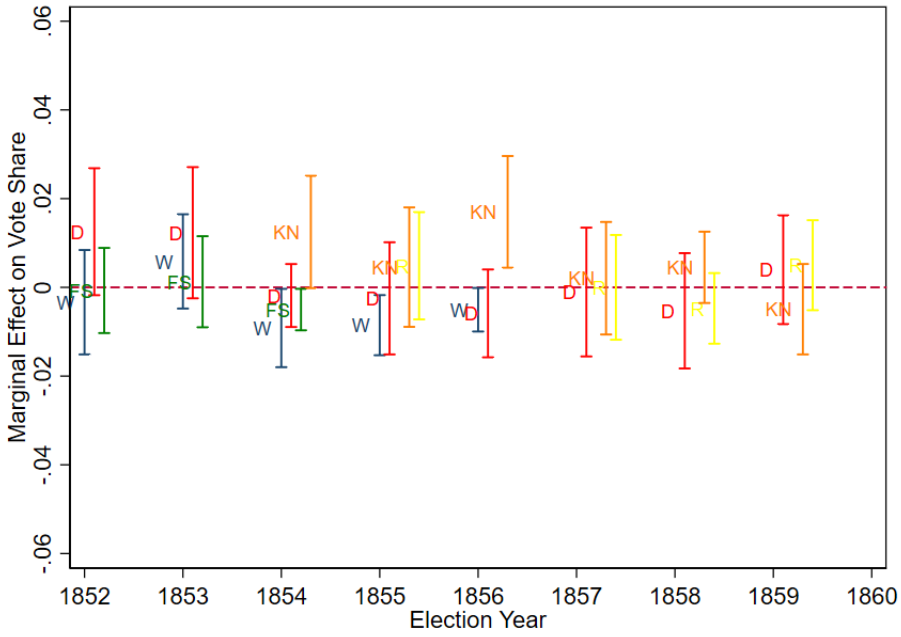
Note: Standardized coefficients and 95% confidence intervals from equation 3 over time. The Panel heading provides the coefficient plotted. See text for details.

Figure 15: Regression Results for All Political Parties

Panel A: Irish Labor Market Crowdout



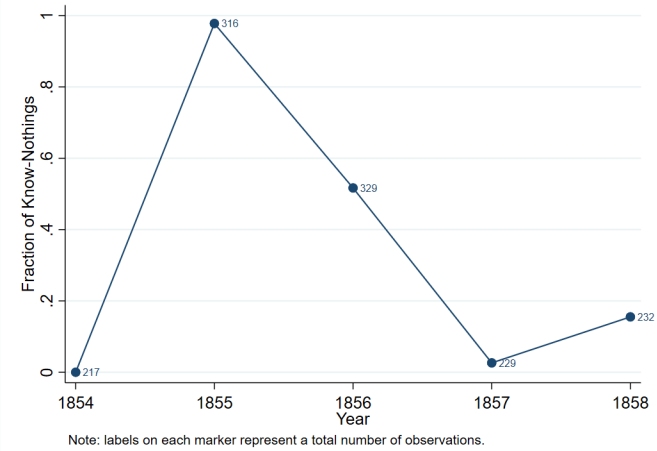
Panel B: Deskilling



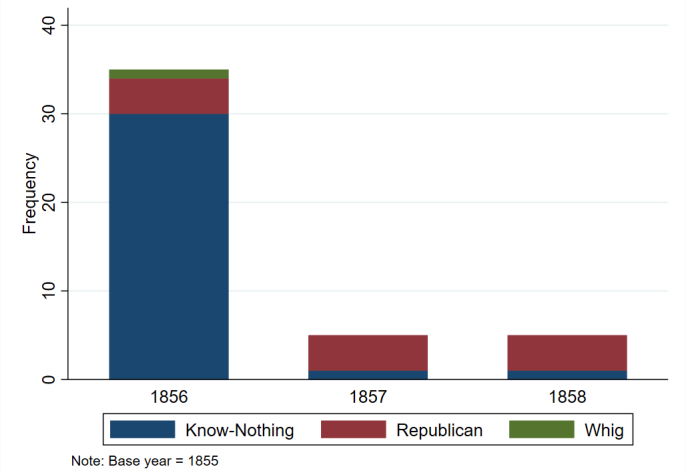
Note: Standardized coefficients and 95% confidence intervals from equation 3 over time. See text for details.

Figure 16: Know Nothing Legislators

Panel A: Know-Nothing Town Representatives



Panel B: Know-Nothing Legislators Shifting Parties



Note: Data from the *Daily Advertiser* entered for the election cycles 1853 to 1857 and demonstrates the number of legislators of a given party and, for those Know-Nothing legislators that could be linked, their party affiliation over time.

VIII Appendix

Table 11: Summary Statistics: Voting Outcomes

	(1) Mean	(2) s.d.	(3) 25^{th}	(4) 50^{th}	(5) 75^{th}	(6) N
Know-Nothing Vote Share						
1854	0.61	0.15	0.52	0.63	0.71	307
1855	0.35	0.16	0.22	0.36	0.46	306
1856	0.61	0.16	0.51	0.63	0.73	305
1857	0.25	0.15	0.14	0.25	0.36	306
1858	0.08	0.08	0.02	0.05	0.12	307
1859	0.11	0.10	0.03	0.09	0.16	303
Turnout						
1852	0.63	0.13	0.56	0.64	0.71	307
1853	0.59	0.13	0.52	0.60	0.68	306
1854	0.56	0.13	0.48	0.56	0.63	307
1855	0.58	0.13	0.50	0.59	0.66	306
1856	0.66	0.14	0.59	0.67	0.73	307
1857	0.55	0.14	0.48	0.54	0.62	306
Legislator "Yea" on 1857 Literacy Amendment						
Mean within town	0.76	0.40	0.50	1.00	1.00	221

Notes: Unweighted summary statistics for towns in the main estimation sample (excludes Boston). Turnout is measured as the number of votes cast for governor in an election divided by ratable polls in 1854. The 1857 literacy amendment enforced literacy tests for voters whose grandfathers could not vote, (e.g. immigrants and the formerly enslaved and their descendants). Votes for the amendment were in the legislature. This variable is the proportion of legislatures for a given town that voted "Yea" for the amendment.
Sources: See Data Appendix for detailed information on the construction and data sources for all variables.

IX Data Appendix

IX.A Town Harmonization

Over the period from which we draw data sources, 1840-1860, Massachusetts newly incorporated 26 towns and cities. We begin with towns listed in the 1840 U.S. Decennial Census to create a base list used to construct a panel of consistent towns across data sources. We aggregate data from the post-1840 incorporated towns into the original town from which

Table 12: Summary Statistics: Controls

	(1) Mean	(2) s.d.	(3) 25^{th}	(4) 50^{th}	(5) 75^{th}	(6) N
Irish Labor Crowdout	-0.011	0.934	-0.761	-0.065	0.756	307
Deskilling Index	0.001	1.002	-0.534	-0.447	0.139	307
Population in 1855	3,165	4,298	1,112	1,876	3,246	307
Ln(Population) in 1855	7.615	0.869	7.014	7.537	8.085	307
Urban (=1)	0.384	0.487	0.000	0.000	1.000	307
Share population Irish in 1855	0.092	0.073	0.034	0.075	0.135	307
Any foreign-born pauper in 1850	0.505	0.501	0.000	1.000	1.000	307
Failure to assimilate	0.682	0.124	0.649	0.681	0.715	307
Share labor in manufacturing (1840)	0.316	0.191	0.160	0.274	0.446	307
Share in agriculture (1840)	0.581	0.241	0.388	0.621	0.785	307
Share in mining (1840)	0.003	0.019	0.000	0.000	0.000	307
Share in commerce (1840)	0.022	0.027	0.004	0.015	0.029	307
Share in professional (1840)	0.016	0.012	0.009	0.013	0.018	307
Share in river transport (1840)	0.002	0.009	0.000	0.000	0.000	307
Share in ocean transport (1840)	0.060	0.158	0.000	0.001	0.013	307
Native-born share of employment (1850)	0.894	0.061	0.875	0.908	0.932	307
Change in labor demand of native-born	-0.055	0.311	-0.105	0.005	0.104	307
Cottage industry employment (1845)	203	512	8	46	203	307
Manufacturing estab. per capita (1855)	0.007	0.006	0.003	0.005	0.008	307
Change in man. estab. p.c. (1855-45)	0.001	0.006	-0.001	0.001	0.003	307
$ value of man. output p.c. (1855)	4.557	1.111	3.989	4.731	5.337	307
Change in $ val. of man. out. p.c. (1855-45)	0.783	0.850	0.327	0.689	1.191	307
Change in p.p. of Irish emp. (1855-45)	0.037	0.077	0.006	0.029	0.063	307

Notes: Unweighted summary statistics for the 307 towns included in the main results.
Sources: See Data Appendix for detailed information on the construction and data sources for all variables.

they were split, leaving us with 309 towns in the base list (dropping Boston in the main regressions leaves a sample size of 308). Appendix Table 13 provides a crosswalk of newly incorporated towns to original towns in the 1840 town base list.

Table 13: Town Crosswalk

Town	Year of Incorporation	Original/Aggregate Town
Achushnet	1860	Dartmouth
Agawam	1855	West Springfield
Ashland	1846	Framingham
Belmont	1859	Cambridge
Blackstone	1845	Mendon
Chicopee	1848	Springfield
Clinton	1850	Lancaster
Holyoke	1850	West Springfield
Lakeville	1853	Middleborough
Lawrence	1847	Andover
Marion	1852	Rochester
Mattapoisett	1857	Rochester
Melrose	1850	Malden
Monterey	1847	Tyringham
Nahant	1853	Lynn
North Andover	1855	Andover
North Reading	1853	Reading
Norwell	1849	Scituate
Peabody	1855	Danvers
Revere	1852	Chelsea
Swampscott	1852	Lynn
West Brookfield	1848	Brookfield
Winchester	1850	Woburn
Winthrop	1852	Chelsea

Two towns additional towns - Boston Corner and Mashpee - are dropped from the analysis that infrequently appear in reported sources. Boston Corner was ceded from Massachusetts to New York in 1853. Mashpee was a reservation for the Wampanoag tribe of indigenous peoples.

IX.B Voting Data

The primary outcome variables are town-level annual election returns for governor of the Commonwealth of Massachusetts from various years of the *Massachusetts Register* (1856), and various newspapers. Election returns for governor for 1852-1859 were hand-entered from the *Massachusetts Register*, an annually published state almanac during the period. We corroborate the reported vote totals for 1854 and 1857 in the *Massachusetts Registers*

with the original hand-written tallies from the Secretary of Commonwealth's office kept in the Massachusetts State Archives. Returns for the 1853 State Constitution vote also come from the *Massachusetts Register*. Election returns for the 1844 gubernatorial election and were entered from the hand-written records of the Secretary of the Commonwealth held at the Massachusetts State Archives.

We convert the candidate votes in the share of votes received by each political party by dividing by the total votes cast in the town. Turnout in a given year is calculated from the total votes cast in the town divided by the ratable polls in 1854. Ratable polls were the concept used at the time to measure the number of potential voters, and were reported in the *Massachusetts Register* (1855).

Infrequently, a few towns did not send returns to the State. These towns are dropped from regressions in years in which vote totals are not reported, but are included in the sample in years for which totals were reported. This is the reason why the sample size varies across years in the election outcomes regressions. These anomalies in the reporting are listed below and any adjustments that we make:

1. 1852 - Governor votes not reported in Sharon. Used presidential votes for turnout.
2. 1853 - Governor votes not reported in Tisbury. Missing turnout.
3. 1855 - Governor votes not reported in Chilmark. Missing turnout.
4. 1854 - All towns reported.
5. 1856 - Governor votes not reported in Holland and Tolland. Used presidential votes for turnout.
6. 1857 - Governor votes not reported in New Ashford. Missing turnout.
7. 1858 - Used unofficial results reported in footnotes for Oxford and Wellfleet.

In addition, ratable polls in 1854 were not reported for Sherbourn and Weymouth. For these two towns, we predicted ratable polls as a function of 1855 town population, using the regression coefficient of ratable polls on population.

IX.C Exposure to Labor Market Crowdout

Labor market crowdout measures a town's *exposure* to the state-wide labor supply shock from Irish immigration. It interacts the initial town-level occupation distribution of native-born workers with the state-wide growth in Irish employment in those same occupational categories:

$$Crowdout_i = \sum_j \frac{L_{Native,j}^{1850,i}}{L_{TotNative}^{1850,i}} \frac{\cdot(L_{Irish,j}^{1855,Mass} - L_{Irish,j}^{1850,Mass})}{L_{Total,j}^{1850,Mass}} \quad , \tag{4}$$

where i indexes local labor markets, j represents skill groups, and the time step is between the 1850 Federal Census and the 1855 Massachusetts Census. State-wide shifts in skill cell-specific labor market competition from Irish immigrants - the second term in equation 4 - is measured as the change in the number of each skill cell that is Irish-born between 1850 and 1855 normalized by total labor in that occupation in 1850. These shifts are weighted by the skill cell's share in each local labor market's initial native-born employment.

Skill-groups are defined by broad occupational categories, comparable across datasets: agriculturalists, boot and shoe makers, factory operatives, laborers, manufacturers, mariners, low-skill mechanics, high-skill mechanics, merchants, professionals, and miscellaneous. The eleven broad categories correspond to those used in the published aggregate statistics of the 1855 Massachusetts census (DeWitt 1856). We use these to verify that our data digitization of the 1855 microdata aligns closely with the published aggregates.

The initial occupation distributions are constructed from the 1850 Decennial Census microdata provided by (Ruggles *et al.* 2018). State-level changes in foreign-born penetration for each skill group are constructed from a combination of the 1850 complete count census, and the 1855 Massachusetts Population Census microdata provided by FamilySearch.org (FamilySearch 2016). The latter required digitizing the 1855 Massachusetts microdata, hand-entering occupations for 300,000 working age men. First, occupation strings were coded into the 1880 specific IPUMS occupation codes (OCC). The 1850 IPUMS complete count census microdata contains OCC codes. For both the 1850 and 1855 data, we then constructed the state-level foreign-born (or Irish) proportion in each of the eight broad occupation categories. The sample is limited to men, at least 16 years old, with a reported occupation and reported country of birth for both the 1850 and 1855 data. A reported occupation corresponds to an 1880 IPUMS OCC code of less than 300.

The primary labor market crowdout variable includes only the increase in Irish workers in each broad occupational category between 1850 and 1855. However, we also construct a number of other shocks based on immigrant ethnicity to use in robustness checks: British, German, and a combined British and German category.

IX.D Exposure to Deskilling

Exposure to deskilling follows the general setup of a shift-share variable equation – state-wide industry-specific changes in average establishment size are interacted with lagged local industry employment shares:

$$\textit{Deskilling}_i = \sum_k \frac{L_k^{1845,i}}{L_{Tot}^{1840,i}} \cdot \left(\frac{L_k^{1855,Mass}}{N_k^{1855,Mass}} - \frac{L_k^{1845,Mass}}{N_k^{1845,Mass}} \right) \quad , \tag{5}$$

where i denotes town, k denotes industry, L denotes employment and N represents the number of establishments. The initial industry employment levels $L_k^{1845,i}$ by town are constructed from town-level reports in the 1845 Massachusetts Manufacturing Census, which we hand-entered (Palfrey 1846). The census reported town by industry aggregates, not firm-level microdata. An example of the type of information provided can be seen in Appendix Figure 17. A total of 106 industry categories were reported in the 1845 Manufacturing Census, which are listed in Appendix Table 14. Note that the denominator for the share of employed is taken from the 1840 U.S. Decennial Population Census provided by IPUMS (Ruggles *et al.* 2018). This is so we could normalize by all employment in both manufacturing and agriculture, since the latter is not reported in the manufacturing census. Transportation workers, merchants, and professionals are also included in the total labor force.

Atack *et al.* (2004) demonstrate that average establishment wage declines with establishment size consistent with deskilling. See also Sokoloff (1984), Goldin & Sokoloff (1984) and Atack *et al.* (2010) for additional motivation for the use of establishment size as related to deskilling. Thus, the shifts in the deskilling exposure variable comes from the industry-specific state-wide changes in average establishment size. We use the 1845 and 1855 Massachusetts Manufacturing Censuses to construct this shift (Palfrey 1846; DeWitt 1856). State-wide totals of establishments and employment by industry were hand-entered to construct the shift. Per the instructions to assessors, information on the number of establishments was not requested for all industries. We are left with 62 industries in 1845 and 83 in 1855 where we can estimate average establishment size. The industries that did not report number of establishments fit into one of two categories: cottage industries using the putting-out system where the idea of an establishment lacks much meaning in our measure, or in industries with relatively small employment that resembled small shops.

By construction, our deskilling index gives a shift of zero in the industries where we cannot estimate average establishment size in both years. However, cottage industries had already experienced the deskilling process. These industries that formerly relied on itinerant artisans fo all aspects of production now moved to using the putting out system. Production was divided into a series of low- and high-skill tasks, with low-skill tasks given to private households to complete during free time, say when not working in fields. For example, according to Hazard (1913) the boot and shoe industry in Massachusetts had already switched from skilled artisan cobblers to the low-skilled putting out system by the late 1830s. Thus, the fact that cottage industries experience no deskilling in the construction of our exposure variable is not an issue.

Table 14: Industries Used in Exposure to Factories Variable

No.	MA Census Code	1845 Listed Industries	No.	MA Census Code	1845 Listed Industries
1	1	Cotton Mills	54	58	Fire Arms
2	2	Calico Manufacturies	55	59	Cannon
3	3	Bleaching and Coloring	56	60	Chocolate Mills
4	4	Woollen	57	61	Chair and Cabinet Manufacturers
5	5	Carpeting	58	62	Tin ware
6	6	Worsted	59	63	Comb Manufactories
7	7	Hosiery	60	64	White Lead and Other Paints
8	8	Linen	61	65	Linseed Oil
9	9	Silk	62	66	Camphene or Burning Fluid
10	10	Rolling, Slitting, and Nail Machines	63	67	Glue and Gum Manufactories
11	11	Forges	64	68	Cotton Gins
12	12	Pig-iron	65	69	Flour Mills
13	13	Hollow Ware and Castings	66	70	Tanneries
14	14	Machinery	67	71	Currying Establishments
15	15	Steam Engines and Boilers	68	72	Patent and Enamelled Leather
16	16	Fire Engines	69	73	Boots and Shoes
17	17	Scythes	70	74	Straw Bonnets and hats
18	18	Axes, Hatchets, and Edge Tools	71	75	Bricks
19	19	Cutlery, Door Handles and Latches	72	76	Mathematical Instruments
20	20	Screws	73	77	Snuff, Tobacco, and Cigars
21	21	Butts or Hinges	74	78	Building Stone
22	23	Locks	75	79	Marble
23	24	Tacks and Brads	76	80	Lime
24	25	Shovels, Spades, Forks, and Hoes	77	81	Mineral Coal and Iron Ore
25	26	Ploughs and Other Agricultural Implements	78	82	Charcoal
26	27	Iron Railings, Fences, and Safes	79	83	Whips
27	28	Copper	80	84	Blacking
28	29	Brass Founderies	81	85	Blocks and Pumps
29	30	Brittania Ware	82	86	Mechanics Tools
30	31	Buttons	83	87	Wooden Ware
31	32	Glass	84	88	Corn and Other Brooms
32	33	Starch	85	90	Lasts and Shoe Pegs
33	34	Chemical Preparations	86	91	Lumber
34	35	Paper	87	92	Firewood
35	36	Piano-Fortes and Other Musical Instruments	88	117	Casks
36	37	Clocks	89	118	Fringe and Tassels
37	38	Sewing Machines	90	119	Stone and Earthen Ware
38	40	Chronometers, Watches, Gold and Silver Ware and Jewelry, Gold Pens	91	120	Sashes, Doors, and Blinds
39	41	Brushes	92	121	Gas
40	42	Saddles, Harness, and Trunks	93	122	Pickles and Preserves
41	43	Upholstery	94	123	Alcohol and other Distilled Liquors
42	44	Hats and Caps	95	124	Beer
43	45	Cordage	96	125	Friction Matches
44	46	Boats	97	126	India Rubber Goods
45	48	Masts and Spars	98	127	Bread
46	50	Cards	99	128	Types and Stereotype Plates
47	51	Salt	100	129	Boxes of all kinds
48	52	Railroad Cars, Coaches, Chaises, Wagons, Sleighs, and Other Vehicles	101	130	Confectionery
49	53	Lead	102	132	Porte-monnaies, Pocket-books, etc.
50	54	Sugar Refined	103	133	Clothing
51	55	Oil and Sperm Candles	104	138	Printing
52	56	Soap and Tallow Candles	105	139	Bookbinding
53	57	Powder Mills	106	140	Gravestones, Wheelwright Stock, Baskets, Umbrellas and a variety of other articles not elsewhere enumerated

Figure 17: Example of 1845 Massachusetts Manufacturing Census Town-level Tabulation

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Woollen Mills, 1; sets of machinery, 1; wool consumed, 11,000 lbs.; flannel or blanketing, m'd, 30,350 yds.; V. $8,269; C. $5,000; M. E. 7; F. E. 2.

Establishments for m. of Rail-road Cars, Coaches, Chaises and other vehicles, 2; V. of vehicles m'd, $1,000; C. $500; E. 4.

Shoes m'd, 36,661 pairs; V. $23,717; M. E. 62; F. E. 43.

Lumber prepared, 90,000 feet; V. $1,038; E. 7.

Fire Wood prepared, 1,418 cords; V. $4,098; E. 25.

Sheep, 6; V. $12; wool produced, 30 lbs; V. $15.

Horses, 58; V. $2,505; neat cattle, 311; V. $6,814; swine, 103; V. $997.

Indian Corn or Maize raised, 2,341 bush.; V. $1,404; rye, 354 bush.; V. $283; barley, 37 bush.; V. $29; oats, 321 bush.; V. $128; potatoes, 7,095 bush.; V. $2,128; other esculent vegetables, 750 bush.; V. $112; hay, 714 tons; V. $7,464.

Fruit raised, 3,755 bush.; V. $750.

Butter, 11,026 lbs.; V. $1,874.

Source: Palfrey (1846)

IX.E Other variables

1. **Population, urbanization, and share Irish population in 1855:** Controls for log population, an indicator for urban (town population >= 2,500), and the share of town population that was Irish immigrants are constructed using the 1855 Massachusetts Census microdata provided by FamilySearch (2016).
2. **Fiscal Burden of Immigration:** We measure the fiscal burden of immigration using the number of foreign-born paupers in the 1855 Massachusetts Census microdata. The primary variable to measure fiscal burden is an indicator equal to 1 if there are any foreign-born paupers in a town. As a robustness check, we use the share of paupers that are foreign-born. The distribution of the share is highly skewed with a majority of zeroes, and thus suggests our use of the indicator.
3. **Pre-existing industry composition:** In regressions, we control for some or all town-level industry shares of employment from the 1840 U.S. Population Census provided by IPUMS (Ruggles *et al.* 2018). The industry categories include: agriculture, manufacturing, commerce, professional, mining, river transportation, and ocean transportation. There were nine towns that existed in 1840 and should have been included in the census microdata, but were not. We use the county average industry shares for these towns: Boxford, Brookline, Easthampton, Essex, Georgetown, Hanover, Rowley, Somerville, Westhampton.
4. **Mill Town Indicator:** A mill town is defined as a settlement that developed around one or more textile mills. The mill town indicator is equal to one if the town had a high proportion of town employment in textile mills in the 1845 Massachusetts Manufacturing Census (Palfrey 1846).
5. **Native Labor Demand Shift:** Meant to control for potential changes in demand for native labor, the native demand shift is measured as: $D_{i,native} = \frac{L^{1855}_{i,native} - L^{1850}_{i,native}}{L^{1850}_{i,native}}$, using data from the 1850 U.S. and 1855 Massachusetts population censuses (Ruggles *et al.* 2018; FamilySearch 2016).
6. **Industrialization variables:** Our results on the short-run industrial response to Irish immigration use the level and change in establishments per capita and log output dollar value per capita at the town level. Establishments per capita is calculated as the total number of manufacturing establishments in a town in 1855 (or 1850) divided by the population in the town in 1855 (1850). The log dollar value of manufacturing output per capita is calculated similarly. Change in establishments per capita is the difference in levels. Change in output value is the difference in log dollars per capita. Establishments and output value was digitized from the 1845 and 1855 Massachusetts Manufacturing Censuses (Palfrey 1846; DeWitt 1856). Population is calculated from the 1850 U.S. census and 1855 Massachusetts census microdata (Ruggles *et al.* 2018; FamilySearch 2016).
7. **Cottage industry exposure:** Town cottage industry employment is measured using the employment counts in the 1845 Massachusetts Manufacturing Census (Palfrey 1846). We code an industry as “cottage" if it has a high percentage of female workers and a high percentage of hand power in 1850, or there is narrative evidence that production was primarily done by the putting out system. Cottage industries include:

boots and shoes (71% of all cottage employment); straw bonnets and hats (27%); snuff, tobacco, and cigars ($< 1\%$); whips; port-monnaies, pocket-books, etc. ($< 1\%$); clothing ($< 1\%$); bookbinding ($< 1\%$). The boot and shoe, and straw bonnet and hat industries make up 45 percent of total manufacturing employment in the state.

8. **Town latitude and longitude:** Robustness to forms of spatial correlation requires the use of location information for each historical town. We calculate the latitude and longitude of the centroid of each modern town using the shapefile produced by the Massachusetts Bureau of Geographic Information.[41] The shapefile uses the state plane coordinate system (Massachusetts - 2001), which we convert to latitude and longitude and calculate town centroids using ArcMap. The modern shapefile includes towns incorporated after our 1840 town base list, and does not include historical towns that no longer exist. To handle towns incorporated after 1840, we use two methods. First, we apply the modern geographic centroid of the original town from which the newly incorporated town seceded. Second, we average the latitude and longitude of all modern town centroids that were part of the 1840 town. Results are not affected by this choice. Nine historical towns no longer exist: four were annexed by Boston, four were flooded by the construction of the Quabbin Reservoir in 1938, and one town was ceded to Rhode Island.[42]
   (a) Brighton - annexed by Boston in 1874, dropped pin by eyeballing centroid in google maps, 42.34; -71.15
   (b) Charlestown - annexed by Boston in 1874. See `https://tools.wmflabs.org/geohack/geohack.php?pagename=Charlestown,_Boston&params=42_22_31_N_71_03_52_W_region:US-MA_type:city`
   (c) Dorchester - annexed by Boston in 1870, dropped pin by eyeballing centroid in google maps, 42.29; -71.06
   (d) West Roxbury - annexed by Boston in 1868, dropped pin by eyeballing centroid in google maps, 42.28; -71.16
   (e) Dana - disincorporated as part of Quabbin Reservoir. See `https://tools.wmflabs.org/geohack/geohack.php?pagename=Dana,_Massachusetts&params=42_25_19_N_72_13_39_W_type:city_region:US-MA`
   (f) Enfield - disincorporated as part of Quabbin Reservoir. See `https://tools.wmflabs.org/geohack/geohack.php?pagename=Enfield,_Massachusetts&params=42_19_0_N_72_19_58_W_type:city_region:US-MA`
   (g) Greenwich - disincorporated as part of Quabbin Reservoir. See `https://tools.wmflabs.org/geohack/geohack.php?pagename=Greenwich,_Massachusetts&params=42_21_33_N_72_17_47_W_type:city_region:US-MA`
   (h) Prescott - disincorporated as part of Quabbin Reservoir. See `https://tools.wmflabs.org/geohack/geohack.php/pagename=Prescott,_Massachusetts&params=42_23_30_N_72_20_41_W_type:city_region:US-MA`
   (i) Pawtucket - ceded to Rhode island in 1862. See `https://tools.wmflabs.org/geohack/geohack.php?pagename=Pawtucket,_Rhode_Island&params=41_52_32_`

[41] Source: (Accessed on June 17, 2020) http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/townsurvey.html

[42] All websites accessed on June 17, 2020.

N_71_22_34_W_type:city