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IMMIGRANT GROUP SIZE AND POLITICAL MOBILIZATION: EVIDENCE FROM THE EUROPEAN MIGRATION

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ABSTRACT

The United States absorbed nearly 22 million immigrants from Europe between 1880 and 1915. How did these immigrants, largely from undemocratic European states, become integrated into the American political system? This paper uses a newly assembled dataset of urban populations in the United States prior to World War I to investigate the decision of newly arrived immigrants to mobilize politically, focusing on the citizenship choice of foreign-born individuals in city wards. I find that immigrants were more likely to become politically active as their ethnic group's share of the electorate grew, particularly in wards where the Democratic Party likely needed the vote of new immigrants to win elections.

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I. Introduction

For more than 150 years, the United States has grappled with the opportunities and problems associated with large-scale immigration, with nearly 100 million immigrants having arrived between 1840 and 2000. Understanding the social and economic assimilation process of immigrant groups has thus occupied a central place in the national discourse and the scholarly literature. Economists have investigated many aspects of immigrant assimilation and convergence, particularly earnings and education (Chiswick, 1978; Borjas, 1985; LaLonde and Topel, 1991; Abramitzky, Boustan, and Eriksson, 2012; Card, 2005; Lleras-Muney and Shertzer, 2012). Yet the political dimension of immigrant assimilation – that is how immigrants, often from undemocratic sending countries, come to participate in the US political process – remains largely unexplored.

This paper uses citizenship attainment to investigate how immigrants in the early twentieth century became integrated into the American democratic system. Although understanding this historic movement of people from Europe to the United States is important, the motivation for studying the choice of these immigrants to become naturalized citizens extends beyond the economics of assimilation. My methods also provide insight into the question of why people vote more generally. The primary finding of this paper, that ethnic group size influences an immigrant's decision to participate in the political process, underscores the importance of considering social structures in models of voter turnout and provides new evidence for the validity of group-based approaches (for instance, Uhlaner, 1989; Morton, 1991; Shachar and Nalebuff, 1999).

The Age of Mass Migration (1850-1914) serves as a particularly useful setting for studying immigrant political mobilization. The United States absorbed nearly 22 million immigrants between 1880 and 1914, largely from Europe. By 1900, 15 percent of the U.S. population was foreign born, and the percentage in urban areas, where most immigrants settled, was even higher. Cities in the early twentieth century invested substantial resources in infrastructure improvements and public

health, and immigrant groups could compete for consideration in the allocation of funds if they became citizens, registered to vote, and translated their numbers into credible voting blocs. I investigate how immigrants responded to the incentive to become politically active by focusing on the choice of foreign-born individuals living in city wards, the voting unit used to elect city councilmen, to become naturalized American citizens. There is substantial variation in the distribution of immigrants across wards with groups of Czechs, Greeks, Italians, Poles, and Russians each comprising as much as a third of the ward electorate.

The advantages of using citizenship to measure political mobilization in this period are twofold. First, citizenship was both optional and obtainable for almost all immigrants until 1921.[1] Furthermore, becoming a citizen was necessary only to obtain the right to vote, not the ability to work or receive public benefits. The historical setting thus allows for the study of citizenship choice uncontaminated by the economic motivations that exist in the present day. The second advantage is that the census recorded the naturalization status of all foreign-born individuals in 1900 and 1910, so using citizenship choice as an indicator of political engagement allows me to use rich micro data and avoid aggregate regressions of voter turnout or microdata with very limited geographic identifiers such as the National Election Survey. I focus on the political mobilization of cohesive ethnic groups within city wards, constructing a panel dataset of 106 wards in four cities (Boston, Chicago, the Manhattan borough of New York City, and Philadelphia) that were comparable over 1900 and 1910. Each of these wards was represented by a locally elected alderman who served on city council and was thus able to provide favors and consideration from the city government.

I focus on three aspects of immigrant group size in the empirical work and examine the role of absolute size, relative size, and network size on an individual's decision to become a citizen. A well-

[1] Unlike in the present day, there was no notion of illegal immigrants who were barred from political participation because they could not become citizens. Asian immigrants were allowed to work in the U.S. but not to obtain citizenship, and consequently I focus on Europeans in my study.

known result from the political economy literature is that numerically smaller groups have an advantage in solving collective action problems, making them relatively more efficient in achieving their political agendas (Olson, 1971; Becker, 1983). In addition, relative size should affect the incentive for minority immigrant groups to mobilize. Established political parties should seek to coalesce with an immigrant group that will yield a minimal winning coalition, an idea first put forth by Riker (1962). Smaller groups are not worth mobilizing because they cannot be decisive in an election, and maintaining a coalition larger than required to win an election is not efficient. More recent work has considered the role of established social networks in political behavior, finding that the frequency and depth of social interactions are key predictors of group mobilization (Chay and Munshi, 2012). I empirically examine each of these theories.

The relative size effects I find are consistent with coalition formation with extant political parties, particularly with other likely Democratic voters. Recent immigrants were more likely to naturalize as their group grew relatively larger, but only up to a point. Specifically, they were most likely to naturalize when their group comprised about 20 percent of the ward electorate and less likely if their group was relatively smaller or larger. The presence of established social networks also mattered for mobilization; there is little evidence of coalition-driven group behavior for immigrant enclaves composed almost entirely of very recent arrivals. I also show that the main nonlinearity in relative group size is driven by political mobilization of immigrants in wards where the Democratic Party likely needed the vote of new immigrants to win elections. In those wards, a one standard deviation in group size around the mean implies an increase in naturalization likelihood of 10 percentage points, or an increase of 28 percent. I find little evidence of diseconomies of scale in numerically larger groups.

The paper is organized as follows: Section II surveys the historical context of immigrant politics in early twentieth century cities and justifies naturalization as a proxy for political

engagement. Section III describes the sources of historical data used in the paper and the empirical strategy. Section IV discusses the relationship between group size and citizenship attainment. Section V concludes.

II. Historical Context and Citizenship in the Early 1900s

A. Immigrants and Urban Politics

The United States maintained an open border to European immigrants in the late nineteenth and early twentieth centuries, and ward-based politics played a prominent role in the lives of the millions of newcomers who settled in the industrial cities in the Northeast and Midwest. Locally elected ward aldermen, or city councilmen, served as a vital link to services and favors from the central city government (Kornbluh, 2000, p. 129).[2] To secure the loyalty of new immigrants and remain politically competitive, aldermen strategically provided informal public assistance to their constituents. In the colorful collection of talks by George W. Plunkitt about his career in the Tammany Hall political machine in New York City, the former aldermen describes how he bought clothes for fire victims, gave candy to children, and matched up young men to jobs with local businesses (Riordon [1905] 1994, p. 64).

Aldermen were also responsible for presenting public works and licensing proposals to the relevant city boards on behalf of individuals in their wards. It was feasible for aldermen to concentrate their lobbying efforts on decisive constituencies in their wards in part due to the prevailing custom of "aldermanic courtesy" in which council committees deferred to an alderman on any issue that dealt solely with his ward (Teaford, 1984, p. 26). If an alderman wished to bestow a privilege such as the right to erect a sidewalk fruit stand on one of his loyal constituents, he could do so on his own accord since the matter did not affect the rest of the city. An alderman could also

[2] Some cities switched to at-large elections in the early twentieth century. The cities in my sample were still using a system of ward-level elections to choose aldermen between 1900 and 1909.

present proposals for road paving or sidewalk improvement that would differentially benefit members of a particular group in his ward. The concentrated authority of the alderman served as a powerful incentive for ethnic groups to become involved in ward politics. The first step in this process was naturalization of foreign-born members so they could register to vote.

Aldermen and other members of the ward power structure saw new immigrants as both a new source of potential votes and a threat to the status quo. The political mobilization of these newcomers, most of whom had never participated in an election before, often occurred within the framework of the patronage political systems of the day. For instance, the Tammany Hall machine attempted to absorb Jewish and Italian newcomers using a variety of favors including municipal jobs and protection from Irish gangs (Werner, 1928). One boss summarized his machine's mobilization efforts thusly:

"Tammany looks after them for the sake of their vote, grafts them onto the Republic, makes citizens of them in short; and although you may not like our motives or our methods, what other agency is there by which so long a row could have been hoed so quickly or so well?"

-Tammany Hall Boss Richard Croker[3]

Although it was not the case for all urban areas in the United States, most large, immigrant-receiving cities in the Northeast and Midwest had political machines by 1900, including the four studied in this paper (Menes, 1999).

New immigrant groups tended to vote as homogenous blocs along ethnic lines once members of the group became naturalized citizens able to vote. Reformers of the day considered this tendency to be a form of fraud since immigrants were voting in their narrow self-interest instead of in the "true public spirit" (Kleppner, 1987, p. 169). Nonetheless, the bloc voting behavior noted by Kleppner and others justifies the grouping individuals by country of origin used this paper. The desire to win the "Polish vote" or "Italian vote" also motivated strategists from both political parties to incorporate the

[3] As cited in Werner (1928).

new immigrants into their coalitions. An observer of Tammany Hall noted that "every time an election comes around, the Republicans and Democrats cater to the German element… or the Jewish… and tell them they are the greatest things that ever happened." (Henderson, 1976, p. 159). Established political parties lobbied for support among the new immigrant groups, and they assisted the newcomers with the naturalization and registration procedures required to bring them into the electorate.

B. Naturalization status as an indicator of political engagement

The suitability of naturalization status as a proxy for political participation is rooted in the role of the state and federal governments in the early twentieth century. In stark contrast to the present day, there was no direct benefit to becoming a naturalized citizen except securing the right to vote and run for public office.[4] Immigrants from European countries were de facto permanent residents in the sense that they could live and work in the United States indefinitely without applying for a visa or beginning naturalization proceedings.[5] In addition, prior to the New Deal in 1933 the government offered little in the way of pensions or welfare to new citizens that could serve as motivation for immigrants to begin the naturalization process. Access to education was not an issue for resident aliens; in fact, illiterate immigrants above the compulsory schooling age were encouraged to attend publicly-funded evening schools in some cities (Hill, 1919).

Should he decide to become an American citizen, any male European immigrant could file a declaration of intention, or "first papers," in a court of law after a residency period in the United States of at least two years. After having completed a total residency period of five years, the

[4] Most states restricted licensed occupations such as attorney, physician, or accountants to American citizens, but these laws likely had little effect on poor, recently arrived immigrants from southern and eastern Europe. Non-citizens were also barred from becoming plumbers in four states and barbers in five states (Konvitz, 1946 provides a complete list of restrictions by state). It is difficult to determine how thoroughly these statutes were enforced. In the paper I assume that obtaining the right to vote was the primary motivation to naturalize; nonetheless, I acknowledge that gaining entry to a restricted occupation may have served as an incentive for some immigrants in these states to become citizens.

[5] Immigrants of Chinese descent were barred from becoming U.S. citizens under the Chinese Exclusion Act of 1882.

immigrant could complete the citizenship process by taking an oath of allegiance and filing a petition of naturalization, or "second papers." I focus on men in the empirical analysis because women and children usually received derivative citizenship from the male head of the family when he completed the naturalization process.

To further justify the use naturalization status as a proxy for political engagement, I provide evidence that foreign-born men who became naturalized citizens in fact participated in elections. The anonymous and aggregate nature of voting data makes a direct test impossible since the individual characteristics of the participants in early twentieth century urban elections are unobserved. However, I can document that higher voter turnout was associated with a larger number of naturalized foreign-born male residents of city wards, all else equal. I use Chicago voting data compiled by Skogan (1989) to obtain turnout rates coupled with the IPUMS census samples from 1900, 1910, and 1920 to obtain measures of the number of both naturalized and alien foreign-born men aged 21 and above in each ward. I partition the potential electorate and estimate the number of ballots cast in the Chicago mayoral elections as a function of the number of native-born white men aged 21 and over; the number of native-born, nonwhite men aged 21 and over; the number of naturalized, foreign-born male immigrants aged 21 and above; and the number of foreign-born, male resident aliens aged 21 and above. More formally, I estimate:

$$Turnout_{kt} = \alpha + \beta(Naturalized\ Men\ 21+)_{kt} + \delta(Alien\ Men\ 21+)_{kt} +$$
$$+ \gamma(Native\ White\ Men\ 21+)_{kj} + \pi(Native\ Nonwhite\ Men\ 21+)_{kj} + \theta(Year)_t + \varepsilon_{kt} \quad (1)$$

where k indexes wards and t indexes the year. I pool data from 1900, 1910, and 1920 and include year fixed effects in both regressions reported in Table 1.[6]

[6] I focus on men in these regressions even though women were permitted to vote in Illinois in 1913. Women initially voted at much lower rates and hence voter turnout as a share of the eligible population appeared to plunge after the franchise was extended to women. I do not include ward fixed effects in this regression because Chicago redistricted its ward system after each census.

The first column reports the relationship between the size of each group and election turnout in Chicago's wards. The coefficient on the number of naturalized foreign-born men is equal to .68 and significant. This effect is consistent with the notion that many immigrants did in fact vote after they become eligible, and in fact that they voted at rates comparable to native-born whites (the coefficient on native-born whites is .62). There is no similar positive effect for native-born nonwhites, and the addition of a resident alien is associated with a decrease in ballots cast. The results for naturalized immigrants and native-born whites are similar when I restrict the sample to white men only.

In this aggregate framework I cannot distinguish between naturalized immigrants voting themselves and the presence of naturalized immigrants spurring higher turnout from natives as a form of "defensive voting." Furthermore, the negative association between voter turnout and resident aliens suggests that recent immigrants were concentrated in wards where turnout was lower in general. The difficulty associated with interpreting these results underscores the advantage of using individual-level data in a panel framework to study political mobilization, and I use such an approach throughout the remainder of the paper. Nonetheless, the results from Table 1 are consistent with higher voter turnout among naturalized immigrants compared with resident aliens and similar to Tuckel and Maisel (1994), who show that voter turnout in the 1908 election in eight large cities is positively correlated with the fraction of the electorate that is foreign born and naturalized.

III. Data and Estimation Framework

A. Ward Data from the 1900s

I combine three data sources for the main empirical work. First, I employ detailed digital maps of four major cities to establish consistent geography for 106 city wards from 1900 to 1910. I then use novel 100 percent census samples of the electorate from a genealogy website to precisely

measure the size of ethnic groups within wards. Finally, I rely on smaller census microdata samples to obtain data on the naturalization status of individuals, which was not digitized in the 100 percent samples.

The Center for Population Economics (CPE) at the University of Chicago provided the redistricting histories for the wards of Boston, Chicago, Manhattan, and Philadelphia used in this paper.[7] The sample is thus composed of four of the five largest cities in the United States in 1900, all of them major immigrant destinations. Furthermore, all the cities in the sample had local (at the ward level) elections for city councilmen through at least 1910 and are considered by historians to have had political machines in place. In sum, while the sample is not representative of all areas in which immigrants settled in the early twentieth century, the included cities reflect the institutional environment facing many European newcomers to the large cities of the Northeast and Midwest.

Unlike Congressional districts, city wards were not legally required to be redrawn at any point, and cities could simply add wards to their existing system when they annexed land.[8] Although all four of the cities made changes to their ward systems over the decade, I am able to use almost 80 percent of the wards present in 1900 in the panel. The excluded wards are mainly from outlying areas and were either annexed or wards that were split sometime between 1900 and 1910. Thus my sample consists primarily of the core urban wards in each city. Further details on the panel, plus a list of included wards, can be found in Appendix A.

The detailed CPE maps also enable me to address redistricting events from early in the decade which would otherwise render the ward systems from the two censuses incomparable. In particular, both the ward systems in Chicago and Manhattan were redrawn shortly after the 1900 census, so the

[7] I do not include the other two cities for which the CPE digitized ward maps (Cincinnati and Baltimore) because wards were not used for municipal elections in Cincinnati and relatively few immigrants settled in Baltimore. Constructing ward histories is a costly and complex endeavor, and consequently I restrict my potential sample to the cities covered by the CPE's research team (NIH grant P01 AG10120, PI Robert W. Fogel).

[8] Assembly Districts were used to elect aldermen in Manhattan by 1900 although wards were still used for other municipal purposes. For this reason I use Assembly Districts in place of wards for Manhattan. For simplicity of exposition, I continue to use the term "ward" to refer to voting units in the paper.

wards in place in 1900 and 1910 were very different from each other. I overcome this obstacle using digital maps of the census enumeration districts. Enumeration districts were administrative units used internally by the Census Bureau and were substantially smaller than wards. Specifically, I use the 1900 census enumeration districts to construct synthetic 1910 wards for the year 1900, which I then use to estimate the population characteristics of the 1910 wards had they been in place in 1900. Using these synthetic 1910 wards I am able to construct a panel dataset with the 1910 wards as the geographic unit of observation for both 1900 and 1910.[9]

The second source of data is a novel 100 percent sample of the population of the four cities, with both ward and enumeration district identifiers, taken from the genealogy website AncestryLibrary.com. These counts are a substantial improvement over existing sources of data. IPUMS samples are at present only 5% and 1.4% of the population for 1900 and 1910, respectively, and are insufficient for precisely estimating the size of minority immigrant groups at the ward level. Furthermore, using AncestryLibrary.com allows me to make counts by gender, age, year of immigration, and place of birth so I can compute exactly how large the potential electorate was for each group and ward in my sample. I restrict the sample to men aged 21 and older since only men over the age of 21 could vote.[10] Since only men who had been in the United States for at least two years were eligible for citizenship, I also restrict the immigrant counts to men who arrived at least two years before the respective censuses of 1900 and 1910. The full sample covers 9 million records from the AncestryLibrary.com database. Total sample counts line up closely with city population tallies published by the census for both 1900 and 1910, although some of the records are illegible and could not be included in the sample.[11]

[9] The 1910 wards are the preferred geographic unit of observation because they were in place for all but a few months of the decade studied in this paper.
[10] The voting age was not lowered to 18 until 1971.
[11] Less than 5 percent of the census records are illegible in my sample.

I focus on ethnic groups whose peak year of immigration to the United States was after 1880: Poles, Czechs, Greeks, Italians, and Russians.[12] To compute the ethnic group shares, I classify individuals based on their reported place of birth where possible. However, because of changes in how the census treated individuals born in present-day Poland and the Czech Republic, it is not possible to match individuals to the Polish and Czech groups in 1910 using place of birth.[13] My algorithm for estimating the true number of ethnic Poles, Czechs, Russians, and Germans in each ward in 1910 can be found in Appendix B. The final dataset contains a count of the number of eligible potential voters for every immigrant group and ward in my sample as well as the total number of voters, including the native born.

AncestryLibrary.com did not digitize the naturalization status of immigrants, so my third source of data is the Integrated Public Use Microdata IPUMS microdata samples (Ruggles et al., 2008). I use the 5 percent sample of the 1900 census and 1.4 percent sample of the 1910 census. I match foreign-born respondents living in the four sample cities to their ward of residence and to their ethnic group using place of birth generally and mother tongue for Poles and Czechs in 1910. My main dependent variable, an indicator for having initiated the naturalization process, is equal to one if the individual has either first or second papers.

The summary statistics in Table 2 cover the 88 wards in the panel containing at least one immigrant from the five sending countries studied in this paper. The ward-level statistics presented in the top panel give a glimpse of the magnitude of immigration flows to large industrial cities in the early twentieth century: the average ward population in the panel is almost 40 percent foreign born in 1910. Because Germans and Irish had begun arriving sixty years earlier, a substantial second-

[12] In the IPUMS microdata I can observe that nearly all Russian immigrants were Jewish because they reported Yiddish as their mother tongue. AncestryLibrary.com did not digitize mother tongue and so I use place of birth as the means of classification.

[13] Poland and Czechoslovakia were not independent countries until after WWI. Earlier in the twentieth century, the territory that would become Poland and Czechoslovakia was partitioned between the Russian, German, and the Austro-Hungarian empires.

generation population from these groups existed alongside the new immigrants from southern and eastern Europe. The share of the electorate composed of either first- or second-generation Irish immigrants is about 20 percent in both sample years, and the share for Germans is 14 percent in 1900 and 18 percent in 1910. The average total electorate size (men aged 21 and above, excluding immigrants who have lived in the U.S. for less than two years) is about 11,500 men per ward.

The summary statistics of individual characteristics of recent immigrants from Poland, Bohemia (the area comprising the present-day Czech Republic), Greece, Italy, and Russia are presented in the lower panel of Table 2. The sample covers immigrants who have been in the U.S. for at least two years (and are hence eligible to vote) but not more than 15 years, limiting the likelihood of observing an immigrant in a different ward from which he naturalized. I discuss this limitation of my approach in the next section. There are 197 enclaves (defined as population of a particular ethnic group of any size in a ward) across the 88 wards with an average of 730 eligible voters in 1900 and 1,070 in 1910. The average electorate share increased from 7 percent to 10 percent over the decade with some groups as large as 35 percent.[14] The naturalization rate fell over the decade from 51 percent to 27 percent, consistent with the secular decline in new immigrant naturalization after 1900 reported in previous work (Trounstine, 2008).

B. Empirical Framework

The objective of the empirical work is to ascertain the role of group characteristics on an immigrant's likelihood of becoming politically active, as measured by citizenship attainment. In this section I review the key ideas related to absolute size, relative size, and network size and indicate how I will test them.

[14] I exclude the five immigrant enclaves in my sample that were approaching majority status in their ward and focus on minority groups comprising less than 35 percent of the ward electorate. I found suggestive evidence that the incentive to mobilize again increases for groups nearing majority status in their wards; however, I have too few groups greater than 35 percent of their ward electorate to investigate this systematically.

Absolute size: The notion that numerically larger interest groups are less effective owing to collective action failures is central to the political economy literature. However, laboratory experiments have found that the number of individuals in a group has a weaker effect on behavior than the theory would predict (Marwell and Ames, 1979; Isaac and Walker, 1988). More recent empirical work by Oberholzer-Gee and Waldfogel (2005) documents that the structure of media markets can lead to an outcome contrary to what collective action models predict: specifically, economies of scale in media provision may lead to numerically small groups being offered fewer products tailored to their interest and hence lower voter turnout among small groups relative to larger groups. In sum, the impact of numerical size of the group on political behavior is both theoretically and empirically ambiguous. Because an immigrant group's size is closely correlated with his group's relative size, in most specifications I simply control for the total size of the voting population in each ward. I also explore whether relative and absolute size can be separately identified.[15]

Relative size: The relative size of ethnic groups in their wards is also predicted by economic theory to affect political behavior, namely because a group's electorate share is a factor in determining the expected payoff for participating in elections. Since the immigrant groups I consider in this paper are all ward minorities who could not have captured aldermanic seats on their own, coalition formation is the mechanism through which relative group size should affect immigrant political behavior. The core notion of minimal winning coalitions due to Riker (1962) is that, because the payoff to any victorious coalition is identical, winning coalitions should only contain members required to win, lest the winning coalition need to split the spoils of victory amongst more members than necessary.

[15] I also considered the size of other immigrant enclaves in neighboring wards, weighted by the distance between the respective ward centroids, but found no significant effects. Hence I restrict my attention to the size of the immigrant's group in his own ward in the empirical work.

Empirical predictions from Riker's model on the relationship between relative group size and the payoffs to participation are not sharp (for an elaboration on this problem, see Lucas, 1978). However, the context of this paper is considerably simpler than the general legislative bargaining framework studied in much of the previous literature. In particular, I am interested the outcome from a process where (usually) two extant political parties competing for an aldermanic seat face a fixed cost of incorporating new immigrant groups into their respective coalitions. This fixed cost, which is related to the wooing of the ethnic group leadership by established political parties, means that larger ethnic groups should be more attractive as coalition partners than relatively smaller ones.[16] However, once a minimal coalition has been formed with a group of decisive size, additional immigrant arrivals to that group are unnecessary to the coalition and should not be mobilized.

What constitutes a decisively-sized immigrant group depends on several factors that are difficult to observe, including the *ex ante* closeness of elections (see Nalebuff and Schachar, 1999 for a discussion of the limits of *ex post* election data for measuring contestability) and the size of likely coalition partners for new immigrants. Although I cannot observe all of the other groups in the electorate, most critically the size of the main political parties in each ward, the historical context provides a way to measure the size of the Democratic Party. This party, dominated by second-generation Irish and Germans, was the most common coalition partner of new immigrant groups.[17] Examining the size of these earlier arriving ethnic groups gives a sense of the size immigrant groups needed to reach to be credible coalition partners. The average relative size of the combined first and second-generation Irish and German groups was about 35 percent of the electorate in 1900 for the wards in the sample, so a coalition with a new immigrant group of comprising 15 to 20 percent of the

[16] This fixed cost also rules out employing recent advances in the legislative bargaining theory literature to simplify the analytical framework. For instance, Snyder, Ting, and Ansolabehere (2005) show that an individual's payoff is proportional to her voting weight in the context of a noncooperative bargaining game.

[17] Referred to as Liturgical Democrats, Catholic Irish and Lutheran Germans had similar preferences to new immigrant groups, particularly opposing prohibition, allowing foreign-language schools, and keeping the American border open.

ward would be sufficient to form a majority coalition. In the empirical work I use linear and quadratic specifications in electorate share to examine the role of relative size.

The prediction regarding the role of relative size is different in wards in which the Germans and Irish themselves constituted a majority of the electorate. If these older immigrant groups were able to win the aldermanic seat on their own, there would be little to gain by mobilizing new immigrant groups. Similarly, if the German and Irish faction were themselves a small minority, then a new immigrant group comprising even a quarter of the electorate would be insufficient for a winning Democratic coalition.[18] To explore this notion further, I separately consider wards where the Democratic Party needed a coalition partner and wards where Germans and Irish either held a majority or were themselves a small minority.

Network Size: A separate strain of work in the group behavior literature has emphasized the role of social networks in determining economic and political outcomes. Larger networks have been associated with both a higher likelihood of employment and the ability to escape occupational traps (Munshi, 2003, 2011). Bertrand, Luttmer, and Mullainathan (2000) demonstrate a similar phenomenon in the present day by showing that welfare participation by non-English-speaking immigrants is affected by the density of their social network. In more recent work, Chay and Munshi (2012) argue that social ties were critical for the development of networks used by blacks to mobilize politically during Reconstruction. The key insight from this paper is that the frequency and depth of social interactions determine the efficacy of political networks. Importantly, the numerical strength of a group may not be the same as the quality of the group's social network.

Social interactions between immigrants in early twentieth century cities would have been facilitated by ethnic churches, civic organizations, newspapers, and other local institutions founded

[18] Although new immigrants primarily identified with Democrats, there were instances where opportunistic Republicans courted their vote. In New Haven, CT, the local Republican Party actively engaged eastern European Catholics and Jews to vote against the "Irish party," or Democrats (Kleppner, 1982, p. 184).

by earlier arrivers from the same group. Although I cannot directly measure the number of these institutions, I can proxy for their development using a measure of how established immigrant groups were in a particular ward. Intuitively, I want to differentiate between enclaves with an established core of earlier arrived members – who would have founded some of the institutions necessary for political mobilization – and similarly-sized enclaves composed almost entirely of fresh arrivals with little knowledge of the American political system. I use the year of immigration variable in my 100 percent census samples to create a count of the number of individuals in each enclave in 1900 who had lived in the U.S. for a decade or more (i.e. immigrated before 1890). The average enclave in 1900 contained 870 men and women who had been living in the U.S. for at least ten years and the median was 488.[19] To investigate the role of established social networks in political mobilization, I subdivide the sample using the median number of individuals present since 1890. For ease of exposition, I call the enclaves with above median number of members present since 1890 "established" enclaves and those with below median number "new" enclaves. I then explore the role of group size in new and established enclaves.

C. Estimating Equation

In order to estimate the effect of group size on political mobilization, I take advantage of the variation in the relative size of ethnic groups in different wards across time. The main estimating equation relates changes in the naturalization likelihood of immigrants to changes in the share of the electorate comprised of their ethnic group. Focusing on first differences allows me to disentangle the impact of group size from other unobserved determinants of voting. In particular, I include ward fixed effects to capture time-invariant characteristics of wards that are correlated with political

[19] I use both the total population (men and women of any age) when measuring the size of social networks because women could contribute to development of churches and civic associations. I use men aged 21 and over when measuring the size of the electorate because only they could vote.

participation, such as the entrenched relationship of the ward political elite to the central city government. The year fixed effect controls for time trends affecting all cities and ethnic groups, for instance, the national debate regarding closing the border. I also include fixed effects for each ethnicity in the study, which allows each immigrant group to have different baseline probability of political participation.

To examine the relationship between the group size characteristics of ethnic groups and their political mobilization, I estimate equations of the form:

$$Naturalized_{ijkt} = \alpha + \beta(Electorate\ Share)_{jkt} +$$
$$+ \delta(Size\ of\ Ward\ Electorate)_{jkt} + \eta(Individual\ Controls)_i +$$
$$+ \theta(Ward)_j + \lambda(Year)_t + \mu(Group)_k + \varepsilon_{ijkt} \quad (2)$$

where i indexes individuals, j indexes the ward, k indexes the ethnic group, and t indexes the census year. Individual controls include literacy in any language, age, and a series of dummies for years lived in U.S. Group share is computed using the number of foreign-born men from that group aged 21 and over as the numerator and the total number of men aged 21 and over living in the ward as the denominator. The dependent variable is equal to one if the immigrant has applied for first or second papers. Standard errors are clustered at the ward-group-year level. I restrict the sample to foreign-born men aged 21 and over who have been in the U.S. for at least two years since only they were eligible to both naturalize and vote.

The primary difficulty in estimating the causal effect of group size on political activity comes from the fact that immigrants were not randomly distributed across wards, and those who were the least likely to become politically active may have been drawn to large ethnic enclaves within a city. The selection concern is particularly acute in this context because of the large share of immigrants who sought temporary employment in the United States and then returned to their home countries

after a few years.[20] If these temporary immigrants were attracted to large enclaves and at the same time unlikely to seek citizenship, the pool of potential voters in these wards would appear larger than it actually was and the group size effect would be biased towards zero. Because they could not vote, I drop all immigrants who had been in the United States for less than two years from the electorate group share and size variables; this sample restriction should also have the effect of reducing the downward bias on the group size coefficient because immigrants intending to repatriate would be concentrated amongst the most recent arrivals.

Immigrants were not eligible to become citizens until they spent two years in the U.S. and long-standing immigrants may no longer live in the ward in which they first chose to naturalize. Thus, another concern with my approach is that I may not observe an immigrant in the same ward in which he became a citizen. The ideal sample selection balances the tradeoff from measurement error associated with observing an immigrant long after he naturalized, possibly in a different ward, with the loss of statistical power from restricting the sample to very recent arrivals who are less likely to have applied for citizenship. To illustrate the second consideration, Figure 1 reports the coefficients from the years-since-immigrating dummies from a version of (2) without any ward-specific size variables. I include new immigrants who have been in the U.S. for less than twenty years. Compared with immigrants in their first year of eligibility (two years in the U.S.), individuals who have been in the U.S. for seven years are 27 percent more likely to have initiated the process, and those who have been in the country for eleven years are 45 percent more likely. In sum, the more I limit the sample by residency duration, the less likely I am to observe an immigrant when he naturalizes. I demonstrate the robustness of my results to the choice of duration cut-off in Section IV.

[20] Gould (1980) estimates that between 30 and 40 percent of Polish and Hungarians returned home while between 40 and 50 percent of Italians did so in the twenty years before the First World War.

IV. The relationship between group size and political mobilization

In this section I present the empirical results of the effect of immigrant group size on political mobilization, considering network size, relative size, and absolute size. I begin by showing the relationship between relative size and naturalization likelihood graphically for both established and new enclaves. First, I appeal to the Frisch-Waugh-Lovell theorem and take the residual from a modified version of equation (2) with the relative group size variable omitted. Figure 2 presents local linear regression estimators of the relationship between an ethnic group's relative size and the naturalization residual from the modified regression. For the established enclave sample (Panel A), the relationship between group size and naturalization increases until about 20 percent electorate share and then decreases subsequently. For the new enclave sample, there appears to be a decreasing relationship between group size and naturalization likelihood (Panel B).

Table 3 reports the average marginal effects from a probit estimation of the full equation (2) for immigrants who have lived in the U.S. for between two and fifteen years, first for the established enclave sample and then new enclave sample. I first show that, consistent with the graphical evidence, there is no statistically significant linear relationship between electorate share and naturalization likelihood for the full enclave sample (column 1). However, if I restrict the sample to the "upward sloping" portion of the parabola (0 to 25 percent), the group share effect is positive and significant (column 2). The third column shows the results of the quadratic specification on the full sample: the electorate share coefficients are 2.9 for the linear term and -7.9 for the quadratic term. These terms, which are individually and jointly significant at the five percent level, imply a naturalization parabola with a peak around 20 percent of the electorate. For the individuals living in new enclaves, the negative coefficient on electorate share is not significant (column 4), nor are coefficients with a quadratic in electorate share included (column 5).

To explore the difference between established and new enclaves further, the sixth column of Table 3 presents the results of a fully interacted specification run on the pooled sample of both enclaves. The difference between the relative size effects for new and established enclaves suggests that denser social networks facilitated group political mobilization. However, immigrants who select into new enclaves are more likely to naturalize than immigrants in established enclaves independently of group characteristics, and the "new enclave" main effect coefficient is .69. There is evidence that the economically weakest migrants are attracted to large enclaves in the present day, perhaps because of limited language skills (Edin, Fredriksson, and Aslund, 2003). It is reasonable to expect a similar selection mechanism was operating in the early twentieth century.

Table 4 assesses the sensitivity of the relative group size estimates for established enclaves to the sample restriction regarding years lived in the United States. The four columns present the results from equation (2) for immigrants from established enclaves who have lived in the U.S. for between two and five, ten, fifteen, and twenty years, respectively. Importantly, the group share and group share squared estimates are jointly significant in all but the most restricted sample where immigrants have had only three years to commence naturalization proceedings (column 1). The naturalization parabola implied by the least limited sample estimates (between two and twenty years) is very similar to that of the baseline (between two and fifteen years) sample estimates but slightly decreased in magnitude, suggesting that measurement error from immigrant mobility has attenuated the results.

The fifteen year sample restriction appears to balance the tradeoff between the loss of statistical power from focusing only on the most recent arrivals and the measurement error owing to unobserved mobility among earlier arrivals, and I use this restriction for the remainder of the paper.[21] The baseline estimates for established enclaves imply that a standard deviation (.08) increase in group size from .10 to .18 of the electorate (the mean group size of .15 is roughly centered in this range) is

[21] To the best of my knowledge there is no source that would allow me to systematically account for the mobility of these immigrants since the Census Bureau did not ask about migration until 1940.

associated with a 5 percentage point increase in the likelihood of naturalization. This is an economically meaningful effect given only about 36 percent of immigrants in these samples have undertaken the citizenship process. Thus, this change is a 14 percent increase in naturalization likelihood.

I next investigate whether new immigrant political mobilization varies according to the electoral strength of the local Democratic Party, the most likely coalition partner of the groups I study in this paper. If coalition formation with earlier arriving ethnic groups – the core constituency of the Democratic Party in urban areas – is driving the nonlinearity in naturalization likelihood, then I would expect the effect to be strongest in wards where these older Democratic factions needed the new immigrant vote to win. In other words, relative size of new immigrant groups should be less predictive of naturalization in wards where the Democratic Party already held a majority or was so small that coalition partner comprising even a quarter of the electorate would be insufficient for a winning coalition.

I use the share of the electorate composed of first- and second-generation Germans and Irish as my proxy for the extant Democratic Party size in each ward and partition the sample into wards where the combined Irish and German share was between 25 and 50 percent and wards where the Irish and German groups were either a majority on their own or together comprised less than a quarter of the electorate. Figure 3 presents the local linear regression estimators of the residual from equation (2) with no relative size effects against relative size for both subsamples. The difference is striking: the entire nonlinearity in electorate share appears driven by immigrant political mobilization wards where the likely extant Democratic Party was a large minority (Panel A). The estimator for the other sample, where the extant Democratic Party was either a majority or a small minority, shows a nearly flat relationship between electorate share and naturalization likelihood (Panel B).

The fact that the nonlinearity in group size is only evident in wards where the Democratic Party was a sizable minority and likely in need of a coalition partner serves as strong evidence that political strategy indeed influenced immigrant political mobilization. The first three columns of Table 5 present the quadratic specification results for the full established enclave sample (column 1), established enclaves in wards where the Democratic Party was either a majority or relatively small (column 2), and established enclaves in wards where the Democratic Party was a large minority (column 3). The estimates for the sample in third column imply that the same one standard deviation in group size from .10 to .18 is associated with an increase in naturalization likelihood of 10 percentage points, or an increase of 28 percent relative to the mean. The group size parabola implied by these estimates is also consistent with strategic behavior by the Democratic Party with respect to new immigrant groups. Since the Germans and Irish ethnic groups comprised about 35 percent of the electorate in these wards, on average a coalition with a new immigrant group of comprising 20 percent of the ward would be sufficient to capture aldermanic seats. The last three columns of Table 5 present the same bifurcation of the data for the new enclaves. No group size effects are apparent for either subsample.

Up to this point I have focused my attention on network size and relative size. I close by considering the third dimension of size, numerical strength. Table 6 presents these results, beginning with the baseline sample and specification for established enclaves (column 1). The electorate size effect is positive and significant at the ten percent level, contrary to predictions regarding diseconomies of scale in numerically larger groups. There are a range of absolute sizes of ethnic groups present in the data, but the correlation between relative and absolute size is .84. Column 2 reports the results for a specification where I include both relative and absolute size in spite of the collinearity. The standard error on the relative size coefficients more than doubles while the negative effect on numerical group size is insignificant. The last three columns present various combinations

of the size variables, including controlling for absolute group size only (column 3), including no absolute size or electorate controls (column 4), and including only absolute group size (column 5). I do not find strong evidence of either positive or negative numerical size effects. This could be because of the collinearity of relative and absolute size or because of the comparatively small voting units used in this paper.

V. Conclusions

Although the process of immigrant assimilation has been contentiously debated in both the scholarly literature and broader society for a century, we know relatively little about its political dimension. The question of how newcomers become integrated into democratic political systems is particularly relevant because the flow of immigrants over the past century has primarily been from monarchies and empires to democracies like the United States. In this paper, I use a novel dataset and empirical approach to investigate how immigrants joined the American electorate. Specifically, I use the citizenship attainment of immigrants during a period when the United States maintained a nearly open border to measure political engagement. The naturalization approach frees me from the ecological regression framework employed in much of the previous literature on ethnic and racial political behavior.

I find evidence that early twentieth century immigrants living in urban areas mobilized politically when their group became large enough to be decisive in ward elections, but only in established enclaves where institutions necessary for group political mobilization were likely to exist. Recent immigrants were the most likely to naturalize when their group comprised about a fifth of the ward electorate, particularly in wards where the Democratic Party needed a coalition partner to win elections. I find no relative group size effects for immigrants living in enclaves composed almost entirely of very recent arrivals, suggesting established social networks facilitated group political

mobilization. However, immigrants who selected into new enclaves were more likely to naturalize independently of group characteristics. An interesting question for future research concerns the persistence of (or withering away of) ethnic voting. What are the factors that encourage immigrants and their descendants to deprioritize ethnic identification and stratify into other political interest groups in American society?

Data Appendix

A. Panel dataset creation

The ward maps of Boston, Chicago, the Manhattan Borough of New York City, and Philadelphia, were provided by the Center for Population Economics at the University of Chicago. I used these maps to determine which wards remained unchanged over the 1900 and 1920 censuses. Philadelphia and Boston engaged in only minor changes to their ward systems between 1900 and 1910, mainly annexing or splitting outlying wards. Chicago and Manhattan redistricted their entire ward systems after the 1900 census. I used enumeration districts, which were small (two to four city blocks) administrative units used internally by the Census Bureau, to make a correspondence between the 1900 and 1910 ward systems. Enumeration districts from the 1900 census that did not map entirely into a 1910 ward were assigned to the ward in which the majority of the enumeration district was located. There are relatively few such cases since enumeration districts tended to follow main roads. I use the 1910 wards as the unit of analysis in the paper because they were in place for nearly the entire decade of study.

To be included in the panel dataset, a ward needed to have at least one immigrant from the "new" sending countries: Bohemia (present-day Czech Republic), Greece, Italy, Poland, and Russia. The outlying wards that were excluded because of changing borders were often sparsely populated and contained few or no new immigrants. Out of the 135 total wards, 87 wards had at least one new immigrant and stable borders. They are listed below:

Boston: 1-11, 13-14, 16-19, 21-22
Chicago: 1-24, 28
Manhattan*: 1, 4-13, 15-16, 19-23
Philadelphia: 1-8, 11-20, 26, 28, 30-32, 36, 38-39

* Manhattan used assembly districts to elect aldermen, so I use these districts instead of wards for this city only.

During the first decade of the twentieth century, Boston had eight locally elected aldermen and some represented more than one unit (usually 2 to 3 wards). Otherwise all the cities in the sample had locally elected aldermen, each representing one ward or assembly district. Boston switched to at-large aldermanic elections in 1910 but was under a local election regime for the decade studied in this paper.

B. Ethnic group share computation

The ethnic share variables are computed from a 100% sample of digitized individual census records of the population of panel cities. These records, including the place of birth of every resident of each city ward, were collected from the genealogy website AncestryLibrary.com. The pre-WWI map of Europe coupled with changing instructions to census takers necessitates a multi-step approach to constructing ethnic group shares from the raw place of birth data. The main immigrant groups in the sample of cities are English, Germans, Irish, Scandinavians, Czechs, Greeks, Poles, Italians, and Russians. Jewish immigrants had a large presence in cities such as New York, but separately identifying them using only their name and place of birth is difficult. Because most Russian immigrants during this period were in fact Jewish, I group everyone born in Russia together.

I create the ethnic groups from the census data in both census years by aggregating the relevant countries of birth listed by census takers. However, the list of allowable responses for places of birth in central Europe changed between 1900 and 1910. In 1900, respondents born in the Austro-Hungarian, German, or Russian empires were permitted to give their place of birth as Russian Poland, German Poland, Austrian Poland, Bohemia, Austria, Germany or Russia. In 1910, respondents were only permitted to give their place of birth as Austria, Germany, or Russia. As a consequence, ethnic Poles and Czechs are counted as Germans,

Austrians, or Russians in the 1910 census. To recover estimates of the true distribution of immigrant ethnic groups in my sample cities in 1910, I first construct a series of ethnic surname indices in the spirit of Fryer and Leavitt (2004) using the mother tongue variable from IPUMS samples from 1910-1930. These indices quantify how likely an individual is to have a given surname conditional on his or her mother tongue. Because of the small sample sizes of the IPUMS data in these years (1-1.4%), I am unable to use the ethnic name indices to assign individuals from the AncestryLibrary.com data to ethnic groups using only their name. However, I use these indices to confirm the place(s) of birth commonly given by ethnic Poles and Czechs in the 1910 census.

The name indices demonstrate that ethnic Poles are distributed across the German, Russian, and Austrian categories in 1910 while ethnic Czechs are usually counted as Austrian. To estimate the true number of Russian, Polish, Austrian, Czech, and Germans, I assume that the relative shares of each group are fixed between 1900 and 1910. For instance, suppose the population of a sample ward is 10% Austrian Polish, 20% Austrian, and 10% Bohemian in 1900. Further suppose that the population of the same ward is 50% Austrian in 1910. The Austrian category in 1910 contains ethnic Poles and ethnic Czechs in addition to German-speaking Austrians. The relative share of the combined group has grown from 40% (10%+20%+10%) to 50% over the first decade of the 1900s. Assuming the relative shares within the Austrian group are fixed, the Austrian Poland group is now 12.5% of the ward population, the Austrian group is 25%, and the Czech 12.5%.

I use these estimates of the true number of individuals from each 1900 category in 1910 to generate a consistent set of ethnic groups in both census years. The number of ethnic Poles in 1900 is defined to be the sum of Austrian Poles, German Poles, and Russian Poles. The number of Czechs in 1900 is defined to be the number of people born in Bohemia. The German, Russian, and Austrian numbers are computed as the number of individuals with that place of birth, net of those assigned to the Czech and Polish groups in 1910. The number of Scandinavians is the sum of respondents who give their place of birth as Sweden, Denmark, or Norway. Italians and the Irish are computed simply as the number of individuals with each respective country of birth.

BIBLIOGRAPHY

Abramitzky, Ran, Leah Platt Boustan and Katherine Eriksson. "A Nation of Immigrants: Assimilation and Economic Outcomes in the Age of Mass Migration." NBER Working Paper 18011, April 2011.

Ancestry.com. *1900 United States Federal Census* [database on-line]. Provo, UT, USA: Ancestry.com Operations Inc, 2004.

Ancestry.com. *1910 United States Federal Census* [database on-line]. Provo, UT, USA: Ancestry.com Operations Inc, 2006.

Becker, Gary S. "A Theory of Competition among Pressure Groups for Political Influence." *The Quarterly Journal of Economics*, 98, 1983, pp. 371-400.

Bertrand, Marianne, Erzo F. P. Luttmer, and Sendhil Mullainathan. "Network Effects and Welfare Cultures." *The Quarterly Journal of Economics*, 115(3), August, 2000, pp. 1019-55.

Borjas, George J. "Assimilation, Changes in Cohort Quality, and the Earnings of Immigrants." *Journal of Labor Economics*, 3(4), October, 1985, pp. 463-489.

Card, David. "Is the New Immigration Really so Bad?" *The Economic Journal*, 115: F300–F323, 2005.

Chay, Kenneth and Kaivan Munshi. "Black Networks after Emancipation: Evidence from Reconstruction and the Great Migration." Working paper, April 2012.

Chiswick, Barry R. "The Effect of Americanization on the Earnings of Foreign-born Men." *Journal of Political Economy* , 86(5), October, 1978, pp. 897-921.

Edin, Per-Anders, Peter Fredriksson, and Olof Åslund. "Ethnic Enclaves and the Economic Success of Immigrants – Evidence from a Natural Experiment." *The Quarterly Journal of Economics*, 118(1), February, 2003, pp. 329-57.

Fryer G. Roland and Steven D. Levitt. "The Causes and Consequences of Distinctly Black Names." *The Quarterly Journal of Economics*, 119(3), 2004, pp. 767-805.

Gould, J. D. "European Inter-Continental Emigration. The Road Home: Return Migration from the U.S.A." *Journal of European Economic History* 9 (1), 1980, pp. 41–112.

Henderson, Thomas M. *Tammany Hall and the New Immigrants: The Progressive Years*. New York: Arno Press, 1976.

Hill, Howard C. "The Americanization Movement." *The American Journal of Sociology*, 24(6), May, 1919, pp. 609-42.

Isaac, R. Mark and James M. Walker. "Group Size Effects in Public Goods Provision: The Voluntary Contributions Mechanism." *The Quarterly Journal of Economics* , 103(1), February, 1988, pp. 179-199.

Keyssar, Alexander. *The Right to Vote: The Contested History of Democracy in the United States.* New York: Basic Books, [2000] 2009.

Kleppner, Paul. *Who Voted? The Dynamics of Electoral Turnout, 1870-1980*. New York: Praeger Publishers, 1982.

_____. *Continuity and Change in Electoral Politics, 1893-1928*. New York: Greenwood Press, 1987.

Konvitz, Milton R. *The Alien and the Asiatic in American Law*. Ithaca, New York: Cornell University Press, 1946.

Kornbluh, Mark Lawrence. *Why America Stopped Voting? The Decline of Participatory Democracy and the Emergence of Modern American Politics.* New York: New York University Press, 2000.

LaLonde, Robert J. and Robert H. Topel. "Immigrants in the American Labor Market: Quality, Assimilation, and Distributional Effects." *The American Economic Review*, Vol. 81, No. 2, Papers and Proceedings, May, 1991, pp. 297-302.

Leighley, Jan E. *Strength in Numbers? The Political Mobilization of Racial and Ethnic Minorities*. Princeton, NJ: Princeton University Press, 2001.

Lleras-Muney, Adriana and Allison Shertzer. "Did the Americanization Movement Succeed? An Evaluation of the Effect of English-Only and Compulsory Schools Laws on the Education of Immigrants," NBER Working Paper 18302, August 2012.

Marwell, Gerald and Ruth E. Ames. "Experiments on the Provision of Public Goods. I. Resources, Interest, Group Size, and the Free-Rider Problem." *American Journal of Sociology* , 84(6), May, 1979, pp. 1335-1360.

Menes, Rebecca. "The Effect of Patronage Politics on City Government in American Cities, 1900-1910." NBER Working Paper no. 6975, February, 1999.

Morton, Rebecca B. "Groups in Rational Turnout Models." *American Journal of Political Science*, 35(3), August, 1991, pp. 758-776.

Munshi, Kaivan. "Networks in the Modern Economy: Mexican Migrants in the U.S. Labor Market." *The Quarterly Journal of Economics* 118(2), 2003, pp. 549-599.

_____. "Strength in Numbers: Networks as a Solution to Occupational Traps." *Review of Economic Studies* 78, 2011, pp. 1069–1101.

Oberholzer-Gee, Felix and Joel Waldfogel. "Strength in Numbers: Group Size and Political Mobilization." *Journal of Law and Economics*, 48, April, 2005, pp. 73-91.

Olson, Mancur. *The Logic of Collection Action: Public Goods and the Theory of Groups*. Cambridge, Mass.: Harvard University Press, 1971.

Riker, William H. *The Theory of Political Coalitions.* New Haven: Yale University Press, 1962.

Riordon, William L. *Plunkitt of Tammany Hall*. Repr. New York: St. Martin's Press, [1905] 1994.

Ruggles, Stephen et al. Integrated Public Use Microdata Series: Version 4.0 [Machine-readable database]. Minnesota Population Center, Minneapolis, MD. 2008.

Shachar, Ron and Barry Nalebuff. "Follow the Leader: Theory and Evidence on Political Participation." *The American Economic Review* , 89(3), June, 1999, pp. 525-547.

Skogan, Wesley G. Time Series Data for Chicago, 1840-1973 [Machine-readable file]. ICPSR 07389-v1. Ann Arbor, MI: Inter-university Consortium for Political and Social Research, 1976.

Snyder, James M. Jr., Michael M. Ting, and Stephen Ansolabehere. "Legislative Bargaining under Weighted Voting." *The American Economic Review* 95(4), September, 2005, pp. 981-1004.

Teaford, Jon C. *The Unheralded Triumph: City Government in America, 1870-1900*. Baltimore: The Johns Hopkins University Press, 1984.

Thurner, Arthur W. "Polish Americans in Chicago Politics, 1890-1930." *Polish American Studies*, 28(1), Spring, 1971, pp. 20-42.

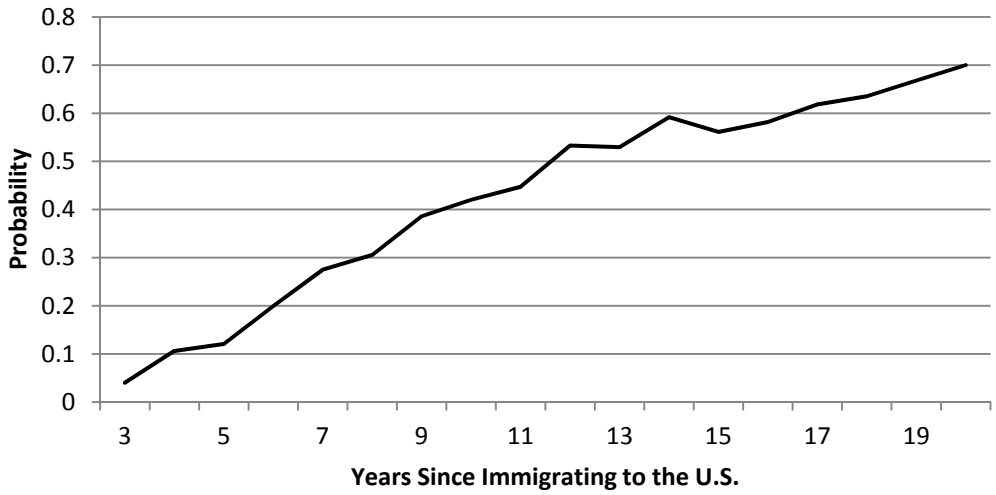
Trounstine, Jessica. *Political Monopolies in American Cities: The Rise and Fall of Bosses and Reformers.* Chicago: University of Chicago Press, 2008.

Tuckel, Peter and Richard Maisel. "Voter Turnout among European Immigrants to the United States." *Journal of Interdisciplinary History*, 24(3), Winter, 1994, pp. 407-30.

Uhlaner, Carole J. "Rational Turnout: The Neglected Role of Groups." *American Journal of Political Science*, 33(2), May, 1989a, pp. 390-422.

Werner, Morris R. *Tammany Hall.* Garden City, NJ: Doubleday, 1928.

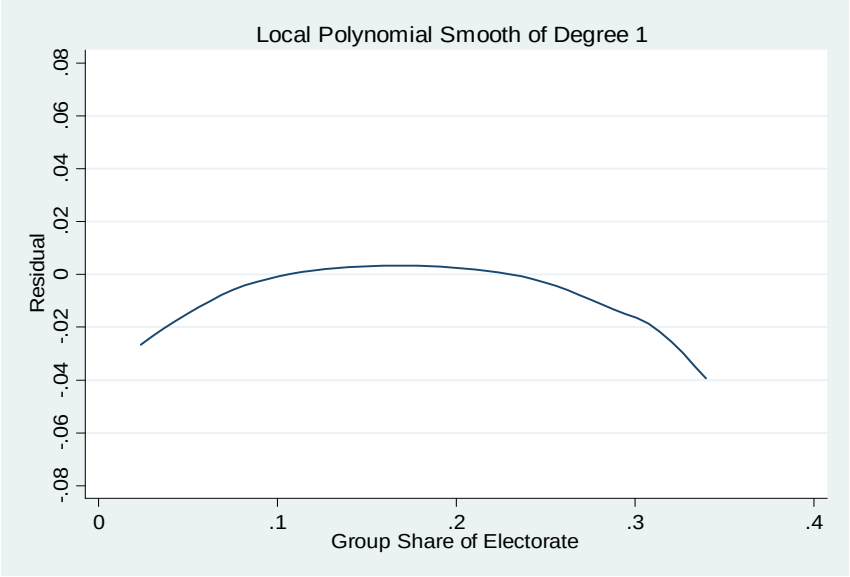
Figure 1. Conditional Probability of Immigrants Having Applied for Citizenship



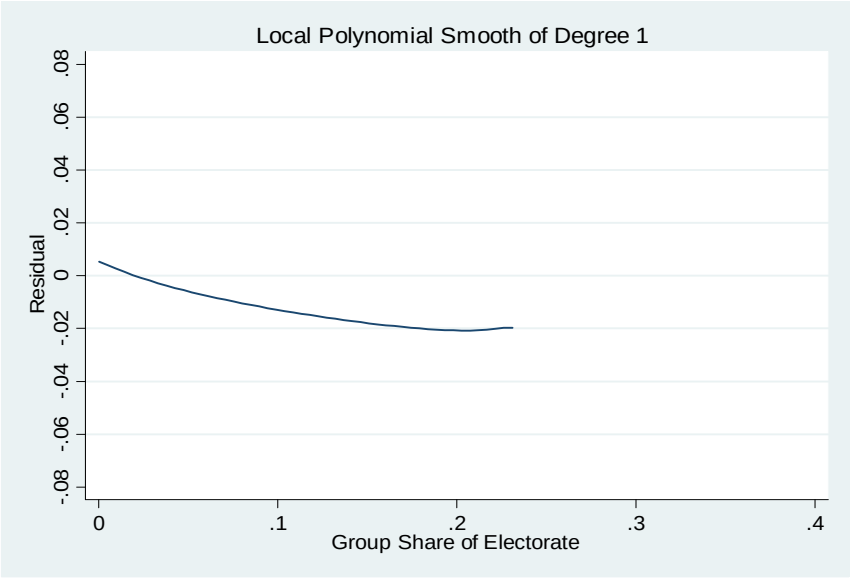
Notes: This chart reports coefficients on the dummy variables of "Years since immigrating to the U.S." from equation (2) with the ethnic group relative size variable omitted. The sample is Czechs, Poles, Russians, Greeks, and Italians from the wards of Boston, Chicago, Manhattan, and Philadelphia included in the panel. The specification also include a control for electorate size, age, a series of dummies for years lived in U.S., and year, group, and ward fixed effects. The dependent variable is equal to one if the immigrant has applied for first or second papers. Standard errors are clustered at the enclave-year level. I restrict the sample to foreign-born, men aged 21 and over who have been in the U.S. for between two and twenty years. The individual data come from IPUMS samples for 1900 and 1910 and the group size variables are computed from the 100 percent AncestryLibrary.com samples.

Figure 2. The Relationship between Group Electorate Share and Naturalization Likelihood: Established Enclaves and New Enclaves

A. Established Enclaves



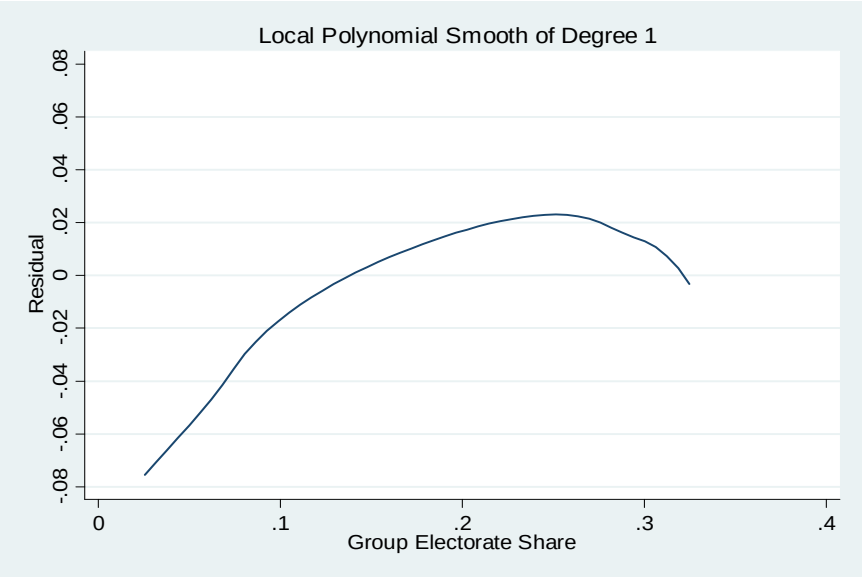
B. New Enclaves



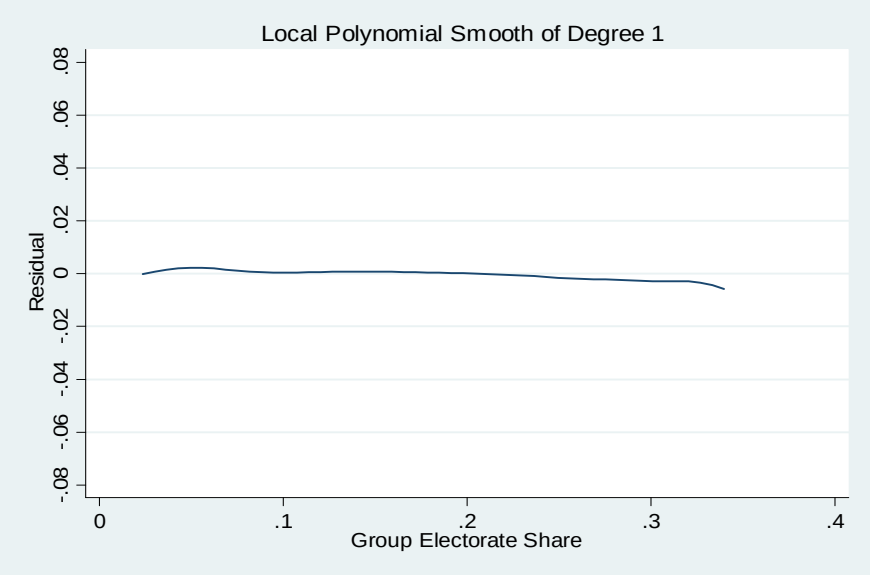
Notes: These charts show a local linear regression estimator of the effect of relative group size on the residual from a modified version of equation (2) with the relative group size variable omitted. The sample is Czechs, Poles, Russians, Greeks, and Italians who have been in the U.S. from between two and fifteen years from the wards of Boston, Chicago, Manhattan, and Philadelphia included in the panel. The dependent variable is equal to one if the immigrant has applied for first or second papers. The individual data come from IPUMS samples for 1900 and 1910 and the group size variables are computed from the 100 percent AncestryLibrary.com samples. See Section III.B for details on how enclaves were classified as "established" and "new."

Figure 3. The Relationship between Group Electorate Share and Naturalization Likelihood: the Role of Democratic Party Strength

A. Wards where Irish and German voters are a large minority



B. Wards where Irish and German voters are a majority or small minority



These charts show a local linear regression estimator of the effect of relative group size on the residual from a modified version of equation (2) with the relative group size variable omitted. See Section IV.B for details on how the Democratic Party strength was measured. See Figure 2 for other sample details.

Table 1. Turnout for Mayoral Elections in Chicago, 1900-1920

Dependent variable = number of ballots cast		
	Total Eligible Pop	White Eligible Pop
Naturalized Foreign-Born Men 21+	0.677***	0.653***
	(0.143)	(0.140)
Alien Foreign-Born Men 21+	-0.592***	-0.595***
	(0.151)	(0.150)
Native-Born White Men 21+	0.616***	0.617***
	(0.074)	(0.075)
Native-Born Non-White Men 21+	0.141	
	(0.173)	
Observations	105	105
R-squared	0.817	0.814

Notes: the ballot data come from Skogan (1989). Regressions include year fixed effects. Non-whites are omitted from the sample in the second column. *** p<0.01

Table 2. Summary Statistics in the Panel Dataset

	Czechs, Greeks, Italians, Poles, Russians	
	1900	1910
Ward-Level Characteristics		
Total Ward Foreign-Born Share	0.36	0.39
	(0.10)	(0.13)
Ward Irish Electorate Share	0.22	0.19
	(0.13)	(0.12)
Ward German Electorate Share	0.14	0.18
	(0.11)	(0.13)
Electorate Size (1000s)	11.53	11.36
	(5.04)	(5.97)
Number of Wards with an Enclave	88	88
Number of Enclaves	197	197
	1900	1910
Individual Characteristics		
Group Electorate Size (1000s)	0.73	1.07
	(0.81)	(0.94)
Group Share of Ward Electorate	0.07	0.10
	(0.08)	(0.09)
Naturalized	0.51	0.27
	(0.50)	(0.44)
Total Members Present in 1890 (1000s)	0.87	0.99
	(0.98)	(1.18)
Years in U.S.	8.96	6.96
	(3.67)	(3.50)
Age	34.99	32.16
	(10.28)	(9.75)
Literate	0.73	0.78
	(0.44)	(0.41)
N	2330	2708

Notes: Data source is 1900 and 1910 IPUMS for the individual characteristics and AncestryLibrary.com for the ward-level variables. The immigrant sample includes foreign-born Czechs, Greeks, Italians, Poles, and Russians who have lived in the U.S. for between two and fifteen years observed in the wards of Boston, Chicago, Manhattan, and Philadelphia included in the panel. The share of ward electorate is computed using the number of foreign-born men from that group aged 21 and over as the numerator and the total number of men aged 21 and over living in the ward as the denominator. Foreign-born men who have lived in the U.S. for less than two years and are thus ineligible for citizenship are excluded from the computation of electorate size variables. The Irish and German share variables include the second generation as determined by father's place of birth. The naturalized variable is equal to one if the immigrant has applied for first or second papers. An enclave is defined as a population of one of the ethnic groups of any size in a particular ward.

Table 3. Group Size and Citizenship Attainment: Role of Social Networks in Political Mobilization

	Dependent variable = 1 if immigrant applied for or obtained citizenship					
	Established Enclave Sample			New Enclave Sample		Pooled Sample
	(1)	(2)	(3)	(4)	(5)	(6)
Group Share	-0.052	1.197**	2.892**	-0.077	-0.946	2.352*
	(0.234)	(0.420)	(0.945)	(0.252)	(1.266)	(1.004)
Group Share Squared			-7.932**		6.925	-6.579*
			(2.629)		(5.280)	(2.769)
Electorate Size (1000s)	0.039	0.023	0.046*	0.003	-0.002	0.004
	(0.021)	(0.019)	(0.021)	(0.004)	(0.004)	(0.004)
Literate	0.074***	0.083**	0.074***	0.073***	0.120***	0.072***
	(0.022)	(0.026)	(0.022)	(0.021)	(0.023)	(0.021)
New Enclave						0.690**
						(0.213)
New * Group Share						-4.001**
						(1.539)
New * Group Share Sqd						16.195**
						(5.867)
New * Literate						0.053
						(0.031)
Joint Significance of Group Share and Group Share Sqd			0.009		0.182	0.059
Pseudo R-squared	0.2	0.211	0.204	0.231	0.268	0.233
N	2529	2070	2529	5005	2476	5005

Notes: See Table 2 for sample details. See Section III.B. for details on how enclaves were classified as "established" and "new." Reported coefficients are average marginal effects from a probit regression. Specifications also include a control for age, a series of dummies for years lived in U.S., and year, group, and ward fixed effects. Standard errors are clustered at the enclave-year level. The regression on the pooled sample also contains new x year, new x ward, new x years in U.S., new x literate, and new x age interactions. *** p<0.01, ** p<0.05, * p<0.1

Table 4. Group Size and Citizenship Attainment: Sensitivity of Estimates to Years Lived in U.S. Sample Restriction

	Dependent variable = 1 if immigrant applied for or obtained citizenship			
	Established Enclave Sample			
	In U.S. ≤ 5 Years	In U.S. ≤ 10 Years	In U.S. ≤ 15 Years	In U.S. ≤ 20 Years
	(1)	(2)	(3)	(4)
Group Share	2.093	2.710**	2.892**	2.578**
	(1.233)	(0.923)	(0.945)	(0.839)
Group Share Squared	-5.54	-7.242**	-7.932**	-6.890**
	(3.495)	(2.508)	(2.629)	(2.384)
Electorate Size (1000s)	0.022	0.049**	0.046*	0.057**
	(0.018)	(0.018)	(0.021)	(0.018)
Literate	0.013	0.069**	0.074***	0.087***
	(0.027)	(0.022)	(0.022)	(0.022)
Joint Significance of Group Share and Group Share Sqd	0.215	0.013	0.009	0.008
Pseudo R-squared	0.171	0.18	0.204	0.259
N	765	1953	2529	3088

Notes: Notes: See Table 2 for sample details. See Section III.B. for details on how enclaves were classified as "established" and "new." Reported coefficients are average marginal effects from a probit regression. Specifications also include a control for age, a series of dummies for years lived in U.S., and year, group, and ward fixed effects. Standard errors are clustered at the enclave-year level. *** p<0.01, ** p<0.05, * p<0.1

Table 5. Role of German and Irish Electorate Share on New Immigrant Political Mobilization

	Dependent variable = 1 if immigrant applied for or obtained citizenship					
	Established Enclave Sample			New Enclave Sample		
	All	GI<25% or GI>50%	25%<GI<50%	All	GI<25% or GI>50%	25%<GI<50%
	(1)	(2)	(3)	(4)	(5)	(6)
Group Share	2.892**	0.991	4.412**	0.415	0.253	0.607
	(0.945)	(1.334)	(1.403)	(0.488)	(1.158)	(0.519)
Group Share Squared	-7.932**	-3.712	-10.313**			
	(2.629)	(3.605)	(3.833)			
Electorate Size (1000s)	0.046*	0.052**	0.009	-0.002	0.001	-0.003
	(0.021)	(0.018)	(0.032)	(0.004)	(0.012)	(0.004)
Pseudo R-squared	0.204	0.176	0.247	0.268	0.255	0.294
Joint Significance of Share Vars	0.009	0.508	0.003			
N	2529	1379	1150	2476	817	1659

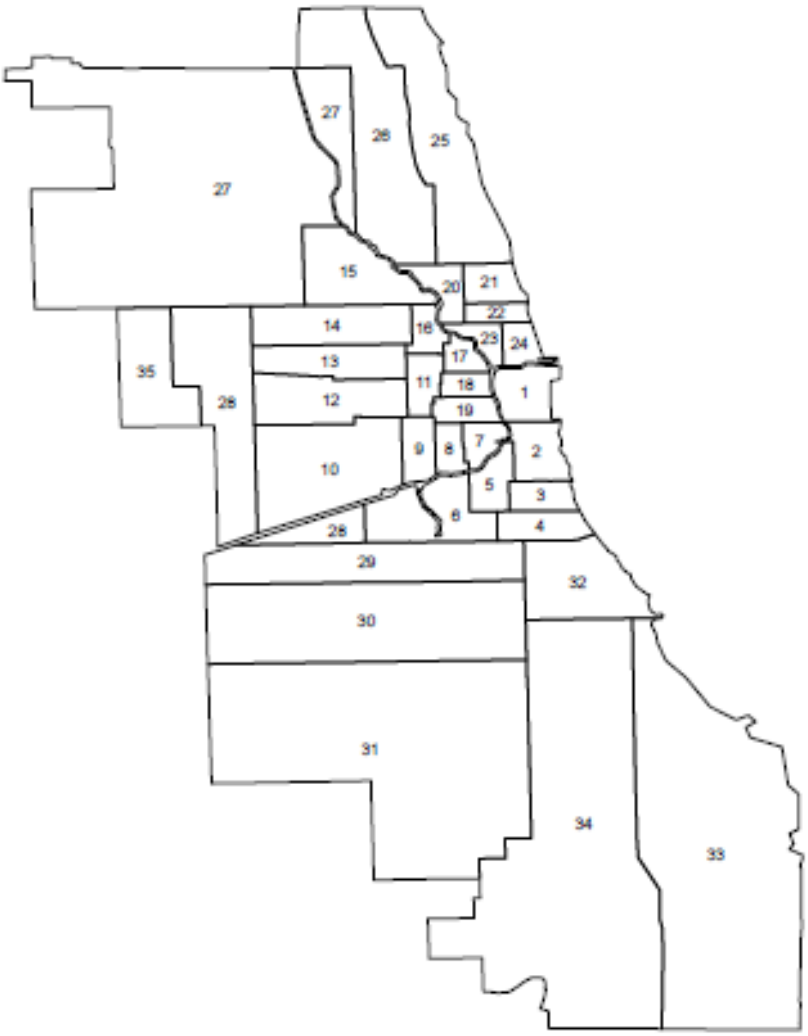
Notes: See Table 2 for sample details. See Section III.B. for details on how enclaves were classified as "established" and "new." Reported coefficients are average marginal effects from a probit regression. Specifications also include a control for age, literacy, a series of dummies for years lived in U.S., and year, group, and ward fixed effects. Standard errors are clustered at the enclave-year level. "GI" is the share of the electorate composed of first- and second-generation Irish and Germans.
*** p<0.01, ** p<0.05, * p<0.1*

Table 6. Relative versus Absolute Group Size

	Dependent variable = 1 if immigrant applied for or obtained citizenship				
	Established Enclave Sample				
	(1)	(2)	(3)	(4)	(5)
Group Share	2.892**	3.658	2.479	2.395*	
	(0.945)	(2.206)	(2.468)	(1.091)	
Group Share Squared	-7.932**	-9.086*	-6.88	-6.755*	
	(2.629)	(4.067)	(4.654)	(3.010)	
Electorate Size (1000s)	0.046*	0.047*			
	(0.021)	(0.021)			
Group Size (1000s)		-0.034	-0.004		0.005
		(0.084)	(0.086)		(0.022)
Joint Significance of Size and Share Vars	0.004	0.007	0.147	0.081	
Pseudo R-squared	0.204	0.204	0.2	0.2	0.197
N	2529	2529	2529	2529	2529

Notes: See Table 2 for sample details. See Section III.B. for details on how enclaves were classified as "established" and "new." Reported coefficients are average marginal effects from a probit regression. Specifications also include a control for age, literacy, a series of dummies for years lived in U.S., and year, group, and ward fixed effects. Standard errors are clustered at the enclave-year level. *** p<0.01, ** p<0.05, * p<0.1

Figure A1. Chicago Ward Map for 1900



Source: Center for Population Economics at the University of Chicago.