From Political Mobilization to Electoral Participation: Turnout in Barcelona in the 1930s*

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Abstract

Full democratization and the extension of the franchise to low-income, illiterate populations was historically followed by a drop in turnout, pointing to the difficulty of making voting rights truly effective. Political parties had to develop powerful electoral machines and tap into existing social networks to bring citizens to the polls. In this paper we explore that process in the context of 1930s Barcelona, taking advantage of a unique panel data set of official registers that include individualized information on turnout as well as other personal characteristics (such as age, gender, address, literacy and occupation) of almost 25,000 electors for two elections in Spain's Second Republic (1934 and 1936), and matching individual voting roll-calls with relevant precinct-level socio-economic, political and geographical data. We show that voting (particularly among unskilled, left-leaning voters) was driven by the direct mobilizational strategies developed by political parties and those social organizations (such as trade unions) that encompassed an important part of society and often acted in tandem with party machines – to that effect we exploit the short-term change in anarchist trade union's electoral strategies. We also show that voters were mobilized indirectly – through the social networks in which they were embedded. Partisan and organizational resources and strategies were especially important for previously abstentionist unskilled workers and in heavily working-class neighborhoods.

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1 Introduction

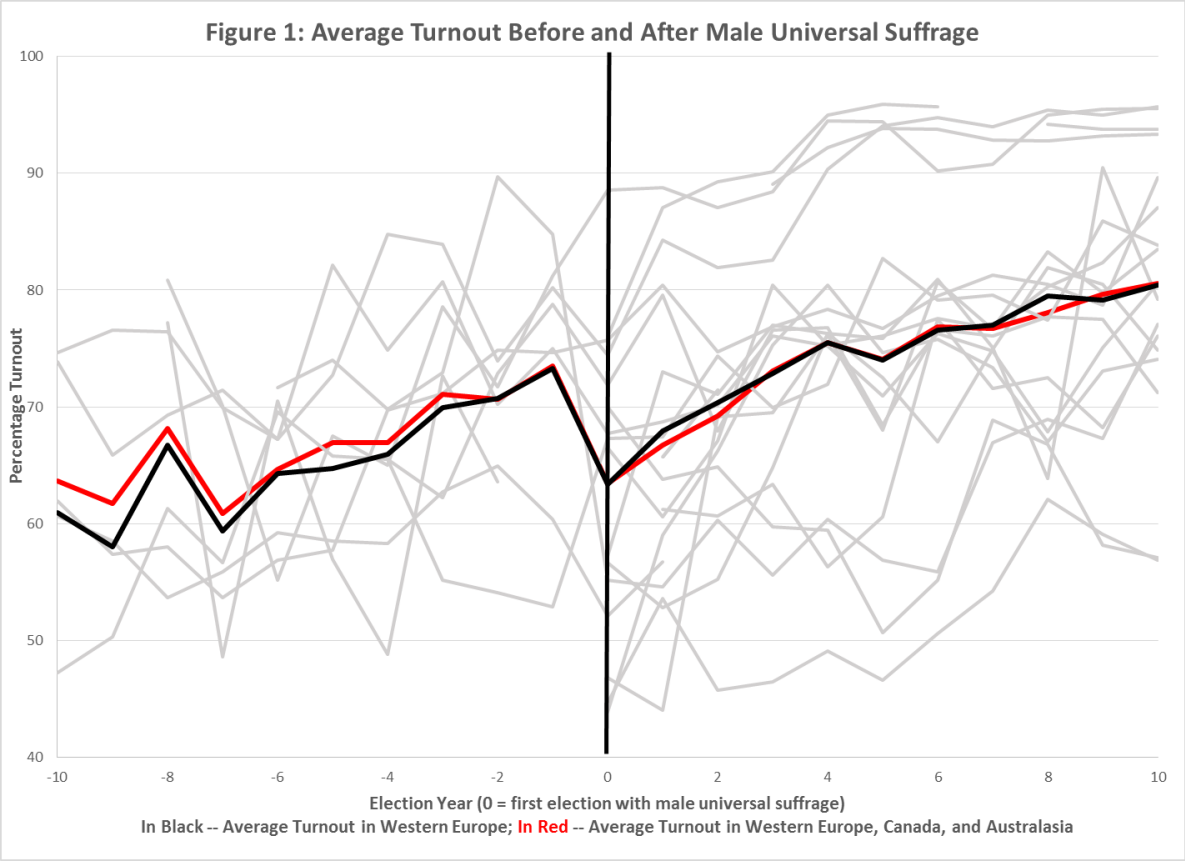
Democracy is as much about having the right to vote as about exercising the latter at the ballot box. Historically, however, the electoral mobilization of voters has lagged behind their formal enfranchisement. Figure 1 plots the evolution of turnout in all those Western European, North American and Australasian countries that introduced male universal suffrage during the first democratization wave over a window of ten elections before and ten elections after that extension of the suffrage. Additionally, the graph displays the mean average turnout both for Western European countries (in black) and for all countries together (in red). [1] In the last election conducted before the introduction of male universal suffrage, turnout averaged 73.3 percent in Western Europe (73.5 percent in the whole sample of countries for which data is available) but it then fell to 63.3 percent in Western Europe (and 63.4 percent for the whole sample) in the first election held under male universal suffrage - a drop of 10 percentage points.

Most of that initial decline was arguably due to the differential level of participation between those citizens who were already enfranchised before universal suffrage and those who, unable to meet preexisting literacy and property requirements, were not (Gosnell 1937; Tingsten 1937; Przeworski 2007). Pushing electoral turnout back to its pre-democratization levels took a relatively long time. Two elections after the extension of the right to vote to all men, average participation had risen to 69.2 percent. It took about seven full electoral periods for mean turnout to stabilize at around 76.9 percent (with a standard deviation of 10.0 points). That "steady-state" level of electoral participation performs as a good predictor of turnout rates in our sample of consolidated democracies several decades after the introduction of universal suffrage: the correlation between the fifth and the fifteenth election after the introduction of universal suffarge is 0.79. It did not appear, however, to be determined by the turnout rate at the time of democratization, arguably pointing to the key role that parties and social organizations played

[1] Figure 1 includes data from Australia (1901-1925), Austria (1919-1930), Belgium (1872-1912), Canada (1872-1940), Denmark (1890-1939), Finland (1907-1924), France (1852-1910), Germany (1871-1898), Great Britain (1886-1945), Iceland (1916-1937), Ireland (1918-1943), Italy (1895-1921), Netherlands (1888-1937), New Zealand (1881-1918), Norway (1882-1930), Spain (1931-36), Sweden (1893-1940), Switzerland (1848-1878). The United States is not included because there are no participation rates available before 1824.

in voter mobilization: the cross-national correlation between the turnout rate at the first election held under male universal suffrage election and the turnout rate fifteen elections later was a low 0.32.

Figure 1: Average Turnout Before and After Male Universal Suffrage



Sources: Mackie (2001); Przeworski et al. (2013); Kollman et al. (2011)

In this paper we examine the political and social dynamics of that process of electoral mobilization under the conditions of a transition to democracy - a much understudied problem in the literature on political participation and democratization. We do so by exploiting a historically unique set of official registers that include individual-level information on turnout as well as other personal characteristics (such as age, gender, address and occupation) for a large sample (of almost 25,000 electors) in the city of Barcelona and covering two elections (from 1934 and 1936) during Spain's Second Republic. We match the data, originally gathered by Mercedes Vilanova (1992), with precinct-level election returns and geocoded information on the economy, society and politics of that period. The period of the Second Republic, which came to an abrupt end with the beginning of a civil war in 1936, constituted the first fully democratic

spell in twentieth-century Spain. Central, regional and local elections were free and competitive since their introduction in 1931, and the level of political mobilization, led by modern left and right-wing mass parties, was intense.

In line with a large literature that has examined the nature and causes of electoral participation in established democracies (Franklin, 2004; Verba, Schlozman and Brady, 1995; Rosenstone and Hansen, 1993; Huckfeldt and Sprague, 1987, 1992; Rolfe, 2012; Gallego, 2014), this paper shows that individual resources, such as education, and the opportunity costs of voting, such as the distance to polling, affected turnout. Nonetheless, they only did in a strong, significant manner when partisan and organizational strategies were absent or weak. The mobilizational strategies developed by political parties and, particularly, by those social organizations (such as trade unions) that encompassed an important part of society and often acted in tandem with party machines, were a main driver of voting. Indeed, the fact that Barcelona, a highly industrialized city at the time, was home to a strong anarchist movement (its trade union, CNT, had hundreds of thousands of members) that actively discouraged its followers from voting, allows us to show the independent effect of political and social organizations on turnout. In the election of 1936, CNT reversed its traditional pro-abstention position and we exploit this change in the anarchist union attitude towards participation to identify the effects of organization on the probability of voting.

Besides studying the dynamics of voters' mobilization in an emerging democracy, our paper also contributes to the general literature on the causes of turnout in two ways. First, overcoming the ecological inference problems associated with the use of aggregate turnout data (Blais and Dobrzynska, 1998) and the overestimation of turnout rates in pre-electoral and post-electoral surveys (Selb and Munzert, 2013), our individual-level data confirms the role played by personal characteristics (gender, literacy, economic status) in the elector's propensity to vote. Second and more importantly, it complements the existing experimental work on the impact of partisan efforts on turning out the vote (Gerber, 2000; Gerber, Green and Larimer, 2008) while extending it by looking at the process of mobilization in the context of actual historical and political developments, such as voter mobilization in a context of democratization or constitutional

change, that are central to the formation and freezing of partisan identities and electoral behavior (Lipset, 1967; Kalyvas, 1996; Przeworski, 2009) and that cannot be reproduced experimentally.

The rest of the paper is organized as follows. Section 2 describes the historical evolution of turnout in the wake of a transition to democracy, relying on the (fragmentary) evidence we have for the first wave of democratization, and then offers a theory of turnout that emphasizes the importance of partisan mobilization and social networks to explain the decision to vote. Section 3 describes the historical and political context of Barcelona and Spain under the Second Republic. Sections 4 and 5 contain the empirical analysis of the paper. Section 4 details the individual-based data set we employ and discusses the baseline estimations that show how a process of social mobilization closed an initial voting gap driven by individual characteristics. Section 5 discusses the identification problem of the model and unrolls a set of empirical strategies to tackle it. Section 6 closes the paper by tying our results to broader debates on electoral turnout and mobilization.

2 Theory: Political Mobilization and Voter Participation

The empirical evidence on the political and social covariates (from age and literacy to partisan strategies) behind the process of electoral mobilization that took place during the first democratization wave is sparse at best and, with very few exceptions, of a qualitative nature -the first pre-electoral and post-electoral surveys were administered in the late 1930s and early 1940s.

Turnout seemed to have differed substantially across income levels. In the early 1910s, the city council of Stockholm was elected based on a combination of male universal suffrage and plural voting. Voters were classified into 40 different income grades and each elector received as many votes as the number of his income grade: for example, whereas each elector in the first income grade received one vote, every elector in the 40th grade could cast up to 40 votes. While 15 percent of individuals in the poorest income quintile cast a vote in the 1912 elections, over 60

percent in the richest quintile did (Svenska Statistical Arborg (1915), Tables 78 and 229). In the municipal elections of Copenhagen in 1909, for which we have participation rates by income class, the lowest income class had a participation rate 17 percentage points lower than the highest income group (Tingsten 1937: 146-7). In the Saxonian diet elections of 1897 and 1901, only 33 percent of workers turned out to vote while 59 percent of physicians and 54 percent of lawyers did. In Prussia, where electors were divided into three classes depending on their tax contribution, turnout was 48 percent and 15 percent among the highest and lowest classes respectively in 1893. Over time, following a process of comparatively higher mobilization of the poor, turnout rates reached 53.5 and 30.2 percent respectively in 1908 (Tingsten 1937: 136). Boix (2012) explores the evolution of turnout among British middle-class and working-class individuals after the introduction of male universal suffrage in 1918. In the first election after the war, turnout was 62 and 51 percent among middle-class and working-class men respectively. Once all combatants were fully demobilized, that turnout gap widened by four additional points in the next election of 1922, mainly as a result of a substantial increase in middle-class participation to 80 percent. Analyzing the 1913-franchise extension in Italy, Larcinese (2014) shows also that the newly enfranchised had a lower propensity to participate compared to pre-reform voters.[2]

Over time, political parties and other social organizations overcame the effect of weak personal resources among the newly enfranchised through a gradual process of electoral mobilization -directed at intensifying the ideological (or simply material) attachments of voters to their particular political brand, reinforcing the idea of voting as a valuable social norm, and increasing the ability of voters to vote through the provision of information, transportation to the polling station, and assistance in the process of registration and voting. Following the emergence of modern party organizations capable of energizing vast numbers of voters (Aldrich, 1995), turnout doubled from about 26.5 percent in the American presidential elections of 1824 to 56.3 percent four years later. Rising levels of participation in nineteenth-century

[2]According to early quantitative studies of voting behavior, women had a lower probability of voting. Tingsten (1937) identified a consistently lower female turnout in every case for which data was available, with the difference amounting to roughly 10 percent. Dogan (1954) found that differences in turnout between men and women varied between 6 and 12 percent in France. Boix and Vilanova (1992) and Vilanova (1992) report a similar gender gap - at around 10 percent - in their studies of electoral participation in 1934-1936 Barcelona.

Britain coincided with the construction of a stable Conservative party association and the intense Midlothian campaigns undertaken by Gladstone and his Liberal party in 1878-80 (Cox, 2005; Hanham, 1959). Similarly, in late-nineteenth-century and early-twentieth-century Europe Christian democratic and Socialist parties employed a vast network of parish associations and trade union branches to mobilize their constituencies (Kalyvas, 1996; Bartolini, 2007; Boix, 2012). In interwar Britain, the gradual expansion of Labour candidates across electoral districts eventually reduced a class voting gap from 15 percentage points in 1922 to only 2 percentage points by 1935 (Boix, 2012).[3]

Indeed, political sociologists were early to identify the task of leading citizens to the polling box as one of the central *raisons-d'être* of political parties (Ostrogorski, 1902; Duverger, 1954). As Max Weber (2013, p.150), a direct witness of the birth of the mass party, wrote: "the occasion for this development was the democratization of franchise. In order to win the masses, it became necessary to call into being a tremendous apparatus of apparently democratic associations. An electoral association had to be formed in every city district to help keep the organization incessantly in motion and to bureaucratize everything rigidly." [4]

The electoral mobilization of voters - and the convergence of turnout to pre-universal suffrage levels - also appeared to depend on the strategic efforts of trade unions. Luebbert, Collier and Lipset (1991) trace the growth of support for several Scandinavian socialist parties (from abstention and from former Liberal voters) down to the decision of unions to endorse social democratic parties. Coinciding with the growth of socialist vote, turnout among working-class voters rose from 33.7 percent in 1921 to 66.3 percent in 1935 in the elections to the city council of Stockholm (Tingsten 1937: 173). Leighley (1996) and Flavin and Radcliff (2011) have found trade unions to play a crucial role in working-class mobilization historically.

[3]In a cross-national analysis of aggregate turnout, Powell (1986) finds that the strength of party-society links covaried quite strongly with aggregate electoral participation. Gray and Caul (2000) attribute the decline in voter turnout in advanced industrial democracies since 1950 to the weakening of parties and unions. Anderson and Beramendi (2012) show that the existence of several left-wing parties competing for low-income voters raise turnout rates among the latter - arguably because politicians spend more resources on mobilizing voters.

[4]Understanding the failure of pivotal voter theories to predict medium to high turnout rates, a recent formal literature has developed pivotal elite models of voting that highlight the mobilizational efforts of politicians, parties, unions, and other social organizations to explain turnout (Uhlaner, 1989; Morton, 1991).

In light of the existing evidence and to guide our empirical analysis, we can think of the process of electoral mobilization that takes place when countries transit to democracy as the result of (the aggregation of) the decisions of voters on whether to participate that are governed by, first, their individual resources and, second, to their exposure to what Cox (2015) calls primary (or direct) and secondary (or indirect) political mobilization channels or effects.

More precisely, each voter has a given cost of voting c_i that depends on individual resources (such as literacy, education or immigration status), mostly affecting information costs[5]. Against this cost, the voter considers the *direct* (positive or negative) voting inducements $\gamma_k(G_i)$ received from a set of $K = \{1, ..., k\}$ political and social organizations (in terms of propaganda, targeted benefits, coercion or organized pressure). These mobilization efforts vary across groups of voters G_i, depending on whether they are core constituents of the organizations or not (Becher and Stegmueller, 2014) because these organizations have a stronger incentive to target their mobilization efforts to their core supporters (Cox, 2009; Nichter, 2008). In addition to direct inducements, organizational mobilization efforts also work through *indirect* or secondary channels δ_k. Indirect effects, which take place independently from being directly targeted by a particular organization, often take the form of (dis)approval that voters receive from the social networks to which they belong from (not) participating in the election. Therefore, we expect an average effect of γ_k beyond the specific effect on the targeted voters. Unlike most mobilization models, in our case γ_k can be negative, since we must consider both mobilization and deterrence strategies set up by organizations opposed to the electoral process altogether.[6] Finally, we expect that voters' elasticity to organizational mobilization effort will be conditional to the environment (Abrams, Iversen and Soskice, 2011). More specifically, the proportion of targeted individuals in the precinct j, or P_{G_j}, makes the mobilization effort more effective because it determines the composition of the voters' informal networks and therefore the likelihood that they will be rewarded (sanctioned) by the network if they comply (or not) with the organizations'

[5]The contemporary literature on turnout that has shown that the ability to vote is determined by those resources citizens need to vote (such as the capacity to gather the appropriate information about the election in terms of its content and mechanics) has linked that ability to personal characteristics. The level of education, in particular, appears to be an important predictor of electoral participation (Verba, Schlozman and Brady, 1995; Gallego, 2014).

[6]Additionally, γ_k is weighted by w_{jk}, which captures the degree of exposure of each precinct j to each organization's influence. In our setting, given the localized nature of the organizations' activities, w_k will be inversely related to geographical distance to the organizations.

instructions. In other words, as the proportion of targeted individuals increases, the probability of individual compliance will also increase.

As we discuss at length in the following sections, Barcelona's extent of spatial economic and social heterogeneity and the temporal changes in political strategies during the period under analysis allows us to explore the role of individual resources as well as direct and indirect mobilizational efforts of political and social organizations for the following reasons. On the one hand, and as discussed in Section 3, the distribution of social groups varied considerably across neighborhoods. Moreover, in working-class areas, there were at least two different social and political subcultures, defined by the time of migration into the city and their distinct organizational structures (in terms of ideological nature and density), giving us enough leverage to examine the *indirect* role of electoral mobilization though social networks. On the other hand, as examined in full detail in Section 5, the explicit decision taken by the main (anarchist) trade union in 1936 to abandon its historical strategy to deter its members from voting allows us to identify the *direct* effect of a particular organization on electoral mobilization.

3 Historical Context

3.1 Spain's Political Context

Putting an end to several decades of a parliamentary regime based on semi-competitive elections, in 1923 a military Junta staged a coup with the explicit support of Spain's monarch to restore order in the increasingly restless industrial regions of the country. In April 1931, as soon as the existing government held free municipal elections, a coalition of Republican, Socialist, and Catalan parties won a landslide victory that forced the abdication of the king and the introduction of a fully democratic regime.

Politics under the new republic became polarized fairly quickly. In the following year and a half, the left-wing majority rolled out an ambitious set of policies to disestablish the Catholic Church, curtail the power of the Spanish army, grant a modicum of autonomy to Catalonia, and

implement an agrarian reform. In 1933, however, center and center-right parties managed to win the general elections and moved to block the left-wing republican agenda. A year later, and in response to growing signs that a recently formed Catholic party that questioned key parts of the republican constitution was about to join the government, socialist trade unions called for a general strike and Catalonia's left-wing government declared independence. After being crushed, Catalonia's autonomy was suspended and hundreds of trade union and party leaders sent to prison. In February 1936 left-wing and right-wing parties formed two broad coalitions to compete in a high-stakes general election amidst a pre-civil war climate. Five months after the electoral victory of the leftist Popular Front, a military coup led to the 1936-39 civil war and Franco's dictatorship till 1975.

3.2 Social and Political Polarization in Barcelona

In contrast to Spain's society and economy, which were predominantly rural and agrarian, Catalonia and its capital, Barcelona, were heavily industrialized. The Catalan industry, which had already taken off in the first half of the nineteenth century, experienced a strong period of expansion as a supplier of European armies during World War One. The population of Barcelona doubled during the second half of the nineteenth century to about half a million people in 1900 and then doubled again to over one million by 1930. Demographic growth was fed by large migratory waves, first from rural Catalonia and, mostly after World War One, from outside Catalonia. In 1930, over 70% of household heads were born outside Barcelona, and around 50% were of non-Catalan origin.

Barcelona, where the working class was a clear majority, had well-defined and socially segregated neighborhoods (Oyón, 2008). Besides the highly dense (and socially mixed) historical center, Barcelona had three kinds of neighborhoods: the bourgeois *Eixample* and southwestern residential suburbs; traditional working-class neighborhoods, such as *Sants*, *Poble Sec*, *Gràcia* or *Sant Andreu*, mostly incorporated to Barcelona between 1897 and 1904; and new urban peripheries, which housed the latest twentieth-century waves of immigrants and who had much higher rates of illiteracy and suffered from lower salaries and more precarious

housing conditions than the native Catalan working class (Oyón, 2008, 2009; Silvestre, Ayuda and Pinilla, 2015).

The socioeconomic geographical differentiation of the city translated directly into politics. Right-wing and center parties controlled the upper and middle class areas of the city. The left was hegemonic in working class neighborhoods. In addition, the internal stratification within the urban working class had an impact of its own on the nature and distribution of workers' political allegiances. As shown by Oyón (2008), while republican parties and socialist trade unions were stronger in traditional working class neighborhoods, mostly inhabited by Catalan-born families, the anarchist trade union CNT was especially prevalent in the city periphery, which had grown with the latest migratory waves of non-Catalan workers in the 1920s. Although the CNT was still present in the former working-class neighborhoods during the Second Republic, its influence had declined in the last decades. Moreover, following an ideological and organizational split between moderate syndicalists and radical anarchists, most of the support for the *trentista* or moderate wing became concentrated in the traditional working-class areas. By contrast, the most radical militants, now grouped under the FAI, and favoring violent action, dominated the most recent immigration and Barcelona's extreme and poorest peripheries (Oyón, 2008).

Barcelona's political life was not just ideologically polarized. It was intense and well entrenched in social life. Modern political parties and trade unions operated at all levels as mobilization machines, often relying on pre-existing organizational networks that the 1923-30 dictatorship had not completely erased. At the neighborhood level, the various political organizations and factions often opened their own social and cultural clubs (*ateneus* and *casals*). Their members and constituencies gathered there to perform all sorts of political, cultural and economic activities. These social centers often hosted libraries, evening lessons, theater and music groups, hiking clubs, etc. They organized consumption -and production- cooperatives (Ealham, 2004) and often had newspapers and radios with loudspeakers where workers could listen to the news. In some cases they even ran their own movie theaters. As a result, they acted as political agitation and propaganda focal points as well as counter-cultural pillars within the

neighborhoods. They were often explicitly or implicitly linked to specific parties, unions or factions. In some cases they hosted the neighborhood chapters of the parties, while in other cases they were internally diverse. Some *ateneus* even collectively changed affiliation from one party or faction to another during the years of the Republic.

Anarchist trade unions, which were particularly strong in Barcelona, opposed parliamentary democracy and any bourgeois (or, for that matter, socialist) state institutions. During the first period of republican governments (1931-1933), the CNT plotted several insurrections against the political order, which were harshly repressed by the police (Villa García, 2013). Over time, CNT's syndicalist wing and the Catalan republican left, now governing Catalonia's autonomy, began to coooperate in some policy areas. Even when the CNT stopped supporting any insurrectional actions against the Spanish republic, however, the anarchist union movement actively campaigned in favor of abstention in any election. Nonetheless, in the 1936 election the anarchist trade union CNT abandoned its traditional pro-abstention policy and approved the following official statement granting its followers freedom to vote:

> "If the working class abstains from voting this time, election victory will go to the fascist right. Should they succeed, we would have to take the streets to fight them.
>
> Should the working class vote this time, and vote for the left, the right, backed by the military, will revolt before six months are up, and we would have to take to the streets to fight them with weapons.
>
> So we do not say you that you should NOT vote. But nor do we tell you that you should vote. Let each individual act as his conscience dictates." [7]

Although some historical sources go as far as claiming that the CNT actively mobilized its supporters for the election (cf. Cancela (2013) and Villa García (2014)), in any case, CNT's strategic switch from explicit abstention to passive or even active electoral engagement plays a key role in our empirical analysis. Given that our data has a longitudinal structure, we can model vote in 1936 net of vote in 1934 or, in other words, we can identify those voters that mobilized between the two elections. If the CNT change of stance was effective in getting its constituents to the polls, we shall observe that voters that mobilized between 1934 and 1936 correspond to

[7] Quoted in Christie (2000)

the CNT constituency, which in turn had a greater relative presence in the new peripheries of the city.

4 Empirical Analysis

4.1 Data: individual voting roll-calls and census data

We rely on a unique dataset based on official registers of voters. The original data, collected by Cristina Boix and Mercedes Vilanova (Boix and Vilanova 1992), matches two sources of information: the official electoral census, which includes information on voters' names, addresses, occupation, age, gender and literacy; and voters' roll calls compiled at the polls and containing the handwritten name of every voter who cast a vote. The voting process was administered by randomly chosen citizens and overseen by representatives of several parties at each polling station who signed the results sheet. Although there were some occasional allegations of fraud, the electoral process was generally regarded as being clean and transparent.

Boix and Vilanova (1992) collected data for all voters in 41 precincts, comprising 24,809 individuals for 1936. Moreover, for 12 of the precincts, they also collected information for the 1934 local election, resulting in a sample of 7,319 individuals. We have expanded their 1934 data as much as possible, and in our dataset we have 36 precincts and 22,215 voters with longitudinal information for both years[8]. The clustered sampling strategy makes the selection of the second-level units of particular importance. The precincts were selected to mirror the population density, turnout and election results of the whole city and, overall, there are only minor differences between the sample of precincts and the city composition in these key variables (see Boix and Vilanova (1992) and the Appendix for more details).

Among other things, the data is free from the well-known over-reporting biases in survey-based research on turnout. Sources of error in our data are less systematic, and are related to illegible

[8]Data for the five remaining precincts of the 1936 was destroyed or is missing at the archives.

handwriting, sloppiness of the voting lists' collections in some precincts, or voters who voted without appearing in the census (presumably because they moved right before the election and handed a certificate at the polling station).

We complement the individual level data with precinct-level data (around 600 voters per precinct) to build a two-level dataset that allows us to estimate the effect of precinct-level variables (such as share of unskilled workers) as well as their interaction with individual data. We also supplement the aggregate level data with additional neighborhood variables from Oyón (2008). These data come from a sample of the 1930 municipal population count, and include key variables such as place of birth and years of residence in the city. Since Barcelona at the time had a large immigrant working-class population from the rest of Catalonia and other parts of Spain, this might act as a confounder for some of our socio-economic variables. Given that we do not have the individual-level data on each voters' origin, we rely on neighborhood proportions of population from various origins (Barcelona, rest of Catalonia, rest of Spain, and rest of the world) in order to control for immigration.

Our main explanatory variable is the level of organizational strength and mobilization capacity of parties and social organizations. As a plausible proxy, we use the location of working-class political centers, *ateneus*, and *casals* across the city and voters' proximity to them. These centers include neighborhood branches of most parties, unions and organizations as well as local clubs and social centers. Our claim is that proximity to an *ateneu* or *casal* should capture the effects of socialization networks, political propaganda, and peer pressure to comply with the organizations' instructions regarding voting. Conversely, individuals living further away from these focus points should be less exposed to their immediate influence. Turnout, unlike vote choice, is a highly visible act and therefore a mobilization (or deterrence) campaign ought to effectively and easily monitor compliance at the neighborhood level.

Taking advantage of the fact that the 1923-1930 dictatorship had closed all the previous leftist centers in the city, we have selected all politically-oriented centers founded in Barcelona after the return of democracy (1931) and prior to the elections of interest[9]. The main source for

[9]Full list of the organizations in the appendix.

addresses of the centers is the compilation made by Solà i Gussinyer (1993) of the official governmental register, and that was supplemented by a newspaper-based research to identify and locate those centers that were absent from the official register. We use the names of the centers, and additional sources (such as newspapers) if necessary, to trace and classify their affiliation and sometimes varying locations. We have identified 199 republican and socialist centers and 22 anarchist *ateneus*. After mapping (and geocoding) the politically active working-class neighborhood associations and social centers in Barcelona, we have computed both the distance from the centroid of each precinct to the closest organization and the number of organizations in a given radius around the precinct's centroid.

As we discuss in subsection 5.2, to address concerns of endogenous placement of organizations, we have also geocoded an additional list of working-class neighborhood associations from 1922. We use a yearbook (Riera, 1922) that includes all the associations of the city, and selected 152 of them, based on two concurrent criteria: a) they were explicitly working-class associations and *ateneus*, and b) they had a local, neighborhood focus.

4.2 Descriptives

Table 1 shows the descriptives of turnout in our sample for the two elections considered here: the local 1934 election and the legislative 1936 election.[10] We present the percentage of voters across various demographics (age, gender, literacy and occupation). Unskilled workers are defined using the *jornalero-peón* (day laborer) category of the electoral census, which is the most frequent one (47.6% of men and 5.5% of women). This restrictive definition of unskilled workers avoids false positives at the cost of some potential false negatives, especially among women.[11]

Descriptively, we see how individual resources make a difference in turnout rates. Men tend

[10]Turnout figures from official reports differ slightly from the rates calculated from the voters' lists, probably due to the exclusion from the census of voters who moved and cannot be identified with the existing sources.

[11]See the appendix for an alternative operationalization that distinguishes a broader category of manual workers from the inactives and the non-manual professionals and owners, based on the HISCLASS classification as applied in Silvestre, Ayuda and Pinilla (2015).

Table 1: Descriptives

	Percent voted		N
	1934	1936	
22/24	16.7	45.7	1,933
25/34	44.5	61.8	7,333
35/44	49.9	67.0	5,760
45/54	52.6	68.5	4,441
55/64	51.3	63.7	2,965
65/74	48.2	53.4	1,684
Over 75	37.3	39.0	643
Male	50.3	67.2	11,096
Female	42.7	57.7	13,711
Illiterate	35.1	53.2	4,532
Literate	48.9	64.2	20,062
High skilled	54.4	73.8	1,059
Medium skilled, non-manual	58.7	73.1	2,244
Medium skilled, manual	48.8	64.4	2,095
Non skilled, manual	44.7	61.6	7,267
Inactive	42.7	58.5	9,828
Total	46.13	67.8	24,809

to vote in higher rates than women. The same goes for literate relative to illiterate individuals. More skilled workers vote in larger proportions than unskilled, while the group that shows lower turnout rates is the inactive population [12]. With regards to age, the usual inverted U-shape relationship emerges with clarity: younger and older voters were the least likely to turn out, while those in the middle had the highest rates of participation.

If we compare the two elections, we see how in 1936, where overall turnout was higher, the age gap tends to close on the left tail, showing a strong mobilization of young voters, while in the case of the over 65 the additional mobilization is much smaller. The literacy gap shrank by 2 points and gender differences widened slightly.

[12]However, the large percentage of inactive population registered by the census is related to the fact that most women were employed informally and declared to be housewives in to the census agents.

4.3 Baseline results

To explore the net contribution of individual characteristics to the probability of voting, in Table 2 we present a set of regression models in which we jointly estimate the effect of gender, occupation, literacy and age on voting in 1936. We include in the models the interaction between gender and occupation because we expect that being an unskilled worker would have opposite consequences for men and women, depressing participation of men and fostering it among women for a simple reason: while the reference category for men is more skilled workers and owners, for women it is formally inactive housewives. We also include the squared term of age in order to capture the inverted-U shaped relationship that was already apparent in the descriptives. Models 2 and 3 also include precinct fixed-effects, and so test the effect of individual resources within neighborhoods. The dependent variable is dichotomous, and takes value 1 if the individual voted and 0 otherwise. Across the paper we privilege, for the sake of interpretability, Linear Probability Models estimated through OLS, although alternative (logit) specifications provide very similar results.

The first thing to be noted is the limited fit of the models. Although individual characteristics have a substantively important effect on the probability to vote, they account for a rather small part of the variance. The individual variables have the expected effects. Being an unskilled worker decreases the likelihood of voting for men by around 3 percentage points and has a positive effect of about 5 percentage points for women. Women vote consistently less than men - by about 10 percentage points. The literacy gap ranges between 8 and 9 points, and age has the expected (although fairly small) quadratic effect – see the appendix for a graphical representation of age effects.

Including precinct-level fixed effects increases the fit of the models, although only marginally, and does not change the coefficients of individual variables. By incorporating turnout in the 1934 local election, model 3 estimates the effect of individual variables on the likelihood of mobilizing between the two elections: coefficients now become smaller while still running in the same direction as in models 1 and 2. Interestingly, the only coefficient that becomes

Table 2: Individual factors. Turnout in 1936. OLS model with District Fixed Effects

	(1) OLS	(2) OLS	(3) OLS
Turnout t_{-1}			0.36***
			(0.01)
Unskilled worker	-0.03**	-0.03***	-0.01
	(0.02)	(0.01)	(0.01)
Female	-0.10***	-0.10***	-0.06***
	(0.01)	(0.01)	(0.01)
Unskilled worker x female	0.09***	0.08***	0.05**
	(0.03)	(0.02)	(0.02)
Literacy	0.09***	0.08***	0.04***
	(0.01)	(0.01)	(0.01)
Age	0.03***	0.03***	0.01***
	(0.00)	(0.00)	(0.00)
Age squared	-0.00***	-0.00***	-0.00***
	(0.00)	(0.00)	(0.00)
Constant	0.04	0.03	0.18***
	(0.05)	(0.03)	(0.03)
R^2	0.034	0.056	0.181
N	24551	24551	21182
Precinct FE	NO	YES	YES

* p<.1, ** p<.05, *** p<.01

indistinguishable from zero is the effect of being an unskilled worker for male voters.

We now turn to our main focus of interest: the role of political organizations in mobilizing voters in 1936, especially the unskilled workers. Table 3 summarizes our baseline results. We measure distance from each voter's precinct centroid to the nearest organization (in kilometers and log meters) and interact these measures with the unskilled workers dummy. Given this, the average effect is estimated with the following equation:

$$Y_{ij} = \beta LogDistance_{ij} + \delta_1 X_i + \delta_2 X_j + \varepsilon_{ij}$$

Where $LogDistance_{ij}$ is the log of meters to the nearest political association of interest, X_i are individual-level controls, and X_j are two precinct-level controls: the density of (male) unskilled workers and linear distance to the city center as precinct level controls. The former is introduced to rule out that the organizational effect is simply due to the working class nature of the

precinct. The latter is a geographic control that intends to capture unobserved heterogeneity at the precinct level based on location within the city.

To estimate local effects among low-skilled workers we ran the following:

$$Y_{ij} = \beta LogDistance_{ij} + \gamma Worker_i \times LogDistance_j + \delta_1 X_i + \delta_2 X_j + \varepsilon_{ij}$$

Table 3: Baseline results. Vote in 1936. Linear Probability models

	(1)	(2)	(3)	(4)
	Km	Log meters	Km	Log meters
Vote in t_{-1}	0.36***	0.36***	0.36***	0.36***
	(0.01)	(0.01)	(0.01)	(0.01)
Unskilled worker	-0.01	-0.01	0.01	0.11***
	(0.01)	(0.01)	(0.01)	(0.04)
Distance to Rep/Soc *ateneus*	-0.10***	-0.03***	-0.07***	-0.02***
	(0.01)	(0.00)	(0.02)	(0.00)
Worker× Distance			-0.08***	-0.02***
			(0.03)	(0.01)
Constant	0.20***	0.31***	0.19***	0.28***
	(0.03)	(0.04)	(0.03)	(0.04)
Individual-Level Controls	Yes	Yes	Yes	Yes
Precinct-Level Controls	Yes	Yes	Yes	Yes
Standard Errors	Robust	Robust	Robust	Robust
R^2	0.166	0.165	0.166	0.166
N	21,182	21,182	21,182	211,82

Individual-level controls: Worker, Literacy, Age, Age Squared, Gender, Gender × Worker
Precinct-level controls: Share of Unskilled Workers and Distance to City Center
* p<.1, ** p<.05, *** p<.01

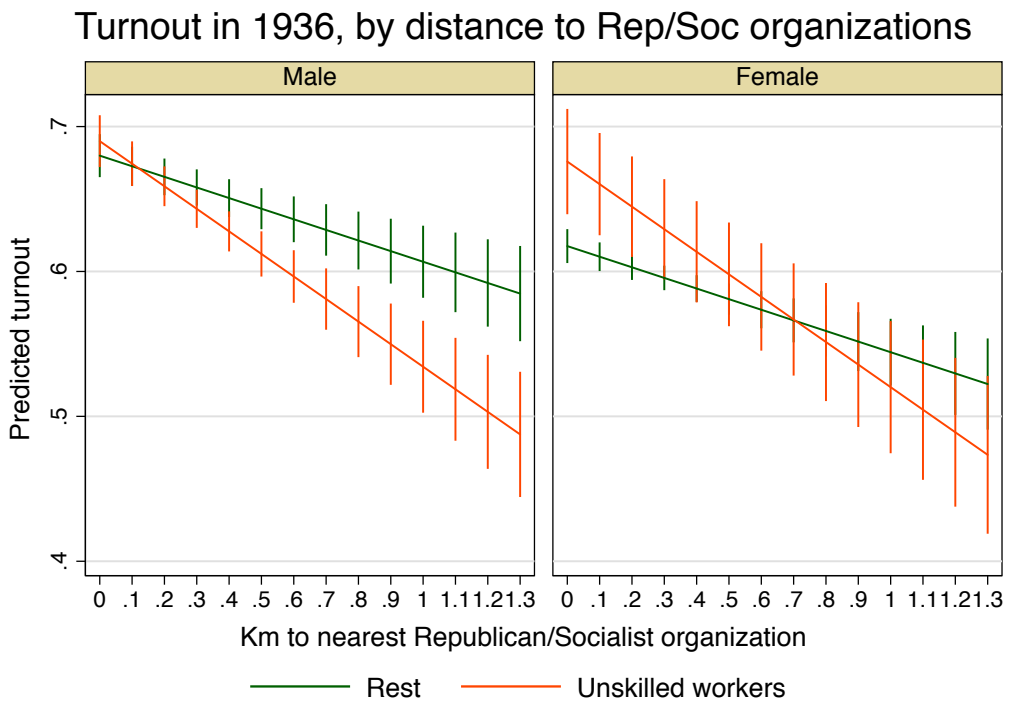
Results of these models show how, *ceteris paribus*, distance away from a republican/socialist organization depresses turnout significantly. The estimate is about 10 percentage points per kilometer (in our sample the maximum distance is 1.3 kms). The effect is robust to using log distance. Models 3 and 4 show, moreover, how the role of these organizations was especially strong for unskilled workers - an estimated decline of 15 percentage points per kilometer of distance (compared to a fall of 7 percentage points for the rest of the sample).

Figure 2 summarizes the core finding of Table 3. It shows how distance to republican/socialist organizations affects workers and non-workers' probability to turnout. Although the slopes do

not differ, we represent the figure separately for male and female voters because the turnout levels and the effect of being unskilled worker are different, as we have already discussed. In 1936 an unskilled male worker living close to an *ateneu* had the same likelihood of voting than a more skilled voter. However, at around 400-500m of distance from that social center, the predicted probabilities began to diverge significantly. Unskilled workers living far enough from an *ateneu* have a significantly lower probability to vote than the rest of male voters.

Working women had, if close to an *ateneu*, a higher probability of voting than the rest of female voters (mostly inactive women). Probabilities of voting decrease with distance to organizational centers, but even more so for unskilled female workers. Then, at over 400m distance from the closest *ateneu*, the probability of voting for unskilled working women and the rest of the female electorate converge and become indistinguishable.

Figure 2: Probability to vote, by distance to the closest *ateneu*



5 Identification: addressing organizational and individual sorting

Section 4 has shown that the mobilization capabilities of social organizations were well correlated with a positive probability of voting - particularly among unskilled voters in the elections of 1936. Nevertheless, that relationship may simply reflect, other than a causal effect, a correlation driven by sorting of organizations, with the latter moving closer to those workers more likely to participate, and/or by sorting of (politicized) individuals, who might decide to settle near those organizations and *ateneus* with which they feel more identified. In both cases, the sorting process would bias our estimates of the organizational effect upwards.

To address those problems, we resort to several identification strategies that, combined, provide robust evidence on the effects of political organizations on voters' mobilization. In other words, even if there is no instance of random (or as-if-random) allocation of organizations and/or individuals that we can rely on, we contend that the combination of empirical strategies we present below gives credibility to our causal claims.

5.1 Organizational Sorting: Associational Life in 1922

First, to address the sorting of organizations, we have collected data on working-class neighborhood associations in 1922 - the last year of the semi-democratic period that preceded the 1923-1930 military dictatorship. The location of these organizations cannot be driven by the 1930s voting patterns, which were based on a party system that showed very little continuity with the electoral voting patterns that preceded the 1923 coup. Moreover, because during the period under analysis Barcelona grew quite rapidly through a large inflow of non-Catalan migrants, the location of those organizations should be seen as capturing the density of long-term working-class social capital in different parts of the city rather than the product of strategic decisions made by those organizations and related to the 1930s electoral

politics[13].

Table 4: 1922 organization effects on 1936 turnout. OLS models with robust standard errors

	(1) Km	(2) Log meters	(3) Km	(4) Log meters	(5) Km	(6) Log meters
Unskilled Worker	-0.01	-0.01	-0.01	-0.01	0.01	0.07
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.05)
Vote t_{-1}	0.36***	0.36***	0.36***	0.36***	0.36***	0.36***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Distance to 1922 assoc	-0.08***	-0.02***	-0.12***	-0.03***	-0.10***	-0.03***
	(0.01)	(0.00)	(0.01)	(0.00)	(0.02)	(0.00)
Worker × Distance					-0.07**	-0.02*
					(0.03)	(0.01)
Constant	0.22***	0.32***	0.22***	0.36***	0.21***	0.34***
	(0.03)	(0.04)	(0.03)	(0.04)	(0.03)	(0.04)
Individual Controls	Yes	Yes	Yes	Yes	Yes	Yes
Precinct Controls	No	No	Yes	Yes	Yes	Yes
R^2	0.164	0.164	0.166	0.166	0.166	0.166
N	21,182	21,182	21,182	21,182	21,182	21,182

Individual-level controls: Worker, Literacy, Age, Age Squared, Gender, Gender × Worker
Precinct-level controls: Share of Unskilled Workers and Distance to City Center
* p<.1, ** p<.05, *** p<.01

Table 4 shows the effect of the presence of working class neighborhood organizations in 1922 on the likelihood of voting in 1936. In these models we see how distance to locations of working class local associations in 1922 has a negative effect on the probability to vote of about 8 to 12 percentage points per kilometer (0.976 km is the maximum distance in our data). Again, the effect is especially strong for unskilled workers (17 percentage points). This piece of evidence shows that we are not just capturing the strategic location of organizations, but rather an effect of working-class organizational density on the workers' behavior. The areas of the city in which the working class was already active and well organized in the 1920s are those in which, in the 1930s, workers were more easily mobilized electorally.

[13]Note that the correlation between location of 1922 and 1930s organizations, in our sample, is 0.65.

5.2 Individual Sorting: Fixed Effects in a Diff-in-diff Framework

Our core argument is related to the interaction between individual-level variables and contextual factors, often referred to in the literature as *neighborhood effects*. The estimation of these effects is subject, however, to an important identification problem that derives from the fact that voters living in different census precincts might differ in unobserved individual characteristics other than their place of residence due to the fact, mainly, that place of residence stems from a decision of the individuals. Simply comparing voters in different precincts may result in overestimating the neighborhood effects, confounded by unobserved individual differences that might influence propensity to vote.

We address this problem following Barber and Imai's (2015) recent modeling strategy. In a difference-in-differences framework, we compare the turnout rates of unskilled workers and the rest of the voters *within* each precinct and then consider whether the difference varies as a function of each precinct characteristics (distance to organizations). That way, the within-precinct comparison will isolate any unobserved or observed characteristics shared by voters living in the same precinct and therefore allow for a proper estimation of neighborhood effects.

In practice this strategy is implemented through a fixed effects linear probability model. The models we specify take the following form:

$$Y_{ij} = \alpha_{Group[i]} + \beta X_i + \gamma X_i \times W_{j[i]} + \delta_1 Age_i + \delta_2 Age_i^2 + \varepsilon_i$$

Where Y_i represents turnout of voter i, X_i an indicator variable for the relevant individual characteristic (in this example, unskilled workers), $W_j[i]$ a precinct-level variable (left power or, more generally, organizational capacity) and, importantly, $\alpha_{Group[i]}$ represents the fixed effects based on the full interaction of census precinct and the rest of individual characteristics (i.e. literacy, gender and age groups). This means that we are comparing voters from the same precinct that also share values regarding literacy, gender and age group. In such a model, the

coefficient of interest, γ, represents the percentage point change in the probability to vote for unskilled workers as the distance to relevant organizations varies. Note that the fixed-effect estimation does not allow to estimate the main effect of distance, but only its interaction with the individual characteristic of interest.

Table 5: Full fixed-effect models, diff-in-diff specification

	(1)	(2)	(3)	(4)	(5)
	Km	Log meters	Log meters	Log meters	Log meters
Vote t_{-1}	0.35***	0.35***	0.35***	0.35***	0.35***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Age	0.01*	0.01*	0.01*	0.01*	0.01*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Age Squared	-0.00**	-0.00**	-0.00**	-0.00**	-0.00**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Unskilled Worker	0.02**	0.09*	0.09*	0.09*	0.10*
	(0.01)	(0.05)	(0.06)	(0.05)	(0.06)
Worker × Distance to Rep/Soc	-0.09***	-0.02*	-0.02*	-0.02**	-0.02**
	(0.03)	(0.01)	(0.01)	(0.01)	(0.01)
Worker × Density Unsk Workers			0.00		-0.03
			(0.05)		(0.06)
Worker × Distance City center				0.01	0.01
				(0.01)	(0.01)
Constant	0.35***	0.35***	0.35***	0.35***	0.35***
	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)
Number of FEs groups	965	965	965	965	965
R^2 within	0.132	0.132	0.132	0.132	0.132
R^2 overall	0.157	0.157	0.157	0.157	0.158
N	21,182	21,182	21,182	21,182	21,182

* p<.1, ** p<.05, *** p<.01

Note: FEs include the full interaction of age group X gender X literacy X precinct

Table 5 shows the results of this estimation strategy. In this setup, one kilometer of distance to a republican/socialist organization decreases an unskilled worker's probability to vote by about 9 percentage points. The result is robust to the use of log distance, and to the inclusion of two additional interactions that might potentially confound the estimate: density of unskilled workers in the precinct, and distance to city center. That way we separate the specific organizational effect from the more general effect of working class density, and from a centrality effect. The estimate of interest is robust to the inclusion of these controls.

5.3 Anarchist Deterrence and the 1936 Exception

So far we have seen that our main findings are robust to the use of 1922 organizations instead of the 1930s, and also to a more demanding specification with fixed-effects. As a matter of fact, we can also exploit a key change between 1934 and 1936 to credibly identify a causal effect of organizational mobilization. Our main strategy for identification of causal effects of organizations relies on the fact that the powerful anarchist union CNT decided not to actively campaign for abstention in 1936. As described in Section 3, although the discontinuation of the election boycott campaigns of 1933-34 did not imply an enthusiastic embrace of electoral politics by anarchists, it implied a substantial strategic shift.

This short-term strategic change by the anarchist trade union provides us with a good setting for identifying the impact of organizations. If the latter matters for voters, we should expect two things: first, that anarchists effectively deterred voters from turning out in 1934; and, second, that they mobilized or at least did not generate differential levels of abstention in 1936. To test these two hypotheses, as well as the potentially differential effects of republican and socialist organizations across both elections, in Table 6 we estimate a set of panel models with individual fixed-effects that provide a robust estimation of the change in the effect to proximity to anarchist centers. The models also include interactions between the election under consideration and other precinct characteristics (density of unskilled workers and centrality) as well as of the voter (unskilled workers). These are meant to separate the organizational effect from a general mobilization of the working class. We also include model 4, with random effects, to show the main effects of organizations next to the interaction with election.

Results of these models are consistent with our expectations. The negative effect of distance to anarchist organizations is consistently stronger in 1936. Indeed, if we look at the random-effects model (in Column 4), we can see that whereas the anarchist *ateneus* had a vote-deterring effect (turnout increasing with distance) in 1934, they had a mobilizing effect in 1936. In 1934 one kilometer of distance from the nearest anarchist center increased turnout up to 4.6 percentage points, while in 1936 distance from the anarchist center depressed participation by 5 points (see

Table 6: Panel models. Individual Fixed Effects and Random Effects Models

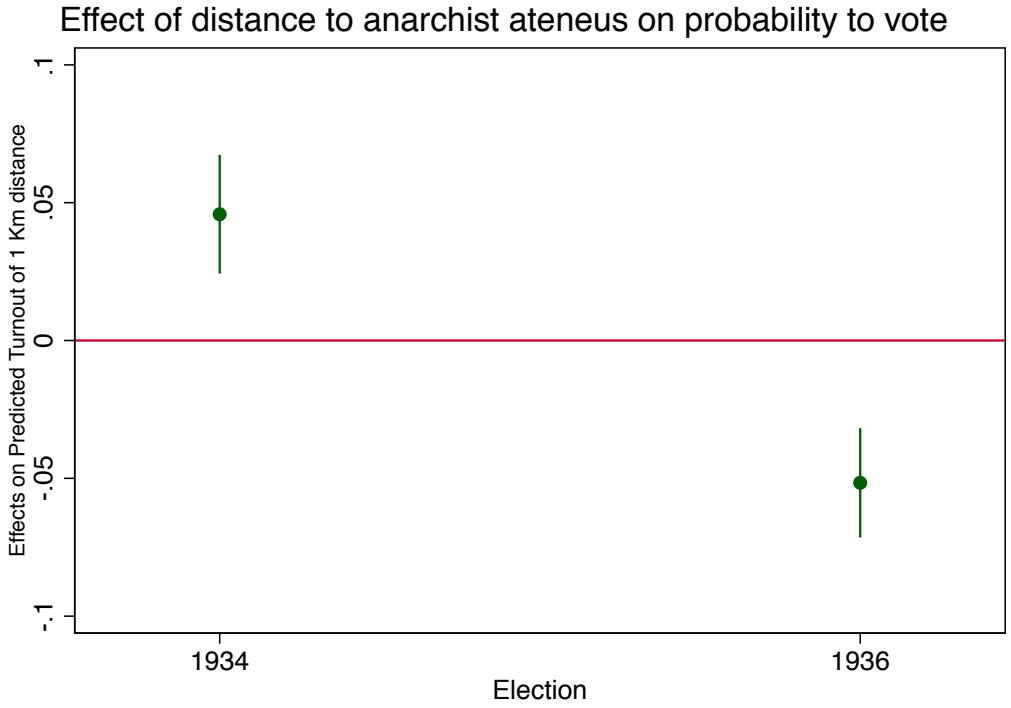
	(1) Fixed Effects	(2) Fixed Effects	(3) Fixed Effects	(4) Random Effects
1936 election	0.39***	0.18***	0.41***	0.40***
	(0.04)	(0.02)	(0.04)	(0.04)
Log Distance to nearest Anarchist				0.03***
				(0.01)
Log Distance to nearest Rep/Soc				-0.02***
				(0.00)
1936×log Distance Anarchist	-0.05***		-0.04***	-0.04***
	(0.01)		(0.01)	(0.01)
1936×log Distance Rep/Soc		-0.02***	-0.01**	-0.01*
		(0.00)	(0.00)	(0.00)
Unskilled worker				0.03***
				(0.01)
Density unskilled				-0.31***
				(0.02)
Distance city center				0.02***
				(0.00)
1936×worker	0.02**	0.02*	0.02**	0.02**
	(0.01)	(0.01)	(0.01)	(0.01)
1936×Density unskilled	0.13***	0.19***	0.14***	0.13***
	(0.02)	(0.02)	(0.02)	(0.02)
1936×Distance city center	0.00	-0.00	0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)
Constant	0.46***	0.46***	0.46***	0.48***
	(0.00)	(0.00)	(0.00)	(0.04)
R^2 within	0.085	0.083	0.085	0.035
ρ	0.543	0.541	0.543	0.371
N	46,183	46,183	46,183	46,183

p<.1, ** p<.05, *** p<.01

Figure 3).

The positive impact of anarchist centers on turnout in 1936 could be simply attributed to the polarized, high-stakes nature of Spain's last legislative elections before the civil war. Indeed, the impact of republicans and socialists neighborhood associations, which was consistently pro-mobilization across the two elections, was stronger in 1936. Still, the reversal of the effect of anarchist *ateneus*, which is consistent with the historical accounts of the strategic turn of the CNT in 1936, points to the direct impact of organizational decisions on turnout: once anarchists decided to stop boycotting the election, nonvoters turned out to vote.

Figure 3: Anarchist effects, 1934-36



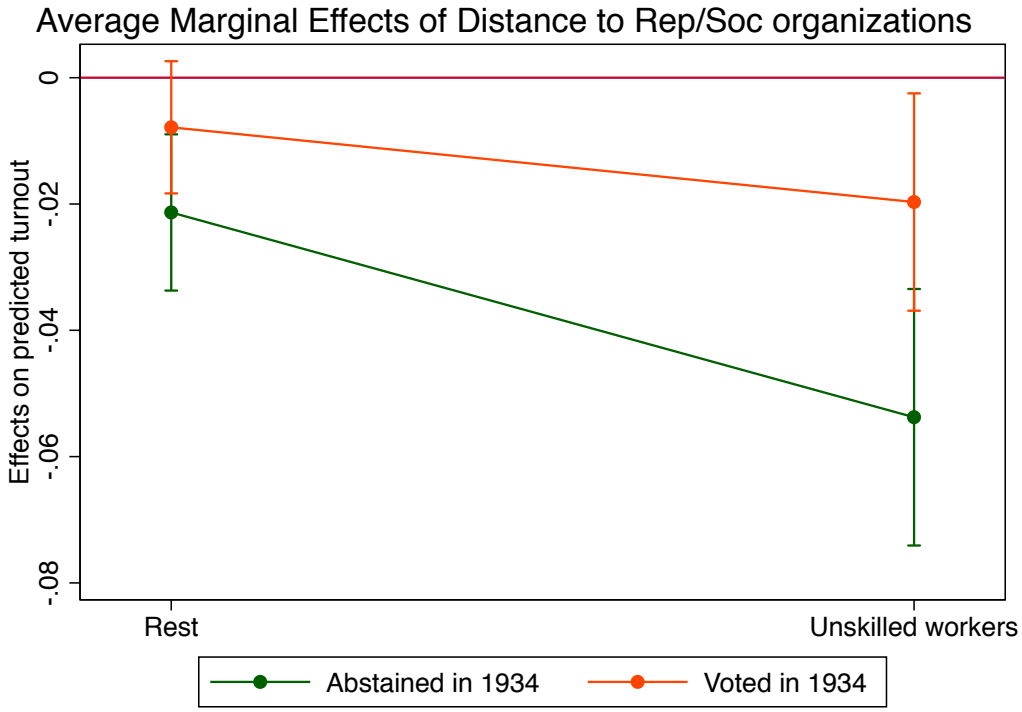
5.4 Mechanisms: individual characteristics and strategic complementarities

In order to further clarify the mechanisms behind the organizational effect we have identified, in this section we explore the interaction between distance to organizations, unskilled workers status, and other individual and contextual factors that derive from our theoretical framework. If distance to organizations is capturing, as we argue, exposure to mobilizational efforts, we should expect that to matter more in two instances: first, among those individuals with a lower propensity to vote; and, second, following the logic of strategic complementarities discussed earlier, in those areas with a higher proportion of targeted individuals.

To address the first mechanism, we interact distance and working class status with turnout in the previous elections (1934 local elections). This is relevant because we assume that those that abstained in 1934 will have, on average, a lower underlying propensity to vote than those that voted. Therefore, we should expect mobilization to be more consequential for them. Indeed, we find that the effect of distance is larger for the voters who abstained in 1934 (Figure 4, derived

from table C.4 in Appendix). In other words, distance is capturing a mobilization effect of leftist organizations – something that in 1936 was key for unskilled workers and for those who had not voted in the previous elections.

Figure 4: Organizational effect, by turnout in 1934



Following the logic of strategic complementarities developed in Abrams, Iversen and Soskice (2011) model of voter mobilization, the effect of organizational mobilization efforts on individual voters should be conditional on their immediate context. More precisely, the larger the share of targeted individuals around the voter, the more likely the voter to receive and respond to direct and, especially, indirect mobilization efforts. In our setting, unskilled workers should be more influenced by organizational mobilization if they live in a neighborhood with a high density of unskilled worker. In other words, a homogeneously working-class environment should make the organizations efforts more effective because they resonate across informal networks that are able to reward/sanction compliers/defiers in a myriad of more or less subtle ways.

To test for this effect, we replicate our previous analyses with an additional interaction term

between unskilled workers, density of unskilled workers in the precinct, and distance to organizations. Table 7 shows the results of these models. In model 1, we replicate the fixed effects estimation of the previous section for the full sample. In model 2, we restrict the analysis to the 1934 abstainers, showing that the conditional effect of distance is especially strong for those that did not vote in the previous elections.

Table 7: Strategic complementarities. FE models, diff-in-diff specification

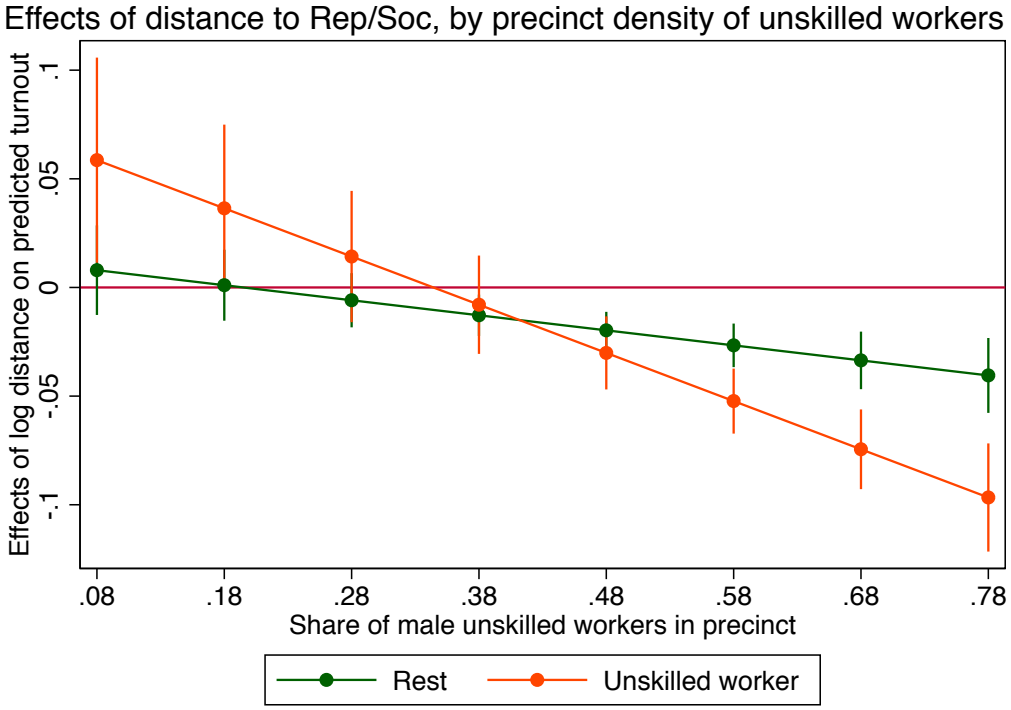
	(1) Full sample	(2) Abstainers 1934
Vote t_{-1}	0.35***	
	(0.01)	
Age	0.01*	0.01*
	(0.00)	(0.00)
Age Squared	-0.00**	-0.00*
	(0.00)	(0.00)
Worker	-0.33*	-0.61**
	(0.18)	(0.28)
Worker× Log Distance Rep/Soc	0.06	0.11**
	(0.03)	(0.05)
Worker×Log Distance×Density Unskilled	-0.15**	-0.23**
	(0.06)	(0.09)
Worker× Density Unskilled	0.80**	1.21**
	(0.34)	(0.51)
Worker×Distance City Center	0.01	0.02
	(0.01)	(0.01)
Constant	0.35***	0.27**
	(0.07)	(0.11)
Number of FEs groups	965	931
R^2 overall	0.157	0.013
N	21,182	11,110

p<.1, ** p<.05, *** p<.01

These models provide results consistent with the idea of strategic complementarities. The negative effect of distance to organizations is especially strong in working class neighborhoods, and negligible in the more bourgeois parts of the city. For the sake of interpretation, Figure 5 plots the results of the triple interaction in model 1, showing that it is in areas of mid to high density of unskilled workers that the organizations do play the expected mobilizing role. Indeed, distance to organizations has a significantly negative effect for workers in those precincts in

which over 40% are unskilled workers too. On the contrary, in the parts of the city with fewer workers (the bourgeois neighborhoods), the presence of republican/socialist organizations does not have a mobilizing effect.[14]

Figure 5: Mechanism. The conditioning role of the density of unskilled workers



5.5 Aggregate analysis

Since our estimations are based on a large sample of voters but a rather reduced sample of 36 precincts, our results regarding precinct-level variables could be driven by the characteristics of the sample of precincts. To ensure that our results are not led by our specific sample, that is, that they have external validity, we now run several analyses only with aggregate data for all 914 precincts in the whole city collected by Vilanova (2005). To run these analyses, we have reconstructed the 1930s Barcelona precinct maps and interpolated both maps into a single

[14] As a matter of fact, it appears that, in upper class areas, the presence of organizations may be detrimental to the mobilization of workers. One could think of plausible sanctioning mechanisms for workers in upper class neighborhoods that explain this reversal of the effect. However, this result is based on very few cases (in our sample there are only 105 unskilled workers living in precincts with less than 15% of unskilled workers), so we must be cautious in the interpretation.

geo-spatial vector file. Obviously we cannot replicate the same analyses we have presented so far at the precinct-level, but we have enough information to build reasonable models to estimate the effect of organizations on precinct-level turnout.

Table 8 presents the results of these models. The first three of them are based on the 1930s republican/socialist organizations. The remaining models use the 1922 working-class neighborhood associations. We include different measures of distance, together with the share of vote of the left block in 1934 (t_{-1}). Unfortunately, we do not have a measure for the density of unskilled workers at the precinct level for the entire city. But given that left vote, in our individual-level sample, is highly correlated with density of unskilled workers (.8), we use this variable as a moderator of the organizational effect in models 2, 3, 5 and 6. The expectation, following the logic of the previous discussions, is that organizational strength is especially relevant in mobilizing voters in leftist areas of the city. The models include also the available proxies of socioeconomic profile: population density and a categorical measure of illiteracy, in 8 categories, recovered from Vilanova (2005). We also control for distance to the city center, and include district fixed-effects to net out the estimation from unobserved differences across districts of the city.

Results are consistent with our individual-level findings. Distance to republican/socialist organizations depresses turnout, especially in those areas with more leftist vote. The effect of one kilometer of distance (the variable maximum is 1.6) ranges from (a statistically not significant) -2.7 percentage points in the most rightist areas to -18.6 ($p<.001$) in the leftist strongholds. The same is true if we look at the 1922 organizations as reference points. Distance to where they were located depresses turnout in 1936 but only in those areas in which the left received more than 45% of the vote in 1934. With this precinct-level data we can also mirror the panel analysis of the previous section. Results of such an analysis (in the online appendix) are consistent with the individual-level models: whereas anarchist organizations depressed turnout in 1934, they did not two years later. On the contrary, republicans and socialists exhibit a consistent mobilizing effect.

Table 8: Aggregate analysis: turnout at the precinct level

	1930s Rep/Soc			1922 Associations		
	(1) Log mt.	(2) Log mt.	(3) Km	(4) Log mt.	(5) Log m.	(6) Km
Distance	-2.93***	-0.55	-1.68	-2.12***	2.50	12.02**
	(0.37)	(1.08)	(4.07)	(0.47)	(1.87)	(5.44)
Share of left vote 1934	0.02	0.26**	0.06**	0.03	0.50***	0.14***
	(0.02)	(0.10)	(0.03)	(0.02)	(0.17)	(0.04)
Distance× Left 34		-0.04**	-0.18**		-0.09***	-0.37***
		(0.02)	(0.07)		(0.03)	(0.09)
Illiteracy	-2.28***	-2.25***	-2.22***	-2.14***	-2.20***	-2.15***
	(0.37)	(0.36)	(0.37)	(0.37)	(0.36)	(0.37)
Population density	20.66**	16.47*	18.62*	26.78***	15.15	15.82*
	(9.36)	(9.51)	(9.53)	(9.47)	(10.06)	(9.60)
Distance city center	0.19	0.19	0.47	-0.18	-0.23	-0.06
	(0.46)	(0.46)	(0.48)	(0.44)	(0.43)	(0.43)
Constant	91.00***	78.62***	75.94***	85.45***	61.53***	71.93***
	(2.49)	(5.67)	(1.75)	(2.91)	(9.93)	(2.17)
District FE	YES	YES	YES	YES	YES	YES
R^2	0.209	0.213	0.212	0.185	0.201	0.215
N	914	914	914	914	914	914

* p<.1, ** p<.05, *** p<.01

Working with the aggregate data we gain much leverage to estimate effects of precinct-level variables. This allows us to take a further step in exogeneizing the location of leftist organizations. As discussed in Section 3, Barcelona grew through different industrialization and migratory waves. During the first industrialization wave, some working-class neighborhoods formed around factories – with unskilled workers clustering around the latter while skilled ones could afford living farther apart from factories (Oyón, 2009). In those areas in which early in the century there were factories nearby, working-class social capital arose over time. Moreover, they became densely populated in which the mobilization mechanisms we have already described were more likely to work. This contrasted with the peripheral neighborhoods that appeared in the city's outskirts as a result of the most recent migratory waves of the late 1910s and 1920s and where organizations were much weaker. In short, the location of old factories (those before the growth spur triggered by World War One) can be taken as proxies for left-wing social

Table 9: Aggregate analysis: industrialization and organizational effects

Aggregate Models	(1)	(2)	(3)	(4)	(5)
	Log m	Log m	Log m	Log m	Log m
Log Distance to 1930s Rep/Soc				-2.67***	-2.86***
				0.38)	(0.38)
Log Distance to 1906 factory	-1.26***	-0.95***	-0.92**	-0.48	-0.34
	(0.38)	(0.36)	(0.38)	(0.36)	(0.37)
Illiteracy		-2.04***	-2.23***	-2.19***	-2.28***
		(0.30)	(0.39)	(0.29)	(0.37)
Population density		32.01***	37.89***	14.24*	20.64**
		(7.38)	(9.32)	(7.63)	(9.33)
Distance Catalunya Sq		-0.36	-0.20	0.15	0.27
		(0.45)	(0.48)	(0.44)	(0.46)
Share of vote for the left in 1934			0.03		0.02
			(0.03)		(0.02)
Constant	75.85***	82.06***	80.69***	93.50***	92.49***
	(2.25)	(2.34)	(2.63)	(2.75)	(2.99)
District Fixed Effects	Yes	Yes	Yes	Yes	Yes
R-squared	0.074	0.158	0.16	0.202	0.209
N	1013	976	914	976	914

*** p<0.01, ** p<0.05, * p<0.1

capital.

Accordingly, we have geocoded all the main factories [15] that were operating in the city by 1906 and use it as a predictor of turnout in 1936, net of other precinct characteristics. Table 9 shows how, indeed, proximity to where a factory was located at the turn of the century had a clear positive effect on participation in the 1930s. In other words, long-standing working-class areas were more mobilized during the Republic. Perhaps more interestingly we also show in columns (4) and (5) that effect of industrialization disappears when we add distance to organizations. This can be taken as a clear indication that the effect of industries is mediated through working class organization and is not a direct effect of the initial industrialization conditions *per se*.

[15] See the list of factories and the correlations between factories' locations and working class associations' locations in the 1920s and 1930s in the Appendix.

6 Conclusions

Turning out to vote is neither automatic nor universal. Only a fraction of the population has the individual motivation (such as a strong preference for particular candidates or a strong sense of civic duty) and the personal resources (such as the capacity to gather the appropriate information about the election in terms of its content and mechanics) to cast a vote. Hence, contextual and political factors play a crucial role in mobilizing potential voters. Parties and the social networks in which the former operate invest heavily to send voters to the ballot box and, as a matter of fact, to socialize them into the habit of voting.

Creating a voting routine or custom often takes place at certain political critical junctures. New political movements mobilize hitherto non-mobilized voters. The extension of the vote to previously unenfranchised individuals opens a window of opportunity for old and new organizations to steer them to the polls. During the first democratization wave, turnout actually fell after the introduction of full suffrage. Rather crucially, the extent to which it went back to its pre-full-suffrage levels varied across countries. Across nations (at least in advanced democracies), there is relatively strong association between the average participation rate and the turnout rate a few elections after the introduction of universal suffrage.

In this paper we have explored how voters became mobilized after the transition to democracy by employing a very rich and unique historical data from the city of Barcelona in the 1930s that combines individual voting roll-calls, census data, and spatial information. Besides identifying the impact of personal resources on voting, we have isolated two types of political and contextual mobilization mechanisms. In the first place, voters reacted to a direct mobilization effect: as the Catalan anarchist movement shifted from a position of active abstention to neutrality in the electoral process, previous voting differences among working-class voters shrank considerably. In the second place, the level of participation was shaped by an indirect mobilization channel (Huckfeldt and Sprague, 1987, 1992; Rolfe, 2012). The type of social networks in which republican and socialist ideas and organizations were embedded determined their influence on voters. For example, unskilled workers, who on average had a lower likelihood

of participating, voted with the same probability than skilled workers when they lived close to social and cultural centers such as *ateneus*. As such, the paper provides unique empirical evidence on neighborhood spillovers of indirect political mobilization – something for which there has been relatively weak evidence in the existing literature so far (Sinclair, 2012; Sinclair, McConnell and Green, 2012; Foos and de Rooij, 2016). These two findings reinforce previous experimental and survey-based results showing that partisan efforts and social context matter (Gerber, 2000; Gerber, Green and Larimer, 2008; Rosenstone and Hansen, 1993), but they do so both in a broader context that cannot be reproduced experimentally and by shedding light on the dynamics of electoral mobilization during the process of democratization.

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Appendices

A Data sources

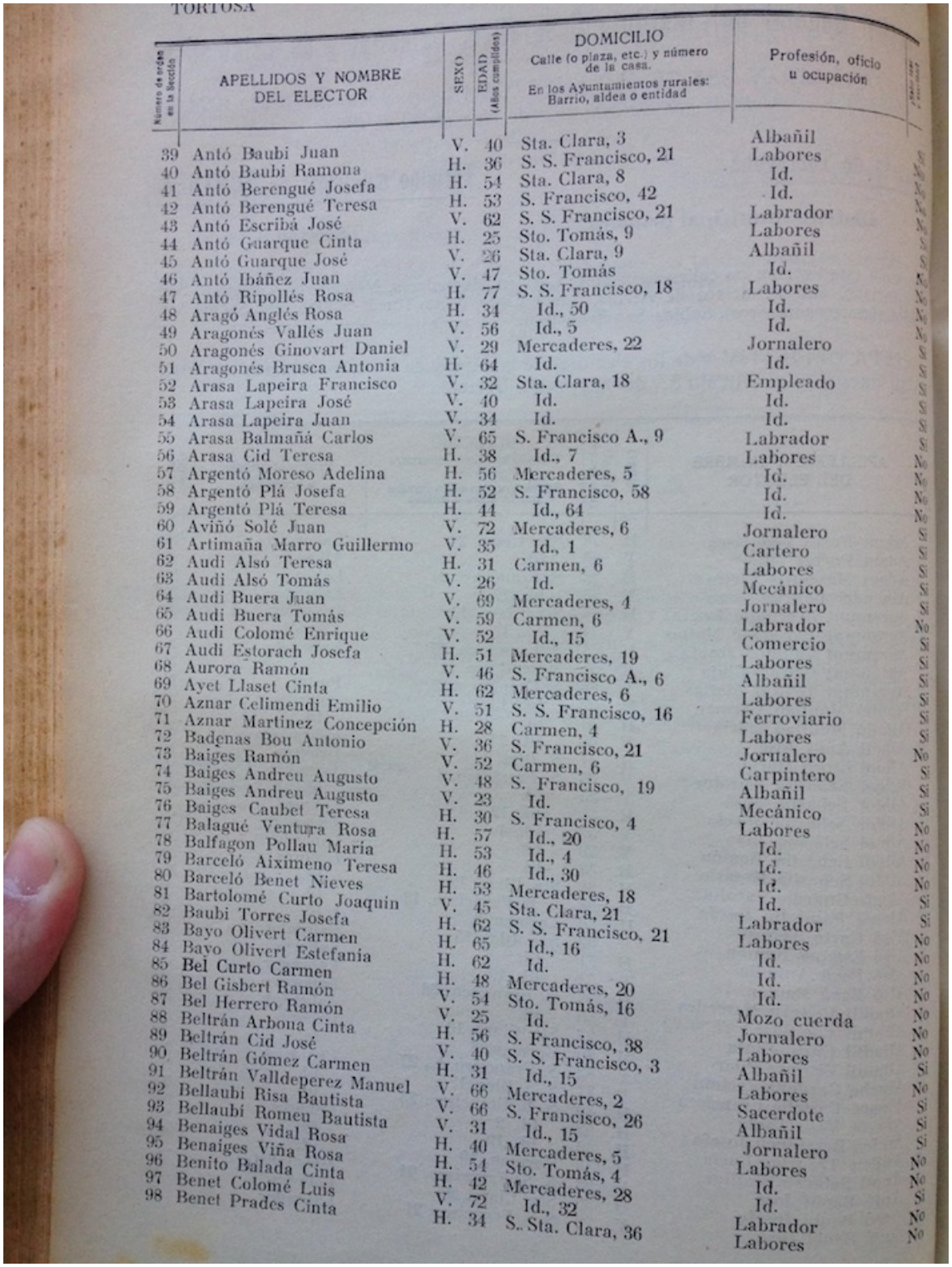
Table A.1: Descriptives of variables used in individual models

Variable	Obs	Mean	Std. Dev.	Min	Max
Individual-level variables					
Vote 1936	21,383	0.62	0.48	0	1
Vote 1934	21,383	0.47	0.4	0	1
Unskilled worker	21,383	0.24	0.43	0	1
Female	21,382	0.55	0.50	0	1
Literacy	21,208	0.81	0.39	0	1
Age	21,353	42.51	14.65	18	100
Precinct-level variables					
Distance Rep/Soc (Km)	36	0.28	0.26	0.03	1.3
Log distance Rep/soc	36	5.26	0.85	3.44	7.17
Log distance 1922 working class association	36	5.55	0.80	3.6	6.88
Distance 1922 working class association (Km)	36	0.34	0.24	0.03	0.98
Log distance anarchist Ateneu	36	6.29	0.66	4.16	7.25
Density unskilled workers	36	0.46	0.19	0.11	0.78
Distance city center	36	2.25	1.2	0.48	5.06

Table A.2: Descriptives of variables used in aggregate models

Variable	Obs	Mean	Std. Dev.	Min	Max
Turnout 1936	1,013	67.78	8.73	9.48	99.83
Log distance Rep/Soc	1,016	5.25	0.80	2.14	7.39
Log distance 1922 working class association	1,016	5.34	0.88	2.14	7.46
Log distance 1906 factory	1,016	5.45	0.82	0.39	7.75
Left vote 1934	914	53.93	17.87	6.94	93.67
Illiteracy	976	4.63	1.35	2	8
Population density	1,014	0.04	0.04	0.01	0.24
Distance city center	1,016	2.07	1.27	7.64	6.77

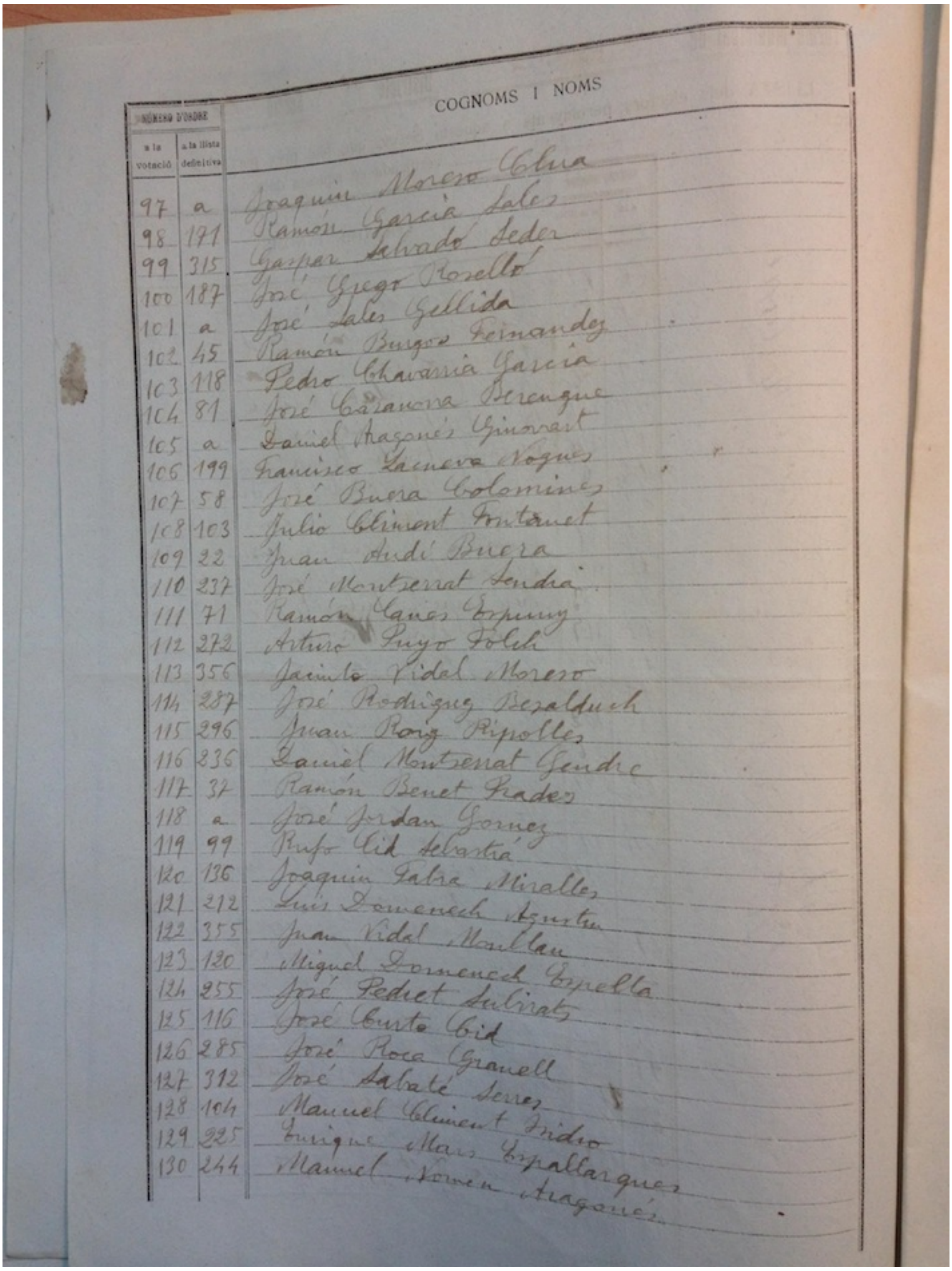
Figure A.1: Sample page of electoral census



TORTOSA

Número de orden en la Sección	APELLIDOS Y NOMBRE DEL ELECTOR	SEXO	EDAD (Años cumplidos)	DOMICILIO Calle (o plaza, etc.) y número de la casa. En los Ayuntamientos rurales: Barrio, aldea o entidad	Profesión, oficio u ocupación	
39	Antó Baubi Juan	V.	40	Sta. Clara, 3	Albañil	Sí
40	Antó Baubi Ramona	H.	36	S. S. Francisco, 21	Labores	No
41	Antó Berengué Josefa	H.	54	Sta. Clara, 8	Id.	No
42	Antó Berengué Teresa	H.	53	S. Francisco, 42	Id.	No
43	Antó Escribá José	V.	62	S. S. Francisco, 21	Labrador	Sí
44	Antó Guarque Cinta	H.	25	Sto. Tomás, 9	Labores	No
45	Antó Guarque José	V.	26	Sta. Clara, 9	Albañil	Sí
46	Antó Ibáñez Juan	V.	47	Sto. Tomás	Id.	Sí
47	Antó Ripollés Rosa	H.	77	S. S. Francisco, 18	Labores	No
48	Aragó Anglés Rosa	H.	34	Id., 50	Id.	No
49	Aragonés Vallés Juan	V.	56	Id., 5	Id.	No
50	Aragonés Ginovart Daniel	V.	29	Mercaderes, 22	Jornalero	Sí
51	Aragonés Brusca Antonia	H.	64	Id.	Id.	Sí
52	Arasa Lapeira Francisco	V.	32	Sta. Clara, 18	Empleado	Sí
53	Arasa Lapeira José	V.	40	Id.	Id.	Sí
54	Arasa Lapeira Juan	V.	34	Id.	Id.	Sí
55	Arasa Balmañá Carlos	V.	65	S. Francisco A., 9	Labrador	Sí
56	Arasa Cid Teresa	H.	38	Id., 7	Labores	No
57	Argentó Moreso Adelina	H.	56	Mercaderes, 5	Id.	No
58	Argentó Plá Josefa	H.	52	S. Francisco, 58	Id.	No
59	Argentó Plá Teresa	H.	44	Id., 64	Id.	No
60	Aviñó Solé Juan	V.	72	Mercaderes, 6	Jornalero	Sí
61	Artimaña Marro Guillermo	V.	35	Id., 1	Cartero	Sí
62	Audi Alsó Teresa	H.	31	Carmen, 6	Labores	Sí
63	Audi Alsó Tomás	V.	26	Id.	Mecánico	Sí
64	Audi Buera Juan	V.	69	Mercaderes, 4	Jornalero	Sí
65	Audi Buera Tomás	V.	59	Carmen, 6	Labrador	No
66	Audi Colomé Enrique	V.	52	Id., 15	Comercio	Sí
67	Audi Estorach Josefa	H.	51	Mercaderes, 19	Labores	Sí
68	Aurora Ramón	V.	46	S. Francisco A., 6	Albañil	Sí
69	Ayet Llaset Cinta	H.	62	Mercaderes, 6	Labores	Sí
70	Aznar Celimendi Emilio	V.	51	S. S. Francisco, 16	Ferroviario	Sí
71	Aznar Martinez Concepción	H.	28	Carmen, 4	Labores	Sí
72	Badenas Bou Antonio	V.	36	S. Francisco, 21	Jornalero	No
73	Baiges Ramón	V.	52	Carmen, 6	Carpintero	Sí
74	Baiges Andreu Augusto	V.	48	S. Francisco, 19	Albañil	Sí
75	Baiges Andreu Augusto	V.	23	Id.	Mecánico	Sí
76	Baiges Caubet Teresa	H.	30	S. Francisco, 4	Labores	No
77	Balagué Ventura Rosa	H.	57	Id., 20	Id.	No
78	Balfagon Pollau María	H.	53	Id., 4	Id.	No
79	Barceló Aximeno Teresa	H.	46	Id., 30	Id.	No
80	Barceló Benet Nieves	H.	53	Mercaderes, 18	Id.	Sí
81	Bartolomé Curto Joaquín	V.	45	Sta. Clara, 21	Labrador	Sí
82	Baubi Torres Josefa	H.	62	S. S. Francisco, 21	Labores	No
83	Bayo Olivert Carmen	H.	65	Id., 16	Id.	No
84	Bayo Olivert Estefanía	H.	62	Id.	Id.	No
85	Bel Curto Carmen	H.	48	Mercaderes, 20	Id.	No
86	Bel Gisbert Ramón	V.	54	Sto. Tomás, 16	Mozo cuerda	No
87	Bel Herrero Ramón	V.	25	Id.	Jornalero	No
88	Beltrán Arbona Cinta	H.	56	S. Francisco, 38	Labores	No
89	Beltrán Cid José	V.	40	S. S. Francisco, 3	Albañil	Sí
90	Beltrán Gómez Carmen	H.	31	Id., 15	Labores	No
91	Beltrán Valldeperez Manuel	V.	66	Mercaderes, 2	Sacerdote	Sí
92	Bellaubí Risa Bautista	V.	66	S. Francisco, 26	Albañil	Sí
93	Bellaubí Romeu Bautista	V.	31	Id., 15	Jornalero	Sí
94	Benaiges Vidal Rosa	H.	40	Mercaderes, 5	Labores	No
95	Benaiges Viña Rosa	H.	54	Sto. Tomás, 4	Id.	No
96	Benito Balada Cinta	H.	42	Mercaderes, 28	Id.	Sí
97	Benet Colomé Luis	V.	72	Id., 32	Labrador	No
98	Benet Prades Cinta	H.	34	S. Sta. Clara, 36	Labores	No

Figure A.2: Sample page of voters' lists



NÚMERO D'ORDRE a la votació	a la llista definitiva	COGNOMS I NOMS
97	a	Joaquín Moreno Clua
98	171	Ramón García Sales
99	315	Gaspar Salvadó Seder
100	187	José Grego Roselló
101	a	José Sales Gellida
102	45	Ramón Burgos Fernández
103	118	Pedro Chavarria García
104	81	José Casanova Berenguer
105	a	Daniel Aragonés Ginovart
106	199	Francisco Lacueva Nogués
107	58	José Buera Colomines
108	103	Julio Climent Fontanet
109	22	Juan Audí Buera
110	237	José Montserrat Sendra
111	71	Ramón Llanes Espuny
112	272	Arturo Puyo Folch
113	356	Jacinto Vidal Moreno
114	287	José Rodríguez Besalduch
115	296	Juan Roig Ripollés
116	236	Daniel Montserrat Sendra
117	37	Ramón Benet Prades
118	a	José Jordán Gómez
119	99	Rufo Cid Sebastiá
120	136	Joaquín Fabra Miralles
121	212	Luis Domenech Agustín
122	355	Juan Vidal Monllau
123	120	Miguel Domenech Espella
124	255	José Pedret Subirats
125	116	José Curto Cid
126	285	José Roca Granell
127	312	José Sabaté Serres
128	104	Manuel Climent Isidro
129	225	Enrique Mas Espallargues
130	244	Manuel Nomen Aragonés

Map A.3 shows the precinct division of the city with the sampled precincts, showing that they were spread around the city and not geographically concentrated. In figures A.4 and A.5 we map the geocoded ateneus and organizations of the 30's and 20's.

Figure A.3: Sampled precincts

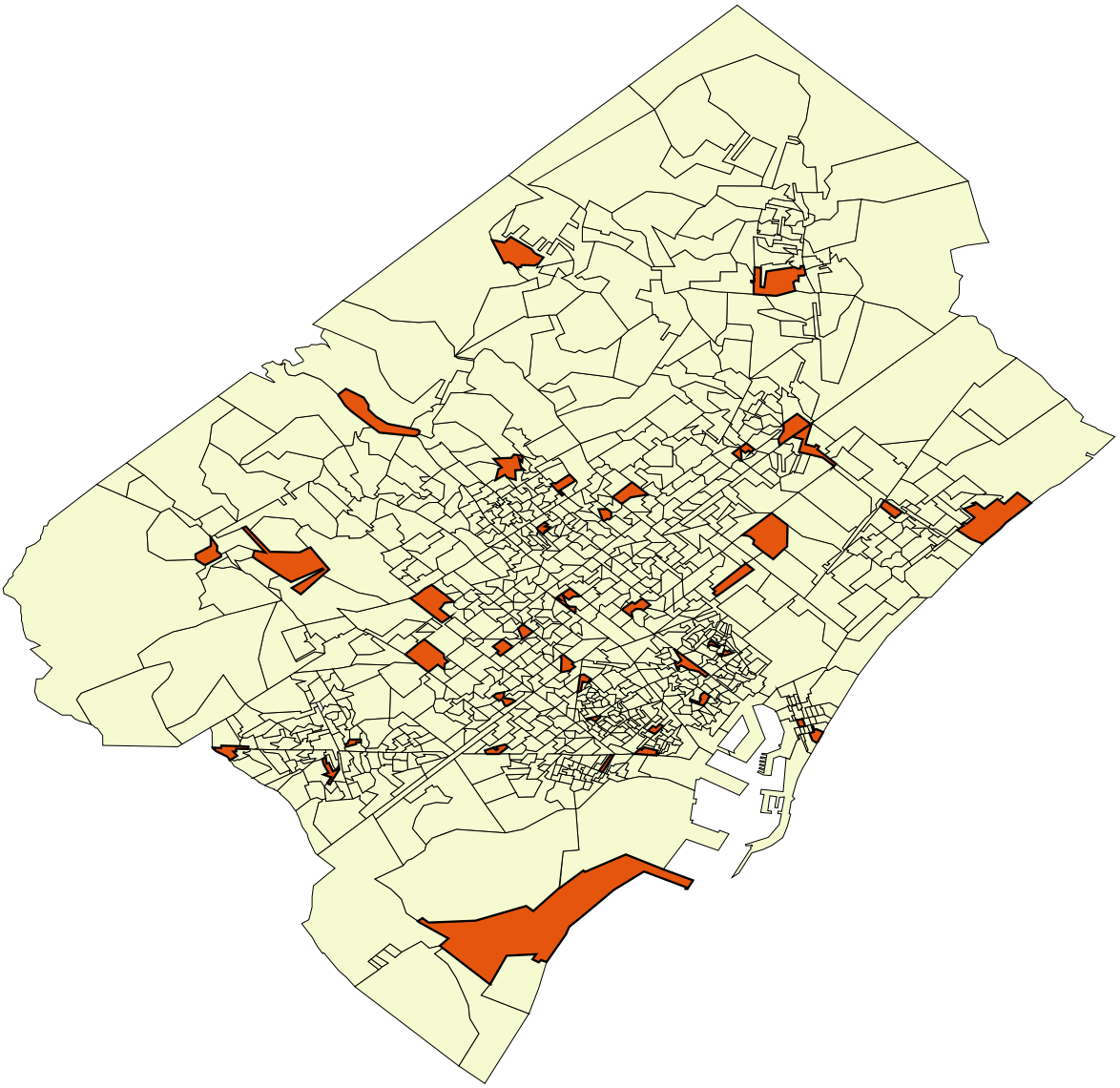


Figure A.4: Anarchist and Republican/Socialist centers

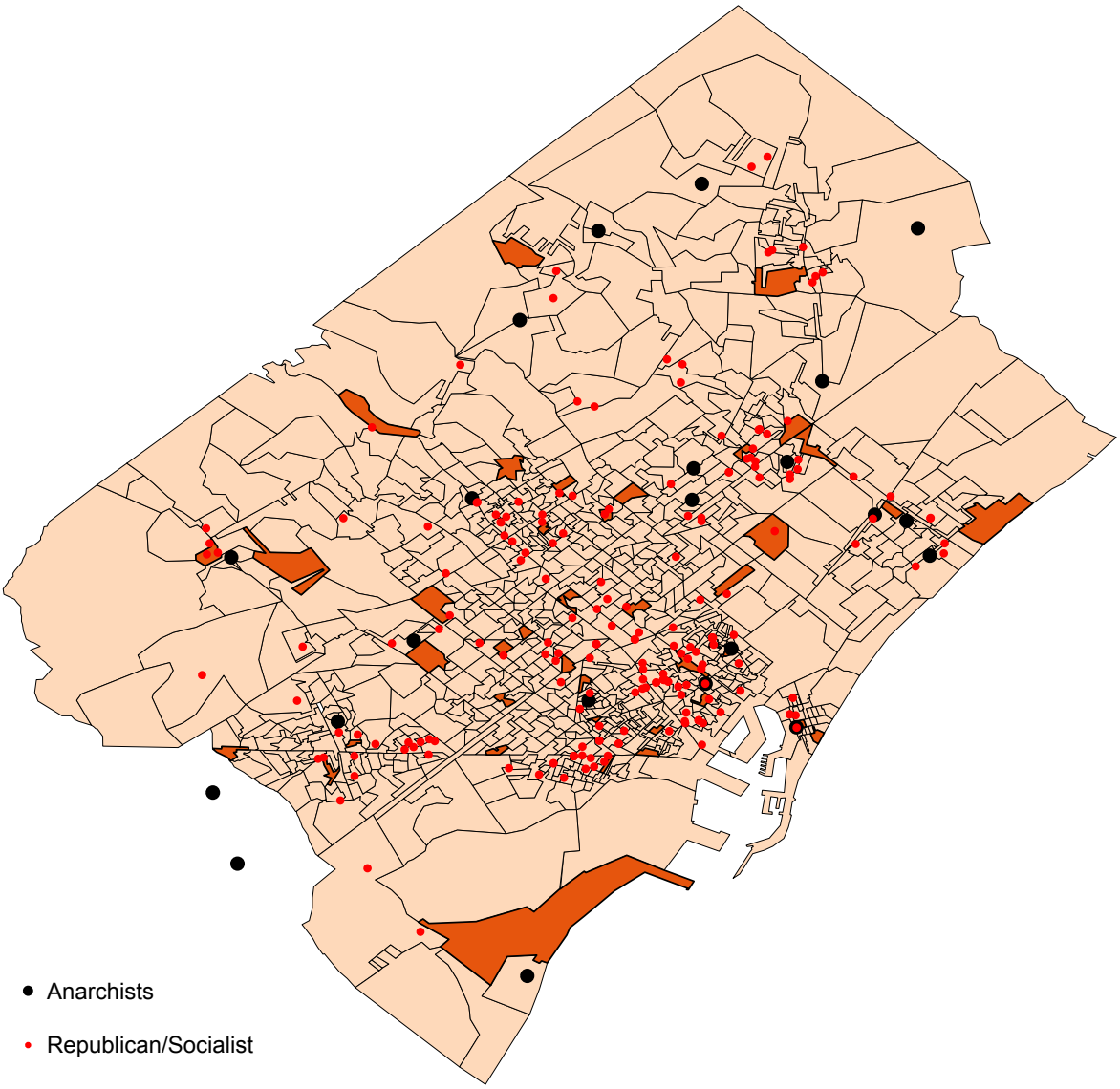
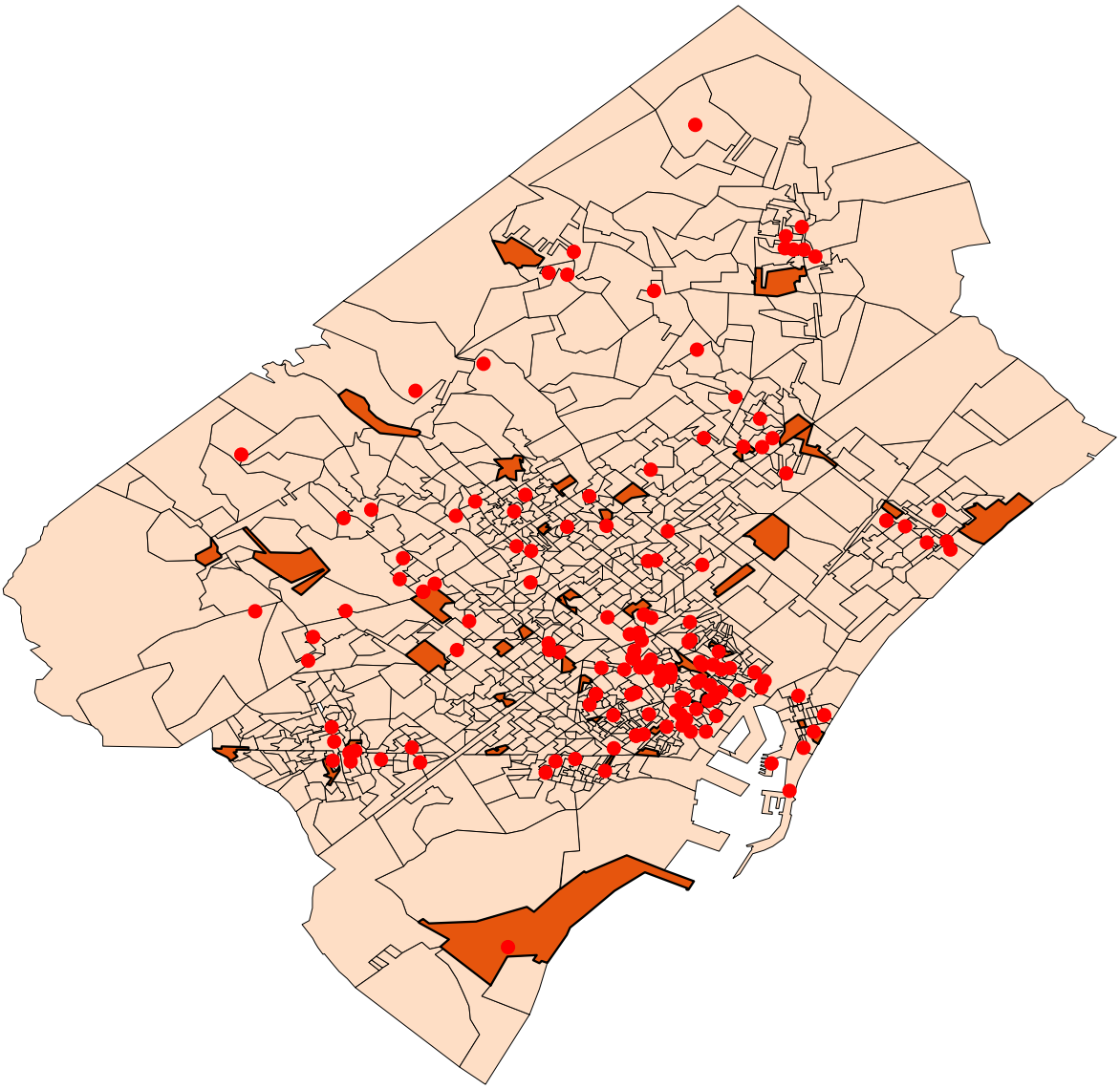


Figure A.5: 1922 working class neighborhood associations



B Balancedness

In table B.1 we check whether our sample is balanced or, in other words, if distance to organizations varies systematically with other precinct characteristics. We regress distance on population density, share of unskilled workers and distance to city center. Results show that our main IV is correlated with population density and distance to city center, so not controlling for these variables might bias the coefficients. It is, however, uncorrelated to socio-demographic factors.

Table B.1: Balancedness

	(1) Distance Rep/Soc	(2) Turnout 1936
Population density	-2.81**	16.98
	(0.86)	(29.52)
Share male unskilled workers	0.23	-4.59
	(0.18)	(5.59)
Distance city center	0.07**	1.33
	(0.03)	(0.89)
Literacy rate	-0.51	0.15*
	(0.42)	(0.09)

The table represents the coefficients of regressing the DVs on the control variables, one-by-one. SE in parentheses
+ p<.1, * p<.05, ** p<.01, *** p<.001

C Robustness checks

In this section we present a set of robustness checks not included in the main text due to space reasons. In table C.1 we replicate the baseline results using district fixed effects. Table C.2 presents the results with a logit specification of the models, given the dichotomous nature of the dependent variable. Table C.3 shows the same results using mixed-effects (multilevel) linear and logit models. In table C.4 we add the full interaction of distance, worker and vote in t_{-1}. We also included precinct-level cluster SE (table C.5). Results are robust and consistent across these alternative specifications.

Table C.1: Robustness: District Fixed Effects

Robustness: District Fixed Effects	(1)	(2)	(3)	(4)
	Km	Log meters	Km	Log meters
Unskilled worker	-0.01	-0.01	0.00	0.08*
	(0.01)	(0.01)	(0.01)	(0.04)
Km to repsoc	-0.10***		-0.08***	
	(0.01)		(0.02)	
Log distance to repsoc		-0.03***		-0.03***
		(0.00)		(0.00)
Unskilled worker X Km to repsoc			-0.06**	
			(0.03)	
Unskilled worker X Log distance to repsoc				-0.02**
				(0.01)
Constant	0.22***	0.36***	0.21***	0.33***
	(0.03)	(0.04)	(0.03)	(0.04)
Individual-Level Controls	Yes	Yes	Yes	Yes
Precinct-Level Controls	Yes	Yes	Yes	Yes
District Fixed Effects	Yes	Yes	Yes	Yes
Standard Errors	Robust	Robust	Robust	Robust
R-squared	0.171	0.171	0.171	0.171
N	21182	21182	21182	21182

Individual-level controls: Worker, Literacy, Age, Age Squared, Gender, Gender $\times$ Worker, Vote in t_{-1}

Precinct-level controls: Share of Unskilled Workers and Distance to City Center

*** p<0.01, ** p<0.05, * p<0.1

Table C.2: Robustness: Logit Specification

Robustness: Logit specification	(1) Km	(2) Log meters	(3) Km	(4) Log meters
Unskilled worker	-0.08	-0.08*	0.04	0.58**
	(0.05)	(0.05)	(0.06)	(0.23)
Km to repsoc	-0.50***		-0.36***	
	(0.06)		(0.07)	
Log distance to repsoc		-0.13***		-0.10***
		(0.02)		(0.02)
Unskilled worker X Km to repsoc			-0.41***	
			(0.12)	
Unskilled worker X Log distance to repsoc				-0.12***
				(0.04)
Constant	-1.44***	-0.85***	-1.48***	-1.02***
	(0.16)	(0.18)	(0.16)	(0.19)
Individual-Level Controls	Yes	Yes	Yes	Yes
Precinct-Level Controls	Yes	Yes	Yes	Yes
Standard Errors	Robust	Robust	Robust	Robust
R-squared	No	No	No	No
N	21,182	21,182	21,182	21,182

Individual-level controls: Worker, Literacy, Age, Age Squared, Gender, Gender $\times$ Worker, Vote in t_{-1}

Precinct-level controls: Share of Unskilled Workers and Distance to City Center

*** p<0.01, ** p<0.05, * p<0.1

Table C.3: Robustness: Linear and logit Mixed-effects models

	(1) mixed1	(2) mixed2	(3) mixed3	(4) melogit1	(5) melogit2	(6) melogit3
Distance to repsoc	-0.10**	-0.08**		-0.51**	-0.40*	
	(0.04)	(0.04)		(0.20)	(0.21)	
Unskilled worker	-0.01	0.00	0.07	-0.08*	0.02	0.36
	(0.01)	(0.01)	(0.04)	(0.05)	(0.06)	(0.23)
Worker× distance		-0.07***			-0.35***	
		(0.03)			(0.13)	
Log distance to repsoc			-0.02*			-0.11*
			(0.01)			(0.06)
Worker×log distance			-0.02*			-0.08*
			(0.01)			(0.04)
Constant	0.19***	0.18***	0.29***	-1.50***	-1.53***	-1.02***
	(0.04)	(0.04)	(0.07)	(0.20)	(0.20)	(0.36)
var([precinct])	0.003**	0.003**	0.003**	0.08***	0.08***	0.09***
	(0.00)	(0.00)	(0.00)	(0.02)	(0.02)	(0.02)
Individual-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes
Precinct-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes
N	21,182	21,182	21,182	21,182	21,182	21,182

Individual-level controls: Worker, Literacy, Age, Age Squared, Gender, Gender × Worker, Vote in t_{-1}

Precinct-level controls: Share of Unskilled Workers and Distance to City Center

*** p<0.01, ** p<0.05, * p<0.1

Table C.4: Robustness: Basline Fully Interacted Models

Robustness: Base line fully interacted	(1)	(2)	(3)	(4)
	Km	Log meters	Km	Log meters
Vote t-1	0.35***	0.29***	0.35***	0.29***
	(0.01)	(0.04)	(0.01)	(0.04)
Unskilled worker	0.03*	0.17**	0.02	0.17**
	(0.02)	(0.07)	(0.02)	(0.07)
Unskilled worker X Vote t-1	-0.03	-0.12	-0.03	-0.12
	(0.02)	(0.09)	(0.02)	(0.09)
Km to repsoc	-0.07***		-0.10***	
	(0.02)		(0.02)	
Km to repsoc X Unskilled worker	-0.11***		-0.10***	
	(0.03)		(0.03)	
Km to repsoc X Vote t-1	0.06**		0.05*	
	(0.03)		(0.03)	
Km to repsoc X Unskilled worker X Vote t-1	0.05		0.05	
	(0.05)		(0.05)	
Log distance to repsoc		-0.02***		-0.03***
		(0.01)		(0.01)
Log distance to repsoc X Unskilled worker		-0.03***		-0.03***
		(0.01)		(0.01)
Log distance to repsoc X Vote t-1		0.01		0.01
		(0.01)		(0.01)
Log distance to repsoc X Unsk Worker X Vote t-1		0.02		0.02
		(0.02)		(0.02)
Constant	0.22***	0.31***	0.19***	0.31***
	(0.03)	(0.05)	(0.03)	(0.05)
Individual-Level Controls	Yes	Yes	Yes	Yes
Precinct-Level Controls	No	No	Yes	Yes
Standard Errors	Robust	Robust	Robust	Robust
R-squared	0.165	0.165	0.167	0.166
N	21182	21182	21182	21182

Individual-level controls: Worker, Literacy, Age, Age Squared, Gender, Gender $\times$ Worker, Vote in t_{-1}

Precinct-level controls: Share of Unskilled Workers and Distance to City Center

*** p<0.01, ** p<0.05, * p<0.1

Table C.5: Robustness: Clustering the standard errors at the precinct level

Robustness: Clustering	(1)	(2)	(3)	(4)
	Km	Log meters	Km	Log meters
Unskilled worker	-0.01	-0.01	0.01	0.11**
	(0.01)	(0.01)	(0.01)	(0.05)
Km to repsoc	-0.10***		-0.07**	
	(0.03)		(0.03)	
Log distance to repsoc		-0.03***		-0.02**
		(0.01)		(0.01)
Unskilled worker X Km to repsoc			-0.08***	
			(0.02)	
Unskilled worker X Log distance to repsoc				-0.02**
				(0.01)
Constant	0.20***	0.31***	0.19***	0.28***
	(0.04)	(0.07)	(0.05)	(0.07)
Individual-Level Controls	Yes	Yes	Yes	Yes
Precinct-Level Controls	Yes	Yes	Yes	Yes
Standard Errors	Robust	Robust	Robust	Robust
R-squared	0.166	0.165	0.166	0.166
N	21182	21182	21182	21182

Individual-level controls: Worker, Literacy, Age, Age Squared, Gender, Gender $\times$ Worker, Vote in t_{-1}

Precinct-level controls: Share of Unskilled Workers and Distance to City Center

*** p<0.01, ** p<0.05, * p<0.1

In table C.6 we present the random effect estimation of the models estimating the anarchist change of strategy from which the effects plotted in figure 3 were calculated.

Table C.6: Robustness: Panel Individual Random Effects Models

Robustness: Panel REs	(1)	(2)	(3)	(4)
	Log meters	Log meters	Log meters	Log meters
1936 election	0.34***	0.34***	0.30***	0.30***
	(0.04)	(0.04)	(0.04)	(0.04)
Unskilled Worker	0.01*	-0.05***	-0.04***	-0.04***
	(0.01)	(0.01)	(0.01)	(0.01)
1936 election X Unskilled worker	0.02***	0.02***	0.01*	0.02*
	(0.01)	(0.01)	(0.01)	(0.01)
Log distance to anarchist	0.04***	0.03***	0.01*	-0.00
	(0.01)	(0.01)	(0.01)	(0.01)
1936 election X Log distance to anarchist	-0.04***	-0.04***	-0.03***	-0.03***
	(0.01)	(0.01)	(0.01)	(0.01)
Log distance to repsoc	-0.03***	-0.03***	-0.02***	-0.02***
	(0.00)	(0.00)	(0.00)	(0.00)
1936 election X Log distance to repsoc	0.01*	0.01	0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)
Constant	0.38***	-0.23***	-0.07	0.00
	(0.03)	(0.04)	(0.04)	(0.05)
District Fixed Effects	No	No	No	Yes
Precinct-Level Controls	No	No	Yes	Yes
R-squared (overall)	0.025	0.059	0.064	0.067
N	46,192	45,733	45,733	45,733

Individual-level controls: Worker, Literacy, Age, Age Squared, Gender, Gender $\times$ Worker, Vote in t_{-1}

Precinct-level controls: Share of Unskilled Workers and Distance to City Center

*** p<0.01, ** p<0.05, * p<0.1

D Measurement error

Our research is based on official election register data. Therefore, our data are not subject to the type of bias that is common in survey-based research on turnout, namely underreporting of abstention due to social desirability. However, this does not mean that is completely error-free. In this section we discuss in detail the data collection procedure and the potential sources of error that we face. Then, we discuss some robustness checks we performed to assess the impact of these errors in our results.

We have been working throughout the paper with data from two different elections: the 1936 legislative election and the 1934 local election. The 1934 election was based on the 1932 electoral census, and the 1936 election was based on the 1934 census. The data collection relied on the 1934 census (available for the whole city, unlike the 1932 that is only available for 6 out of 10 city districts because it was lost presumably during the 1936-39 civil war). Voters that appear on the census of a given precinct could vote in that precinct. However, as far as we can tell, some voters that changed residence between the moment of the census and the election could possibly vote at their new location by presenting a certificate.

The 1934 census was converted in a dataset, including each voters' id, age, gender, occupation and literacy. Then, a column was added to the data with value 1 if the voter appeared in the forms filled by hand at the polling station by the randomly selected citizens that oversee the voting process. Those voters that do not appear on the list, get a zero. The same was repeated for the 1934 election. This process can potentially incur in different types of error, especially false negatives, since abstention is not directly observed, but inferred from absence from the voting list. The possible errors in this procedure are the following:

1. Impossibility of identification of names, due to illegibility of the handwriting or misspelled names in the original list.
2. Voters that appear on the 1934 voting list but not in the 1934 census. These voters might have moved after the election (January 14th 1934) and prior to the completion of the census (June 1934).
3. Voters that appear on the 1934 census but not in the 1932 census. These voters were registered as non-voters in 1934 if they do not appear on the list, but they could have just moved in the precinct before the 1934 election from a 1932 precinct for which the information is not available.

In order to make sure that our results are not driven by these potential sources of error, we replicated the analysis by excluding from the analysis the potential false negatives: all those voters that do not appear in the 1932 census are coded as missing. This correction can only be performed for 6 out of 10 districts. Table D.1 presents the baseline results with the alternative coding of the dubious cases, showing how the estimates are robust.

Table D.1: Measurement Error

Robustness: Measurement Error	(1)	(2)	(3)	(4)
	Km	Log meters	Km	Log meters
Unskilled worker	-0.01	-0.01	0.01	0.09**
	(0.01)	(0.01)	(0.01)	(0.04)
Km to repsoc	-0.10***	-0.03***	-0.08***	-0.02***
	(0.01)	(0.00)	(0.02)	(0.00)
Unskilled worker X Km to repsoc			-0.07***	-0.02**
			(0.03)	(0.01)
Constant	0.21***	0.33***	0.20***	0.30***
	(0.03)	(0.04)	(0.03)	(0.04)
Individual-Level Controls	Yes	Yes	Yes	Yes
Precinct-Level Controls	Yes	Yes	Yes	Yes
Standard Errors	Robust	Robust	Robust	Robust
R-squared	0.171	0.171	0.171	0.171
N	20221	20221	20221	20221

Individual-level controls: Worker, Literacy, Age, Age Squared, Gender, Gender $\times$ Worker, Vote in t_{-1}
Where the variable Vote in t_{-1} is corrected by excluding voters that do not appear in the 1932 census.
Precinct-level controls: Share of Unskilled Workers and Distance to City Center
*** p<0.01, ** p<0.05, * p<0.1

E Alternative classification of occupations

Throughout the paper we work with a dichotomous classification of voters that divides them between unskilled workers and the rest. The identification of unskilled workers is done through the coding of the broad category *jornalero-peon* (day labourer). This is a rough measure, especially for the reference category, that conflates owners and highly skilled workers with other low-skilled occupations and inactive population.

Although this, in any case, could produce a downwards bias in the estimates of *worker*, we have also replicated the analysis with an alternative categorization of occupations, based on the HISCLASS classification as used in Silvestre, Ayuda and Pinilla (2015). We recoded the scheme intro three categories: the first one includes owners, professionals and non-manual workers (groups III and IV), the second one manual workers (groups I and II) and, finally, the inactive population. This results in a broader, more inclusive measure of manual workers as well as in a separation of the non-manual workers and owners from the inactive, mostly composed by women that were coded as housewives, despite the fact that, according to several sources, a majority of them were actually employed in the informal sector (Vilanova, 1992; Silvestre, Ayuda and Pinilla, 2015). Table E.1 shows the baseline results using this alternative measure of occupation. These results, as well as the rest of the models in the paper, are robust to this alternative measure.

Table E.1: Baseline results with alternative occupation measure

	(1) Km	(2) Log meters	(3) Km	(4) Log meters
Distance to Rep/Soc *ateneus*	-0.12***	-0.03***	0.02	0.01
	(0.01)	(0.00)	(0.04)	(0.01)
Manual worker	-0.05***	-0.05***	-0.01	0.19***
	(0.01)	(0.01)	(0.01)	(0.06)
Inactive	-0.01	-0.01	0.03	0.19***
	(0.01)	(0.01)	(0.02)	(0.06)
Manual Worker× Distance			-0.17***	-0.05***
			(0.04)	(0.01)
Inactive× Distance			-0.14***	-0.04***
			(0.04)	(0.01)
Constant	0.24***	0.38***	0.20***	0.18***
	(0.03)	(0.04)	(0.03)	(0.06)
Individual-Level Controls	Yes	Yes	Yes	Yes
Precinct-Level Controls	Yes	Yes	Yes	Yes
Standard Errors	Robust	Robust	Robust	Robust
R^2	0.167	0.166	0.168	0.167
N	19,205	19,205	19,205	1,9205

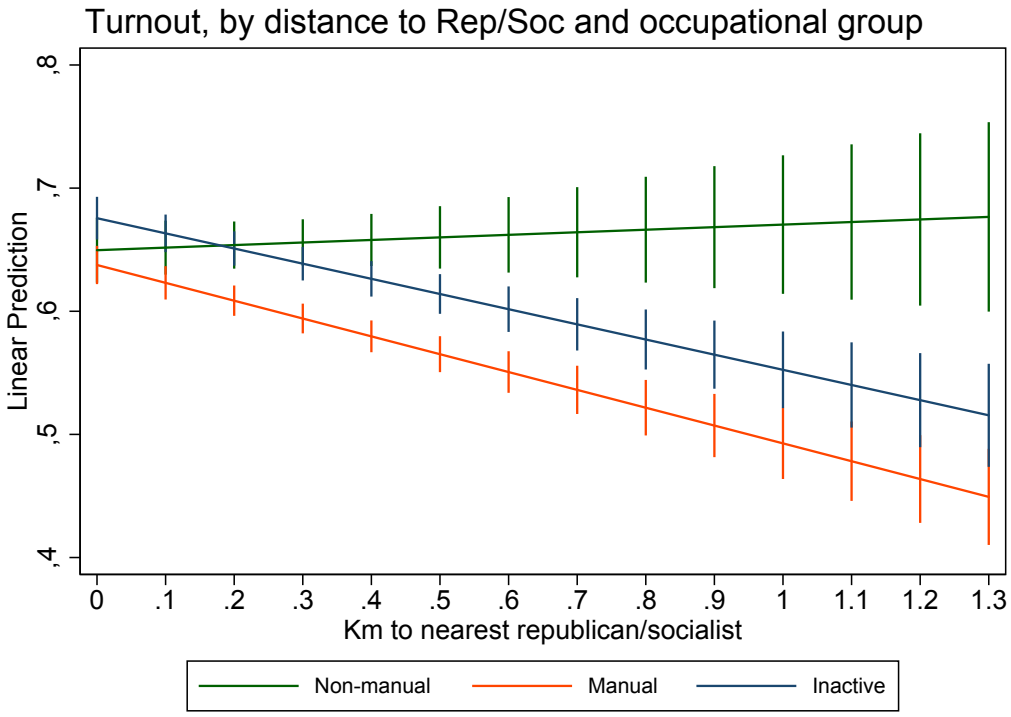
Individual-Level Controls: Literacy. Age. Age Squared. Gender. Vote in t_{-1}

Precinct-Level Controls: Share of Unskilled Workers and Distance to City Center

* p<.1. ** p<.05. *** p<.01

The core result, that distance to Republican/Socialist organizations depresses turnout especially for manual workers is represented in figure E.1. While the organizations do not have any effect whatsoever for the non-manual workers, they are important predictors of voting for manual workers and those coded as inactive by the electoral census.

Figure E.1: Predicted turnout by distance to organizations and occupation



F Aggregate analysis, longitudinal

With the precinct-level data we can also replicate the longitudinal analysis presented in section 5.3 for the whole city, to estimate the effect of the anarchists' change of strategy on the turnout levels at the precinct-level. Table F.1 shows three different specifications of the panel-data analysis of precinct data: OLS, Fixed-effects and random effects. Proximity to republican/socialist *ateneus* has a strong, positive effect on turnout (about 13 percentage points per km), while proximity to anarchist *ateneus* depressed turnout in 1934 and had no significant effect overall in 1936. The magnitude of the *1936 × Proximity to anarchist* is similar across specifications, reflecting the effect of the discontinuation of the anti-voting campaign by the CNT in the 1936 general election.

Table F.1: Aggregate analysis: turnout at the precinct level. Panel

	(1) OLS	(2) FE	(3) RE
Proximity to republican/socialist	13.80***		13.54***
	(1.52)		(1.50)
1936 election	12.42***	12.16***	12.26***
	(0.95)	(0.60)	(0.59)
1936 election×Proximity	-2.30	-1.89	-2.04
	(2.13)	(1.29)	(1.29)
Proximity to anarchist Ateneu	-3.72***		-3.49***
	(0.93)		(0.91)
1936 election×Proximity anarchist	2.75*	2.39**	2.52**
	(1.28)	(0.79)	(0.79)
Constant	57.64***	56.68***	57.81***
	(0.70)	(0.19)	(0.68)
R^2 within		0.667	
R^2 overall	0.310	0.251	0.310
ρ		0.714	0.632
N	1,927	1,927	1,927

+ p<.1, * p<.05, ** p<.01, *** p<.001

G Additional Figures

Figure G.1: Joint Density Function of Left Increase and Turnout Increase, 1934-36

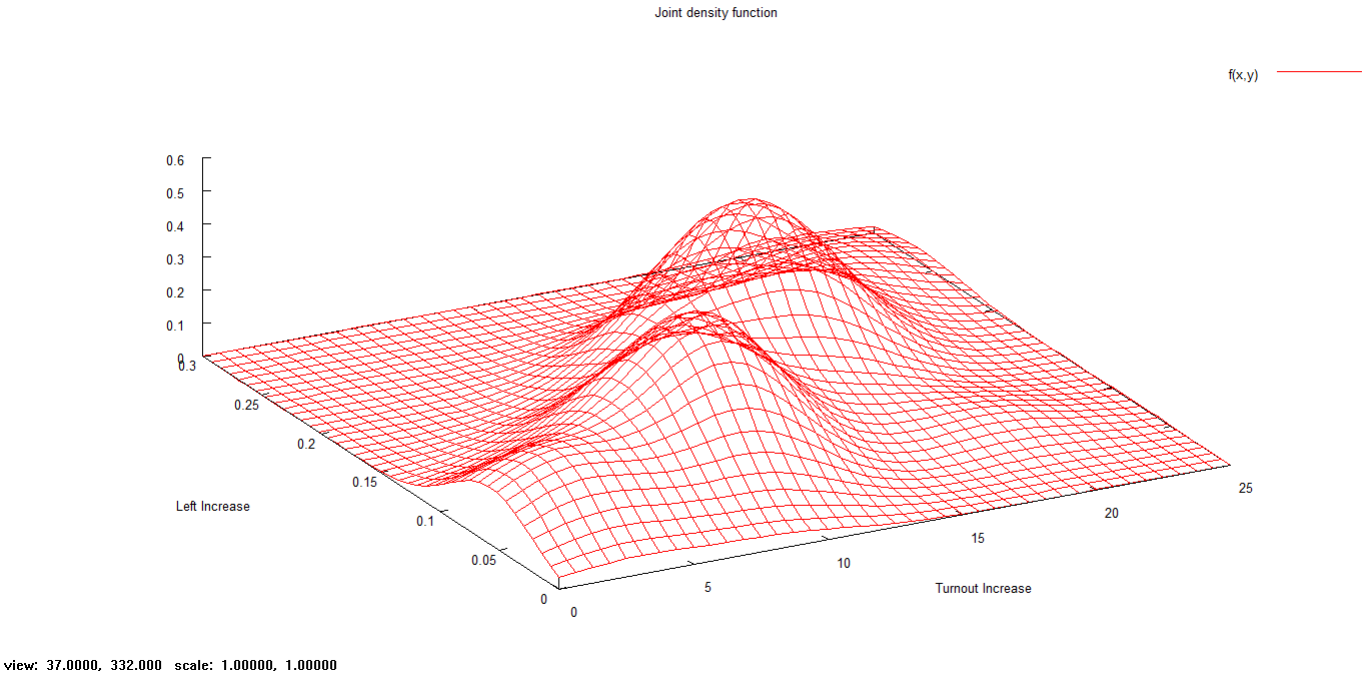


Figure G.2: Joint Density Function of Left Increase and Density Unskilled Workers, 1934-36

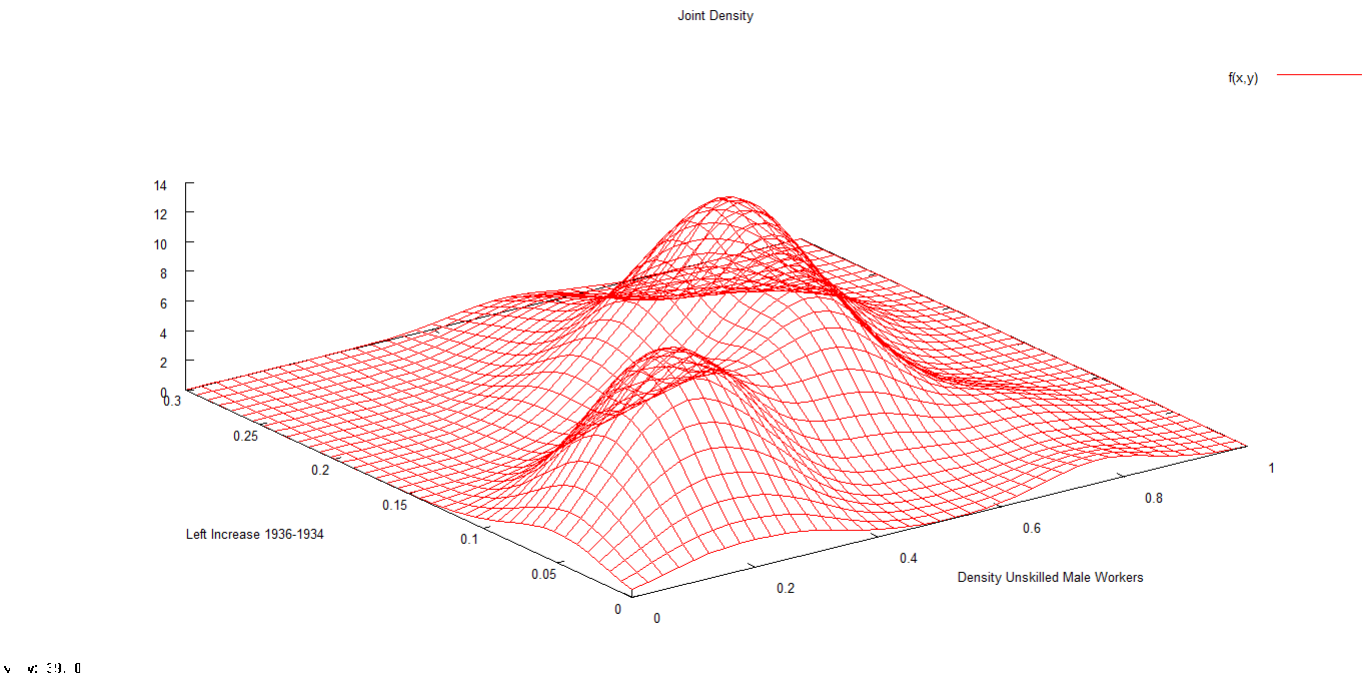


Figure G.3: Effect of age on the probability of voting, 1934-36

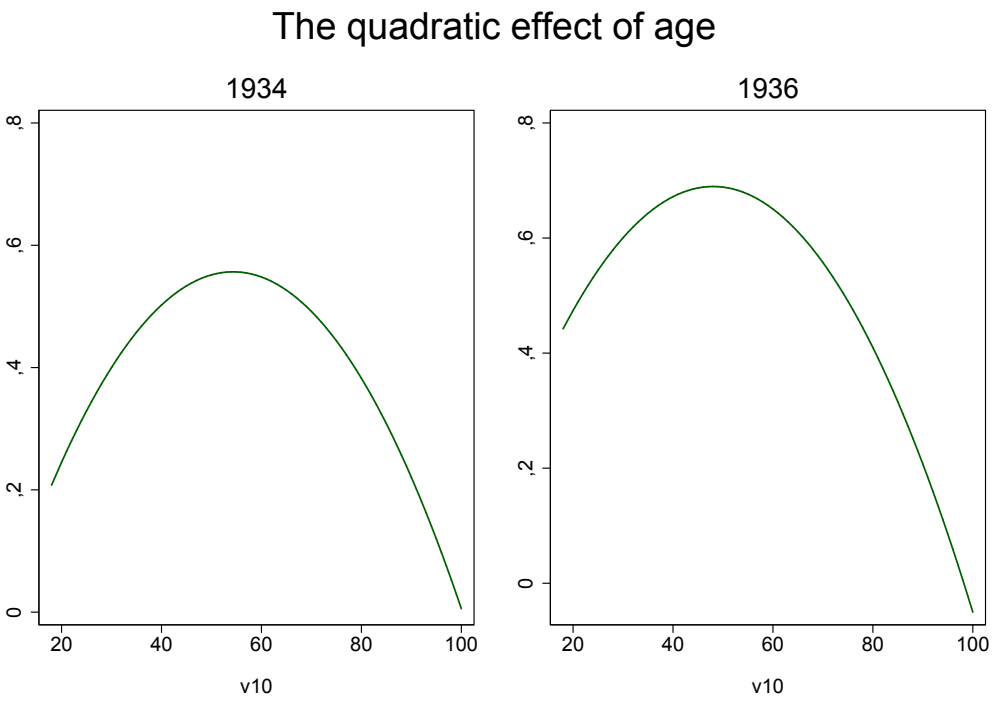


Figure G.4: Spatial Correlations: 1930s Rep/Soc Associations and Factories

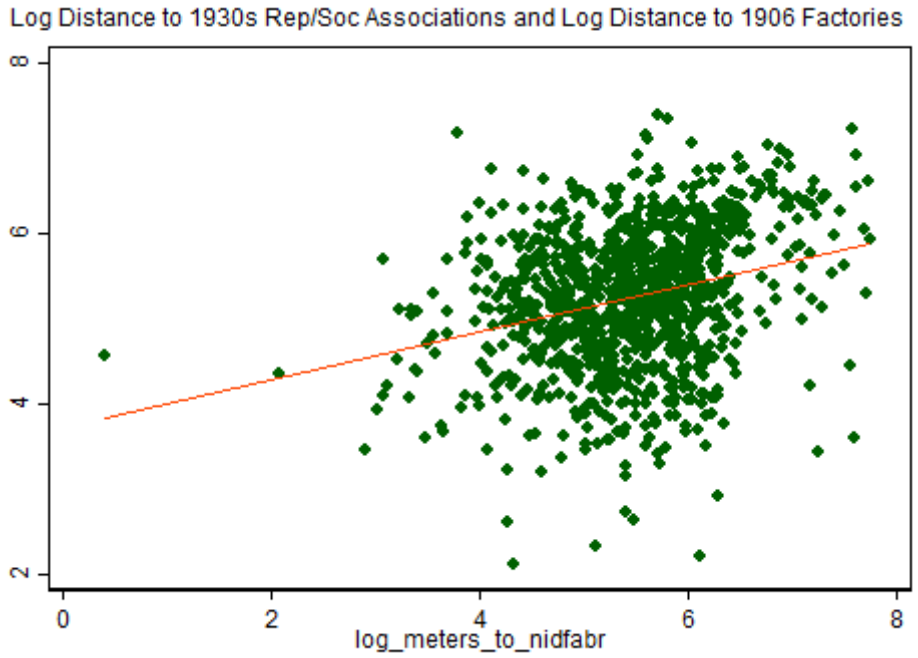
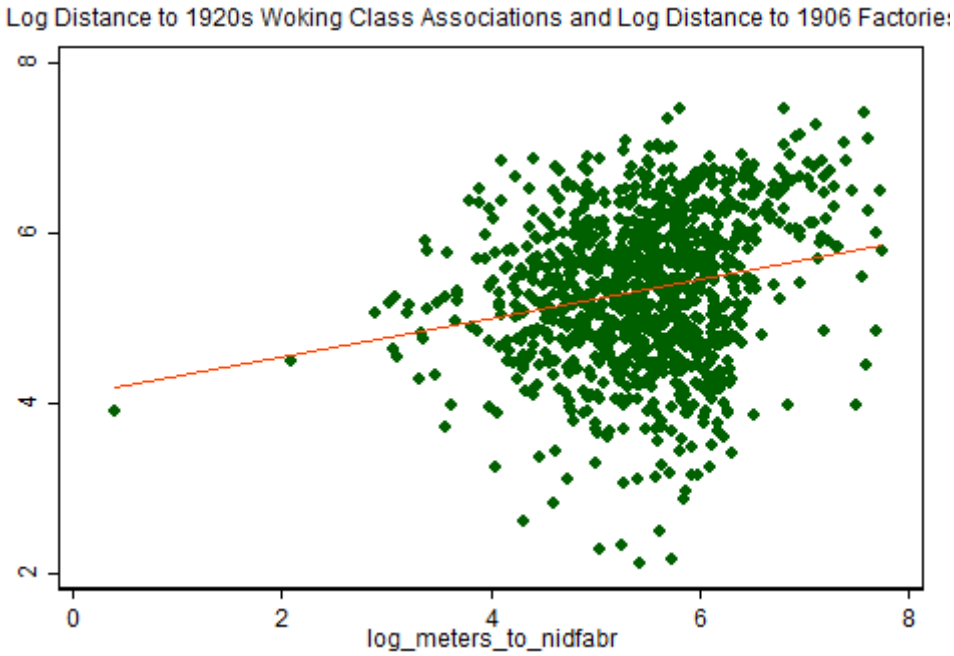


Figure G.5: Spatial Correlations:1920s Working Class Associations and 1906 Factories



H Supplemental Information: Spatial dimension

H.1 Reconstructing precinct maps

We reconstructed the 1930's Barcelona shapefiles using the maps included in the 'Electoral Atlas of the Spanish Second Republic in Catalonia' (Vilanova, 2005). The original geospatial vector data were not available and, accordingly, we reconstructed them in several steps:

In a first step, we georeferenced a 1930's Barcelona map in order to later assign spatial coordinates to the newly reconstructed Barcelona precinct maps. The map was downloaded from the Catalan Cartographic and Geologic Institute[16]. Following the standard procedure, we assigned real-world coordinates to a number of reference points, which were mostly landmark buildings or junctions that have not changed since then. We applied a second order polynomial transformation and enough control points in order to get an acceptable Root Mean Square Error value.

The second step consisted of vectorizing high-quality scanned images of the 1930 maps. More concretely, we geo-scanned raster images (the maps from the Electoral Atlas by (Vilanova, 2005)) into vector-based feature layers. Since the number of precincts in each of the maps was substantial (more than a thousand including non-contiguous precincts with the same code), we relied on interactive vectorization, which allows for more control over the vectorization process by supporting raster snapping and raster tracing. Shape and vector recognition was fairly good, although it contained some errors that forced us to drop a fair amount of precincts.

In the third step, we manually reconstructed the rest of the precincts by following the information of the Electoral Atlas (Vilanova, 2005).

All in all, we obtained two precinct shapefiles for the city of Barcelona, corresponding to the 1934 municipal elections and 1936 general elections.

H.2 Interpolation

We used areal weighting (AW) to interpolate data from the 1934 elections onto 1936 boundaries. The AW method, the simplest method procedure, uses the physical overlap of the constituencies to determine the transfers. This method, however, assumes a uniform distribution of the variable of interest at the precinct level and does not take into account the varying population density of each precinct. In our case this concern is alleviated due to the proximity of the two elections (less than 2 years). As a robustness check, we also estimated "dasymetric interpolation" (DI), which seeks to approximate the underlying distribution of population at the precinct level, using the precincts for which population figures are available. Both methods yielded the same results. In both cases, we followed Goplerud (2016) estimation procedure.

[16] Available at `http://cartotecadigital.icc.cat`. Map reference: RM.84464. We thank the Institute for facilitating a high-quality scanned image of the map.

H.3 Geocoded entities

H.3.1 Republicans and socialists

Data on politically active working class neighborhood associations and social centers come from Solà i Gussinyer (1993). For each association, *ateneu* or social center, we double-checked the street name with the current Barcelona Dictionary of Street Names[17]. There were a few cases in which the street record did not include the number. In these cases, we used the press of the time to find the exact location. In three cases, we could not find the street number. Since the street was small, we randomly located the association coordinates on the street.

The full list of the republican/socialist associations used in the analysis is the following:

1. Ateneu Instructiu Obrer
2. Penya Republicana del Districte IV
3. Joventut Radical d'Aliança Republicana del Districte IV
4. Cercle Radical d'Aliança Republicana del Distrcite IV
5. Ateneu Democràtic del Districte IV
6. Ateneu Republicà Federal del Districte X
7. Societat Mutual de l'Ateneu Colon
8. Unió Republicana del Districte X
9. Casal d'Esquerra Republicana del districte X
10. Ateneu Obrer Català de Sant Martí
11. Grup Socialista de la Casa del Poble
12. Coalició de Defensa Obrera
13. Cercle Radical d'Aliança Republicana del Districte IV de l'Eixample
14. Ateneu Popular del Districte IV
15. Ateneu Republicà
16. Coalició Democràtica de Defensa Obrera del Districte IV
17. Centre i Joventut ERC del Districte V
18. Ateneu Nacionalista d'Esquerra del Poble Nou
19. Ateneu Pi i Margall
20. Grup Socialista Obrer de Sant Martí de Provençals
21. Ateneu Republicà de Sant Martí
22. Federació Local Socialista
23. Ateneu Democràtic Republicà del Districte I
24. Joventut de la Fraternitat Republicana de la Barceloneta
25. Centre Català d'Esquerra del Clot
26. Unió Socialista de Catalunya (secció districte IX)
27. Unió Socialista de Catalunya del districte X
28. Partit Republicà Radical Socialista del districte IX
29. Casal Catala Martinenc
30. Agrupació Recreativa Republicana França Xica
31. Bloc Obrer i Camperol del Clot
32. Ateneu Catalanista Republicà de Sant Martí
33. Centre Unió Republicà i Unió Femenina de Camp de l'Arpa
34. Unió Republicana de Sant Martí

[17] `http://www.bcn.cat/nomenclator/english/`

35. Cercle Republicà del Districte VI
36. Centre Català d'Esquerra
37. Via Fora
38. Casal Català Republicà del Districte I
39. Casal d'Esquerra Republicana del districte primer
40. Casal d'Esquerra Estat Català Districte V
41. Ateneu Català de la Classe Obrera
42. Centre d'Esquerra Republicana del Districte II
43. Centre Republicà Cultural
44. Casal Republicà
45. Acció Catalana Republicana del Districte IV
46. Elements d'Estat Català
47. Acció Obrerista de Catalunya D. X
48. Casal del Partit Republicà d'Esquerra
49. Centre Català Republicà de Poble Sec
50. Unió Socialista de Catalunya. Districte VII
51. Agrupació Radical Defensa de la República
52. Casal Catalanista Republicà del Districte VI
53. Casal d'Esquerra Estat Català Districte VI
54. Cercle Republicà Democràtic del Districte VI
55. Foment Republicà del Districte VII
56. Cercle Republicà del Districte VII
57. Vanguàrdia. Joventut Republicana de Sants
58. Club Republicà Demòcrata de Catalunya. Districte VII
59. Centre d'Acció Republicana d'Hostafrancs
60. Centre d'Acció Popular Catalana del Districte VII
61. Partit Republicà Radical Socialista de Catalunya
62. Esquerra Republicana de les Corts
63. Unió Socialista Catalunya (Secció del Districte III)
64. Cercle Republicà del Guinardó
65. Pàtria Nova, Joventut Socialista Catalana
66. Avenç Democràtic Republicà de la Barriada de Sant Andreu
67. Cercle Republicà de Barcelona
68. Centre Catalanista Republicà de les Corts
69. Centre Republicà d'Esquerra de Vallcarca
70. Cercle Republicà de les Afores de Sant Andreu
71. Casal Federal del Guinardó
72. Casal Gracienc Nacionalista Republicà d'Esquerres
73. Partit Català d'Acció Republicana, Districte VIII
74. Casal de la Joventut d'Esquerra Republicana
75. Centre Català Republicà de Sant Andreu
76. Ateneu Republicà de Gràcia
77. Acció Popular Catalana de Gràcia
78. Centre Català d'Esquerra Republicana d'Hostafrancs
79. Casal Femení d'Esquerra Republicana de Catalunya
80. Centre d'Unió Republicà del Districte IX

81. Ateneu Nacionalista d'Esquerra
82. Unió Socialista de Catalunya Districte V
83. Unió Catalana Republicana de Sant Andreu
84. Ateneu Azaña
85. Centre Republicà d'Horta i Santa Eulàlia
86. Centre Català d'Esquerres del Districte V
87. Renovació Catalanista Republicana
88. Joventut d'Aliança Republicana
89. Ateneu Regionalista Verdaguer
90. Casal Català d'Esquerres del Poblet
91. Obra d'Equitat Social
92. Centre Republicà del Poblet
93. Agrupació d'Esquerra Republicana de Catalunya (Barri Surtidor)
94. Unió Socialista de Catalunya Secc. del D. II de B.
95. Joventut d'Esquerra Republicana de Catalunya del Districte II
96. Ateneu Català Democràtic del Districte II
97. Club Republicà del Districte II
98. Joventuts del Club Republicà
99. Club Republicà
100. Casal d'Esquerra Republicana del Districte II
101. Casal d'Esquerra Republicana del Districte VI
102. Casal Català Republicà d'Esquerra
103. Unió Socialista de Catalunya del Districte VI
104. Partit Republicà Radical Socialista del Districte VI
105. Esquerra Comunista de Barcelona
106. Acció Catalana Republicana de la Bordeta
107. Unió Socialista de Catalunya (Secció districte VII)
108. Partit Comunista d'Espanya. Radi de Sants
109. Ateneu Republicà de la Bonanova
110. Club Republicà del Districte III. Sant Gervasi
111. Casal Català d'Esquerra de Can Baró
112. Bloc Obrer i Camperol de Gràcia
113. Unió Socialista de Catalunya (Secció Districte VIII)
114. Centre d'Esquerra Republicana del Districte VIII
115. Partit Nacionalista Republicà
116. Unió Socialista de Catalunya districte X. Secció Segona
117. Centre d'Acció Republicana de la Barceloneta
118. Casal del Treball
119. Grup Socialista de la Barceloneta
120. Casal d'Esquerra E.C.
121. Centre Laborista
122. Bloc Obrer i Camperol de Gràcia
123. Centre d'Esquerra Republicana del Districte II (Grup Aunós)
124. Centre d'Esquerra Republicana de Gràcia
125. Foment Republicà de Catalans d'Esquerra
126. Ateneu Francesc Macià
127. Penya Concòrdia Republicana
128. Centre d'ERC del Districte II (Barriada del Port)

129. Centre Català Republicà del Districte IV
130. Ateneu d'Acció Catalana Republicana del Camp d'en Grassot
131. Agrupació d'Esquerra Republicana del Barri de les Pedreres
132. Ateneu Republicà Català del Districte IV
133. Grup Socialista de Sant Andreu
134. Casal Català Republicà del Poble Sec
135. Casal Català Republicà (El Poble Sec)
136. Centre Republicà Democràtic de Catalunya del D. II
137. Acció Catalana de Sarrià i Bonanova
138. Centre d'Acció Popular Catalana del Districte III
139. Ateneu Gracienc d'Acció Catalana
140. Centre Catalanista Republicà de Gràcia
141. Ateneu Popular de Gràcia
142. Casal Nacionalista Obrer de Gràcia
143. Casal Català Republicà del Coll
144. Centre Català d'Esquerra Districte IV
145. Centre Republicà de les Corts
146. Casal Català Republicà del Districte III. Sant Gervasi
147. Casal Català Republicà de les Roquetes Afores de Sant Andreu
148. Foment Republicà Gracienc
149. Ateneu Obrer dels Afores de Sant Andreu
150. Unió Socialista de Catalunya
151. Unió Socialista de Catalunya. Secc. 3A. Districte IX. Horta
152. Casal Republicà Català del Districte VI
153. Casal de l'Esquerra Republicana del Camp d'en Grassot
154. Esquerra Republicana de Catalunya "Centre de Sants"
155. Ateneu de Cultura Política i Social
156. Liceu Republicà del Districte II
157. Centre Catalanista Republicà de Poble Nou
158. Joventut d'Acció Catalana Republicana del Districte IX
159. Grup Socialista Obrer Barceloní
160. Casal Valencianista Republicà
161. Casal Catalanista Republicà del Poblet
162. Casal Republicà Democràtic del Districte VII
163. Casal Republicà Català (Sarrià)
164. Acció Popular Catalana

H.3.2 Anarchists

The anarchist centers and ateneus, much less scarce but very powerful at the neighborhood level, were more difficult to identify. Some of them were registered in the official lists of associations, but in other cases we had to resort to the CNT newspaper *Solidaridad Obrera* to find the addresses of anarchist *ateneus* of the time. The list we worked with is the following:

1. Ateneu Racionalista la Torxa
2. Ateneu de Cultura de la Barceloneta
3. Ateneu Racionalista

4. Ateneu Racionalista del Poble Nou
5. Ateneu Llibertari del Clot
6. Ateneu Llibertari del Districte V
7. Ateneu Pro-Cultura Avanti
8. Ateneu Eclèctic
9. Ateneu Llibertari d'Horta
10. Ateneu Racionalista de Verdum
11. Ateneu Cultural Racionalista La Torrassa
12. Ateneu Cultural Llibertari de Gràcia
13. Ateneu Cultural de Defensa Obrera
14. Ateneu Llibertari de Sants
15. Local sindicato construcción Ramón Albó
16. Ateneo pro Cultura "paz y Amor"
17. Ateneu Federal del Poblet
18. Ateneo Agrupación Humanidad
19. Societat Cooperativa Obrera La Paloma

H.3.3 1922 working class neighborhood associations

As discussed in the main text, to further address concerns of endogenous placement of organizations we made use of an additional list of working-class neighborhood associations in 1922. We used a yearbook (Riera, 1922) that included all the associations of the city, and selected 152 of them, based on two criteria: they were explicitly working-class associations and *ateneus*, and had a local, neighborhood focus.

1. Círculo Barcelonés de Obreros de San José
2. Círculo Obrero de Pekin
3. Casino Republicano
4. Centro Cooperativo de Pescadores
5. Lealtad de Gracia (La)
6. Lealtad Sansense (La)
7. Modestia (La), de obreros y empleados de la Junta de Obras del Puerto
8. Nueva Obrera de Sans (La)
9. Juventud Pescadora
10. O. del P. (De los) [cooperativa popular de la Barceloneta?]
11. L'Antigua del Camp de l'Arpa
12. Flor de Mayo (La)
13. Constancia Martinense (La)
14. Constancia Sagrerense (La)
15. Antigua Independiente (La)
16. Obrera Graciense
17. Progreso Sansense (El)

18. Obreros El Siglo XX (De)
19. Paz y Justicia
20. Constancia, arte textil y fabril
21. Centro Obrero La Marina
22. Ateneo Concentración Radical del Distrito 6º
23. Ateneo Enciclopédico del distrito 7º
24. Ateneo Marqués de la Mina
25. Ateneo Obrero
26. Ateneo Obrero de Casa Antunez
27. Ateneo Obrero de Gracia
28. Ateneo Obrero Martinense
29. Ateneo Obrero del Pueblo Nuevo
30. Ateneu Democratic UFNR distrito VII
31. Ateneu Obrer del districte segon
32. Centro Católico Obrero de S. Vicente de Paul
33. Centro Familiar Instructivo Ateneo Obrero
34. Centro Obrero Instructivo Andresense
35. Centro Obrero instructivo de Hostafranchs
36. Fomento Hortense
37. Fomento Martinense
38. Fraternidad Republicana Instructiva El Pueblo
39. Centro de cultura racional
40. Juventud Instructiva Radical
41. Agrupación Radical
42. Asociación Republicana Popular
43. Ateneo de Concentración Radical distrito 6º
44. Ateneo Instructivo Radical del distrito X
45. Ateneo Republicano Autonomista de Hostafranchs
46. Ateneo Republicano Dt 7º
47. Ateneo Republicano Radical del Pueblo Seco
48. Ateneu Democratic UFNR (districte VII)
49. Casa del Pueblo del dtº V
50. Casa del dto IV
51. Casa del dto. IX
52. Casal Autonomista
53. Casal Nacionalista Martinense
54. Casino Republicano
55. Casino Republicano Radical
56. Ateneo Instructivo Radical
57. Centro Democrático de la Unión Republicana
58. Centro Federación Republicana
59. Centro Fraternidad Republicana
60. Centro Obrero Maurista Nueva Acción
61. Centro Obrero Republicano Radical
62. Centro Obrero Republicano Radical de la derecha de Gracia
63. Centro Radical del dist. VI
64. Centro Republicano Autonomista del Distrito II
65. Centro Republicano de las Corts
66. Centro Republicano Fraternidad Martinense
67. Centro Republicano del dist. IV
68. Centro Republicano del distrito IX
69. Centro Republicano Radical del dist. III
70. Centro Republicano Radical Instructivo
71. Centro de la Unión Republicana Dto 7º

72. Círculo Reformista Republicano Fraternal Dto 2º
73. Foment Republicà Català de Sans
74. Fraternidad Republicana
75. Fraternidad del Pueblo Seco
76. Juventud Autonomista Republicana Dto 4º
77. Juventud Radical del dist. VI
78. Juventud Radical Ateneista del dist. VI
79. Juventud Republicana Dto VII
80. Juventud Republicana Aragonesa del distrito II
81. Unión Republicana Graciense
82. Ateneo Obrero "Casa Antúnez"
83. Centre Catalá de Horta y Sta. Eulalia
84. Centre Nacionalista Republica de S. Gervasi
85. Fomento Hortense
86. Juventud Radical
87. Joventut Democràtica Radical Instructiva del Poble Nou
88. Fraternitat Radical Instructiva
89. Centre Instructiu Republicà Radical Castellonenc
90. Ateneu Republicà Radical del Fort Pius (dissolt 1923)
91. Centre Republicà Radical del districte IV
92. Associació Republicana Popular del Camp d'en Grassot
93. Ateneu Republicà Radical del districte V
94. Terci Republicà Radical del districte V (creat 1922)
95. Joventut Republicana Radical del districte VI
96. Fraternitat Republicana del Poble Sec
97. Ateneu Obrer Republicà Autonomista d'Hostafrancs
98. Centre Radical EL Pueblo de les Corts
99. Agrupació Radical Instructiva del districte IX
100. Fraternitat Republicana Radical del Camp de l'Arpa
101. Patronato Obrero Restaurant Obrero
102. Ateneu Obrer Catalá
103. Obrera El Jardín
104. Lealtad (La)
105. Obrero
106. Cooperativa Obrera La Fraternitat
107. Juventud Vanguardia Radical
108. Centro Radical
109. Atrevida Martinense (La)
110. Amparo del Obrero (El)
111. La Formiga Martinenca

H.3.4 1906 factories

1. Sociedad Catalana de Alumbrado por Gas
2. Legon, Eugenio i cia
3. La Espana industrial
4. Rocamora hermanos
5. Lebon, Eugenio i Cia
6. Maquinista Terrestre i Maritima
7. Sobrinos de Juan Batlo
8. Folch, Albinana, i cia

9. Hilaturas Fabra i Coats
10. Sert hermanos e hijos
11. Societe Lainiere Barcelonaise
12. Valet Vendrell y comp
13. Torres Vendrell, Jaime
14. Hijos de M Puig
15. Figueras, Sagrera i Cia
16. Ricart de Cordoba, Felip
17. Damians, Alejandro
18. Catalan Worsted
19. Rius, Marti
20. Arano, Claudio, vda e hijos
21. Petri, ernesto (sucesor de luis moritz)
22. Damm J
23. Vinas i cia
24. March Torrens, Marti Torrens i Balla Angel
25. Henrich i Compania
26. Compania Anonima de Productos quimicos
27. Portabella Pedro Hijos de
28. Casas i Jover, Joaquim
29. Oller y Niqui
30. Sociedad Catalana Alumbrado por Gas
31. Lucena i Cia, Sucs, de J.
32. Marti i Llopart
33. Pratmaso Miguel yda e hijos
34. Pala, Salvador
35. Battlo i Cia
36. Alexander Hermanos
37. Maristany, Pere
38. Gironella, Jose
39. Comas, Eco y sobrinos
40. Llige i Compania
41. Llige i Compania
42. Juncosa Tarrida
43. Casals, Primitivo Benguerel, Leon
44. Sans, Viuda e Hijos de Francisco
45. Bertrand e Hijo
46. Sans, Viuda e Hijos de Francisco
47. Gimenez Sanchez Joan
48. Viuda e Hijos de ramon almirall
49. Godo i cia
50. Provencals 2
51. Matas i compania
52. Orsola Sola i cia
53. Vila Juan
54. Mas i Batalla
55. Gili, Andreu
56. Mata Domingo
57. Antic Joan
58. Cammany i Compania
59. Barbara, miquel, fills de
60. Felipe, Manuel
61. Mundo Angles, Josep
62. Creus Jose
63. Estrella La
64. Fabregas, Cayetano
65. Sucesores de I. neufille
66. Perez Perez y Gili Munt Miralpeix Onofre
67. Fabra i Coats
68. Tey Tintorer, Joan
69. Tarrats i Canals (Fabril Algodonera)

70. Bach Hermanos Ramon
71. Armario de la exportacion
72. Nadal, Antoni
73. Gironella Enric
74. Vilamura, Francisco
75. Riviere, Francesc i fills
76. Salisachs Pere
77. Bernadas, Salvador
78. Ribas, Joan i cia
79. Pladellorens, Magi
80. Productos quimicos cia anonima
81. Sala, Salvador
82. sociedad anonima el tibidabo
83. Casas, Francesc i fill
84. Juncosa, Evaristo
85. Comas Fernando
86. La Union Corchetera
87. Montey e Hijo Jose
88. Foret G
89. Alier Vidal, Pedro
90. Giro, Bartolome; gras, Mariano; roura luciano
91. Olivella, Andres
92. Guasch, Ramon
93. Romeu, Bonastre Francisco
94. Gonzalez, Luis
95. Iglesias, Felipe
96. Marti i Compania
97. Vidua de b albanell Duran
98. Montaner y Simon
99. Hijos de Pedro Avella
100. Ros Puig y Compania
101. Vilella i Casas
102. Heusch y ca
103. La hispano suiza
104. Cabach Franc isco
105. Llenas y Gallet
106. Deu y Compania, Jose
107. Jove, Jose Maria
108. Sucesores de J. Sala Miralpeix
109. Pattberg, Carlos
110. Gurt Hermanos y Comp.
111. Gili Guardiola Andres
112. Garriga, Antonio; Sola, Francisco
113. Industria electrica
114. Nogues Hermanos
115. Valls Hermanos
116. Pterfter, Teresa Asuncion
117. Ferrer, Benito
118. Camps, Viuda de Felipe
119. Viuda de Maristany i Armo
120. Hijos de F Vidal
121. Bagaria, Buenaventura
122. Sole Alsina, Antonio
123. Lucas y Compania
124. Pellerin, Luis
125. M y A Sunol
126. Domenec, jose
127. Casals Bertran, Pedro
128. Boada y Gurt
129. Arango, Josefa
130. Florensa y Comas
131. Hijas de Francisco Vila
132. Bachi Jaime

133. Vallmitjana, Julio
134. Miguelez, Eustasio
135. Gironella, Enrique
136. Domenech, Francisco
137. Costas Llumosa, Joaquin
138. Pons e Hijo, Miquel
139. Jordi Alinana y Comp
140. Salvador y Gaspar
141. Veiga, Manuel
142. Anglada Vernis
143. Font y Compania
144. Quinquer, Ignacio
145. Deu y Matas, Ramon Isidro
146. Banuells, Jacinto
147. Alvarez y Compania
148. Xammar, Jose
149. Trias, Francisco
150. Sole, Manuel y Pablo
151. Rovira i Compania
152. Marti i compania Antonio
153. Jacas Samso, Jose
154. Ravella i Compania
155. Ribas y Garcia
156. Tasso, Luis
157. Viuda de Manuel Almasque
158. C A Boequillon
159. Hijos de Gabriel Iborra
160. Hijos de Torras y Lleo
161. Soler i Bance
162. Sucesores de Comas Ricard
163. Terradas, Hermanos
164. Viuda de Juan Roura
165. Viuda de Wenceslao Guarro
166. Vive i Canals
167. Carne Fernando