Labor Unrest, Ideology Formation and Female Participation in the 1930s^{*}

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According to most of the available evidence, women were less likely to turn out than men when they got the right to vote. However, often these figures are based on simple comparisons of turnout rates between the pre and post female enfranchisement elections. Much less is known, however, about the root causes of female political participation upon formal electoral enfranchisement. We argue that ideological activation before female enfranchisement is key to understand the variation in the gender turnout gap. In places where women were exposed to ideologically-charged events they were as likely to turn out to vote as men. This pattern is analyzed by exploiting the post-WWI collapse of the heavily-feminized textile sector in Catalonia, that lead, in turn, to a wave of labour unrest prior the introduction of female suffrage. We exploit a unique individual level data of official registers with individual voting roll-calls as well as other personal characteristics, such as age, address, gender, literacy and occupation. We also exploit detailed information on local industry composition, and labour conflicts at the firm level between 1906 and 1931 to investigate the formation of women ideology and its effects on electoral participation.

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1 Introduction

The voting gender gap –difference in voting turnout between men and women– is one of the most commonly observed features in modern democracies. Although more egalitarian levels of voter turnout in recent decades are reported across different democracies, still today many societies witness significant differences in turnout patterns between men and women. Despite this reduction (or even reversal) in the overall voting gap¹, historical data highlights that women's voting participation trailed that of men. For many decades after women's suffrage, the female population turned out less often than men. For instance, as reported by Skorge (2016), in Norway, one of the first countries to grant the right to vote to women, women's turnout was on average 14 and 16 percentage points lower in national and municipal elections, respectively. Similarly, Corder and Wolbrecht (2016) analysis of the U.S. elections after female enfranchisement shows that men consistently participated more than women, with a gap ranging from as high as 40 points in Oklahoma or Massachusetts to as low as 26 percentage points in Connecticut. This gap is also reported in the seminal study of Tingsten (1937).

In light of the available evidence, one direct impact of women's suffrage has been widely acknowledged: overall turnout declined as a result of adding women to the eligible electorate. What remains unsettled is why women participated less than men upon formal electoral enfranchisement, and what explains variation in female turnout patterns. According to many observers and scholars, women failed to embrace their new right due to a combination of cultural norms, and a lack of electoral experience and habit. Despite recent efforts to understand this crucial historical period, previous literature falls short in providing convincing insights about female (and male) participation after female enfranchisement. Most empirical analyses are based on simple comparisons of turnout rates between the pre and the post enfranchisement elections. While interesting in itself,

¹In contemporary elections, we observe a general pattern of small gender gaps in voter turnout, but the trend is not constant everywhere. Even if the gender turnout gap has diminished or disappeared, women's participation in other forms of electoral activity–such as campaign contributions or joining political organizations–continue to trail.

this aggregate approach does not allow researchers to reveal the effect of different factors on (differential) turnout patterns. In addition, this approach masks heterogeneity across women and contexts, and it thus leaves unanswered the question of whether the gender gap in turnout was wider/narrower in some contexts more than others.

In this article we analyze how men and women voted upon female enfranchisement. We focus on the case of the Spanish Second Republic (1931-1939), that granted women the right to vote for the first time in 1933. We argue that the economic approach to understand the gender gap (Iversen and Rosenbluth, 2006), based on women's outside options in the labor market, is important but not sufficient to comprehend differential gender turnout patterns, and the variation in the magnitude of the gender gap upon female enfranchisement. More specifically, we argue that, after female suffrage was implemented, the gender turnout gap crucially varied as a function of the ideological activation of women. In other words, women's political mobilization was a function of their outside options in the labor market, but also a function of how ideologically activated was the group in which women were embedded prior to the introduction of female suffrage.

Our empirical design is based on an individual-level dataset of official registers that includes individualized information on turnout (from individual voting roll-calls) as well as other personal characteristics, such as age, address, gender, literacy and occupation ², for two elections between 1933 and 1936 (from official registers in the electoral census). This effectively means that we observe the same individuals after the female suffrage was implemented in 1933 and that we have a considerable sample of men and women living under different contextual scenarios. We supplement these individual dataset with data, at the local level, capturing the type of industry (economic specificity argument), and the number of strikes (ideology formation argument) in the 30 years prior to the introduction of female suffrage.

Our identification strategy is based on the economic shock triggered by World War I.

²However, the census data on occupation suffers from severe underreporting for women (Borderías, 2013). Over 97% of our sample declared to be inactive and on unpaid domestic work, which does not correspond to the abundant historical evidence of the period.

Spain's neutrality to the conflict brought rapid economic gains, especially to Catalan factories, which were suddenly able to sell their products to countries that had to concentrate on winning the war. After 1917, exports unexpectedly collapsed. As historians report in detail, the textile sector was severely affected, which brought many women to the streets. The end of war witnessed the feminization of protests in the textile sector, organized to demand better living conditions. In order to explain the gender turnout gap, we exploit this exogenous collapse of the textile sector, which ideologically activated some women more than others³.

This paper's findings confirm our expectations. In more ideologically-charged places, women were equally likely to participate than men. By contrast, the gender turnout gap was present in contexts where political and ideological activation did not take place. In other industrial sectors with significant female presence, such as the cork industry, that did not experience a post-WWI economic collapse, a significant gender turnout gap is still reported.

2 Theoretical argument

2.1 The historical gender turnout gap

Only in recent decades, and for a few countries, women's voter turnout has caught up to men's. Still, in most countries in the world, women are still less likely to turn out and vote. In fact, research shows that the gender gap exists beyond the domain of participation and that men continue to outpace women in persuading others, working on campaigns, and contacting public officials, among others (Kittilson and Schwindt-Bayer, 2012).

The most common sets of explanations for the gender gap in participation emphasizes individual-level factors, such as women's lower levels of political sophistication or of

 $^{^{3}}$ Future versions of the paper will also include a comparison within the textile sector. Data shows that the economic collapse especially affected the cotton industry, while other industries, such as the wool industry, were less affected.

the resources needed for political participation. This sociological approach argues that women's lower levels of income, occupational prestige, civic skills, ties with mobilizing groups, among other factors, decrease their probability to participate in politics. Since men score high on these dimensions-the argument follows-, their probability to engage in political affairs is larger. As Verba, Schlozman and Brady famously put it, gaps in political participation stem "from the accumulated effects of deficits in a variety of factors" (Verba, Schlozman and Brady, 1995, 38). Another set of explanations rests upon socioeconomic development. This approach argues that the (turnout) gender gap is a product of economic development. Economically developed economies are associated with more egalitarian gender attitudes and with fewer women tied to traditional social roles (Thévenon and Del Pero, 2015).

Despite the prominent findings of the last two approaches, neither the resources nor the socioeconomic approach helps us fully understand the turnout gap between men and women. As noted by Iversen and Rosenbluth (2010), a considerable gender gap (in turnout, voting patterns or fertility rates) still persists in some advanced economies and the socioeconomic approach does not offer a comprehensive account to explain why some women are equally likely to participate than men, while others report significantly lower levels of turnout.

Most importantly, most of the extant research on the gender turnout gap focuses on recent democratic systems. Little is known, instead, on whether women were less likely to participate in elections upon female enfranchisement. 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 country-election for which data was available, with the difference amounting to roughly 10 percentage points. 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 per cent–in their studies of electoral participation in 1934-1936 Barcelona. In a recent study, Amat et al. (2017) show that, in 1936 elections, the second election after female enfranchisement was implemented in Spain in 1933, women were 10 percent less likely to participate than men. Notwithstanding this descriptive evidence, the jury is still out on what explains this gap and, in particular, what led some women to participate more than others.

2.2 Women's ideological activation

Following Charles Tilly's classical insight (Tilly, 1978), we propose that the variation in the gender turnout gap upon female enfranchisement was shaped by women's ideological activation prior to their voting rights being implemented. That is, past mobilization of women can bring about the necessary components for political participation, which eventually can have a diminishing effect on the gender turnout gap. Although there are several possible channels through which historical events might matter, here we distinguish between attitudinal and organizational legacies⁴.

Key structural events can leave important attitudinal legacies. It is well known that women experience conflict differently than men. For example, during the most extreme case of a war, men disproportionately die more frequently than women who, in turn, may suffer other types of violence or may adopt social and political roles that had traditionally been male prerogatives. As found by Blattman (2009) in Uganda, key traumatic events like violence lead to political activation, with individuals experiencing the negative event being more likely to participate in elections than the rest. This effect persists in the postwar period and, in the case of women, the new opportunities for them as political actors are transmitted across generations (O'Connell, 2011; Garcia-Ponce, 2016).

Besides violent conflicts, other critical historical events are also likely to leave a long-lasting legacy on women's social and political behaviour. One of the consequences

⁴Important historical events undoubtedly leave a residue on individual's socioeconomic status and health that persist not only among those directly affected but also among later generations Kesternich et al. (2014); Lupu and Peisakhin (N.d.).

of global negative events⁵, such as a sharp drop in employment or wages, is that people experiencing these events become aware of their common interests. Political protests, likely to happen when negative shocks occur, foster collective identity, which in turn leads to more political participation (Klandermans et al., 2002; Simpson and Macy, 2004). In short, important negative events might trigger the belief among women that the group in which individuals belong to is disadvantaged, ultimately fostering group consciousness.

Historical events can also leave a residue on women's organizational capacity. If women are more disproportionately affected than men by a negative event, we should expect women to increase their relative level of political engagement. As pointed before, extant research shows that participation in political events, such as strikes, fosters group-specific actions, which in turn increases their mobilizational capacity. These new collective action skills are likely to persist over time and be employed in future mobilization strategies. In sum, we argue that the variation in the gender turnout gap upon female enfranchisement is a function of the women's political activation, triggered by past mobilization. We expect the gender turnout gap to close in places where women (and men) were exposed to ideologically-charged contextual events.

In a way, our approach complements the recent approach put forward by the work of Iversen and Rosenbluth (2006), which argues that in a world were divorce is possible and women have feasible economic options outside the family, their bargaining power increases, which in turn leads to a more egalitarian gender balance in various spheres. Moving beyond their emphasis on besides the outside options present for women in the labor market, to understand under what conditions men participate more in elections than women when the latter were granted the right to vote, we should model the process of the political activation of the group. Women exposed to ideologically-charged events should have an additional and strong effect on their political participation end, eventually, contribute to making women just as likely to turn out to vote as men. If this is true, we

 $^{{}^{5}}$ By global negative events we mean negative circumstances that affect a considerable amount of the population. If one person loses his/her job, the process described here is also likely to occur, but it is more likely in cases the negative consequences of which are far-reaching enough.

should also expect women that witnessed the ideologically-charged events during their impressionable years to report a smaller turnout gap than the other cohorts (Alwin and Krosnick, 1991).

3 Empirical strategy and data

3.1 Empirical strategy

The main empirical challenge to disentangle the effect of past mobilization (through attitudinal and organizational channels) on turnout is that politically-activated individuals might have self-selected into political activities. Thus, those individuals (men and women) that are likely to turnout today were also likely to participate in protest events in the past. Our estimation strategy to identify the causal effect of ideological activation on turnout relies on the exogenous shock that the post-WWI crisis brought about, which severely affected the Catalan economy, especially its industrial sector.⁶ The crisis hit different sectors differently. It shocked the heavily-feminized textile sector with special intensity while affecting other sectors much more lightly. It is precisely that heterogeneous post-WWI economic shock and the fact that female participation varied across industries that allows us to examine and identify the impact of (exogenously-driven) levels of social protest on the process of political activation.

Immediately after the beginning of World War One, Madrid formally declared Spain to be neutral. Taking advantage of the participation of most European countries in the war, Spain's and, particularly, Catalonia's industry ratcheted up production and sales abroad. Exports reached unprecedented levels. As shown in Figure 1, the balance of trade grew from negative to positive by more than one hundred million *pesetas* to five hundred million in less than three years.⁷

 $^{^{6}}$ We follow a similar strategy than Autor et al. (2016), based on exploiting the exogenous component of rising trade with China to study the ideological polarization in the U.S. Congress.

⁷We include in the Appendix several figures that illustrate the positive evolution of the Spanish and the Catalan economy before 1917 and the sudden economic shock experienced afterwards.

Catalonia, the 'Spain's factory' (Nadal, 1985), was one of the regions that experienced a more positive and rapid economic growth, especially thanks to its industrial power and the geographical proximity to France. Catalan textile factories, placed mainly along the main rivers, mainly sold military uniforms, blankets and several other textile goods. Exports boomed in a matter of months, pushing employment up to record levels.

Figure 1: Spanish trade balance, 1905-1931



With the end of the war, that booming business cycle came to an abrupt end. Allies stopped buying textile products from the Catalan factories⁸. As the economies of the countries formerly at war returned to a degree of normality, the Spanish industry had to confront foreign competition once again. A sharp depreciation of many European currencies made Spanish products even less competitive. Exports fell by 39 percent between 1919 and 1922, triggering a wave of plant closings and massive layoffs.

⁸The textile sector was not the only one severely affected by the WWI. The ironwork industries also suffered from severe economic disruptions because of the economic shock caused by the WWI. However, most of the ironwork industries were located in the Basque Country and their presence in Catalonia was testimonial.





As is apparent from Figure 2, one of the most affected sectors was the textile sector. The abrupt economic disruption triggered intense economic discontent. The social unrest that followed was especially intense in areas where the textile sector represented an important share of the industrial sector. Crucially, as Figure 3 illustrates, the textile sector was heavily feminized. According to the 1920 Workers' Census, the share of female workers in the textile sector was about 60%. The second most feminized sector was the cork sector (25% of female workers), followed by the paper industry. Accordingly, women took an active role in the strikes and protests. As Figure 4 shows, the number of female strikers skyrocketed following the crisis caused by the WWI. Indeed, qualitative historiographical evidence has also pointed to the feminization of protests after the WWI. For instance, in January 1918 in the city of Barcelona, where the textile industry was also important, an only-women demonstration was organized. Women's groups within political parties started to flourish across the territory. During 1917 and 1918, several protests led by women were organized to protest against the increase in rents, the difficulty to pay basic goods or their poorer conditions at the workplace.



Figure 3: Share of female workers across different industrial sectors

Figure 4: Number of female strikers, province of Girona 1905-31



The economic crisis that hit the Catalan textile sector was an exogenous, unpredicted event. War ended abruptly – making it short of impossible for businessmen, let alone workers, to start adapting to the situation beforehand. That shock led to the ideological activation of some women, especially those working on the textile sector, and eventually to similar turnout patterns than their male counterparts. In other words, the post-war economic shock helped to shrink or even the gender turnout gap.

There is little reason to believe that women working in the textile sector were different from women in other sectors. The majority of working-class women were subject to the same precarious conditions than women working on other sectors.⁹ Hence, their different behavior (to be tested later in the paper) stemmed from their different treatment (the impact of a recession) rather their personal idiosyncracies.

The strikes that took place as a result of the post-WWI shock cannot be attributed to the social and demographic structure in place. In other words, they did not only happen in urban centers or in densely populated municipalities. During the nineteenth and early twentieth centuries, new steampowered textile factories mushroomed throughout Catalonia, alongside its main rivers. With the transition from waterwheels to more energy-efficient Tourneyrone-type water turbines, owners of Catalan cotton textile factories opted for water power Hashino and Otsuka (2016). By being located along rivers and far away from city centers, companies also benefited from lower wages, lower union control, and fiscal advantages in the countryside. Therefore, the geography of textile factories was not perfectly correlated with the geography of urbanization in Catalonia. Figure 5 shows the spatial distribution of strikes between 1918 and 1931 in Girona.

Figure 5: Strikes between 1918 and 1931



⁹Notwithstanding this fact, it is still possible that women on the textile sector were different than women in other sectors, especially in their organizational capacity, given the geographic clustering of industries. Therefore, in future versions of the paper we will exploit the within-textile variation in exposure to the economic shock and subsequent increase in labor unrest.

3.2 Data

These expectations are tested using a newly-created dataset that tracks individual turnout in 1933 and 1936. This individual-level dataset allows us to observe the same individuals over time and, therefore, to control for individual's propensity to participate. This design enables us to study men and women's turnout patterns right after female suffrage was implemented, overcoming previous empirical works' risk of ecological fallacy, as they were mostly based on aggregate data.

More concretely, we build a dataset in different stages. First, we randomly sample the original 1932 electoral census, which includes information on voters' names, addresses, occupation, age, gender and literacy. Second, we check whether the sampled individuals participated in the elections by looking at the voting roll-calls compiled at the polls. These handwritten documents contain the name of every voter who cast a vote, allowing us to match the voter's name with the electoral census. We then repeat this process for the three legislative elections that took place during the Spanish Second Republic, that is, June 1931, November 1933 and February 1936. All in all, we collect information on 1,976 individuals in the electoral district of Girona¹⁰.

We focus on one district for different substantive and practical reasons. First, Girona has well-preserved information of all the elections that took place during the Second Republic. This is not the case everywhere. For instance, electoral registers in the province of Barcelona were destroyed at some point during or after the Spanish Civil War (1936-1939). Second, Girona has a fair degree of internal heterogeneity in our key variables of interest. Indeed, the spatial variation on the composition of industries, as well as on the urban-rural characteristics, is substantial. Similarly, a look at the electoral results also shows a fair amount of heterogeneity across space.

Figure 6 plots the spatial distribution of electoral support in Catalonia-the difference

¹⁰We are indebted to the work done by previous historians, who also undertook a similar design (Boix and Vilanova, 1992; Vilanova, 1992).

between the vote share received by left-wind and right-wing parties¹¹. As the map shows, Girona, the north-eastern Catalan region, has a substantial degree of spatial heterogeneity in what concerns electoral support. Our sampling method guarantees that this heterogeneity is also taken into account in our data. Figure 7 plots the spatial distribution of turnout across Catalan municipalities. As in the case of voting patterns, the degree of spatial heterogeneity in the region of Girona, our case of study, is substantial.

Figure 6: Left and right-wing distribution in 1936



¹¹Data comes from Vilanova (2005).



Last but not least, Girona has archival information on a wide variety of topics, such as the level of industrialization, the number of strikes or the number of associations, before and after the implementation of female suffrage. This information is not available, or it is partially available, in the other archives¹². As far as we are aware, no previous studies have investigated turnout patterns at the individual level as back as early democratization periods, with the notable exception of Boix and Vilanova (1992) and Vilanova (1992).

We complement the individual-panel dataset with several indicators at the municipality level. To test the effect of female political activation on the gender turnout gap, we compute the number of strikes that took place in the municipality between 1905 and 1929. This variable captures the intensity of workers' struggle before the Second Spanish Republic was established in 1931. The logic is to test whether the gender turnout gap closed in municipalities that experienced a higher degree of class conflict than in places with a relatively social peaceful environment. In other words, organizing a strike involves

 $^{^{12}}$ Voting patterns across the different elections that took place in Catalonia can be consulted on Vilanova (2005).

a certain degree of collective action and they are likely to trigger ideological considerations about the society's economic and social model. Places that witnessed class struggles were likely to become ideologically charged. In feminized industries men and women were as equally likely to acquire the necessary skills to participate in politics. Data for the number of strikes comes from the Institute of Social Reforms and Worker's Ministry¹³.

Another explanatory variable of interest is the total number of men and women working in the industrial sector at the local level. We extracted these data from the industrial registers. This information allows us to test whether women living in industrial environments were more similar to men in terms of electoral participation. Although women were a small percentage of the industrial force, their presence in different industrial sectors was significant, especially in the textile and cork sectors in the Girona district. In factories, women and men often shared the same space and the same struggles, which were very salient at the time. Therefore, we expect the turnout gender gap to close as the size of industrial sector grows over the whole economy, especially in feminized sectors. That is, turnout patterns among women living in industrial places should approach that of men¹⁴.

Finally, different variables allow us to control the plausible effect of other agents of mobilization in closing the gender turnout gap. The first indicator is a dummy that measures whether the municipality had a Republican 'Ateneu' or not. *Ateneus* were cultural, political and social institutions that played an important role in increasing the politicization and mobilization of workers before and during the Spanish Second Republic (1931-1939). *Ateneus*, which had existed in Spain since the mid 1800s, were extremely popular in Catalonia, particularly in the absence of any rival leisure activities or educational institutions. (Arnabat and Ferré, 2015). Data comes from Solà i Gussinyer (1993).

The second indicator is a dummy that distinguishes whether the municipality had

 $^{^{13}\}mathrm{Data}$ sources are listed in detail in the Appendix.

¹⁴In future versions of the manuscript, our goal here is to calculate each sector's skill specificity and test how this affects the turnout gap.

anarchist militants or not. Data comes from the combination of CNT's 1936 official publication after their national Congress (CNT, 1936) and data gathered by Cucó Giner (1970) from secondary sources. The third indicator is a dummy distinguishing whether the municipality had a company town ("Colonia") or not. Company towns where places where practically all stores and housing were owned by one company, which also happened to be the main employer. Catalonia was one of the European regions with more company towns (about a hundred). Controlling for the presence of "Colonies" is important because workers living in the same company town may have had a higher organizational capacity than in other places. Data comes from Serra and Casals (2000) and has been complemented using the work of Clua (1991).

4 Results

4.1 Descriptives and modeling strategy

Were women less likely to participate in elections than men upon female enfranchisement? Indeed, Figure 8 shows that this was the case. In 1933 legislative elections, 46% of women voted, as compared to 61% of men¹⁵. Therefore, the gender turnout gap was substantial (about 20% percentage points). In 1936 turnout among women notably increased and it went slightly above 64% of the electorate. Men still participated more: around 73% of them went to the polling stations. The gender turnout gap, however, was still high at 8.79% percentage points.

 $^{^{15}}$ Turnout in the whole region of Girona was 61.28%.



Figure 8: Turnout in 1933 and 1936 legislative election by gender

We now proceed to a more systematic analysis of the determinants of the gender gap by developing a number of empirical tests. The objective is to provide micro-level evidence on the role of industrialization and ideology formation. We expect to find evidence of the ideology formation mechanism in the 1936 elections when polarization was high. The dependent variable is dichotomous, and takes value 1 if the individual voted in the general elections in 1936 and 0 otherwise. Across the paper we privilege, for the sake of interpretation, Linear Probability Models (LPM) estimated through OLS, although alternative (logit) specifications provide very similar results.

Our empirical models follow Barber and Imai's (2015) modeling strategy. In a difference-in-differences framework, we compare the turnout rates of female and male voters *within* each municipality and then consider whether the difference varies as a function of each municipality characteristics. That way, the within-municipality comparison will isolate any unobserved or observed characteristics shared by voters living in the same municipality and therefore allow for a proper estimation of the parameters of interest.

All models that we discuss from this point onwards include municipality fixed effects. This enables us to get rid of unobserved time-invariant heterogeneity at the municipality level that affects in the same way the turnout behavior of men and women. Given this, to estimate how the gender gap varies, we will include interactions between gender and the independent variable of interest in each case—the latter are always measured at the municipality level. Crucially, this allows us to estimate how the gender gap varies depending on the attributes measured at the local level.

Also, all models include the following individual-level controls (obtained from the electoral census): age, aged squared and literacy. In all of them we found a robust quadratic effect for age, as expected, and a large, significant, positive effect for literacy.

In Table 1 we present a set of models that approach the general question. They show how women voted significantly less than men: the net gender effect is about 6 percentage points in model 1, which is about half of the effect of being illiterate. In model 2 we see how the gender effect varies depending on certain characteristics of the municipality: size of the agricultural sector, population, having a company town or not. Only size seems to matter: in larger localities, the gender gap tends to close.

DV: Turnout in 1936	(1)	(2)
Female	-0.06**	-0.37**
	(0.02)	(0.15)
Age	0.02***	0.02***
	(0.00)	(0.00)
Age squared	-0.00***	-0.00***
	(0.00)	(0.00)
Literate	0.12^{***}	0.12^{***}
	(0.03)	(0.03)
Female \times Agricultural workers		-0.01
		(0.01)
Female \times Population		0.04**
		(0.02)
Female \times Company Town		-0.05
		(0.06)
Constant	0.35***	0.35***
	(0.10)	(0.10)
Municipality FEs	Yes	Yes
R-squared (Within)	0.0351	0.0383
Ν	1822	1816

Table 1: Individual-level characteristics

* p<.1, ** p<.05, *** p<.01. Standard errors clustered at the municipality level.

4.2 The effects of industry size at the local level

We now turn to the general effect of industrialization on the voting gender gap. In order to do so, we interact gender with the (log) size of industrial contributions at the municipality level (net of municipality size). Our expectation is that industrialization, correlated with female formal labor market participation, has a positive general effect on women's turnout and therefore contributes to reducing the gender gap in voting.

In Table 2 we present the empirical analyses with a diverse set of controls. Arguably, the urban-rural cleavage is one of the potentially important confounder in our analysis. Therefore, in model 2 we account for this by taking into account how the gender effect varies depending on the population size. We also include the share of agricultural workers and the interaction with a dummy if the precinct of the woman was a planned industrial community (industrial colony), given the very specific characteristics of these centers, where dependency from a single employer, and social control were higher. In model 3 we add two measures of political actors' activities at the local level: a dummy of presence of anarchist (CNT) militants in the municipality, and a dummy if the municipality fixed effects, we cannot estimate the main effect of the local-level variables, but only their interaction with gender.

Results show a consistent positive effect of industrialization on female turnout. One standard deviation in log industry size (2.24) is associated with an increase in female participation of about 11 percentage points according to the coefficient in model 3. Figure 9 shows, graphically, how the marginal effect of gender varies as a function of share of industry. The gap is significantly negative at low levels of industrialization but disappears in the highly industrialized localities.

DV: Turnout in 1936	(1)	(2)	(3)
Female	-0.25**	-0.01	0.33
	(0.11)	(0.19)	(0.23)
Female \times Industry size (log)	0.02**	0.06^{**}	0.05^{**}
	(0.01)	(0.02)	(0.02)
Female \times Agricultural workers		-0.02*	-0.02**
		(0.01)	(0.01)
Female \times Population		-0.06	-0.11**
		(0.04)	(0.04)
Female \times Company Town		-0.14**	-0.14**
		(0.06)	(0.07)
Female \times Anarchist militants			0.07
			(0.07)
Female \times Ateneu			0.17^{***}
			(0.06)
Constant	0.35***	0.35***	0.35***
	(0.10)	(0.10)	(0.11)
Municipality FEs	Yes	Yes	Yes
R-squared (Within)	0.0372	0.0410	0.0472
Ν	1,716	1,713	1,713

Table 2: Industry size at the municipality level and the gender gap

* p<.1, ** p<.05, *** p<.01. Standard errors clustered at the municipality level. Individual-level controls included but not shown: age, age squared and literacy.

Figure 9: The marginal effect of gender on turnout conditional on industry size



4.3 Main results: strikes before and after the shock

Our core argument is about the conditional effect of industrialization. As explained before, our contention is that past labour unrest involving female industrial workers triggered an activation mechanism that had a long-term effect on their political engagement. In this section we analyze the effect of past strikes on the gender gap in political engagement, conditional on the textile industry size.

Strikes are likely to originate in certain places and not in others, depending on the pre-existence of some structural determinants (such as greater density of industrial workers), the sectoral composition of municipalities and, crucially, idiosyncratic factors such as the density of pre-existing levels of militants and political activists (possibly due to self-selection into working class localities).

Thus, the key challenge for our argument is to identify the causal effect of strikes in order to provide credible evidence of the ideology formation mechanism. The key identifying assumption will be that, after controlling for the (log) number of women participating in strikes in the period before 1918 in the municipality we are accounting for the pre-existing levels of female militant ideology. Also, we clean out the local level heterogeneity that might affect both the female turnout behavior and the propensity of having a strike by interacting the gender dummy with a battery of local level covariates that might act as confounders, affecting men and women unevenly.

In Table 3 we developed a specific test of the ideology-formation mechanism. Specifically, we explore how the gender gap depends on both the occurrence of labor strikes at the local level and the presence of the textile industry, the most feminized sector. Results show a significant interaction among the three variables in models 2 and 3, which indicates that female participation is significantly higher, relative to male's, in those municipalities where a highly feminized industry and a story of labor unrest concurred.

Figure 10 plots the results of the triple interaction. It shows how feminization of the industry has an effect on the gender gap that is highly conditional on past unrest: only

DV: Turnout in 1936	(1)	(2)	(3)
Female	0.19	0.18	0.16
	(0.23)	(0.24)	(0.23)
Female \times Textile industry size (log)	0.01	-0.00	-0.00
	(0.02)	(0.02)	(0.02)
Female \times Female strikers pre-1918 (log number)	-0.02		-0.01
	(0.02)		(0.01)
Female \times Textile industry size \times Female strikers pre-1918	0.00		. ,
	(0.00)		
Female \times Female strikers post-1918 (log number)		-0.02*	-0.02
		(0.01)	(0.01)
Female \times Textile industry size \times Female strikers post-1918		0.01**	0.01**
		(0.00)	(0.01)
$Female \times Agricultural workers$	-0.02	-0.02*	-0.02
	(0.01)	(0.01)	(0.01)
Female \times Population	-0.05	-0.04	-0.04
	(0.03)	(0.03)	(0.03)
Female \times Company Town	-0.12	-0.11	-0.09
	(0.10)	(0.09)	(0.09)
Female \times CNT	0.12	0.09	0.09
	(0.07)	(0.07)	(0.07)
$Female \times Ateneu$	0.19^{***}	0.21^{***}	0.21^{***}
	(0.06)	(0.06)	(0.06)
Constant	0.36***	0.36***	0.36***
	(0.10)	(0.11)	(0.11)
Municipality FEs	Yes	Yes	Yes
R-squared (Within)	0.0451	0.0465	0.0466
Ν	1,713	1,713	1,713

Table 3: Main results: Textile industry and strikes post WWI

* p<.1, ** p<.05, *** p<.01. Standard errors clustered at the municipality level.

Individual-level controls included but not shown: age, age squared and literacy.

for those areas that witnessed female strikes in the past, the presence of textile industry closes, and almost reverses, the participation gender gap. In contrast, in those areas with no female strikers the presence of feminized industry does not affect the gender gap.

Overall, we read these results as showing the importance of the ideological activation as a crucially conditioning factor on the impact of industry and labor market participation on female electoral participation. In the following section we develop some tests of the robustness of these results. Figure 10: The marginal effect of gender on turnout conditional on female participation in strikes and size of textile industry at the municipality level



5 Robustness checks

As discussed before, the main threat to our identification is the endogenous nature of strikes. Despite the fact that the models presented so far include municipality fixed-effects, and a relevant set of covariates interacted with gender, there could still be unobserved confounders related to the occurrence of strikes affecting unevenly men and women's turnout. A second key concern, of course, is the potential endogenous location of textile industry. In order to address these concerns, we deploy a number of robustness checks and placebo tests, and we will also provide evidence of the mechanism through which past strikes influence women's 1930 turnout.

5.1 Focusing on the 1918-1922 period

To check the robustness of our findings, we focus now our attention on the strikes that took place in the period subsequent to the negative economic shock (i.e. 1918-1922), which, as already discussed, may be due to exogenous factors. As before, we also control for the pre-existing stock of female militant ideology by including the (logged) total number of women that participated in strikes before 1918 and interacting the gender dummy with the local-level covariates.

Table 4 shows the results with three different specifications using different measures of female strikers: model 1 includes a dummy that takes value 1 when in the municipality there was at least one female striker in the period 1918-22, and zero otherwise. Model 2 uses the log number of female strikers in the period. Model 3 employs the share of female strikers over the total number of strikers in the period.

DV: Turnout in 1936	(1)	(2)	(3)
	Female striker	log female strikers	% female strikers
Female	0.15	0.16	0.16
	(0.23)	(0.23)	(0.23)
Female \times Textile industry size (log)	-0.00	-0.00	0.00
	(0.02)	(0.02)	(0.02)
$Female \times Strikes period 18-22$	-0.19*	-0.04***	-0.00
	(0.10)	(0.01)	(0.00)
$Female \times Strikes 1822 \times Textile industry size$	0.08^{***}	0.02^{***}	0.00**
	(0.02)	(0.00)	(0.00)
Female \times Female strikers pre-1918	-0.00	-0.00	-0.01
	(0.01)	(0.01)	(0.01)
Female \times Agricultural workers	-0.02	-0.02*	-0.02*
	(0.01)	(0.01)	(0.01)
Female \times Population	-0.04	-0.04	-0.04
	(0.03)	(0.03)	(0.03)
Female \times Town Company	-0.13	-0.13*	-0.14
	(0.08)	(0.08)	(0.08)
Female \times CNT	0.08	0.08	0.08
	(0.07)	(0.07)	(0.07)
Female \times Ateneu	0.23^{***}	0.23^{***}	0.22^{***}
	(0.06)	(0.06)	(0.06)
Constant	0.35^{***}	0.35***	0.35***
	(0.11)	(0.11)	(0.11)
Municipality FEs	Yes	Yes	Yes
R-squared (Within)	0.0484	0.0486	0.0471
Ν	1713	1713	1713

Table 4: Robustness checks: Strikes in the 1918-1922 period

 * p<.1, ** p<.05, *** p<.01. Standard errors clustered at the municipality level.

Individual-level controls included but not shown: age, age squared and literacy.

Results in Table 4 are aligned with those reported in the previous section and provide

additional credibility to our main finding. In the three operationalizations of the strikes variable, we consistently get similar results that point, again, to the activation coming from a combination of feminized industry and past labour unrest. Figure 11 provides onces again an illustration of the ideology formation mechanism.

The left panel illustrates the marginal effect of the gender dummy conditional on the size of the textile sector at the local-level when no strikes occurred during the 1918-1922 period. As expected, the gender gap is negative and precisely estimated when the size of the textile sector is low and no strikes occurred during the period of the crisis. When the prevalence of the textile sector increases, the gender gap becomes statistically insignificant.

The right panel of Figure 11 plots the marginal effect for the gender dummy conditional again on the size of the textile sector when at least one strike occurred in this crisis period. The result is congruent with our expectations. Figure 11 illustrates that for similar levels of textile industry, the occurrence of at least one strike during the crisis period helped to decrease (if not to overcome) the turnout gender gap.

Figure 11: The marginal effect of gender on turnout conditional on participation of females in strikes in the 1918-1922 period and size of textile industry at the municipality level



5.2 Exogenous industrialization

A second key empirical challenge is the plausible endogenous location of the textile industry. In other words, unobservable characteristics (such as skill composition at the local-level) might explain both the development of the textile industry and uneven turnout behavior by men and women. In order to address this concern we exploit the log distance to a main river for each locality as an exogenous source of variation that is plausibly proxying exogenous industrialization ¹⁶. As explained, the development of the Catalan textile industry was heavily dependent on the availability of water flow energy ¹⁷.

Table 5 replicates the same models but this time replacing the measure of textile industry size at the local level by a measure of log distance to a main river for each municipality. We employ the same models as in the previous section and we focus again on the strikes during the 1918-1922 period. Crucially, we maintain our identifying assumption and therefore we keep the control for the number of female strikers pre WWI shock at the municipality level to address the endogeneity of strikes. Thus, the models in this section address both types of potential endogeneity. The results across models (1),(2) and (3) in Table 5 are significant and consistent with our previous findings.

Figure 12 illustrates again the conditional marginal effects of gender but this time depending on the log distance to a main river as the main moderator of interest¹⁸. The left panel shows how when there was not any strike in which at least a women participated, the gender gap is consistently negative (estimated with uncertainty at the extremes of the distribution) and independent of the distance to a main river.

Interestingly, the right panel of Figure 12 reveals that when there was at least one strike in which women participated during the post-crisis period, the gender gap in 1936 became heavily conditional to the log distance to a main river. In other words, in municipalities where female strikers were present during the 1918-1922 period, the posterior gender gap

¹⁶The rivers we used are: *Tordera, Fluvià, Muga, Ter* and its two main tributaries *Freser* and *Onyar* ¹⁷See in the Appendix C the positive relationship between proximity to a main river and the size of the textile industry at the municipality-level.

 $^{^{18}}$ The plotted marginal effects come from the model in column (1) of Table 5

DV: Turnout in 1936	(1)	(2)	(3)
	Female striker	log female strikers	% female strikers
	(1)	(2)	(3)
Female	-0.03	-0.02	-0.00
	(0.21)	(0.21)	(0.21)
Female X Strikes 18-22	0.29^{*}	0.05**	0.00**
	(0.17)	(0.03)	(0.00)
Female X log distance main river	-0.01	-0.01	-0.02
	(0.03)	(0.03)	(0.03)
Female X Strikes18-22 X log distance main river	-0.15*	-0.02**	-0.00*
	(0.08)	(0.01)	(0.00)
Female X Female strikers pre-1918	-0.01	-0.01	-0.01
	(0.01)	(0.01)	(0.01)
Female X Agricultural workers	-0.01	-0.01	-0.01
	(0.01)	(0.01)	(0.01)
Female X Population	-0.01	-0.01	-0.02
	(0.03)	(0.03)	(0.03)
Female X Town Company	-0.12**	-0.12**	-0.12**
	(0.06)	(0.06)	(0.06)
Female X CNT	0.06	0.06	0.06
	(0.07)	(0.07)	(0.07)
Female X Ateneu	0.19^{***}	0.19^{***}	0.20***
	(0.05)	(0.05)	(0.05)
Constant	0.35^{***}	0.35***	0.35***
	(0.11)	(0.10)	(0.11)
Municipality FEs	Yes	Yes	Yes
R-squared (Within)	0.045	0.0456	0.0452
N	1796	1796	1796

Table 5: Robustness checks: Exogenous industrialization

* p<.1, ** p<.05, *** p<.01. Standard errors clustered at the municipality level.

Individual-level controls included but not shown: age, age squared and literacy.

disappeared or even switched to become positive depending on the distance to a main river, which is our proxy for exogenous industrialization. Thus, the negative slope of the right panel can be interpreted as showing that, when there were exogenous strikes post WWI shock, the size of the textile industry (proxied by proximity to a main river) helped to overcome the turnout gender gap. Figure 12: The marginal effect of gender on turnout conditional on participation of females in strikes in the 1918-1922 period and log distance to nearest main river



5.3 Cohort effects across age groups

One additional way of lending credibility to our findings consists on further exploring the mechanism. If past unrest is to have consequences on voting behavior at a later point in time, as we argue, we should expect the shock to be especially consequential for people in their *impressionable years*. According to a widely held hypothesis, shocks occurring during people's impressionable years are likely to leave a long-lasting residue on people's attitudes and behavior.

In order to test this implication, we have split the sample in four age quartiles. The resulting cohorts are as follows. Cohort 1 comprises those that were born after 1901 (cohort 1), that were 17 or younger in 1918; Cohort 2, those born between 1891 and 1900, that arguably were the group more clearly in the 'impressionable years' period. Cohort 3 includes those born between 1877 and 1890, that were adults of 28 to 40 years of age already in 1918, and cohort 4 those that were over 41, born in 1876 or before.

DV: Turnout in 1936	(1)	(2)	(3)	(4)
	Group1	Group2	Group3	Group4
Female	0.42	-0.33	-0.01	0.20
	(0.65)	(0.67)	(0.60)	(1.06)
Female \times Female strikers post-1918	-0.00	-0.05	0.06^{**}	-0.04
	(0.03)	(0.03)	(0.03)	(0.03)
Female \times Textile industry size	0.04	-0.00	0.00	-0.08**
	(0.05)	(0.04)	(0.04)	(0.04)
Female \times Female strikers post-1918 \times Textile industry	-0.00	0.02^{*}	-0.01	0.01
	(0.02)	(0.01)	(0.01)	(0.01)
Female \times Female strikers pre-1918	-0.01	0.00	0.02	-0.03
	(0.03)	(0.03)	(0.02)	(0.03)
Female \times Agricultural workers	-0.02	-0.04	0.01	-0.01
	(0.03)	(0.03)	(0.03)	(0.04)
Female \times Population	-0.08	0.04	-0.04	-0.03
	(0.09)	(0.08)	(0.08)	(0.14)
Female \times Company Town	-0.24	-0.06	-0.07	-0.40**
	(0.25)	(0.23)	(0.20)	(0.20)
Female \times CNT	0.16	-0.13	0.15	0.20
	(0.16)	(0.17)	(0.18)	(0.23)
Female \times Ateneu	0.15	0.25	0.17	0.13
	(0.12)	(0.16)	(0.16)	(0.25)
Constant	0.63**	-4.88	-2.42	-0.47
	(0.31)	(4.24)	(4.42)	(2.76)
Municipality FEs	Yes	Yes	Yes	Yes
R-squared (Within)	0.0244	0.0403	0.0743	0.1317
Ν	476	416	434	387

Table 6: Cohort analysis across age groups

* p<.1, ** p<.05, *** p<.01. Standard errors clustered at the municipality level.

Individual-level controls included but not shown: age, age squared and literacy.

Table 6 show the result of the analyses separated for each cohort. It can be seen how the triple interaction Female \times Female strikers post-1918 \times Textile industry emerges as having a statistically significant effect only for cohort 2, precisely the one for which we expected the most clear effect. The double interaction Female \times Female strikers post-1918 has an effect, reducing the gender gap, only for the third cohort, but in this case this does not seem to depend on the textile industry.

5.4 Placebo test: the cork industry

Another additional challenge with the previous analysis is that the observed and unobserved characteristics of women working on the textile sector might be different from other sectors. As mentioned before, the textile industry was heavily-feminized, but fortunately for our analyses is was not the only feminized sector. The presence of female workers in the cork industry was also relevant and, according to historians, workers in both sectors labored under the same precarious conditions.

The main difference is that the cork industry did not collapse after the WWI as compared to the textile industry, mainly because cork was sold in the domestic market or exported to other non-European markets. Accordingly, we run a placebo test on the cork industry and check whether the post-WWI crisis triggered women's ideological activation and helped closing the turnout gap. If it is not the case, we will have a stronger case that women's ideological activation on the textile sector was mainly due to a random shock caused by the WWI. It is true that the fraction of women working in the cork industry was not as high as in the textile industry, but the cork industry emerges as an almost comparable group-in terms of labour conditions and feminization-to the textile sector. Table 7 repeats the same analyses as before (specifically, the ones in 3), but using an indicator of the size of the cork sector at the municipality level.

As the Table 7 shows, the coefficients are not statistically significant across the different model specifications. Therefore, a significant turnout gap is still reported in places where the (feminized) cork industry was prevalent. As we have argued, this pattern is probably due to the absence of an ideological-activation mechanism, a factor that was in contrast presence in the textile sector due to the profound crisis triggered by the WWI¹⁹. It is true, however, that we cannot fully disentangle if the null effect for the cork industry is due to the lower fraction of women in that industry or, instead, to the fact that the cork

¹⁹Although the shock is exogenous, women working on the textile sector might still be different from women in other sectors for some unobserved characteristics. In this sense, and exploiting the fact that different subsectors suffered differently, future versions of the paper will analyze the gender turnout gap within the textile sector.

DV: Turnout in 1936	(1)	(2)	(3)
Female	0.24	0.20	0.18
	(0.22)	(0.22)	(0.22)
Female \times Female strikers pre-1918 (log number)	-0.01		-0.01
	(0.01)		(0.01)
Female \times Cork industry size (log)	-0.33*	-0.15	-0.14
	(0.19)	(0.17)	(0.17)
Female \times Cork industry size \times Female strikers pre-1918	0.06		
	(0.05)		
Female \times Female strikers post-1918 (log number)		0.02	0.02
		(0.02)	(0.02)
Female \times Female strikers post-1918 $\times {\rm Cork}$		-0.07	-0.07
		(0.06)	(0.06)
Female \times Agricultural workers	-0.01	-0.02	-0.02
	(0.01)	(0.01)	(0.01)
Female \times Population	-0.05*	-0.05	-0.04
	(0.03)	(0.03)	(0.03)
Female \times Company Town	-0.09	-0.12*	-0.10
	(0.08)	(0.07)	(0.07)
Female \times CNT	0.13^{*}	0.11	0.11
	(0.07)	(0.07)	(0.07)
Female \times Ateneu	0.19^{***}	0.20^{***}	0.20^{***}
	(0.05)	(0.05)	(0.05)
Constant	0.36***	0.36***	0.36***
	(0.11)	(0.11)	(0.11)
Municipality FEs	Yes	Yes	Yes
R-squared (Within)	0.0465	0.0464	0.0466
Ν	1713	1713	1713

Table 7: Placebo check: Cork industry

* p<.1, ** p<.05, *** p<.01. Standard errors clustered at the municipality level. Individual-level controls included but not shown: age, age squared and literacy.

industry was much less negatively affected by the negative shock post WWI.

6 Conclusions

In this paper we have investigated the role of industrialization and ideology formation on the turnout gender gap from a historical perspective. We have done so in the context of the Spanish Second Republic in the 1930s, which was a key historical period of democratization characterized by the introduction of female suffrage and by elections taking place under high polarization. The main contribution of the paper is to show the role of female ideology formation in explaining the decline of the gender turnout gap. In order to empirically identify the ideology formation mechanism we have exploited the WWI economic shock. This shock dramatically affected the Catalan textile industry, which was the most feminized sector. By exploiting micro-level data on labor strikes (including information on the number of females actively participating on strikes), we have been able to identify the effect of having gone through labor conflicts during the crisis period on electoral participation in the 1930s analyzing the individual level voting roll-calls.

On one hand, to address the endogeneity of strikes we have exploited the time-varying structure by splitting the data on strikes before and after the WWI shock. On the other hand, to address the challenge of endogenous industrialization we have employed the distance to main rivers as an exogenous proxy for local industrialization. To further explore the mechanism we have also investigated cohort effects from a historical perspective, showing that women that were in there 'impressionable years' when the labor strikes took places are the ones more likely to participate later on when female enfranchisement was implemented. As a placebo test, we have investigated the ideology formation mechanism for the cork industry sector. This was also a prominent sector with high feminization rates, but much less affected by the economic shock post WWI. Overall, this paper contributes to our understanding of the causes of female political participation upon formal enfranchisement by exploiting rich individual-level data from a unique historical period of democratization and extension of women suffrage.

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Appendices

A Data sources

Archives:

- Arxiu Històric de Girona (AHG)
- Arxiu General de la Diputació de Girona (AGDG)

Llibres de Vagues (Book of strikes)

- Instituto de Reformas Sociales (1905-24) Estadística de las Huelgas. Madrid.
- Ministerio de Trabajo (1924-1931). Estadística de las Huelgas. Madrid

Matrícules Industrials 1930 (Industrial registers).

Documents primaris de l'AHG

- Matrícula de contribució industrial de Agullana fins a Fornells de la Selva (AHG170-324-T2-13439).

- Matrícula de contribució industrial de Fortià fins a Ripoll (AHG170-324-T2-13454).
- Matrícula de contribució industrial de Riumors fins a Vulpellac (AHG170-324-T2-13487).

- Llibre de matrícula de contribució industrial de Girona (AHG170-324-T2-13424).

Associations (Associations)

Govern civil de Girona (1888-1937)

- Llibre registre d'associacions per municipis (AHG170-231-T2-8584)

Comissaria Delegada de la Generalitat a Girona (1935-1936)

- Llistes d'associacions i entitats (AHG170-228-T2-909)

Llistes de votants (Voters' lists)

- 1931: Expedients electorals (AHG170-472-T2-947, AHG170-472-T2-948 i AHG170-472-T2-949)

- 1933: Expedients electorals (AHG170-472-T2-901 a AHG170-472-T2-904)

- 1936: Expedients electorals (AHG170-472-T2-887 a AHG170-472-T2-890)

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Renovación total del Censo electoral, ordenada por Decreto de 26 de Enero de 1932

PROVINCIA DE GERONA

Término municipal de Arbucias

	APELLIDO	S Y NOMBRE D	EL ELECTOR	1	÷	10s (80	DOMICIL	10		
-	PATERNO	MATERNO	NOMBRE		Sexo	EDAD (a cumplide	En los Ayuntamiento Barrio; aldes o e	s runden	Profesión, oficio u ocupación	
Ad	robau	Dalman	Carmen	1	Hem.	58	Mans	6	ana labores	
Ag	ell	Novell	José		Var.	43	Bern	16	taponero -	
Alt	00 · · · ·	Dalman	Magdalena	۰.	Hem.	28	Castillo	65	sus labores	
416		Maró	Josefa		Hem.	97	id	17	ana laborea	
Alt	ó	Pastells	José		Var.	52	Diseminado	18	arero	
Alo	mar	Moré	Rosa		Hem:	24	Castillo	50	sus labores	
Als	ina	Bosch	Irene	11.1	Hem.	47	Demunt	17	id,	
Ala	ina	Cortina	Josefa		Hem.	24	id.	8	10.	
Am	other	Expésite	Maria		Hem.	45	S. Jaime	15	10.	
An	dran	Noguera	Juan		Vor.	36	Mayor	18	iornalero	
Ap	aricio	Guillem	Benita		Hem.	48	S. Jaime	22	sus labores -	
Are	DAS	Bohils	Antonio		Var-	23	Demunt	25	labrador	
Are	5086	Bohils	Teress		Hem.	25	Bern	19	Id.	
Ari	8.5	Planes	Maria		Hem.	27	Demunt	10	labrador	
AL	86	Llado	Padro		Var.	99	Mana.	4	id.	
Ari	meny	Permanyor	Miguel		Var.	57	id.		id.	
Au	ladeli	Plademunt	Alfonso		Var.	41	CastHlo -	43	jornalero	
Au	let	Serrahima	Carmen		Hem.	48	Bern	6	propietaria	
Bag	gué -	Albiol	José		Var.	50	Castillo	67	arriero	
Bag	gué	Gomas	Dolores		Hem.	26	S. Jaime	12	atta jajoorea	
Bal	licrosa	Castsfié	Berteles		Hem.	48	Castillo	28	Carrero	
Bar	061 · · · · ·	-Castañó	Francisca		Var.	20	14.	79	sus labores	
Bat	rgallô	Bargalló	Francisco		Var.	61	id.	9	carrero	
Bar	rgalló	Guillem	· Salvador		Var.	27	id.	- 50	jornalero	
Ba	mils	Recasens	Teress		Hem.	68	Mayor	6	sus isbores	
Bas	888	Marlet	Jornie		Hem.	45	Castillo	73	10.	
Ba	80.8	Dorca	Salvador		Hem.	38	10.	4	jornalero	
Dat	set	Pagés	Ignacio		Var.	07	sd.	4	cerrajero	
Bat	vet .	Fortuny	José		Var.	59	Demunt	20	labrador	
Ba	vor	Parcet	Dolores		Hem	58	id.	10	sus labores	
Bei	lisolell	Roger	José		Var.	57	P. Constitución	2	labracor	
Bel	lisolell	Torrent	Jonquín		Var.	31	id.	2	Completo	
Bel	lsolell	Caralt	Jose		yar.	24	id.	10	ans isbores	
Ber	rgit	Munt	Serafine		Hem	59	Maus	11	id.	
Bet	rnils	Ballesta	Leandro		Hem.	58	P. Constitucion	22	jabilado	
Del	rtran	Coll	Juan		Van	81	Centillo	3	arero	
Ber		Coll	María		Hem.	26	id.	8	sus labores	
Bei	nlas	Maao	José		Var.	57	id,	3	jornalero	
Bla	sei	Anlet	Agustín.		Var.	42	id.	67	labrador	
Bo	doy	Aules	Juan		Hem.	22	Bern	0	ampleado	
Bo	doy	Serra	Juan		Var.	25	id.	6	médico	
Bor	doy	Mola	Filomena		Hem.	57	Demont	25	sus labores	
Bol	bils	Rotllan	Roea		Hem.	42	Castillo	- 74	1d.	
Bol	bils	Riera	Martin		Var.	63	Demunt	12	labrader	
Ber	n#111	Bargallo	Deleres		Var.	.87	Castillo	68	asorrationes	
Be	rrall	Auleaus	Padro		Hem.	43	Mayor	4	labrador	
Bo	rcell	Pinto	Juan		yar.	27	S. Jaime	21	alba0il	Ľ.
Bo	sch	Caralt	Francisca		var.	24	id.	1	aus la bares	
Ba	sch	Zaralt	Juan		Var.	22	Castillo	- i -	oom lebores	
Ba	sch	Caralt	María		Hem	24	10.	1	somercio	
Bo	sch	0:05	Martin		Var.	37	. 10,	8B	albanii	
Bo	ach	16.00	Juan				101.	- 12	A	

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Figure A.2: Voters' lists

XC	-15R			
C.C.	NUM.	DE ORDEN		
A	A la votac	ción En la lista	APELLIDOS Y NOMBRE DE LOS VOTANTES	
2 de	\$ 89	185	Soibal Genis Lal, delas Daterrenting	
Contraction of the local division of the loc	196	68	Campo Bret 4	
and a state of the	91	117	Damer Salellan Dian de promper Bor	
	192	279	Pujula Gibrat Peresa Juan	
Connection	93	183	Gibrat Pous Marganito	
	194	26	Battle Battle Mote	
30	195	13	Barneda Pyula Termin	
3	196	189	Guiset Noguer ajose	
	197	281	Jujula Gibrat Francisco	
1	198	3	annada quintana Maria	
hinder .	199	289	quintana, Vinas Marganta	
	200	243	Pairo Falellaj Comepción	
	201	111	Cros Juner Majestat-	
	202	220	Olivera, tows Senoreva	
24	203	51	Bretja Riera Rita	
	204	58	Busquets Falin Maria	
	205	146	Genis Salellas Birmituro	
	206	239	Jages Juner paime	
	2017	347	Cubert Bonal Baldomero	
	208	109	Costa Buixeda Mazdalena	
	209	136	Fita Lalellag yoze	
	26	48	Carreran Poch Juan	
0	711	A	Penin Page's Primitivo	
	312	an	Comos Ruslant Francisca	
	212	ar	Porra Perkelant Quoa	
	0.1	10	Gama Revellant Rosa	
-	214	99	b 1' Cappo Roza	
	215	5	bill Battle Magazine	-
	216	25	Barus that ar programme	
-	117	41	Bohera Jagrera dora	
/	119	239	Sumer Parte Doroes	
	19	341	Juner Mach Jose	
	220	263	Pout Battle Enrica	1
	Francisco de la competencia de	Manual Manual and		

			FOLIC	D							Sector Ang	7
	NUMERO DE	APELLIDOS Y NOMBRE de los exertibujentes	Prodesión, industria, arte u oficio por que contribuyen	Calle y númer de su cana habit	alle y número del local	CUOTAS	BECARGO SUMICIPAL 12 por 100	OTAL Spor 100 ausorato p factor de matricula. Brance, e	de Resonayo una tan tan tan tan tan tan tan t	TOTAL general	Ponto Con	4.
	(· ·	June, sig	ie share and		t que se ejerce	2. 37 60	7-603	313 63 15	64	32930	8232	-
	1 5 2 1 6	Rigan Galman Fair	Gamacentic	9. Constatues	Questitución	132	42 24	174 24 8	11	182 95	31 98	
	05 2 1 10	of Ryle Segui Juan	Netenmis	Collongues & h	Clargies de balelle	92	29 44	181 44 6	07	327 09	81 77	1
el.	672 2 5	Sol Prada fore volu: BAJAN	l Justan hard	a. C. 11	Budustria	236	75 52	211 21 12	48	73 09	19 .2	-
	68 2 3 8	Reating dit dugado waring	Coludor elisto, quio	1. Conside landage	Contitución	52	25 60	105 60 3	28	110 98	27 72	+
	701 2 3 34	Ring Lizzel Sman revolution	is the state	P. Julio France	W	yo Va	25 60	10560 5	28	110 88	37 72	+
	71 2 6 1	Rinkweent Colonier fore	Una bares	Rectance	Julio Journer	60	19 20	79 20 3	7 96	\$3 16	20 79	1
	722 68	Boundard Papell Franci	to Un carro 2 caballeriof	Column Bonens	lavia Boumal	104		104	5 87 13 52	123 31	15 42	
1	732 68	Bernadas Payell Francisc	un came 1 cololleria	2.	is	52		52	297 57	6 516 6 516	54 15 42	-
BAM	142 55	Beierdon Nerdaguer José 8	All the carro of colollaria	Rauble Ollanate	with Monasterio	52		52	211 67	6 61	59 15 42	
	5 2 6 4	Vilanova Manghera Gedr	Un carro d' caballeria	tan Julian	la polean	52		52	1 22	270	72 693	
17	72 69	Antis Delett Chanenco	Un cario amillerado	Coleria Morena	Jenia Bound	20	640	26 40	1 22	27	72 6 13	
7	82 35 9	ellario Tralach hran	1. 171	c genet	? Feiol	30	0 40	16 40	1 32	27	72 673	
24	8 2 7 9	Jultresa Berris Julio	Mus un lillas	P. C. Senderia	· Neudena	20	1 25 60	105 60	5 28	118	88 27 72	
1		Cotof le tar	ila 2ª		. Constatucation	13696	0 35509	172469	8787 33	80 1846	39 46158	
150	5 1 12	unquera Russalleda Jose'	2 ellaquinos destilaction	1. lungar	1 hugues	108	34 56	142 56	7 12	149	rs 97 42	
101	A R	Junquero Remalledo Joi	10% soll agua	J.J.	5	10.0	40 9 45	1425	72	14	92	
The star	3 2 8	Enquera Runalleda fore 4	Candof us arejos a perior de	w		256	81 92	337.92	15 89	354	105 02	
11 84	3 A I L	recu Vilanva Jedro BAJA	galnic algoratos (juego me.	O. malliquel	> for alligne	206	97.92	403 92	20 15	12	96 3465	
85	3 4 1 0	ac aliveral Q. I.	Una magaina espillin 50%	Place for selliper	P. han elliquel	100	32	122	6 40	11	5 28 11 44	
\$6	2 4 3 0	omenech Jalon Los	here merge anilar of 50%	1 Ti	is I	33	1056	4256	47 17	50	9 12 125 78	
87	3 4 3 8.	dow Vilguova me	a never an fire for an al patting of	Poro plie Tour	Rescoplin your	3.63	11810	41910	* 54	5	5 44 13 83	
85	2 + 3 0.	down Vilanova Inc	him as I can	alle veryes	Colli Vlayon	40.	A 21.90	10018	5	10	5 18 3630	
189	3 4 JN. Be	munite priella	horiz in his 1200 may	W C	w	100	70 x4x3	26/35	13 .7	2	74 42 68 61	
100 3	4 13	roumati pi ell:	d pina sintelimmental Soy 7	1 Somala	- Mounda	170	80 27 45	5 113 25	5 66	1	18 91 29 73	
92 9	4 0 10	much pulell:	59 alle acus	W	i.	13	87 4 11	1 15 93	8 84		17 82	-
93 7	1 5 5 1	a fortent Pide	In tones a many of	w .	e ann '	50	2 16	66	2 20	10 in	69 30 17 3	1
94 3	7 12 000	uera Runalleda poi	lives degios love beller .	Bl	A lunger	26	0 832	0 343 2	0 17 16	3	60 36 900	1
95 3	9 17 120	ing and elementer p	- brien tayon , ladially on here	Den all l	toy abollos	6 .64	4 204	8 844	8 4 24	-	8872	-
	1 1 an	an ellana lo	taking & priceline with Sungel	Internation	lif	44	4 140	580	8 2.92		60 98	
	102	Menny juque	and the fail of the	W	14	2.00	7176423	5 26494	213246	27	8218 619	191

Figure A.3: Industrial registers

B Additional Robustness checks

B.1 1933 turnout

An alternative approach to tackle unobserved heterogeneity is at the individual level. If we could control out *politicization* of women, then we could more precisely estimate the effect of the relevant independent variables. Unfortunately, we do not have any way of collecting attitudinal variables for our individuals, but we can use behavior in t_{-1} as a measure. Having voted in the previous election arguably works as a measure of individual propensity to vote, and therefore, we can control this and see if our variables of interest still have an effect in a high stakes election such as 1936.

This is undoubtedly a potentially problematic control, since it is post-treament and therefore might downward bias our estimates. However, the fact that we are dealing with a high-stakes, high-turnout election (1936) makes it plausible to think that the effect of the past process of ideology formation fully emerged only in a high mobilization context.

Table B.1 presents the results of the same models developed above, but with the 1933 vote/abstention as a control. We can see how the effects of the triple interaction are robust to the inclusion of this control, which points to the fact that, beyond turnout in 1933, the ideological activation mechanism had an independent effect in 1936.

DV: Turnout in 1936	(1)	(2)	(3)
	female striker	log female strikers	% female strikers
Voted in $t-1$	0.32***	0.32***	0.32***
	(0.02)	(0.02)	(0.02)
Female	0.23	0.24	0.24
	(0.21)	(0.21)	(0.21)
$Female \times Strikes period 18-22$	-0.18**	-0.03***	-0.00
	(0.09)	(0.01)	(0.00)
Female \times Textile industry size (log)	-0.02	-0.02	-0.01
	(0.01)	(0.01)	(0.01)
Female×Strikes1822×Textile industry size	0.08^{***}	0.02^{***}	0.00^{*}
	(0.03)	(0.00)	(0.00)
Female \times Female strikers pre-1918	-0.01	-0.00	-0.01
	(0.01)	(0.01)	(0.01)
Female \times Agricultural workers	-0.02*	-0.02*	-0.02*
	(0.01)	(0.01)	(0.01)
Female \times Population	-0.04	-0.04	-0.04
	(0.03)	(0.03)	(0.03)
Female \times Planned community	-0.04	-0.04	-0.03
	(0.08)	(0.08)	(0.09)
Female \times CNT	0.04	0.04	0.04
	(0.07)	(0.07)	(0.07)
Female \times Ateneu	0.24^{***}	0.24^{***}	0.23***
	(0.05)	(0.05)	(0.05)
Constant	0.33***	0.33***	0.33***
	(0.10)	(0.10)	(0.10)
Municipality FEs	Yes	Yes	Yes
R-squared (Within)	0.1618	0.1618	0.1603
Ν	1677	1677	1677

Table B.1: Robustness check: Strikes 1918-1922 and 1933 vote control

* p<.1, ** p<.05, *** p<.01. Standard errors clustered at the municipality level. Individual-level controls included but not shown: age, age squared and literacy.

C Additional Figures and Maps



Figure C.1: Main Rivers in Girona

Figure C.2: Relationship between the size of the textile industry and the log distance to the nearest main river



Figure C.3: Relationship between the average number of female strikers between 1918 and 1922 and the percentage of female workers at the industrial sector



Figure C.4: Relationship between the average number of female strikers between 1905 and 1931 and the percentage of female workers at the industrial sector



D The post-WWI economic crisis



Figure D.1: Evolution of inflation (1905-1931)

Figure D.2: GDP Annual Growth rate (1905-1931)

