

Historical Family Types and Female Political Representation: Persistence and Change *

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Abstract

We argue that different historical family configurations shaped the gendered division of labor within the household, gender norms, and female political representation in the long run. Our main evidence draws from geographic variation in historical family types in Spain and municipality-level electoral data from 1978 to 2015 and earlier democratic spells. We find that areas where the stem family was prevalent—meaning that multiple generations of women lived together and shared domestic work—show higher female political representation than areas with nuclear-family tradition. Still, history is not destiny, and the impact of historical legacies can fade. In our mechanisms analyses, we demonstrate that the introduction of party-list gender quotas balanced off the main effect, although they did not erase underlying differences between regions in gender attitudes and female paid employment. Our research contributes to the study of historical persistence by assessing what institutions can and cannot do to combat patriarchal prejudice.

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1 Introduction

Where do gender norms come from? Under what conditions do they persist and fade? We address both questions by examining the role of historical family types on modern-day female political representation. We argue that different historical family configurations shaped the gendered division of labor within the household, feeding into patriarchal gender norms that survived until the present and manifest in different rates of female political representation. The consequences of historically-rooted gender norms can be mechanically mitigated, but not erased via party-list gender quotas—not in the short-run at least.

Drawing from Todd’s (1990) seminal typology of historical family types, we focus on the two most prevalent family configurations in pre-industrial Europe. In extended or “stem families” one couple (typically the oldest son, his wife, and children) remained in the husband’s family home and cohabited with the older generation after marrying. In “nuclear families” all newlyweds moved out of the parents’ house to create new households which typically comprised only two generations: parents and children. We argue that stem family configurations allowed working-age women to share domestic work (e.g., child-rearing and meal preparation) with the mother-in-law, freeing time to participate in the labor market. This in turn softened the gendered division of labor and patriarchal norms relative to nuclear family configurations. Although stem families vanished in the first half of the twentieth century following industrialization, we argue that a culture of less discriminatory gender norms persisted and exerted positive effects for female political representation all the way to the present day.

To test this argument, we examine the relationship between historical family types and female representation in Spanish local councils between 1978 and 2015. Spain is a well-suited case to test the effect of historical family types on female political representation because it hosted stem and nuclear families since medieval times for reasons unrelated to preexisting differences in gender attitudes, as we discuss in detail in Appendix H.1. We build an original dataset on female councilors for the universe of municipalities in Spain out of original election

records provided by the Spanish Ministry of Finance and Public Administration. Following the best standards in demographic research, we measure historical family structure as the average number of married and widowed women per household at the district level and retrieve this information from the earliest high-quality census in Spain, dated as of 1860.

Our results confirm that after the return of democracy in 1978, the share of female councilors, although low in absolute terms, was significantly higher in areas where stem families had been historically prevalent. To test the robustness of our results, we include a comprehensive set of geographic, contemporary, and historical controls (including land inequality, religiosity, and sex ratios in the nineteenth century) as well as Autonomous Community or “region” fixed effects that account for time-invariant heterogeneity in cultural norms and institutions across Spanish geography and subnational units. We address issues of demographic sorting by accounting for internal migration flows and by excluding urban areas in stem family regions and cities. Finally, our estimates remain qualitatively similar when we apply an instrumental variable strategy borrowed from Tur-Prats (2019), lending support to a causal interpretation of our results.

To address concerns of history compression, we examine the effect of historical family types on female political representation from 1924 to 1939, the first and only time before 1978 that women were allowed to run for office in Spain. Consistent with our main results, we find relatively more female councilors in stem-family areas during this period. Next, we show direct evidence of the two mechanisms of persistence in our theoretical argument: First, using both historical census data for 1887 and contemporary microdata from the Active Population Survey between 1976 and 2015, we find that women’s involvement in paid employment was and is higher in the stem family areas. Second, we conduct a systematic search of survey data on gender attitudes (in general and specific to politics) from the Spanish Center for Sociological Research (CIS) and the survey firm Metroscopia, covering 1975–2020. This evidence shows that individuals in former stem-family regions continue to have significantly more gender-equal attitudes than individuals in areas historically inhabited

by nuclear families.

When we look at the dynamic effect of the historical family types on female political representation over the range of elections, we find that the gap in female political representation faded in the 1990s. To explain this change, we hypothesize that the staggered introduction of voluntary party quotas in the late 1980s and early 1990s caused the narrowing of the gap between regions. In support of our hypothesis, we find that the adoption of voluntary electoral quotas had a stronger effect on regions historically inhabited by nuclear families. This evidence suggests that electoral institutions can compensate for a legacy of gender discrimination caused, in this case, by historical family types. On a pessimistic note, the adoption of voluntary quotas in Spain was not accompanied by an improvement in female paid employment or gender attitudes in regions historically populated by nuclear families.

This article contributes to our understanding of historical and contemporaneous determinants of gender gaps in political representation. First, historical determinants were uncovered by Alesina, Giuliano, and Nunn (2013)’s findings that societies that historically practiced plough agriculture forged strong patriarchal norms as a consequence of men contributing more to the subsistence activity. Even after differences in agricultural modes of production were no longer relevant, the ensuing cultural norms about the role of women in society continued to shape gender-related outcomes, including female political representation. Our paper reveals a novel historical cause of gender-based labor specialization—family structure—carrying long-term effects for female political representation. By implication, our findings speak to scholarship connecting bread-winning responsibilities to women’s political representation (Bernhard, Shames, and Teele, 2021; Iversen and Rosenbluth, 2010).

Second, we contribute to recent research on family structure and political outcomes. The closest and most recent work to ours by Brulé and Gaikwad (2021), Hager and Hilbig (2019), and Robinson and Gottlieb (2021) examines the influence of family inheritance rules on women’s representation and attitudes toward female candidates. We advance this scholarship by showing that family configurations conducive to multigenerational cohabitation can enable

women to work outside the household, carrying long-lasting consequences for female political representation.

Third, we speak to a rapidly growing literature unpacking the effect of electoral institutions such as gender quotas (Hughes et al., 2019; Krook, 2009; Weeks, 2018) and proportional representation (Kittilson and Schwindt-Bayer, 2010) on female political representation. Our findings contribute to this scholarship by considering the effect of electoral institutions in counterbalancing historically rooted gender norms. In thinking about the effect of electoral institutions in (partially) mitigating the effect of historical gender norms, we borrow from key insights in Alesina and Giuliano (2015) and Bisin and Verdier (2017).

We conclude this introduction with two notes on scope conditions: First, our argument about the relevance of cohabitation with grandmothers for female participation in work and public affairs applies to contexts in which adult women cannot delegate responsibility for childcare and housework outside the family. Before the expansion of public education, childcare was mostly assumed by the family, but this situation has radically changed with the expansion of the welfare state (Esping-Andersen, 1999). Cohabitation between generations might be less relevant today since in most contemporary contexts families can trust schools to take care of children while women work or are otherwise engaged in public life.

Second, our theory and empirical analysis apply to societies historically comprising stem and nuclear families, which were the most predominant historical family types in Western Europe. A third basic type of family is the communitarian or joint family, especially prevalent in some Asian and African regions, in which *all* sons remain with their parents and bring their wives to the family home when they reach adulthood.¹ We believe that our main argument—that coresidence with the mother-in-law can reduce domestic production burdens and facilitate female labor force participation—may also hold for joint families.² However,

¹The joint family in Western Europe is present only in north Italy as shown in Figure A-1, panels (a) and (b) in the Appendix. For simplicity throughout the text we assume that extended families (both joint and stem) are patrilocal and patrilineal. Ancestral communities in Western Europe and peasant communities around the world were strongly patrioriented (Bau and Fernández, 2021; Goldschmidt and Kunkel, 1971).

²For India—a country where the joint family still persists—Khanna and Pandey (2022) find a sharp decrease in married women’s labor force participation following the deaths of their mothers-in-law.

this positive effect may be counterbalanced by other aspects surrounding joint families, such as restrictive norms about female mobility and autonomy (Anukriti et al., 2020).

The rest of the article is organized as follows: Section 2 reviews the main historical family types in Europe and articulates why they affect female political representation in the long run. Section 3 introduces our case study and key measures, while Section 4 contains the main results and addresses history compression. Section 5 examines empirically the mechanisms of persistence and Section 6 elaborates on the role of voluntary quotas in mitigating the effect of discriminatory gender norms. In the Conclusion, we reflect on the challenges that electoral institutions face vis-à-vis deeply-rooted norms, and elaborate on viable strategies for *comparative* analysis of the impact of family structure on political outcomes.

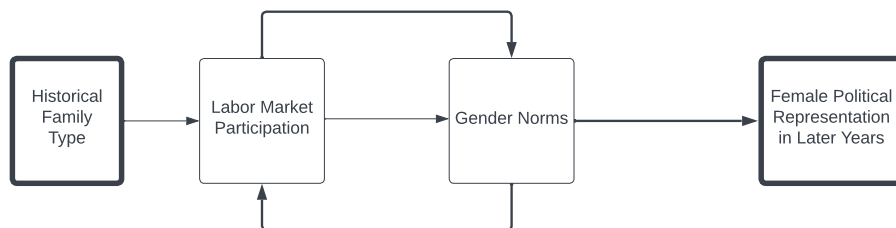
2 From historical family types to female representation

Building on previous literature in anthropology and economics, we claim that differences in how families were organized in the past shaped whether women could engage in paid work outside the household. In particular, family structures that made it more likely that two adult women cohabited under the same roof (i.e., stem families) facilitated women’s incorporation to paid work, raising their bargaining power at home. This had long-term implications for gender norms, which reinforced and sustained higher rates of female paid employment even past the decline of stem-family configurations during industrialization. Past labor force participation and gender norms have long-term implications for contemporary female labor force participation and gender norms, and have down-stream effects on women’s political representation when societies democratized. Thus, our argument connects historical family types to female political representation today via two channels: labor market participation and gender norms, which are mutually reinforcing. Figure 1 summarizes the argument.³ We

³Importantly, although our causal diagram identifies a path between historical family types and female political representation, it does not exclude explanations different from the labor market nor a direct path between historical family types and gender norms. For example, Tur-Prats (2019) notes that the deterrent effect of having more adult witnesses in the household could be an alternative channel that explains the

now discuss each step of the argument.

Figure 1: *Historical Family Type and Female Political Representation in Later Years*



2.1 Historical family types and their origins

The family is the most primal institution, present in all societies. A growing empirical literature based on classic insights from anthropology argues that family ties and structure have long-lasting consequences for economic growth and development (Alesina et al., 2015; Duranton et al., 2009), corporations (Greif, 2006), public policy design (Galasso and Profeta, 2018), and government quality (Akbari et al., 2019; Broms and Kokkonen, 2019).

Recent work in political science examines how specific aspects of family types related to lineage and inheritance practices condition women’s political engagement: Societies with more equitable inheritance practices between men and women show higher levels of female participation in politics (Brulé and Gaikwad, 2021) and presence in public office (Hager and Hilbig, 2019) whereas matrilineal practices are associated with progressive gender norms in politics (Robinson and Gottlieb, 2021).

We focus on a different characteristic of family structure that has received little attention to date: historical family types in which cohabitation of multiple generations under the same roof was common. Emmanuel Todd proposed the classification of family-related institutions in three main types based on detailed historical records. We focus on the two types that were prevalent in Western Europe and in the case we study, Spain, and which vary in whether they promoted cohabitation of multiple generations. In stem families, the son who stayed

lower incidence of IPV in regions with historical stem families.

in the family’s homestead became the single heir. In nuclear families, inheritance was split between siblings, and each formed a new household upon marriage.

The reasons why some regions in Europe adopted specific family types remain debated, with little consensus about the extent to which economic factors drove those decisions (Gruber and Szoltysek, 2012; Ruggles, 2009; Szoltysek et al., 2020). In Spain, the reason why regions adopted stem or nuclear family arrangements dates back to the *Christian Conquest* (722–1492), a centuries-long process in which different Christian kingdoms “reconquered” Muslim Al-Andalus. Western parts of the Iberian Peninsula were reconquered by independent Christian kingdoms established by Visigoth noblemen survivors who had retreated to the small mountainous area of Asturias, leading to the gradual emergence of the Kingdom of Castile. In the northeastern part of the Iberian Peninsula, the Frankish Empire established the Hispanic March, a buffer zone between the Pyrenees and the Ebro river with the goal of guaranteeing security from the Muslims, which contained a loose confederation of subkingdoms that later merged into the Crown of Aragon.

Christian conquerors adopted different family laws in the East and West of Spain. The Northeast was more decentralized politically, and the nobility used its power to establish *freedom of testation*, which enabled them to keep landholdings intact throughout generations by instituting a single heir. In the West, by contrast, political power was more centralized around the monarchs who introduced the principle of equal allocation of bequest among offspring. These different inheritance systems led to different family structures: stem family in the Crown of Aragon and nuclear family in the Kingdom of Castile.

There is no reason to believe that regions adopted different family types because of *pre-existing* differences in gender equality. Gender equality was low in both areas in medieval times and the implications of both family types for gender equality are ambiguous. In stem family systems, heirs had an obligation to help their sisters marry and maintain their status as much as possible. In nuclear families, women could inherit land, but it typically was the land of lowest quality (Carrasco and Jesús, 2009; González, 2000) (refer to Appendix H for

further details).

2.2 Mechanisms of persistence: Employment and gender norms

The geographic distribution of family configurations responding to military and political considerations in the high-middle ages locked in and persisted until the early twentieth century. When paid employment outside agriculture became widespread, a process largely started with industrialization in the late 19th century,⁴ the family structures in place determined if women could partake in the new economy (Tur-Prats, 2019). Cohabitation under the same roof, as in stem families, allowed sharing of domestic work and participating in paid employment in a time when domestic work required intensive dedication and no public childcare was available. During this time, women in stem families worked (often part-time) in wage-earning jobs: e.g., shopkeeper, personal services (e.g., laundress), and factory lines. Where cohabitation was rare, as in nuclear families, adult women were less able to delegate domestic work, and hence could not engage in paid employment. In that context, marked gendered division of labor unfolded: the husband participated in paid employment and the wife, being the only adult woman in the house, specialized in domestic production.

Consistent with our claim that historical family types had implications for female labor force participation, Borderías and Ferrer-Alòs (2017) and Sasaki (2002) document higher participation of women from stem families in the labor force in the first decades of the twentieth century in Catalonia and in modern-day Japan, respectively. Focusing on the case of France, Tudor (2022) shows that the consolidation of the nuclear family by the Napoleon Code elevated the position of husbands within newly-wed households at the detriment of the wife’s economic and political power. Back to Spain, Tur-Prats (2019) finds nineteenth-century women in their reproductive years were more likely to do paid work in stem family areas. We replicate this finding in Appendix B.

Although not focused on historical family structures, modern evidence also shows the pos-

⁴Simpson (1997) for an overview of late industrialization in Spain.

itive effect of multigenerational cohabitation on women’s labor participation. For instance, Tienda and Glass (1985) find that coresidence with grandmothers in the United States increases paid employment of single mothers independent of ethnic origin and income level. Exploiting cross-national survey evidence in Western Europe, Jappens and Bavel (2012) offer the clearest evidence of the mechanism behind that relationship: namely, cohabitation with grandparents increases the probability of delegating child-rearing to the oldest generation in the household, and the strength of that association is inversely proportional to the rate of formal childcare coverage. In other words, in contexts in which access to child care is limited (or prohibitively expensive), extended families can reduce working-age mothers’ child-rearing responsibilities and boost their participation in the labor market.

It has been shown that women who contribute monetarily to the domestic economy increase their bargaining power within the household and in their community (Iversen and Rosenbluth, 2010, ch.2). By implication, we conjecture that territories with a prevalence of stem families are likely to articulate gender norms (i.e., a set of beliefs about the behavior by which women should abide in private and public spheres) that are more gender-equal than in regions with nuclear families, where gendered division of labor is more pronounced. Once established, gender norms tend to persist (Evans, 2015) and be transmitted within the family and communities across generations, reinforcing congruent behavior—in our case, female participation in (non)domestic production.⁵

Although no direct evidence shows that family structure affects *historical* gender norms, two pieces of evidence are consistent with our argument. First, Tur-Prats (2019) finds that the different productive role of women explains the higher prevalence of intimate partner violence (IPV) in regions with nuclear families. Second, Beltrán Tapia and Gallego-Martínez (2020) show that gender ratios in the nineteenth century were more balanced in regions with higher prevalence of stem families.⁶ In line with our hypothesis, they argue that the

⁵See Bisin and Verdier (2001) for a formalization of intergenerational socialization within the family and Fernández and Fogli (2009) for gender norm transmission within the family in the absence of the original institutions that created them.

⁶For the relationship between unbalanced gender ratios and female discrimination see: Das Gupta et al.

cohabitation of different generations of women had a positive effect on girls' survival rates because it enabled more women to participate in the labor market, thus increasing their marginal contribution to the household economy.

2.3 Downstream implications for female political representation

Although multigenerational cohabitation has largely disappeared in Spain (see Appendix C), we argue that the variations in historical gender norms and labor market participation persist and contribute to explain differences in female political representation. In particular, we expect female political representation to be higher in former stem-family regions compared to regions with nuclear families because of demand and supply factors. On the demand side, “voters who are accustomed to women in the workforce may be more open to women in political leadership roles as well” (Iversen and Rosenbluth, 2008, p.480). The empirical literature is largely consistent with this argument. Women’s participation in the labor market has been shown to change the way they are perceived as political leaders (Andersen and Cook, 1985; Rindfuss, Brewster, and Kavee, 1996).

On the supply side, a history of women’s subordination to men may hamper women’s political ambition—an important factor into the decision to “emerge” (Fox and Lawless, 2014). Socialization into traditional gender roles might undermine the confidence of viable candidates, reducing the supply of women in politics. In addition, the lower participation of women in the labor market in more traditional regions may reduce women’s interest in running for office. As Iversen and Rosenbluth (2008, p.483) put it, “women who work outside the home are more likely to develop policy interests that are distinct from their husbands’ as they face new challenges trying to balance family and career.” Third, even holding ambition and interest constant, low rates of female paid employment in regions historically populated by nuclear families reduce the resources (e.g., income, information, contacts) available to women who want to run for office (Kenworthy and Malami, 1999; van der Lippe, de Ruijter,

(2003), Hudson and Den Boer (2002) and Sen (1990).

de Ruijter, and Raub, 2011).

3 Case and data

The stem–nuclear divide in Spain originated during the Christian Conquest in the medieval period for reasons unrelated to gender norms (see above and Appendix H) and ended in the midtwentieth century due to economic modernization and rural migration into cities. Modern-day census data shows small household size in all regions (see Appendix C). The disappearance of stem family types offers a methodologically adequate setting to examine Todd’s (1990:42) intuition that historical family structures carry persistent cultural effects.

3.1 Measuring historical family types

In order to measure the historical prevalence of nuclear and stem families, we use information from the 1860 population census because it is the first high-quality census that allows us to reliably measure historical family types for the whole of Spain.⁷ Following previous work employing Spanish historical data (Tapia and Martinez-Galarrraga, 2018), we take the judicial district as our unit of observation. There were over 400 judicial districts (or districts henceforth) in Spain in the nineteenth century, which we map to current municipalities.⁸

We measure family structure as the average number of married and widowed women per household across historical districts. Classic measures of family type measure the number of adults per household Burch (1970); Parish and Schwartz (1972), but subsequent research noted that seasonal migration was more frequent among men, and proposed that focusing on married and widowed women yields more stable and robust measures (Mikelarena Peña,

⁷An additional advantage is that it is one of the few censuses ran in December, a period of the year with low internal migration precisely because of low agricultural needs (Gozálvez Pérez and Martín-Serrano Rodríguez, 2016, p.341). For this reason, this data source allows a better measure of family types than censuses conducted in the summer.

⁸Spain has four nested jurisdictional levels: municipalities (8,000+), judicial districts (400+), provinces (50), and regions (17). Judicial carry no political or economic meaning in modern-day Spain.

1992; Rowland, 1987).⁹ This variable captures the frequency of cohabitation between adult married women and their mothers-in-law.

Figure 2a demonstrates that the distribution of family structure is bimodal. In most districts, cohabitation between adult women (i.e., average ≥ 1) was rare.¹⁰ In our baseline specifications, we use the continuous measure in Figure 2a as our main independent variable, standardized to facilitate interpretation. We also use a dichotomous measure that classifies areas as predominantly having nuclear or stem historical family types. Based on the bimodal distribution, we choose a cut-off at the minimum value of 1.05 average married or widowed women per household in 1860.¹¹

Figure 2b presents the geographic distribution of our continuous measure of family types between districts. Stem families were more frequent in the north and east of Spain, whereas nuclear families predominated in the West and South of the Iberian Peninsula. This distribution overlaps only imperfectly with the historical territories belonging to the Crown of Aragon and the Kingdom of Castile. These historical regions developed their own norms and institutions, including family law. Empirically, the best way to deal with heterogeneity across historical regions is to include Autonomous Community (or region) fixed effects. That is, in our preferred specification we rely on *within-region* variation in family structure, holding constant region-specific unobserved factors that potentially correlate with historical family type and contemporary female political representation.

3.2 Institutional context

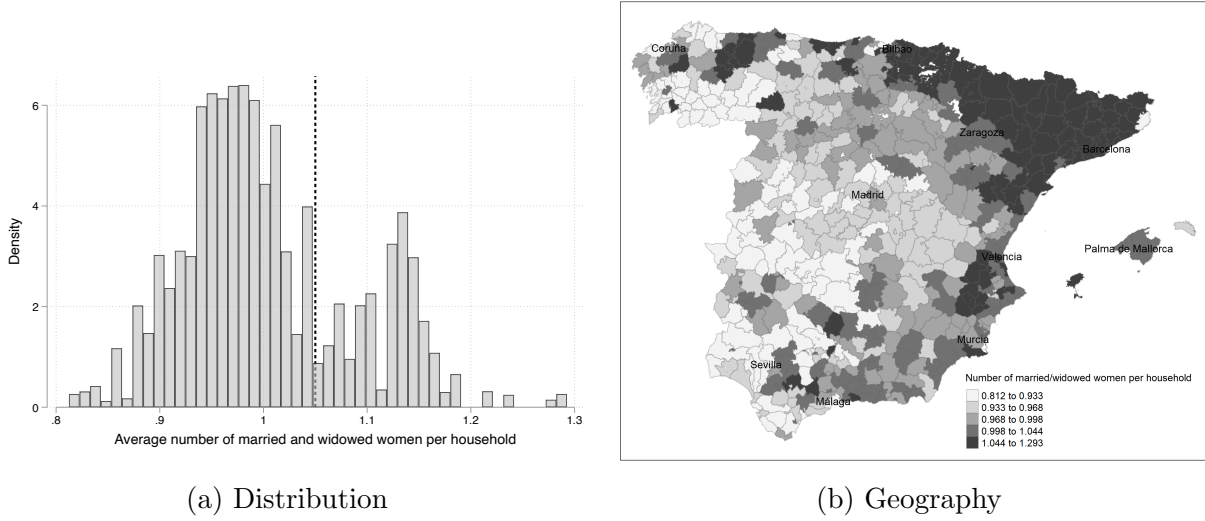
Our analysis of the downstream effects of historical family types focuses on female political representation using data from municipal elections after 1978, the first span of stable democratic rule in Spain. Local councils are relevant bodies in Spain. Municipalities have

⁹See Tur-Prats (2019, 2021) and Beltrán Tapia and Gallego-Martínez (2020) for further details about this measure.

¹⁰Values under 1 reflect a substantial number of households formed by bachelors (e.g., shepherds) or by widowed men in a context of high maternal mortality (Mikelarena and Pérez-Fuentes, 2001).

¹¹Our results are robust to alternative thresholds (see Appendix F).

Figure 2: District-level average number of married and widowed women per household



Note: Average number of married and widowed women per household in historical districts in Spain using data from the 1860 census

considerable power and manage about 14% of the budget, a figure similar to countries like Belgium, Austria, or Germany. Local councilors elect the mayor and approve the local budget among other tasks; therefore, the share of women in local councils is a relevant indicator of the power of women in local politics.

Local elections are held in all 8,000+ municipalities every four years. The number of council seats is proportional to population size and varies from 3 to 57. Our empirical analysis focuses on municipalities with more than 250 inhabitants, where councilors are elected using a proportional (PR) system with the D'Hondt formula and closed-party lists.¹² The resulting main dataset contains information for an unbalanced panel of 51,079 election–municipality observations, approximately 5,000 municipalities across 10 election cycles.¹³

Spain has a multiparty system. Since the 1980s the two largest parties have been the

¹²In municipalities with 250 inhabitants or fewer, councilors are elected using a majoritarian system, but we exclude those municipalities from the analyses due to abundant missing data.

¹³The unbalance has two known causes: Municipalities are required to send their electoral results (including demographic data of elected councillors) to the central government. Towns are generally disciplined in reporting electoral, but the norm is not strongly enforced by the Ministry, causing some missingness. Second, small towns are added to the working dataset when they surpass the 250 inhabitants threshold that delimit the electoral threshold. We have no reason to think that any of the two missingness causes is correlated with female representation. The total figure, $N=51,079$, excludes some territories outside the Spanish peninsula: Ceuta, Melilla, and Canary Islands.

center-left Socialist Party (PSOE) and the center-right Popular Party (PP), which have been dominant in nationwide elections and are present in a large share of the municipalities. A communist party to the left of the PSOE, *Izquierda Unida* (United Left), or IU, regularly obtains parliamentary representation. In addition to nationwide parties, regional parties are strong in Andalucía, the Basque Country, Catalonia, and Galicia.

3.3 The share of women elected to local councils

To measure our main dependent variable—the share of women elected to local councils—we assembled an original dataset containing the gender of all municipal councilors elected in Spain between 1979 and 2015. The data were originally collected by municipalities and subsequently collated by the *Ministerio de Hacienda y Administraciones Públicas* (Spanish Ministry of Finance and Public Administration), which gave us access. The information about the gender of politicians is complete overall. We have records from 602,323 elected local politicians, 112,998 of whom are classified as women (19%), 489,188 (81%) are classified as men; gender information is missing for only 137 (0.02%). We worked with the share of elected female candidates and not with the share of women on party lists because the latter data do not exist prior to 1987.

We collapse the individual information at the municipality-year level, and our main outcome variable is the share of women elected to the local council in a given municipality and election year. In 1979, only 3% of the local councilors in Spain were women. Female representation grew steadily over time and surpassed 35% by 2015 (see Appendix D for a longitudinal chart). We observe that most municipalities already had a large share of women elected into office when *mandatory* quotas were established in 2007.¹⁴

In addition to the gender of local councilors and historical family types, we include a full set of municipality-level controls (or baseline covariates): population size, city status, the number of political parties represented in the municipal council, and geographic controls

¹⁴The *Parity Law* established a mandatory quota system for all elections in the country, guaranteeing no fewer than 40% of party lists for women.

that could shape historical economic specialization: coastal location (dummy), municipality area, an index of caloric yield, mean temperature, mean precipitation, mean ruggedness, and the latitude and longitude of the municipal centroid.

The municipality population and area covariates account for any (nonlinear) relationship between urbanization, progressive gender norms, and female political participation. Population size also determines the number of seats in the council, hence electoral system proportionality, which is a strong predictor of female political representation (Kittilson and Schwindt-Bayer, 2010). We account for economic growth potential and exposure to foreign (i.e., more progressive) culture via trade and tourism by including an indicator for coastal areas.¹⁵ More productive soil—measured by an index of caloric yield, temperature, precipitation and ruggedness—may allow the sustenance of larger, wealthier families in preindustrial times, conditioning the type of historical family and current female representation. Similarly, we include latitude and longitude to account for the north-south divide and the proximity to the Mediterranean sea, which may affect economic development and trade. Finally, that parties tend to pack the top positions of electoral lists with men is well known (Krook, 2009). By implication, the larger the number of political parties in any given town may relegate women to lower positions on the list, decreasing their chances of gaining a seat on the municipal council. To account for this source of bias, we control for the total number of parties with council representation in every municipality-year. In Appendix E we describe at length the sources and measurement of all covariates.

4 Analysis

To examine whether historical family structures affect the political representation of women, we regress the share of women elected to local elections in Spain after democratiza-

¹⁵Tourism is a major industry in Spain: 12.4% of GDP in 2019 (OECD Tourism Trends & Policies 2022).

tion on our measure of historical family types:

$$\begin{aligned} \text{Share of Women Councilors}_{idt} = & \alpha + \beta \text{Stem Family}_d \\ & + \gamma \mathbf{X}_{idt} + \delta_t \text{Election}_t + \eta_r \text{Region}_r + \epsilon_{idt} \end{aligned} \quad (1)$$

where the proportion of female councilors elected in municipality i and election year t is a function of the average number of married and widowed women per household in 1860 in district d to which a given modern-day municipality belonged in the past. \mathbf{X}_{it} is a vector of controls at the municipal or municipal-year level, and Election_t and Region_r denote fixed effects at the election and region level, respectively.

4.1 Results: Historical family types and female representation

Table 1 shows our estimated coefficient of interest ($\hat{\beta}$), which captures the effect of having been a municipality where stem families were common in the past on average contemporary female political representation with models adding controls subsequently. Because we observe multiple electoral results for a given municipality over time, we cluster the standard errors at the municipal level in these specifications.¹⁶

Column 1 reports the coefficient when no controls are included. This coefficient is positive and statistically significant at the 1% level. It shows that a one standard deviation increase in our measure of the historical prevalence of stem families is associated with a small average increase of 0.32 percentage points in female political representation at the local level. We show in the next section, however, this effect is time-varying: substantially larger in the initial democratic period and zero in more recent years.

The coefficient remains fairly stable and statistically significant when we include population size, city status and the number of parties as controls in column 2, and when we add geographical controls in column 3. The estimated effect is also robust to the inclusion of election (year) fixed effects in column 4, which account for the sustained and sizable increase

¹⁶For alternative cluster definitions and standard errors approaches, refer to Appendix G.

TABLE 1: *Effect of Historical Family Type on Female Political Representation. OLS Results*

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Stem Family	0.322*** (0.098)	0.303*** (0.092)	0.314** (0.133)	0.307** (0.129)	0.320** (0.137)	0.329** (0.137)	
Stem Fam. Dummy							0.727** (0.302)
Pop., City, & No. parties		✓	✓	✓	✓	✓	✓
Geographic controls			✓	✓	✓	✓	✓
Election (year) FE				✓	✓		
Region FE					✓		
Election-region FE						✓	
<i>N</i>	51,079	51,047	50,701	50,701	50,701	50,701	50,701
Adj. R^2	0.000	0.030	0.049	0.512	0.523	0.535	0.049

Note: *Stem Family* measures the number of married and widowed women in the household in 1860, averaged at the district level and standardized. *Stem Fam. Dummy* is an indicator variable that takes the value 1 if *Stem Family* is above 1.05 and zero otherwise. *Pop., City, & No. parties* include controls for population, population squared, a dummy for having more 50,000 inhabitants and the number of parties. *Geographic controls* include area of the municipality, a dummy for municipalities on the coast, an index of caloric yield, mean temperature, mean precipitation, mean ruggedness at the municipal level, and the latitude and longitude of the municipal centroid. Clustered standard errors at the municipal level in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

over the last decades in female political representation illustrated in Figure A-3. Unsurprisingly, the adjusted R^2 increases substantially with the inclusion of election fixed effects, but the coefficient of interest remains highly statistically significant, and its magnitude is only slightly smaller.

We include region fixed effects in column 5, thus relying on within-region variation in historical family types for identification. This more stringent specification rules out time-invariant potential confounders at the regional level and alleviates concerns that our results may be driven by differences between more and less developed areas in Spain. Our preferred and even more stringent specification is reported in column 6, where we include election-region fixed effects, which account for region-year unobserved heterogeneity. Both coefficients remain statistically significant and of similar magnitude when including these last sets of fixed effects.

Finally, Model 7 shows that the results are robust to using our dummy indicator of stem family type (i.e., above/below 1.05 married and widowed women per household) instead of the continuous indicator. In Appendix F we show that results are virtually indistinguishable if we use alternative thresholds.

4.2 Robustness checks

In order to test the robustness of this key initial result, we present additional analyses in Table 2. In these models we add to our most stringent specification in column 6 of Table 1 several relevant controls. However, caution is needed when interpreting these results because some of these controls might be a consequence of historical family types (or “bad controls”).

First, sex ratios could be a confounder if female infanticide was more common in some regions and an abundance of men vs women drove variation in our main measure (presumably if there were fewer women in nuclear zones, reducing the number of women per household). Following Beltrán Tapia and Gallego-Martínez (2020) and Hudson and Den Boer (2002), we control for the historical sex ratio among 0 to 4 year-old at the district level. Column 1 shows that adding this control leaves our main result almost unchanged.¹⁷

TABLE 2: *Effect of Historical Family Type on Female Political Representation. OLS Results With Additional Controls*

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Stem Family	0.333** (0.139)	0.298** (0.139)	0.243* (0.139)	0.245* (0.144)	0.309** (0.140)	0.324** (0.137)	0.313** (0.140)
Population, City, & No. parties	✓	✓	✓	✓	✓	✓	✓
Geographic controls	✓	✓	✓	✓	✓	✓	✓
Election × Region fixed effects	✓	✓	✓	✓	✓	✓	✓
Sex ratio control	✓			✓			
Religious controls		✓		✓			
Land-inequality controls			✓	✓			
Excluding Barcelona & Vizcaya					✓		
Excluding All Cities Stem						✓	
Share of (internal) migrants							✓
<i>N</i>	50,606	50,532	50,532	50,437	47,461	50,478	50,437
Adj. <i>R</i> ²	0.534	0.535	0.535	0.535	0.535	0.534	0.535

Stem Family measures the number of married and widowed women in the household in 1860, averaged at the district level and standardized. *Population, City, & No. parties* includes municipal level controls for population, population squared, a dummy for municipalities larger than 50,000 inhabitants and the number of parties. *Geographic controls* include area of the municipality, a dummy for municipalities on the coast, an index of caloric yield, mean temperature, mean precipitation, mean ruggedness at the municipal level, and the latitude and longitude of the municipal centroid. *Sex ratio control* includes the sex ratio (number of boys per girls) between birth and 4 years-old, measured at the district level for 1860 census. *Religious controls* include the ratio of priests, monks and nuns per thousand capita, and percentage of mass attendants at the district level computed from the 1860 census. *Land-inequality controls* encompass the ratio of laborers to landlords and the share of the population working in the agricultural sector in a district, using the 1860 census. *Share of (internal) migrants* includes the number of male and female internal migrants divided by the district population computed from the 1860 census. Clustered standard errors at the municipal level in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Second, following Oto-Peralías and Romero-Ávila (2016), we account for the historical

¹⁷Results are robust to sex ratios in the general population and the share of single male population.

presence of the Catholic church—and more generally for religiosity—by including information on the ratio of priests, monks and nuns per thousand capita, and percentage of mass attendants at the district level computed from the 1860 census in column 2. This control is important if, for instance, nuclear family types were linked to higher levels of religiosity, which have persisted over time, and if a strong Catholic church discourages female political representation.¹⁸

Third, we control for landholding inequality in the past by including the ratio of agricultural laborers to landlords and the share of the population working in the agricultural sector from the 1860 census in column 3. Family types could have been adopted in areas with different land characteristics—a problem of selection—or their presence could have generated different patterns of land inequality which in turn can affect political beliefs and gender attitudes—an alternative causal path.¹⁹ In column 4 we include controls for sex ratio, religiosity and land inequality simultaneously. Even though our coefficients of interest are somewhat smaller when adding all historical controls at once, they remain positive and statistically significant.

Another concern is that our results may be driven by self-selection of citizens with more feminist attitudes toward stem family regions. This could happen, for instance, if people with more progressive attitudes escaped more traditional regions by migrating to cities like Barcelona, which have a stem family tradition and historically had strong left-wing movements.²⁰ Since disaggregated information on historical migration flows is not available, we address these concerns by excluding from our analysis the stem-family areas that were

¹⁸See Drelichman, Vidal-Robert, and Voth (2021) for a discussion of long-term effects of the Catholic church on economic and cultural outcomes in Spain.

¹⁹For instance, Oto-Peralías and Romero-Ávila (2016, p.442) argue that in contexts of high landholding inequality, large landowners were better equipped to continue exploitation of agricultural labor by limiting public education, a path for women to escape the “domestic cage” (Iversen and Rosenbluth, 2010, p.16).

²⁰The most likely period when such migration may have happened is during or after the Spanish Civil War, but in the 1940s, the share of the population living in rural areas increased, not decreased, suggesting that such migration was insubstantial (Bover and Velilla, 1999). For most of the period we study, migration decisions were driven by economic considerations and most internal migrants moved to the closest nearby cities (Silvestre, 2005), which were likely to be in similar historical cultural zones. Moreover, several of the largest cities in Spain, such as Madrid or Sevilla, are in areas with nuclear family traditions.

more likely to receive migrants. In column 5 we exclude the provinces of Barcelona and Vizcaya—the two largest industrial areas and receptors of migration with dominant stem family traditions. In column 6 we exclude all municipalities with more than 50,000 inhabitants in stem-family districts. In column 7 we include an additional control for the share of internal migrants (male and female) in the general population. Reassuringly, our results are robust to these additional tests.

Thus far we have treated historical family type as an exogenous variable, but a final concern remains if some unobservable features of the territories are correlated with the family structure prevalent in both past and contemporaneous female political participation. One specific version of this concern is that regions that traditionally had cultural norms or economic characteristics conducive to gender equality may have chosen specific family arrangements that favored women in the past. These unobserved characteristics may affect female representation in politics today for reasons other than their effect on family structures.

The inclusion of region fixed effects in our baseline specifications is the best way to address this concern, but we further address it by applying an instrumental variable strategy. In section 2.1 and Appendix H, we explain why some areas in Spain adopted one family type or the other—a process related with the Christian Conquest (722–1492) and orthogonal to gender attitudes. Second, we follow Tur-Prats (2019) and instrument the type of historical family by using medieval inheritance laws. Reassuringly, our instrumental variable results are similar to the OLS in the main text. Our results confirm a positive and statistically significant effect of historical stem family structure on female political representation.

4.3 Dynamic results: The gap narrows over time

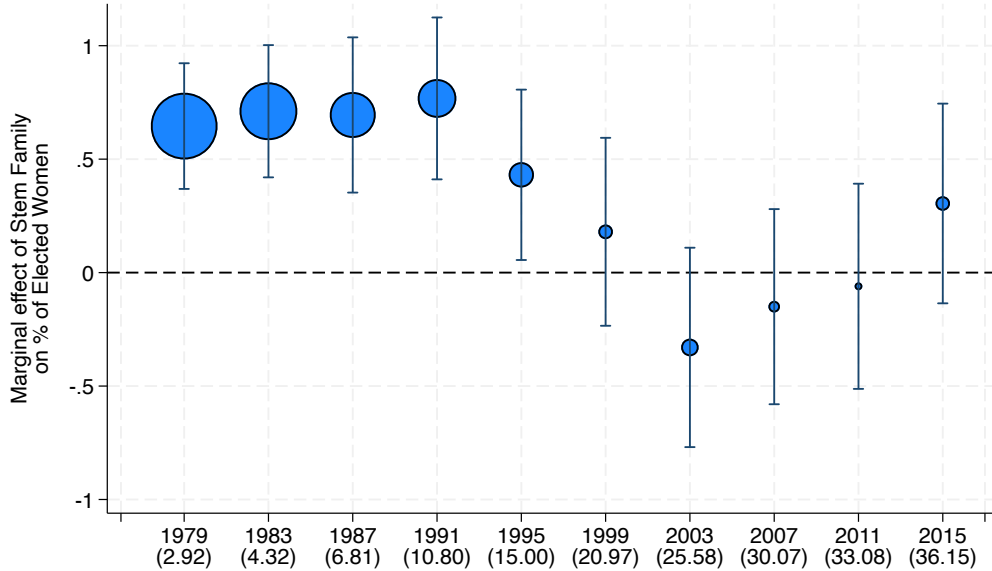
Tables 1 and 2 indicate that historical family structure explains some difference in female political representation since the democratic transition in Spain. Next, we aim at sizing this effect and examine whether the gap between historical regions persisted or narrowed over time. To this end, we estimate our baseline specification (column 5 in Table 1) including an

interaction term of election (year) with historical family type:

$$\begin{aligned} \text{Share of Women Councilors}_{idt} = & \alpha + \beta \text{Stem Family}_d + \gamma \mathbf{X}_{idt} + \eta \text{Region}_r \\ & + \delta_t \text{Election}_t + \kappa_t \text{Election}_t \times \text{Stem Family}_d + \epsilon_{idt} \end{aligned} \quad (2)$$

We report results in Figure 3, where we scale the coefficient of historical family types to reflect any time-changing effect on women’s representation. Recall, the latter experienced more than one-order-of-magnitude increase between 1979 and 2015 (values in parenthesis on the horizontal axis in Figure 3). The substantive effect of historical family types (vertical axis) should be interpreted keeping that secular trend in mind.

FIGURE 3: *Marginal effect of historical family type on female political representation.*



Note: The graph displays the marginal effects of the historical stem family type (i.e., the average number of widowed and married women in a household in 1860, computed at the district level and standardized) on the share of female councilors elected. The circle size is proportional to the ratio between the marginal effect of historical family type ($\beta \text{Stem Family} + \kappa(\text{Election} \times \text{Stem Family})$) for each election, and the annual average of female representation. Control variables are at the municipal level and include population, population squared, an indicator variable for municipalities larger than 50,000 inhabitants, number of parties with political representation, an index of caloric yields, area, an indicator variable for location in a coastal area, mean temperature, precipitation and ruggedness, and latitude and longitude of the municipal centroid. The model includes region fixed effects. 95% CI based on clustered standard errors at the municipal level.

We estimate the effect of historical family types in the first democratic election in 0.65, corresponding to a 22% increase in the average number of female councilors that year (i.e., $100 \times 0.65/2.92$).²¹ The positive effect of historical family types persists until the late 1990s;

²¹Specifically, we find that a one standard deviation increase in the average number of widowed and

however, because the mean value of dependent variable increases over time, the *relative effect* of historical family types gradually weakens and becomes negligible after 1999 not only because the confidence interval cuts the zero line, but because relative to the mean of the dependent variable the effect is only a fraction of what it used to be in 1979—hence the smaller circles in Figure 3. In 2003, for instance, the point estimate of historical family type is -0.33, a mere 1.2% change in the average female representation that year (compared to 22% in 1979), and it is not statistically different from zero.

Overall, we find clear evidence of a gap in political representation between areas where stem families were historically dominant and areas with historical nuclear family arrangements at the beginning of the democratic period. The effect is consistently estimated and it is robust to including controls for variables that are known to affect the share of women elected into office. And yet, the marginal effect of the stem family wanes over time to the point that after 1999 the difference across cultural zones is no longer significantly different from zero in statistical terms. A similar pattern is found when we examine time-varying effects under the instrumental-variable strategy as shown in Appendix H. We offer an explanation to the gradual attenuation in Section 6: As parties introduced voluntary gender quotas, the differences in female political representation across regions faded.

4.4 Intermediate outcomes: Female Representatives circa 1930

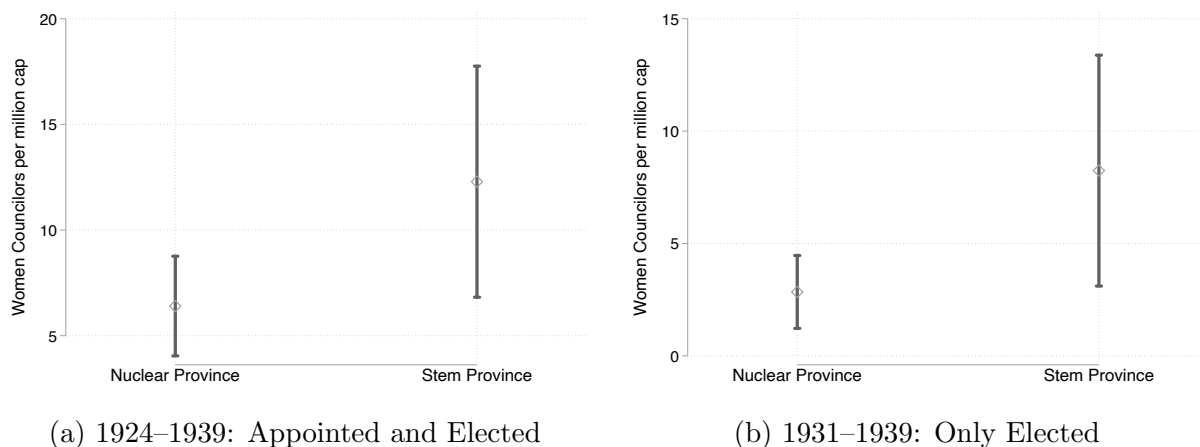
If historical family types exert long-lasting effects on women’s participation in public life, we should be able to observe differences between zones with stem and nuclear families as early as women were allowed to run for office. In Spain that happened in 1924 under the autocratic regime of General Primo de Rivera (1923–1930), who granted the right to vote to unmarried and widowed women over 23 years and the right to run for office to those over 25. Local elections due to occur in 1925 were cancelled, but local councils were renewed under the new law. A total of 77 women were appointed to local councils by provincial government

married women in households in the nineteenth century is associated with an increase in the percentage of women of 0.65 percentage points, keeping everything else constant.

delegates. Most of these women were from Catholic organizations and ideologically close to Primo de Rivera (Gómez-Ferrer Morant and Del Moral Vargas, 2015, p.81).

Primo de Rivera's regime collapsed in 1930 and was followed by the Second Republic (1931–1939). Under the new democratic constitution, the right to vote and run for office was recognized for all adult women. Between 1931 and 1939, 105 women were elected to local councils, totaling 182 between 1924 and 1939, a mere 0.22% of all councilors in Spain. In 1939 the Second Republic was terminated and succeeded by a military dictatorship that lasted almost four decades. Despite the limited presence of women in politics between 1924 and 1939, we compare female representation in regions with historical nuclear as opposed to stem families. To this end, we compute the number of female councilors between 1924 and 1939 per million people in provinces that averaged more/less than 1.05 married and widowed women per household in the 1860 census.²² Figure 4 shows the result of this exercise.

Figure 4: *Share of Women Councilors Per Million People by Historical Family Type Area*



Note: Panel (a) shows the total number of women councilors per million people between 1924 and 1939 for regions with historical nuclear and stem families, and Panel (b) focuses on the democratic spell only, 1931 and 1939. Data Source: Gómez-Ferrer Morant and Del Moral Vargas (2015) and Nielfa Cristóbal and Ruiz Franco (2015) for women councilors between 1924–1930 and 1931–1939, respectively, and National Institute of Statistics for population data in 1930. 90% CI.

On average, in provinces with traditionally nuclear families, 6.4 women per million people were appointed or elected to local councils between 1924 and 1939. In traditional stem regions that number was 12.3, almost double. The difference between these two values is

²² Álava, Barcelona, Girona, Guipuzcoa, Huesca, Lleida, Navarra, Tarragona, and Vizcaya fall into the stem-family category, and all remaining provinces into the nuclear-family category.

statistically significant at 90% (p-value = 0.075, t-statistic = 1.82). We repeat the analysis for the democratic period only. The values are lower (because the total number of women in the numerator is lower), but the differences between historical areas remain (p-value = 0.03, t-statistic = 2.26). In sum, although women rarely assumed positions of power in local politics in the 1920s and 1930s, we find differences across areas with historical family types consistent with our claim that stem families were more conducive to the incorporation of women into public life.

5 Mechanisms of Persistence

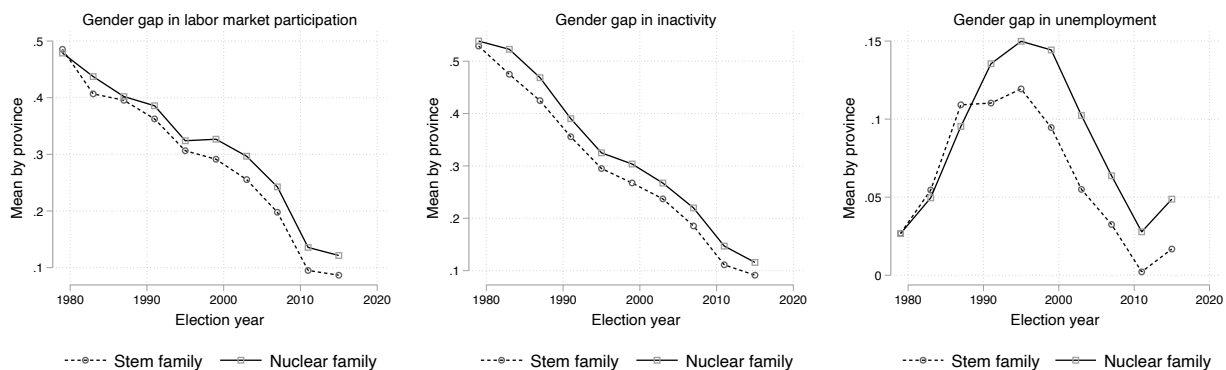
Why was female political representation higher in former stem-family regions during the first years of democratic government? We examine whether differences in labor market participation and cultural norms *outlived* the disappearance of the historical stem family. In Appendix I we explore (and dismiss) a third potential mechanism of persistence that speaks to uneven investment in women’s education across historical regions.

5.1 Labor Market Outcomes

Using a sample of districts in the 1860 census, Mikelarena Peña (1992, p.52-5) shows that household in regions with a prevalence of stem families had more active members than households in nuclear family regions. We confirm this result in Appendix B drawing from the full 1860 census. Here, we examine whether those differences persist in the contemporary period. To that end, we collect individual-level data from the Active Population Survey between 1976 and 2015. We calculate three key indicators of labor market outcomes for men and women in each province based on the first two quarters of each election year. First, we calculate labor market participation for both men and women by dividing the number of individuals of each gender who work by the total number of individuals of that gender aged 16 to 65 years. Second, we calculate inactivity rates for both men and women by

dividing the number of individuals who are inactive by the total number of individuals aged 16 to 65. Third, we calculate unemployment rates for both men and women by dividing the number of unemployed individuals by the number of active individuals aged 16 to 65. We define *Activity Gap* as the difference between male and female paid workers, *Inactivity Gap* as the difference between inactive women and inactive men, and *Unemployment Gap* as the difference between female and male unemployment rate. We then separately compute the mean of these indicators for provinces with historical stem or nuclear families.

Figure 5: *Gender Gaps in Labor Market Indicators Across Zones With Historical Stem and Nuclear Families*



Note: Data drawn from the Active Population Survey. The lines present the gaps separately for provinces with historical stem and nuclear families. We divide provinces into those with stem or nuclear families based on the average number of married and widowed women per household in the 1860 census. See fn. 22 for list.

Figure 5 presents the results of our descriptive analysis. The first panel shows that gender gaps in labor market participation have decreased dramatically over the last decades but remain somewhat larger in territories with nuclear families. If anything, the difference has become *wider* in recent years. The second panel shows that the gender gap in inactivity rates has also decreased dramatically in both zones, but again in this case the differences remain stable over time. This gap is slightly higher in territories with nuclear families, meaning that women tend to be more inactive in those regions. The third panel shows that the gender gap in unemployment rates was very similar in both areas at the beginning of the period, but a difference emerged around the 1990s. Since then, it has been lower in territories with stem families than in those with nuclear families. These results suggest that,

as in the nineteenth century, larger gaps occur in activity and inactivity between men and women in areas where nuclear families were dominant in the past.

5.2 Gender Norms in the Population

Strong gendered division of labor should reproduce patriarchal norms within the household and society and propagate over time via socialization. We expect gender norms to remain more traditional in areas formerly inhabited primarily by nuclear families. Indeed, using survey data from the 1995 and 2000 World Values Survey and from the CIS for 2011, Tur-Prats (2021) finds the expected gaps in norms on the appropriateness of both members of the couple working and contributing to the family income. We extend her analysis in time and to attitudes toward the participation of women in politics.

We examined hundreds of questionnaires to select broadly comparable items from studies conducted by CIS and Metroscopia at different points in time. Although many items related to gender have been asked over the years, we encounter the problem that wording changes often and hence comparable questions from the 1970s to the 1990s and 2000s are rare. We report details about the selected studies and question wording in Appendix J.

First, we select questions about whether inequality exists between men and women in general in society. We assume that respondents who are more concerned about gender equality and have more progressive attitudes toward gender have higher awareness of gender inequality in society. Second, we select similar questions, but focusing specifically on the situation of women in politics. Again, we assume that respondents with more egalitarian attitudes about gender are likely to report that women face larger barriers to access positions with political responsibility than men, whereas people with less egalitarian attitudes will not agree with this statement. We recognize that these questions implicitly mix descriptive and prescriptive attitudes; however, overall, they are a compromise between the availability of consistently asked questions over time and the quality of the indicators. Third, we consider a question about agreement with the statement that “women are unfit for office,” which

directly taps into prejudice against women in politics but has been asked less frequently.

Figure 6: *Attitudes Toward Gender Inequality and Women in Politics*



We code respondents as living in an area with traditionally prevalent stem or nuclear families based on their province of residence. Following our definition, provinces are classified as stem or nuclear based on the average number of married and widowed women in the household in 1860, using the 1.05 threshold. We then compute the differential effect of the historical family type on gender attitudes by regressing individual-level survey measures on an indicator of the historical stem family. Figure 6 shows the results.²³

²³Find the list of provinces in each area in footnote 22. Also notice that our empirical strategy here differs slightly from the one followed in the previous labor-market analysis, where we first aggregate individual-level

We find a gap in awareness of gender inequality both in general and in politics between territories with historical stem and nuclear families. Respondents in stem territories are more likely to agree with the statement that gender inequality and discrimination in politics exist and less likely to agree that women are unfit for office. This evidence suggests that cultural differences between historical family types existed in the early years of democratic rule and persisted over time. This pattern, together with that in Figure 5, is consistent with our theoretical claim that female labor market participation and gender-equal norms are persistent and mutually reinforcing.

6 Mechanisms of change: How quotas trump legacies

The empirical evidence supports the claim that historical family types had long-lasting implications for the engagement of women in public life and that the effect was channeled by two mechanisms involving female paid employment and gender norms. But history is not deterministic. Starting in the 1990s, the gap in female political representation between historical family territories virtually disappeared. What explains this change?

A faster expansion of economic activity and the service sector in regions with nuclear families could be an explanation; however, the analysis of labor market outcomes suggests that women did not join paid employment at a faster rate in regions formerly inhabited by nuclear families than by stem families. In contrast to economic explanations, we believe that the reason for the closure of the gap in female political representation between zones lies in electoral institutions. Specifically, we claim that the introduction of voluntary electoral quotas in the late 1980s helped balance a legacy of stronger patriarchal norms in regions populated with nuclear families.

data into provincial averages and then look at differences between areas with particular historical types. The reason is as follows: The average CIS poll, used in the present section, has somewhere between 1,300 and 2,500 observations and Spain has 50 provinces. Given the relatively small number of observations per province, we directly assign individuals to the two historical areas (that is, we skip the intermediate step of aggregating at the province level). Sample size is not an issue in the labor market analysis, presented in the previous subsection, where the *Encuesta de la Población Activa* (Spanish Active Population Survey), or EPA, samples 160,000 respondents per survey (i.e., 100 times more than a standard CIS survey).

6.1 The adoption of voluntary quotas in Spain

Voluntary quotas were adopted in Spain by several parties starting 25 years before mandatory quotas.²⁴ The first voluntary quota in Spain was introduced by the Catalan Socialist Party (PSC) in 1982, reserving for women at least 12% of party and elected offices, and the threshold was raised to 15% in 1987. The Spanish Communist Party (PCE) followed suit in 1987 by adopting a quota of 25% for women. In 1988 the largest left party, the PSOE, in power from 1982 to 1996, established a 25% quota in party office and electoral candidacies (Valiente, 2005, p.181). In the succeeding years, gender quotas were expanded and incorporated by other leftist parties: *Izquierda Unida* (IU), a coalition of Eurocommunist parties, adopted a quota of 35%; its Catalan branch, *Iniciativa per Catalunya* (ICV), granted women 30% of candidacies, and the PSC increased its quota from 15 to 25% (Verge, 2012, p.398). In 1997, the PSOE and IU committed to secure at least 40% of party committees and candidacies to each gender, the so-called “parity norm.” The sister parties in Catalonia, PSC and ICV, followed suit in 2000 and 2002, respectively, as did regional parties—the *Bloque Nacionalista Galego* (BNG, left-wing) in Galicia and *Coalición Canaria* (CC, center) in the Canary Islands in 1998 and 2000, respectively. The Republican Left of Catalonia (left-wing) and the Basque Nationalist Party (center) adopted parity quotas soon after, in 2004 and 2007, respectively. By 2004, nine of the twelve parties represented in the national lower house had adopted voluntary quotas (Verge, 2012, p.399).²⁵

Never a societal demand in Spain, voluntary quotas were imposed in a top-down, staggered fashion by central party apparatus upon intense lobbying by feminist groups within the party organization. Threlfall (2007) refers to this process as an example of “enlightened elitism,” implying that voluntary quotas were imposed from above and only because women’s caucuses lobbied for them.²⁶ The enforcement was relatively simple because all elections in

²⁴Adopted only in 2007, mandatory quotas *continued* a secular trend that had begun two and a half decades earlier. In Appendix K we review evidence showing that mandatory quotas had a modest and transient effect on female representation.

²⁵Appendix L.1 offers a visual timeline of voluntary quotas.

²⁶Appendix L.4 offers a brief historical account of lobbying activity for voluntary quotas by feminist

Spain ran under closed-list proportional representation and party organizations kept tight control of electoral lists. Qualitative accounts suggest that parties were diligent in enforcing voluntary quotas at all levels of government (Verge, 2012).

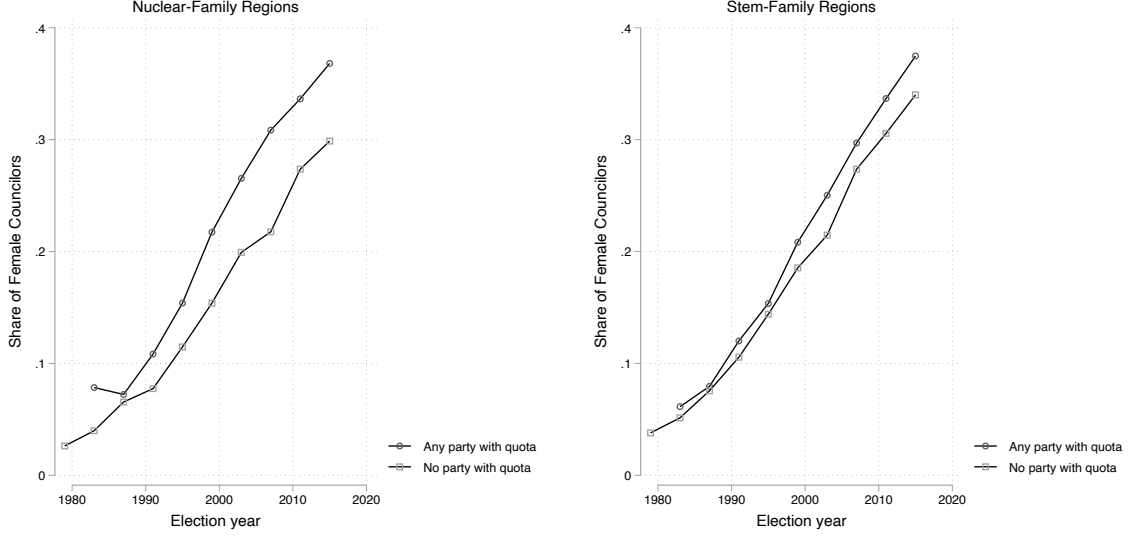
6.2 The impact of voluntary quotas across historical family zones

Threlfall (2007) and Verge (2012) demonstrate the crucial role that voluntary quotas play in expanding women’s representation in Spain. We revisit their argument by examining whether party quotas had a stronger effect on regions formerly populated by nuclear families, helping to narrow the representation gap across zones with historical family types.

The incremental adoption of voluntary quotas that we explained in the previous section set benchmarks (e.g., 12%, 15%, 25%, etc.) that in each period of time were not far from the levels of female political representation already found in the most gender-progressive areas at the time. We expect that quotas had a smaller additional effect on female representation in areas where baseline levels were already close to the benchmark (stem regions) than in places further away from the benchmark (regions with nuclear families).

groups within political parties. We return to this discussion in the Conclusion.

Figure 7: *Share of Women Councilors by Region and Party Quota*



Note: The plots present the share of women elected to local councils in regions with historical nuclear or stem families (i.e., judicial districts having fewer (more) than 1.05 married/widowed women per household in the 1860 census) separately for municipalities where at least one party adopted a voluntary quota and municipalities where no party had a voluntary quota in that year.

In Figure 7, we plot the share of female councilors for municipalities in which at least one party with voluntary quotas obtained representation and for municipalities in which no such party did so separately for towns in regions with nuclear families (left panel) and regions with stem families (right panel). Two patterns become apparent: First, the presence of parties with voluntary quotas increases the average number of women in the municipal council regardless of cultural legacies. Second, the positive effect of voluntary quotas on female representation is larger in towns with nuclear families than in regions with stem families. Next, we examine this relationship under a regression framework:

$$\begin{aligned} \text{Share of Women Councilor}_{idt} = & \alpha + \beta_1 \text{Quota}_{it} + \beta_2 \text{Quota}_{it} \times \text{Historical Nuclear Family}_d \\ & + \mathbf{X}\Gamma_{it} + \eta_t + \psi_i + \epsilon_{idt} \end{aligned} \quad (3)$$

We create two versions of the quota variable for the sake of interpretation. In the dummy version, $\text{Quota}_{it} = 1$ if at least one party exists in the municipality that has adopted voluntary quotas (0 otherwise).²⁷ The continuous version of Quota_{it} combines the extent of the quota

²⁷It is worth reminding that gender quotas were adopted in a top-down staggered fashion, not by local initiative.

(that is, 12%, 25%, etc.) with the share of seats obtained by the party that voluntarily adopted it.²⁸ Because municipalities that have parties with electoral quotas in place may be different from those that do not (e.g., local constituency might have more progressive attitudes or a stronger affinity for leftist parties), we fit municipality fixed effects ψ_i , thus focusing on within-municipality longitudinal variation.²⁹ We complete the list of covariates in this model with a battery of *time-variant* municipality-level controls, $\mathbf{X}\Gamma_{it}$, plus a full vector of year fixed effects, η_t , which factor out the secular increase in female representation across zones.

To ease the interpretation of the interaction term (β_2), we reverse the historical family type variable. For the continuous version, we premultiply the original variable by -1, such that *Nuclear* = 1 and *Stem* = 0. If quotas help explain the narrowing of the gap between historical regions, their effect in regions formerly inhabited by nuclear families should be larger than in those populated by stem families: namely $\beta_2 > 0$. We report the OLS estimates for Equation (3) in Table 3.

TABLE 3: *Voluntary Quotas and Historical Family Regions with Municipality Fixed Effects*

	Binary	Continuous
Voluntary quota	1.409*** (0.317)	0.184*** (0.008)
Historical Nuclear Family \times Voluntary quota	1.007*** (0.319)	0.015*** (0.005)
Population, City, & Number of parties	✓	✓
Election (year) fixed effects	✓	✓
Municipality fixed effects	✓	✓
Adj- R^2	0.616	0.622
N	50,843	50,843

Note: We use the binary and continuous versions of historical family types and voluntary quotas in columns 1 and 2, respectively. *Population, City, & No. parties* include controls at the municipal level for population, population squared, a dummy for municipalities larger than 50,000 inhabitants and the number of parties with political representation. The mean of the dependent variable (share of female councilors) is 18.34. Intercept not reported. Clustered standard errors at the municipal level in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Column 1 shows that the introduction of voluntary quotas increased female representation by 1.409 percentage points on average in local councils in former stem-family municipalities.

²⁸We assign a quota to each councilor (including zeros if no quota was adopted) as a function of their party affiliation and year and take the average at the municipal-election level. Details in Appendix E.

²⁹Notice that the variable *Historical Nuclear Family* is perfectly collinear with the municipality fixed effect and is thus not included in the equation.

The effect is 1.007 percentage points higher in nuclear-family municipalities (totaling 2.42 percentage points, rounded), confirming our expectation.

In Appendix L.2, we examine the temporal variation of female political representation across zones by interacting historical family type with election year in a model specification that includes both municipality and year fixed effects. The test shows that the gap between zones with different historical family types narrowed only in the early 1990s, coinciding with the timing of the introduction of voluntary quotas by all major parties (except the conservative PP). In Appendix L.3 we confirm that the gap between regions with nuclear and stem families *before the adoption of voluntary quotas* also existed in municipalities with representation of leftist political parties—PSOE, specifically—overruling endogeneity concerns between gender attitudes and partisan preferences. In sum, by exerting a larger effect on regions formerly populated by nuclear families, voluntary quotas helped narrow the representation gap between zones with different historical family legacies.

7 Conclusion

This paper shows evidence of a long shadow of historical family structures on women’s political representation, labor market participation, and societal attitudes within the European context. Family structures that facilitated the (partial) delegation of domestic production to older generations within the household allowed working-age women to participate in the labor market, increasing their bargaining power within the family and, by aggregation, their community. In areas where stem families were uncommon, a marked gendered division of labor unfolded: Women participated at lower rates in the labor market and patriarchal norms grew stronger. Our analysis reveals the persistence of those norms and their importance for female political representation in the modern day; however, we also unveil opportunities of progress via electoral quotas, making our argument one of continuity and change.

In support of historical *continuity*, the empirical analysis indicates that gender roles and

norms can outlast the historical stem–nuclear family divide, offering an original additional explanation of the causes of female political underrepresentation. Family-type variation offers multiple venues for further research. We find the Italian case particularly appealing: This is the only country in Western Europe with a strong presence of joint families in parts of its territory, hence a unique setting to examine women’s political empowerment in a wealthy but relatively traditional society.³⁰ A second promising path of further research involves cross-national, longitudinal analysis of family types and female political representation—much in the spirit of Duranton et al. (2009), who focus on economic outcomes. A major empirical challenge when extending the analysis to other contexts would be to account for the endogeneity of historical family types and the timings of industrialization and democratization as well as the variation in electoral quota adoption across regions.

In support of opportunities for *change*, our findings show that top-down institutional change can effectively compensate for a legacy of patriarchal norms. Upon the introduction of voluntary quotas, female political representation in Spain increased more in former nuclear-family areas than former stem-family areas, offsetting the imbalance between zones. The adoption of voluntary electoral quotas in Spain would hardly have happened in the absence of feminist organizations. Organized into caucuses, these women lobbied relentlessly for the incorporation of voluntary quotas within political parties, overcame prejudice, and elevated gender parity into a mainstream norm within party cadres. Acemoglu and Robinson (2021) have recently offered a framework to think about cultural change, and we believe that women’s organizations in Spain nicely fit their description of “cultural entrepreneurs.” By lobbying high-ranking party officials, feminist organizations changed the *norm* toward acceptable levels of women’s representation within political parties and public institutions. That is, feminist organizations succeeded in making gender parity a mainstream norm among political leadership across the ideological spectrum. The most effective cultural entrepreneurs are those who transform norms into codified institutions. That happened in 2007, when the

³⁰Existing research suggests that family dynamics in Italy do not favor women’s participation in politics (Bellettini et al., 2022), but we know little about how family *types* affect female political representation.

Parity Law crystallized much of the progress feminist movements had won over decades.

Finally, our results also suggest that norm change at the elite level may not be (immediately) followed by norm change among the general population, who continue to abide by cultural norms. Our mechanism section shows that zones with a prevalence of historical nuclear families still show lower levels of female paid employment and weaker gender-equal attitudes. Whether codified norms and electoral institutions can change centuries of socialization under patriarchal norms remains an open question. In summary, we show that gender quotas close gaps in political representation related to historical factors, but they do not close gaps in culture or in labor market participation. We believe that this nuanced finding sheds new light on an important but complex question.

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****NOT FOR PUBLICATION****

Appendix

These appendices contain materials, results, and robustness checks that supplement the main text.

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A European Family types

In this section, we examine how our measure of historical family types compares to other measures found in the literature.

The first measure we consider is the map created in Todd's *A History of Europe*. Todd defined stem households as those with cohabitation of parents and their married children. The eldest son staid in the family home when he married and remained under the authority of the father. Unmarried adult daughters often remained in the family home under the authority of the father or elder brother. Todd mapped the type of family at the province level (N=50), but he did not offer details about the map sources. We reproduce Todd's map in Figure A-1a. The second measure is Duranton et al. (2009)'s, who corrected errors in Todd's map about the region of Andaluc  a.

In both previous classifications, data are aggregated at the province level (N=50) whereas our census-based data are aggregated at the judicial district (N=464), increasing granularity by almost one order of magnitude. Still, the three maps are overall quite similar, granting credibility to our fine-grained measure. minipage A-1 below presents the three maps for visual comparison.

Figure A-1: Comparison of maps

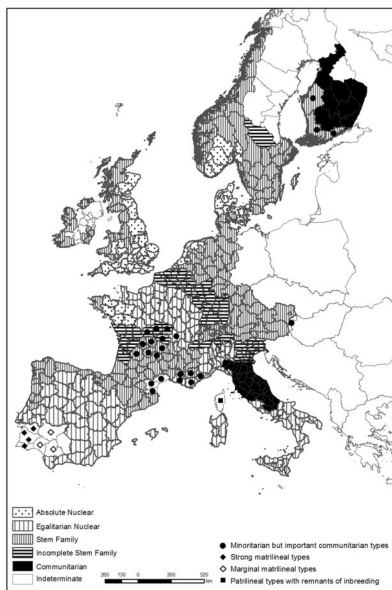


Figure 1. Todd's map of family types in Western Europe. Source: Todd (1990a).

(a) Todd's Map

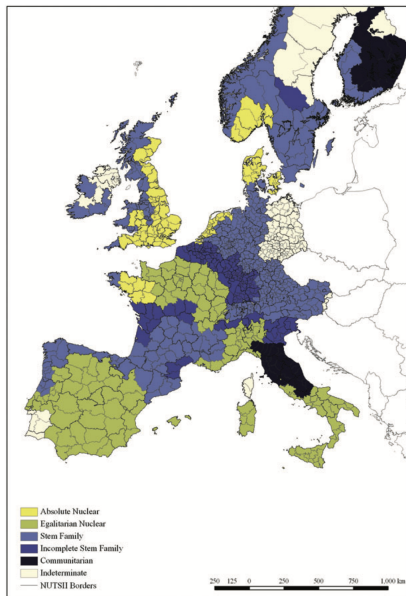
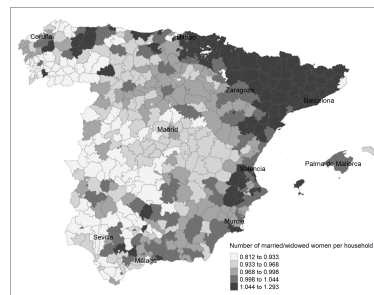


Figure 2. Family types in Europe.

(b) Duranton et al's Map



(c) Judicial District Data (Our data)

B Female Paid Employment and Gender Status in the 19th century

Our theoretical argument states that family structure shaped the extent to which a strong division of labor between men and women and gender norms pushed both historical regions onto different cultural paths. To support this core claim, we study women’s participation in nondomestic production in the late nineteenth century, when stem and nuclear families were still prevalent. We draw from the 1887 census, the first one in Spain that included information about occupation for both genders. Female paid employment in the nineteenth century implied farming, first and foremost, but women also worked as shopkeepers and maids and in local industry.

In Table A-1, we regress the number of inactive women on the historical family structure. We distinguish between three age groups that broadly reflect the stages of women’s lives: employable (> 12 years old), employable and of child-bearing age (12–40 years old), and employable after child-rearing age (> 41 years old). The data show that more girls and adult women worked outside the home in stem family districts than in predominant nuclear districts. The greatest difference is observed among women of child-bearing age. Likewise, we observe no statistically significant difference between regions for women over 41 years old, an age at which in stem-family regions they are already cohabitating with their daughters-in-law and performing domestic work and child care. Together, results in Table A-1 provide evidence consistent with our key claim that delegating home production within the household facilitated female participation in the labor force. The results are robust to the inclusion of a wide variety of controls and region fixed effects that account for differences in levels of development between and within regions.

Table A-1: *Economic Activity of Women in the Nineteenth-Century by Historical Family Region*

	Number of Inactive Women		
	>12 year-old	12-40 year-old	>41 year-old
Stem Family	-0.30** (0.142)	-0.39** (0.155)	-0.14 (0.164)
Observations	467	467	467
R^2	0.97	0.97	0.97

Note: This table originally appeared in the appendix of Tur-Prats (2019). The table shows OLS results based on data from the Spanish 1887 Census. The dependent variable is the standardized number of inactive women in 1887 at the district level. *Stem family* measures the average number of widowed and married women per household based on the 1860 census at the district level. Control variables include a second-order polynomial of total population in 1887, an indicator variable that takes the value 1 for districts larger than 50,000 inhabitants in 1887 and 0 otherwise, sex ratio, number of men “without a job or unclassified”, and number of women who can read and write, all at the district level. The model includes region fixed effects. Robust standard errors appear in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

B.1 Women’s Status: Sex ratios

The rates of paid employment were higher in historical stem-family regions, but did they grant women a higher status? We consider this question by looking at gender ratios. Societies in which women are considered less valuable than men show higher levels of female infanticide, malnutrition, and poor care of young girls, leading to their early death and the shifting of gender ratios in favor of men (Das Gupta et al., 2003; De Moor and Van Zanden, 2010; Sen, 1990). Beltrán Tapia and Gallego-Martínez (2020) show that gender ratios in the nineteenth-century Spain were slightly more balanced in regions with higher prevalence of stem families. In line with our position, they argue that cohabitation of generations of women had a positive effect on girls’ survival rates because it enabled more women to participate in the labor market. If only on the margin, girls in stem families had a higher status because they were treated as future income earners.

B.2 Other Demographic Variables: Female Mortality and Fertility

Next, we analyze other demographic variables related to female mortality—in particular, during childbirth—and fertility across the different family areas.

Mortality was not measured in the 1860 census, but we examine female mortality related to childbirth indirectly by testing if there is a disproportionate decrease in population size among women in later fertile age (26-40) compared to women in earlier fertile age (16-25), for nuclear and stem areas separately. Our analysis reveals minor differences in the cohort size of women within and across areas. If any, our data shows a smaller change in female cohort size in the nuclear region areas, which is inconsistent with women dying at higher

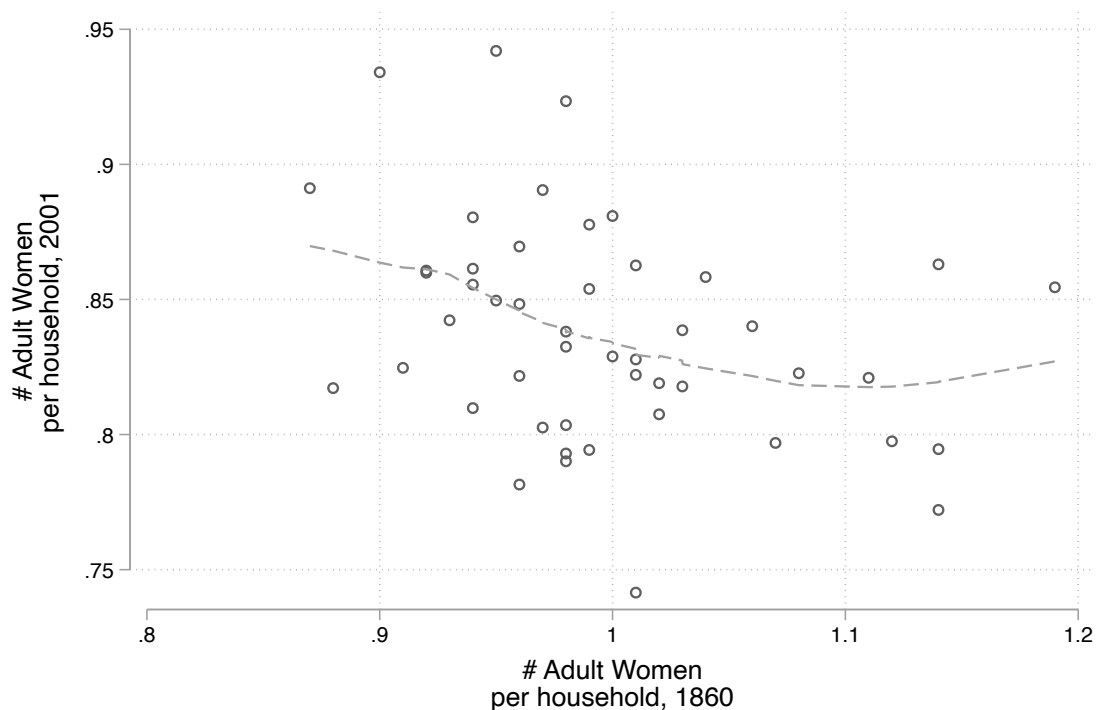
rates in nuclear areas due to childbirth complications. When we add this proxy of female mortality due to childbirth complications (together with a control for female migration) to our main specification in Table 1, results hold.

Last, stem regions might have had lower fertility rates in general, enabling women to participate in the labor market regardless of family configurations. We compute fertility as the average number of children under five per woman in fertile age (16-40 years) using the 1860 census. We find that in stem areas the average fertility rate was slightly higher than in nuclear areas, although, again, the differences are small. This finding suggests that it is unlikely that lower fertility in areas that would later become more gender progressive is an alternative process driving our results. When we add our proxy of female fertility as an additional control in our main specification in Table 1, results again hold.

C The Disappearance of Stem Families

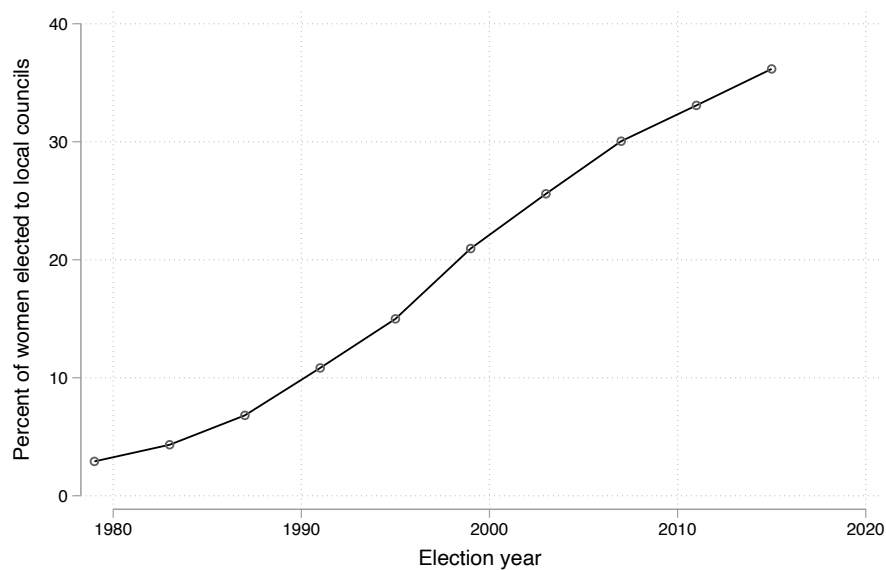
Stem families largely disappeared in the 1950s and 1960s as a result of urbanization and the expansion of the service economy. In Figure A-2 we plot the average number of adult women per household in 1860 and 2001, measured at the provincial level. If the stem family structure persisted to this day, we should see a positive slope. If anything, we observe the opposite.

Figure A-2: Average number of married and widowed women per household, 1860 vs. 2001 censuses, aggregated at province level



D Share of Women Councilors over Time

FIGURE A-3: *Share of Women Councilors*



Note: The figure displays the average percentage of women elected in Spanish municipalities by year. We first calculate the percentage of women in each municipality and then average over municipalities with more than 250 inhabitants.

E Variable Definitions and Sources

In this appendix, we describe the main control variables and variables measuring mechanisms used in the analyses:

Population size: Population is a key control variable for two reasons. First, larger cities may have more progressive gender norms. Second, in Spanish municipalities district size, hence proportionality, increases with population size. Because men tend to occupy the first positions in party lists, the more slots a party has available, the more likely women occupy some of them (Wängnerud, 2009). We control for population and population squared and in addition create a dummy variable for being in a city with more than 50,000 inhabitants.

Number of parties: We compute the total number of parties obtaining at least one representative in the local council. At equal district magnitude, a smaller number of parties produces a larger number of elected politicians per party on average, making the election of women, who are typically in lower-ranking positions, more likely.

Geographic characteristics: We add multiple variables that capture basic geographic characteristics. First, we include a dummy variable to determine whether a municipality is located along the coast. Coastal municipalities tend to have a more dynamic labor market (tourism is a key economic sector in Spain) and to be exposed to more progressive ideas thanks to the inflow of foreigners and international trade. Second, we add the municipal area as a control because transportation cost might affect options to engage in nondomestic work. Third, to proxy agricultural productivity, we compute measures of caloric yield, temperature, precipitation and ruggedness at the municipal level. More productive soil may allow the sustenance of larger and wealthier families in preindustrial times, conditioning the type of historical family and female representation. We measure the caloric yield using the Caloric Suitability Index by Galor and Özak (2015), which captures the potential agricultural output (measured in calories) based on crops that were available for cultivation post-1500CE.¹ To compute temperature and precipitation, we rely on data from the WorldClim website² and compute the average for the period 1970-2000. The ruggedness raster dataset comes from Diego Puga’s website.³ Finally, we also include the latitude and longitude of the municipality’s centroid to account for potential differences in economic development between the north and the south of Spain, and for the proximity to the Atlantic vs Mediterranean sea, which may affect trade networks. This information was downloaded from the Spain’s National Institute for Geography.⁴

¹Results are largely indistinguishable if we use pre-1500CE data

²Available at <https://worldclim.org/data/index.html>

³Available at <https://diegopuga.org/data/rugged/>

⁴Available at <https://centrodedescargas.cnig.es/CentroDescargas/catalogo.do?Serie=CAANE>

In the analysis of mechanisms, we add data for two sets of variables that we calculate at the lowest possible level of aggregation.

Female unemployment and labor force participation: In order to measure female labor force participation, we use data from the Spanish Active Population Survey (*Encuesta de la Población Activa*), or EPA, a large quarterly survey conducted in Spain since 1964. This survey is routinely used to calculate the official unemployment rate, and it is considered the best labor market data in Spain. We use the microdata from 1979 forward and aggregate it by gender and province in order to calculate the provincial activity rate, inactivity rate, and unemployment rate for both men and women. We provide more details of how we calculate these measures in Section 5.

Attitudes towards women: We have searched all public opinion surveys that asked about attitudes toward gender equality and female political representation in Spain since the democratic transition that started after Franco’s death in 1975. We locate a number of surveys that include comparable questions about two dimensions: gender inequality in society and gender inequality in politics. Most of these surveys are conducted by the Spanish Center for Sociological Research (*Centro de Investigaciones Sociológicas*), or CIS, a public institution that has conducted public opinion surveys since the 1970s. The first survey we located was conducted in 1975, but most other surveys date from the 1990s and 2000s. More details can be found in Appendix J.

Voluntary party quotas: We use this variable in the second half of the paper, when we examine why the representation gap between regions with historical nuclear families narrowed. To code this variable, we collect information about the year in which national and regional parties introduced voluntary party quotas. These were adopted at different times in a top-down fashion (details below). Once introduced, voluntary quotas applied to all electoral lists of any given party across the territory. We code party quotas in two different ways, representing the extensive and intensive margin. The extensive one is a binary indicator that takes a value of 1 when any party in a given municipal council has a voluntary quota in place. The continuous version of voluntary quotas (or intensive margin) combines the extent of the quota (e.g., 12%, 25%, etc.) together with the share of seats obtained by the party that adopted the quota. In particular, we assign a quota to each councilor (including zeros) as a function of their party affiliation and year and take the average at the municipal-election level.

F Alternative measures of family type

In the main text, we choose 1.05 as the cut-off point to distinguish areas with stem and nuclear families, guided by an inspection of the distribution of the data. This section first shows that our results are not driven by this specific choice about the cut-off point. Table A-2 shows the results using alternative cut-off points. In column 1, we use a smaller threshold of 1.02. In column 2, we present our baseline results with a threshold of 1.05 (shown in column 7 of Table 1 in the paper) to ease the comparison. And in column 3 we show the results with a 1.075 threshold. Our results remain robust to using these alternative thresholds.

TABLE A-2: *Main Results with Alternative Historical Family Type Thresholds*

	1.02 (1)	1.05 (2)	1.075 (3)
Stem Family Dummy	0.731*** (0.261)	0.727** (0.302)	0.953*** (0.329)
Population, City, & No. parties	✓	✓	✓
Geographic controls	✓	✓	✓
N	50,701	50,701	50,701
Adj. R^2	0.049	0.049	0.049

Stem Family Dummy is an indicator variable that takes the value 1 if *Stem Family* is above 1.02 in column (1), 1.05 in column (2) and 1.075 in column (3), and zero otherwise. *Stem Family* measures the number of married and widowed women in the household in 1860, averaged at the district level and standardized. *Population, City, & No. parties* includes municipal level controls for population, population squared, a dummy for municipalities larger than 50,000 inhabitants and the number of parties. *Geographic controls* include area of the municipality, a dummy for municipalities on the coast, an index of caloric yield, mean temperature, mean precipitation, mean ruggedness at the municipal level, and the latitude and longitude of the municipal centroid. Clustered standard errors at the municipal level in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

In addition, we test the robustness of our results using an alternative measure of family type: the number of married and widowed women *and men* per household, averaged at the district level. Instead of focusing on the number of married and widowed women, we compute the measure using all married and widowed individuals in the household. This alternative measure is highly correlated with our baseline measure and, as Table A-3 shows, does not have a significant impact on our results.

TABLE A-3: *Main Results with Alternative Historical Family Type Measure*

	(1)
Stem Family (All)	0.282**
	(0.122)
Population, City, & No. parties	✓
Geographic controls	✓
Election-region fixed effects	✓
N	50,606
Adj. R^2	0.534

Stem Family (All) measures the number of married and widowed men and women in the household in 1860, averaged at the district level and standardized. *Population, City, & No. parties* includes municipal level controls for population, population squared, a dummy for municipalities larger than 50,000 inhabitants and the number of parties. *Geographic controls* include area of the municipality, a dummy for municipalities on the coast, an index of caloric yield, mean temperature, mean precipitation, mean ruggedness at the municipal level, and the latitude and longitude of the municipal centroid. Clustered standard errors at the municipal level in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

G Alternative Standard Errors

In this section we explore the robustness of our main results to alternative ways to compute the standard errors. For our main results in Table 1, we cluster the standard errors at the municipal level to account for serial correlation since we observe the share of female councilors for a given municipality during multiple election years. We acknowledge, however, that the choice of the clustering level and even the necessity for clustering in the first place are debatable topics and, in this section, we report our the results of our preferred specification (Table 1, column 6) using alternative clusters as well as other approaches.

Table A-4 shows the results of this robustness test. For reference, in column 1 we show our baseline results with cluster at the municipal level. In column 2 we cluster by the district level, the level at which our variable of interest—historical family type—is aggregated. In column 3, we apply a two-way cluster at the level of the municipality and year. That is, we allow for the errors to be correlated both at the municipality and at the year level. In column 4, we apply again a two-way cluster, but this time at the district and year level. In column 5 we show the results using “robust” standard errors, also known as Huber–White standard errors, that correct for heteroskedasticity. It is worth noticing that this approach is equivalent to clustering at the municipal-year level, since our dataset is uniquely identified at the municipality-year level. In column 6 we cluster at the district-year level. Finally, in column 7 we account for potential spatial autocorrelation by applying the correction in the standard errors introduced by Conley (1999). We do this for several radius, ranging from 10 to 40 kilometers. With the exception of the two-way cluster by district and year, and the largest 40 km radius in the Conley (1999) spatially corrected standard errors, our estimated coefficient remains statistically significant when applying the different approaches.

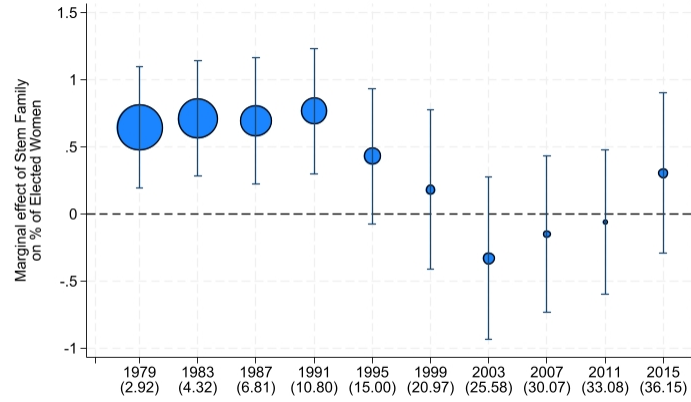
We repeat this exercise with Figure 3, which reports the marginal effects of our estimated coefficients for each election-year. This is arguably our most important result, which documents the vanishing effects of the historical family type after the introduction of the voluntary quotas by political parties. Figure 3 is constructed by clustering the standard errors at the municipal level, and in this section we re-run this analysis applying alternative methods to compute the standard errors, as we did in Table A-4. Reassuringly, the statistical significance of our results remains very similar to our previous clustering choice and the effects depict the same dynamics regardless of the clustering choice.

TABLE A-4: *Robustness of Main Results to Alternative Treatment of Standard Errors*

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Stem Family	0.329** (0.137)	0.329* (0.196)	0.329** (0.139)	0.329 (0.195)	0.329*** (0.083)	0.329*** (0.099)	0.329 (0.154)** [10 km] (0.171)* [20 km] (0.199)* [30 km] (0.236) [40 km]
Standard Errors							
Cluster-level	Cluster	Cluster	2-way Cluster	2-way Cluster	Robust (\equiv Cl.	Cluster	Conley (1999) $\hat{\Sigma}$
No. Clusters	Municip. 6,231	District 463	Municip. & Year 6,231 & 10	District & Year 463 & 10	Municip.-Year)	District-Year 4,612	
Election-Region FEs	✓	✓	✓	✓	✓	✓	✓
Observations	50,701	50,701	50,701	50,701	50,701	50,701	50,701

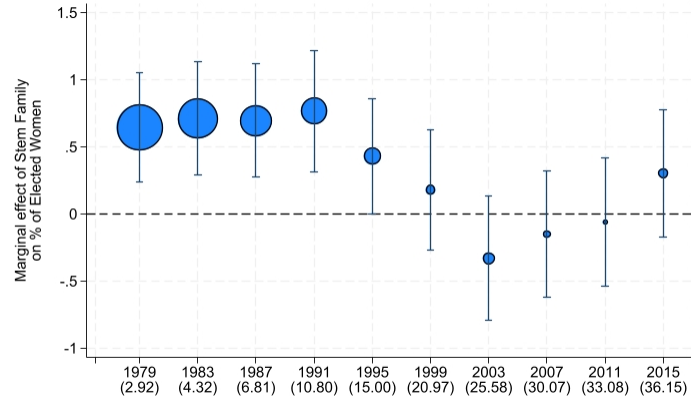
Note: *Stem Family* measures the number of married and widowed women in the household in 1860, averaged at the district level and standardized. All models include full set of controls: population, population squared, a dummy for having more 50,000 inhabitants and the number of parties; area of the municipality, a dummy for municipalities on the coast, an index of caloric yield, mean temperature, mean precipitation, mean ruggedness at the municipal level, and the latitude and longitude of the municipal centroid. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

FIGURE A-4: *Marginal effect of historical family type on female political representation. Cluster by district*



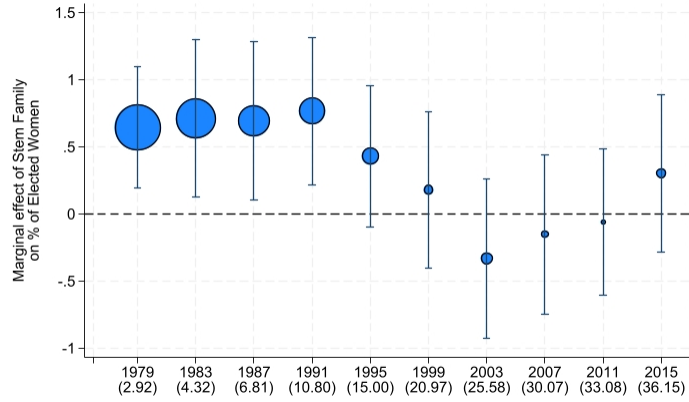
Note: The graph displays the marginal effects of the historical stem family type (i.e., the average number of widowed and married women in a household in 1860, computed at the district level and standardized) on the share of female councilors elected. The circle size is proportional to the ratio between the marginal effect of historical family type ($\beta_{Stem\ Family} + \kappa(Election \times Stem\ Family)$) for each election, and the annual average of female representation. Control variables are at the municipal level and include population, population squared, an indicator variable for municipalities larger than 50,000 inhabitants, number of parties with political representation, an index of caloric yields, area, an indicator variable for location in a coastal area, mean temperature, precipitation and ruggedness, and latitude and longitude of the municipal centroid. The model includes region fixed effects. 95% CI based on clustered standard errors at the district level.

FIGURE A-5: *Marginal effect of historical family type on female political representation. 2-way Cluster by municipality and year*



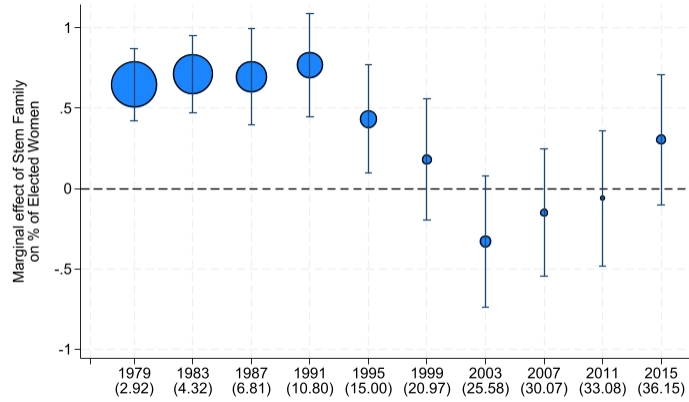
Note: The graph displays the marginal effects of the historical stem family type (i.e., the average number of widowed and married women in a household in 1860, computed at the district level and standardized) on the share of female councilors elected. The circle size is proportional to the ratio between the marginal effect of historical family type ($\beta_{Stem\ Family} + \kappa(Election \times Stem\ Family)$) for each election, and the annual average of female representation. Control variables are at the municipal level and include population, population squared, an indicator variable for municipalities larger than 50,000 inhabitants, number of parties with political representation, an index of caloric yields, area, an indicator variable for location in a coastal area, mean temperature, precipitation and ruggedness, and latitude and longitude of the municipal centroid. The model includes region fixed effects. 95% CI based on two-way clustered standard errors at the municipal and year level.

FIGURE A-6: *Marginal effect of historical family type on female political representation. 2-way Cluster by district and year*



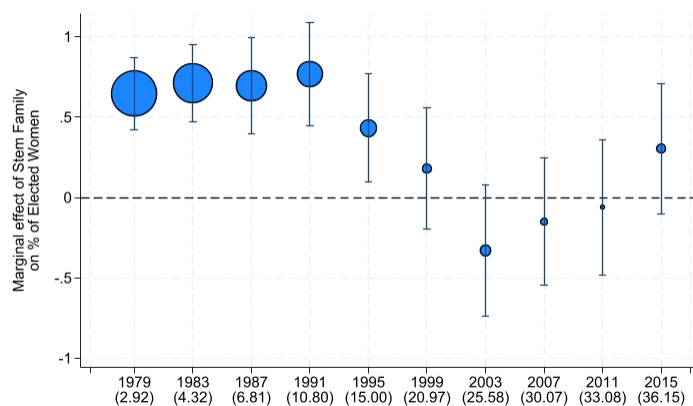
Note: The graph displays the marginal effects of the historical stem family type (i.e., the average number of widowed and married women in a household in 1860, computed at the district level and standardized) on the share of female councilors elected. The circle size is proportional to the ratio between the marginal effect of historical family type ($\beta_{Stem\ Family} + \kappa(Election \times Stem\ Family)$) for each election, and the annual average of female representation. Control variables are at the municipal level and include population, population squared, an indicator variable for municipalities larger than 50,000 inhabitants, number of parties with political representation, an index of caloric yields, area, an indicator variable for location in a coastal area, mean temperature, precipitation and ruggedness, and latitude and longitude of the municipal centroid. The model includes region fixed effects. 95% CI based on two-way clustered standard errors at the district and year level.

FIGURE A-7: *Marginal effect of historical family type on female political representation. Robust standard errors*



Note: The graph displays the marginal effects of the historical stem family type (i.e., the average number of widowed and married women in a household in 1860, computed at the district level and standardized) on the share of female councilors elected. The circle size is proportional to the ratio between the marginal effect of historical family type ($\beta_{Stem\ Family} + \kappa(Election \times Stem\ Family)$) for each election, and the annual average of female representation. Control variables are at the municipal level and include population, population squared, an indicator variable for municipalities larger than 50,000 inhabitants, number of parties with political representation, an index of caloric yields, area, an indicator variable for location in a coastal area, mean temperature, precipitation and ruggedness, and latitude and longitude of the municipal centroid. The model includes region fixed effects. 95% CI based on robust standard errors.

FIGURE A-8: *Marginal effect of historical family type on female political representation. Cluster by district-year*



Note: The graph displays the marginal effects of the historical stem family type (i.e., the average number of widowed and married women in a household in 1860, computed at the district level and standardized) on the share of female councilors elected. The circle size is proportional to the ratio between the marginal effect of historical family type ($\beta_{Stem\ Family} + \kappa(Election \times Stem\ Family)$) for each election, and the annual average of female representation. Control variables are at the municipal level and include population, population squared, an indicator variable for municipalities larger than 50,000 inhabitants, number of parties with political representation, an index of caloric yields, area, an indicator variable for location in a coastal area, mean temperature, precipitation and ruggedness, and latitude and longitude of the municipal centroid. The model includes region fixed effects. 95% CI based on clustered standard errors at the district-year level.

H Instrumenting for Historical Family Types

In this section we explain the origins of the two historical family types and how they relate to other aspects that may affect gender inequality, in particular, inheritance. Based on this background knowledge, we justify the reasons for using freedom of testation as an instrumental variable and report the results of additional analyses using this instrument.

H.1 *Christian Conquest* and the Origin of Family Types

Why were families organized in different ways in different territories? This section extends the explanation provided in the main text about this question. The two types of family structure found in Spain date back to the *Christian Conquest* (722–1492). The type of family established during the Christian Conquest closely followed the family laws established by the Christian conquerors, the identity of whom largely depended on whether a territory was in the West or the East of the Peninsula—although with important local variation.

Initially small territories in the northwest and northeast of the Iberian Peninsula expanded southwards in a series of leaps, culminating in the conquest of Granada in 1492. In the West the territories were reconquered by independent Christian kingdoms established by Visigoth survivors who had retreated to the region of Asturias. These reconquered territories later became the Kingdom of Castile. In the East, Charlemagne, the leader of the Frankish empire, established a series of loose subkingdoms in order to establish a “buffer zone” to guarantee security from the Muslims. These looser political units merged into the Crown of Aragon in 1137.

Each territory adopted a different family law, which provided a general framework, but substantial local diversity in traditions remained: In the Kingdom of Castile, inheritance had to be shared among siblings, leading to the emergence of the nuclear family. The main reason is that Castilian monarchs sought to limit the power of rich landholding families by instituting mandatory divisible inheritance, which is consistent with Goldschmidt and Kunkel (1971)’s hypothesis on the origins of family types. In addition, the territories conquered in the southern part of Spain—mainly by Castilian kings—were larger estates that tended to hire landless peasants and day laborers, who were less concerned with inheritance norms and hence would conform to the equal allocation of bequest rule.

Areas historically under the rule of the Crown of Aragon (as well as the Basque Country and Navarre) developed a variety of local legal frameworks or *fueros*. Regarding inheritance law, the common denominator was the introduction of “freedom of testation” (i.e., the freedom to decide how to allocate inheritance among the rightful heirs), which in practice allowed indivisible inheritance and resulted in the stem family system. As explained in Tur-

Prats (2019), the feudal structure and lower degree of political centralization in the northeast implied that the nobility sought to maintain their landholdings through the introduction of freedom of testation, a right that later spilled over to nonnobility. Furthermore, the small and medium holdings typical of this area in the first stages of the *Christian conquest* discouraged the use of divisible inheritance to avoid excessive land fragmentation. In this context, stem families were best suited to the preservation of family wealth, hence the best interest of the oldest son in the family. Put simply, stem families were never intended to advance the interest of women.

H.2 Family type and gender equality in inheritance

Castilian inheritance law was based on the principle of equal allocation of bequest among all children regardless of their gender and birth order. In particular, the deceased was obliged to leave four-fifths of the estate to descendants: two thirds had to be equally allocated among all descendants, but one third could be assigned to a single preferred descendant. Since 1505 it has been possible to add the freely bequeathed one fifth to the preferred descendant's one third, approximating the single-heir system. On the contrary, inheritance law in the Crown of Aragon allowed "freedom of testation" (i.e., freedom to choose how to divide inheritance among heirs), which in practice translated into designating a single heir to keep landholdings intact. In general, the heir to the house and land was the firstborn son, and after marriage he remained in the parental house and the bride moved in.⁵

At first glance, egalitarian inheritance may seem more gender-friendly than indivisible inheritance, but the reality was more complex. To avoid excessive estate fragmentation, parents in Castile tended to favor some siblings at the expense of others. This practice typically discriminated against women, who could receive a lower share of the inheritance or lower quality land than their male siblings (Bartolomé et al., 2011; Carrasco and Jesús, 2009; González, 2000). Beyond inheritance practices, other family law institutions in the stem-family regions gave women a relatively better position. For example, widows typically received a life interest in the homestead and wives had greater power to manage marital assets and appoint the inheritor (Moret, 1863). Thus, women in areas with egalitarian inheritance practices could have less economic assets, rights, or independence in practice than in stem-family areas. Crucially, the key difference between stem- and nuclear-family areas for our argument is not the type of inheritance but women's opportunities for paid employment, and these were higher when multiple generations of women lived in the same

⁵ When a family had no sons, daughters could remain in the household with their husbands and inherit the house and the land. In some stem-family regions, primogeniture was not customary and parents chose the best-suited sibling.

household, namely under stem-family configurations.

H.3 Justification of freedom of testation as an instrumental variable

Following Tur-Prats (2019), we use freedom of testation as an instrument for historical family types because it *allowed* for indivisible inheritance and was more conducive to the establishment of stem families, but the extent to which this happened and how exactly this was applied locally varied in practice.

We have argued so far that freedom of testation was not adopted because some regions were more gender friendly from the outset. The validity of the IV strategy also rests on the assumption that medieval inheritance laws impact contemporary political representation, conditional on covariates, only through its effect on historical family types. In other words, the exclusion restriction requires that there is no direct effect of freedom of testation on contemporary political representation. Some historical background is necessary to assess the plausibility of this assumption.

Freedom of testation was not the only difference between the Crown of Castile and the Crown of Aragon—legal differences included both private and public law. Most legal differences between the territories were abolished during the process of centralization and administrative unification started in 1700 by Philip V, in which the Castilian legal, political, and administrative model was imposed on the territories of the Aragon Crown and only private law (family and inheritance law, contract law, and tort law) remained distinct in most territories.⁶ We are not aware of any previous work that would suggest that either a) specific institutional differences between the two crowns prior to 1700 or b) remaining differences unrelated to historical family types, may have affected gender attitudes. Thus, we have no theoretical reason to believe that the fact that our instrumental variable coincides with the limits of the two historical crowns constitutes a violation of the exclusion restriction. Still, this remains a concern in principle with the IV approach.

In the main analyses, we rely on within-regional variation in the historical family type by including fixed effects at the region level that captures all time-invariant characteristics of these historical territories.⁷ In principle, we could include fixed effects in the IV analysis to account for this. However, because our instrument is constructed at the province level, and

⁶ Aragon, Catalonia and the Balearic Islands eventually kept their civil law, whereas Valencia lost all its laws. The Basque Country and Navarre, which were not part of the Crown of Aragon, were not affected by this.

⁷By regions we refer to *autonomous communities* as defined by the 1978 Spanish Constitution which broadly coincide with historical regions that often had distinct languages, political, and cultural traditions.

the 50 provinces are nested within 17 regions, we are left with minimal variation upon adding region fixed effects. Our preferred OLS specifications, shown in columns 5 and 6 on Table 1 in the main text, includes region and region-year fixed effects, respectively. Reassuringly, our main results are robust to the inclusion of region (and region-year) fixed effects.

H.4 Geographic distribution of freedom of testation

Figure A-9 presents the geographic distribution of our instrumental variable: Freedom of testation in the 13th century. Data on freedom of testation are available at the province level, a level of aggregation in between the municipality and the region (or Autonomous Community). We use as an instrument for the historical presence of the stem family type whether a given province p had freedom of testation by the 13th century.

Figure A-9: Map of the provinces allowing freedom of testation in the 13th century



Note: The map presents the territories that allowed freedom of testation by the 13th century (in dark grey) and territories that did not allow it. The source is Tur-Prats (2019) based on Ferrer-Alòs (2011).

H.5 Results of the Instrumental Variable Analyses

In the first stage, we estimate the effect of freedom of testation during medieval times on becoming a stem family district:

$$\text{Stem family}_{idpt} = \alpha + \theta \text{FreedomTestation}_p + \gamma \mathbf{X}_{idpt} + \epsilon_{idpt} \quad (4)$$

where our measure of historical family type, the average number of married or widowed women per household in district d , is a function of being in a province with freedom of

testation in the 13th century in province p . As in our OLS regressions, we also include the full vector of controls at the municipal or municipal-year level (\mathbf{X}_{idpt}).⁸

In the second stage, we estimate the impact of the past predominance of the stem family type on contemporaneous female political representation:

$$\text{Share of Women Councilors}_{idpt} = \alpha + \delta \widehat{\text{Stem Family}}_d + \gamma \mathbf{X}_{idpt} + \epsilon_{idpt} \quad (5)$$

To explore the dynamics uncovered in the OLS analysis, we estimate equations 4 and 5 separately for each election year. Table A-5 presents the results of the IV analysis and Figure A-10 displays the second-stage estimated coefficients. We find a strong correlation between our instrument and the historical family type. For all elections, the F-statistics is larger than 50, confirming that freedom of testation in the thirteenth century is a powerful instrument of household structure in the nineteenth century.

Consistently with the OLS results shown in Figure 3 in the main text, the IV results also confirm higher women representation in local councils in stem-family zones compared to nuclear-family zones at the beginning of the democratic period but the gap disappears in the early 1990s. The pattern observed in the OLS analysis clearly persists in the second stage of the IV model.

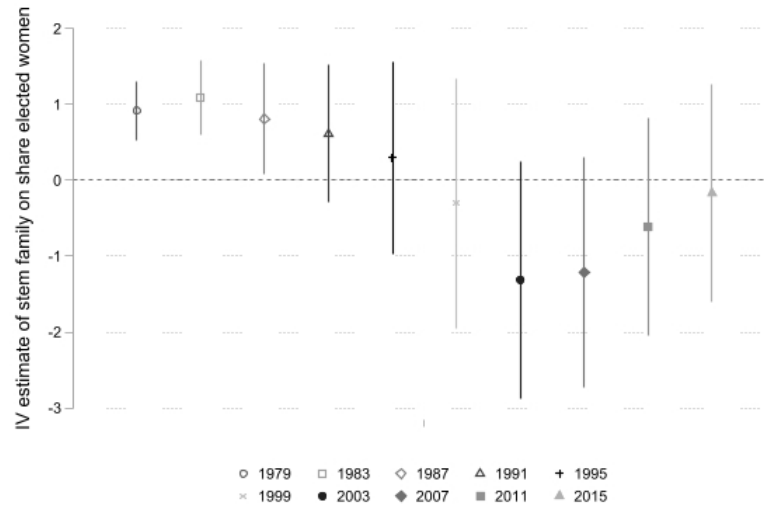
⁸Because our instrument is highly correlated with latitude and longitude, we drop these two controls in the IV equation. Because our instrument is constructed at the province level, we cluster the standard errors at the province level in the IV analysis.

TABLE A-5: *Effect of Historical Family Type on Female Political Representation. IV Results*

<i>Panel A: First-Stage Results</i>										
	(1979)	(1983)	(1987)	(1991)	(1995)	(1999)	(2003)	(2007)	(2011)	(2015)
Freedom of Testation	1.40*** (0.190)	1.39*** (0.193)	1.41*** (0.198)	1.36*** (0.185)	1.39*** (0.184)	1.38*** (0.184)	1.40*** (0.184)	1.38*** (0.179)	1.41*** (0.185)	1.39*** (0.185)
F-statistic	54.28	52.03	50.42	54.45	57.19	56.50	57.96	59.81	58.01	56.64
<i>Panel B: Second-Stage Results</i>										
	(1979)	(1983)	(1987)	(1991)	(1995)	(1999)	(2003)	(2007)	(2011)	(2015)
Stem Family	0.918*** (0.200)	1.092*** (0.250)	0.813** (0.371)	0.618 (0.461)	0.302 (0.646)	-0.301 (0.840)	-1.312 (0.801)	-1.212 (0.778)	-0.612 (0.734)	-0.170 (0.734)
Population, City, & No. parties	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Geographic controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
N	5,572	5,586	4,352	4,981	5,349	5,056	5,061	5,259	4,569	4,916
R^2	0.052	0.036	0.024	0.044	0.055	0.076	0.095	0.100	0.088	0.087
Mean Dependent Variable	2.92	4.33	6.81	10.81	15.00	20.97	25.58	30.07	33.08	36.15

Note: Stem Family measures the number of married and widowed women in the household in 1860, averaged at the district level and standardized. The instrument for the historical family structure is an indicator variable that equals 1 in provinces that had freedom of testation in the thirteenth century. *Population, City, & No. parties controls*: population, population squared, an indicator variable for municipalities larger than 50,000 inhabitants and number of parties. *Geographical controls*: area of the municipality, coastal municipality, caloric yield, mean temperature, precipitation and ruggedness. We report the Kleibergen-Paap Rk Wald F statistic. Clustered standard errors at the province level in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Figure A-10: Coefficients of historical family on female political representation, IV



Note: The graph displays the IV coefficients of separate models for each election regressing the share of women elected to local councils on historical family type variable. The instrument for historical family structure is an indicator variable that equals 1 in provinces that had freedom of testation in the thirteenth century. Control variables: population, population squared, a dummy for municipalities larger than 50,000 inhabitants, number of parties, caloric yields, area, and coastal municipality, mean temperature, precipitation and ruggedness. 95% CI based on clustered standard errors at the province level.

I Historical Investment in Female Human Capital

In addition to those in Section 5 in the main paper, here we consider a third mechanism of persistence outside our theoretical argument. Differences in female representation across historical family types may result from historically different levels of investment in the human capital of women. Specifically, a more unequal distribution of land in stem regions could have enabled land owners to invest in the education of their sons *and* daughters. By doing so, women in stem regions could have been employed in jobs requiring some skill acquisition (e.g., elementary school teacher), elevating the status of women and changing societal perceptions of gender roles all the way until the present day.⁹

To examine this mechanism—which we do not find factually compelling—we examine levels of human capital investment of women using the 1887 census, when traditional family types were still prevalent. We focus on literacy rates to measure family investment in the education of their daughters.

Table A-6 shows the results of regressing three outcome variables—the number of literate women, their share in the population, and their literacy rate relative to men—on the average number of married and widowed women per household at the district level. For consistency with previous models, we add a full battery of region fixed effects and municipality levels controls.

⁹ This argument runs against arguments that relate higher land equality with higher education of women in Spain (Tapia and Martinez-Galarraga, 2018) and pro-egalitarian attitudes in Germany (Hager and Hilbig, 2019). More importantly, this argument is not consistent with historical records. Oto-Peralías and Romero-Ávila (2016) show that the faster rate of Christian Conquest in Castile made Crowns dependent on nobility and religious orders to establish and secure order in newly annexed land. As a result, the Southern territory of Castile (modern-day Andalucía and Extremadura) ended up with land concentrated in the hands of a small landed elite.

Table A-6: Women Literacy Rates in the Nineteenth Century by Family Type

	Female education		
	No. literate women	Share lit. women	Ratio lit. women/lit. men
Stem Family	-0.06 (0.135)	-0.07 (0.045)	-0.12 (0.098)
Mean Dep. Var		0.17	0.47
Controls	Yes	Yes	Yes
Region FE	Yes	Yes	Yes
Observations	467	464	464
Adj R^2	0.98	0.76	0.25

Note: OLS Results from the Spanish 1887 Census. The dependent variable is the standardized number of literate women in 1887 in column 1, the number of literate women divided by population in column 2, and the share of literate women divided by the share of literate men in column 3, all at the district level. *Stem family* measures the average number of widowed and married women per household based on the 1860 census at the district level. All models include a second-order polynomial of total population in 1887, a dummy for districts bigger than 50,000 inhabitants in 1887, sex ratio, all at the district level, and 15 region fixed effects. Model 1 additionally controls for the number of literate men and model 2 for the number of literate men divided by population. Robust standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Results are null across specifications. The coefficient is negative, but it is centered around zero. In other words, these data suggest that individuals in stem-family zones did not invest in their daughters' education more than families in nuclear-family areas.

This result is in line with our argument if we consider that the vast majority of jobs were in the agricultural sector, factory lines, and personal services (e.g., maid). That is, female paid employment in the nineteenth century contributed to the household economy but required no educational attainment.

J Public opinion data

We report further details about the surveys summarized in Section 5.2, which examines whether attitudes toward gender inequality in general and toward the position of women in politics can explain the difference in political representation gaps across cultural zones.

Most of the surveys were conducted by the Spain's Centro de Investigaciones Sociologicas (CIS). They are publicly available and can be downloaded from the Center's website: <http://www.cis.es>

The left panel of Figure 6 presents the coefficients of regressing the historical family type in the province where a respondent resides on responses to questions about the existence of inequality between men and women in general. Because gender inequalities are clearly existing in the Spanish context in the period studied, we assume that individuals who are more concerned about gender issues will answer that inequalities do exist, while individuals with less sensibility toward this issue will answer that inequalities do not exist. The following list reports the years in which the studies used were conducted, reports the number of the study at the Spanish Center for Sociological Research, and the questions that are used:

Attitudes toward gender inequality in general

- **1975 (CIS 1092):** Does discrimination between men and women exist in Spanish legislation?¹⁰
- **1995 (CIS 2194):** Do inequalities between men and women exist?
- **2002 (CIS 2448):** Do inequalities between men and women exist?
- **2005 (CIS 2597):** Do inequalities between men and women exist?
- **2010 (CIS 2831):** Do inequalities between men and women exist?
- **2011 (CIS 2911):** Do inequalities between men and women exist?
- **2017 (CIS 3182):** Do inequalities between men and women exist?
- **2020 (CIS 3273):** Do you think there is still a long way to go to achieve equality in rights and opportunities between men and women?

The right panel in Figure 6 presents the coefficients of regressing the historical family type on responses to questions about the existence of inequality between men and women in

¹⁰Under Francoism, women's civil and labor rights were curtailed.

politics. Again, we assume that people with more egalitarian views about gender are more likely to report that inequalities in politics exist than people with less egalitarian views:

Attitudes toward gender inequality in politics

- **1975 (CIS 1092):** Is there discrimination against women in politics?
- **1995 (CIS 2194):** Do you think that the situation of women is worse than the situation for men in relation to access to positions of political responsibility?
- **2002 (CIS 2448):** Do you think that the situation of women is worse than the situation for men in respect to access to positions of political responsibility?
- **2010 (CIS 2831):** Do you think that the situation of women is worse than the situation for men in respect to access to positions of political responsibility?
- **2011 (CIS 2911):** How big is gender inequality in politics?
- **Metroscopia 2016:** Do you think that the situation in relation to access to positions with political responsibility is worse for women?

The third panel in Figure 6 presents the coefficients of regressing the historical family type on responses to questions that reveal bias against women in politics. Again, we assume that people with more egalitarian views about gender are likely to agree less with statements that reveal prejudice against women politicians:

- **1990 (CIS 1867):** Level of agreement with “if there aren’t more women in public office, it is because women are not well prepared.”
- **2005 (CIS 2597):** Level of agreement with “if there aren’t more women in the party leadership, it is because women are not well prepared.”
- **2010 (CIS 2831):** Level of agreement with “if there aren’t more women in the party leadership, it is because women are not well prepared.”

K Mandatory Quotas

In this section, we explain in more detail the introduction of mandatory quotas, which were introduced by the Parity Bill of 2007 following the return of PSOE to power in 2004. Under the new law, no gender could exceed 60 percent of positions in the party list, effectively establishing a 40 percent quota for women. To guarantee effective representation, the 60–40 condition had to be met within each five position section of the list. National, regional, and local elections abide by the Parity Bill. Its implementation was relatively straightforward because all elections in Spain were held under a proportional system with D’Hondt formula and closed party lists (except smaller towns, which as explained in the text, employ a majoritarian formula). The Law included some specificity for local elections, nevertheless: The quota mandate applied only to municipalities with more than 5,000 inhabitants. The law was amended in 2011 by extending the quota system to towns starting at 3,000 inhabitants.

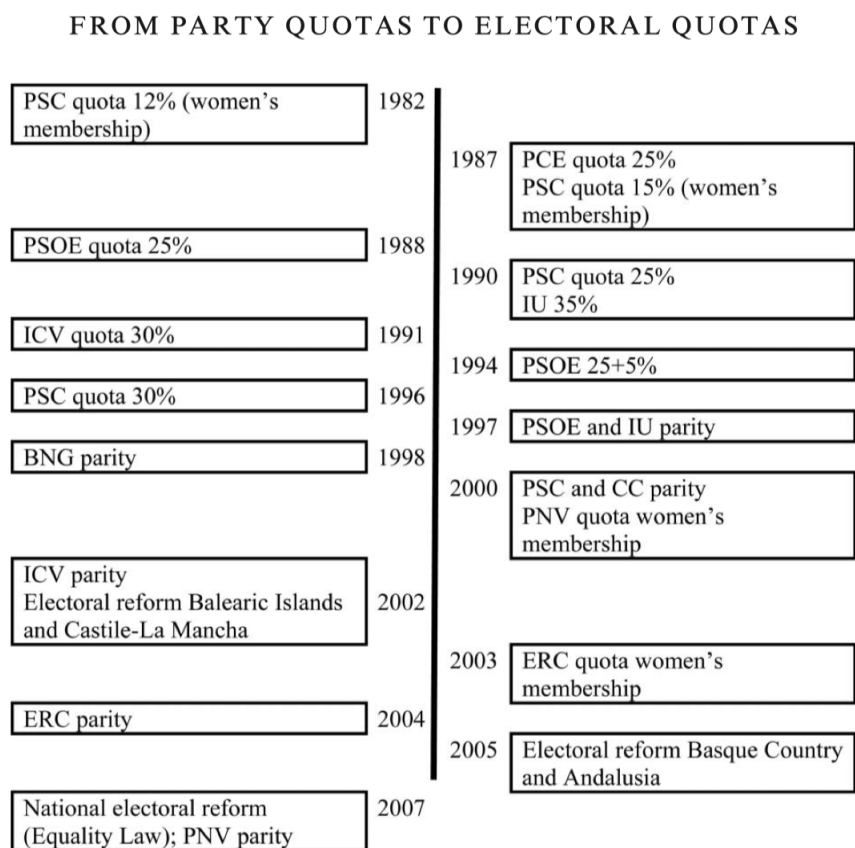
By 2007 the parity norm was rooted in most political parties. In the last election before the introduction of mandatory quotas, women represented 36% of the national parliament, a high level for European standards. In 2008, the first election after the mandatory quota, women representation only raised to 36.2%. The change was arguably more substantive at the local level. Bagues and Campa (2021) analyze the effect of quota adoption in 2007 by exploiting the discontinuity in the electoral system for municipalities just above and below 5,000 inhabitants. The quota system was mandatory only for towns above the cut-off, allowing the researchers to apply a regression discontinuity design to analyze the causal effect of the gender quota on different outcome variables: the number of woman in party lists, the number of councilors, the average qualification of local councilors, and public spending priorities. Their results show that the introduction of the mandatory quota led to an 8% increase in the number of women in candidate lists and a 4% increase in the number of elected women councilors, whereas results for the other three outcome variables are null. Bagues and Campa (2021) also find that the local effect of mandatory quotas on the composition of party lists and elected women were short-lived. They were realized in the very first election with the new system and vanished thereafter.

L Voluntary Quotas

This Appendix provides more historical background about the introduction of voluntary quotas and shows additional results.

L.1 Timeline of Voluntary Adoption

Figure A-11, which reproduces Figure 1 in Verge (2012), shows the timeline of adoption and expansion of voluntary electoral quotas in Spain.



Note: Parity quotas establish a 40–60 per cent proportion for either sex.

Figure A-11: Timing of Voluntary Electoral Quotas in Spain (Verge 2012)

L.2 Over Time Variation

In this section we examine the temporal evolution of female political representation and whether it differed by historical family region. Table A-7 reports the results of a specification in which we include municipality and year fixed effects together with the interaction of year fixed effects with historical family types.

TABLE A-7: *Evolution of Female Political Representation, by Historical Family Types. Model with Municipality and Year Fixed Effects*

	Coef.	Std. Error
1983	1.26***	(0.240)
1987	4.06***	(0.318)
1991	7.64***	(0.331)
1995	11.23***	(0.358)
1999	16.14***	(0.396)
2003	20.14***	(0.429)
2007	25.31***	(0.416)
2011	28.63***	(0.438)
2015	31.72***	(0.439)
Nuclear×1983	0.31	(0.270)
Nuclear×1987	0.47	(0.359)
Nuclear×1991	0.26	(0.378)
Nuclear×1995	1.07***	(0.407)
Nuclear×1999	2.35***	(0.458)
Nuclear×2003	3.17***	(0.488)
Nuclear×2007	2.07***	(0.479)
Nuclear×2011	1.88***	(0.508)
Nuclear×2015	1.59***	(0.504)
Population, City, & No. parties	✓	
Election (year) fixed effects	✓	
Municipality fixed effects	✓	
Adj- R^2	0.616	
N	50,843	

Note: The mean share of female councilors is 18.34. We use the binary version of historical family types. The omitted year is 1979. *Population, City, & No. parties* include controls at the municipal level for population, population squared, a dummy for municipalities larger than 50,000 inhabitants and the number of parties with political representation. Clustered standard errors at the municipal level in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

We first observe that, compared to the first democratic elections in 1979, average female representation in stem-family municipalities increased monotonically in every single election held since then. Second, during the first three elections after 1979 (i.e., 1983, 1987, and 1991) we do not find a statistically significant difference in the increase in female representation between former stem and nuclear family municipalities. However, starting in 1995 we find larger increases in the share of female councilors in nuclear family municipalities. This broadly coincides with the timing of the introduction of voluntary quotas by all major parties (except the conservative PP). Table 3 in the main text shows that top-down voluntary quotas in former nuclear regions narrowed the share of female councilors relative to stem regions by ~ 1 percent points per election year, on average. But that mean value masks a time-varying effect: Voluntary electoral quotas began to bite in former nuclear areas only in the mid-1990s, when all major parties (except PP) adopted them.

L.3 Voluntary Quotas and Partisanship

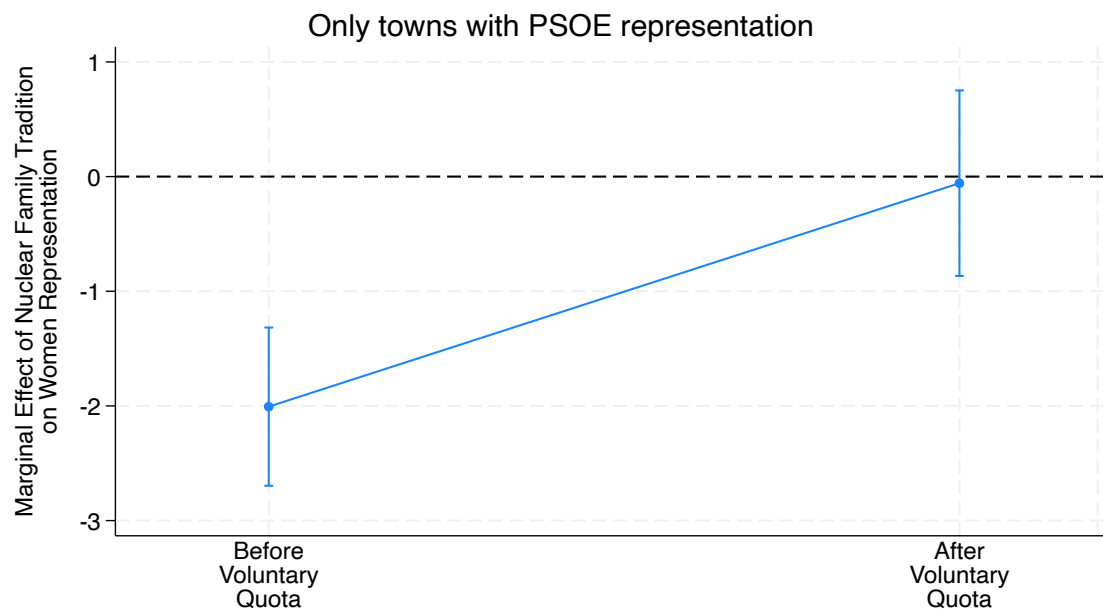
One caveat is that the increase in women’s representation observed within nuclear family regions may not be due to voluntary quotas but to other unobserved characteristics (e.g., progressive preferences of the local constituency) that correlate with electoral support for leftist parties, which may sponsor female candidates. If those unobservable factors are really driving our results, we should not observe a difference in women councilors in towns *with leftist party representation* before and after the introduction of quotas. We investigate this possibility by testing the effect of quotas in towns with PSOE representation, the largest party on the left and in government between 1982 and 1996 and 2004 and 2011.

The PSOE leadership adopted voluntary gender quotas of 25 percent in party lists for *every* election (national, regional, municipal) in Spain in 1988. Taking advantage of this “common-shock” to all municipalities, we run the following difference-in-difference model:

$$\begin{aligned}
 \text{Share of Women Councilor}_{itj} = & \alpha + \beta_1 \text{Before Voluntary Quotas}_{it} + \beta_2 \text{Nuclear Family}_d \\
 & + \beta_3 \text{After Voluntary Quotas}_{it} \times \text{Nuclear Family}_d \\
 & + \mathbf{X}\Gamma_{it} + \eta_t \text{Election}_t + \rho_r \text{Region} + \epsilon_{it}
 \end{aligned} \tag{6}$$

The model includes municipal-level controls \mathbf{X}_{it} , election-year and region fixed effects to factor out the secular rise in women representation and time-invariant differences between Autonomous Communities. Figure A-12 shows the marginal effect of historical family type before and after voluntary quota

Figure A-12: *Effect of the Adoption of Voluntary Quotas by PSOE by Historical Family Region*



Note: The graph displays the marginal effect of nuclear family type on the share of female councilors before and after the adoption of voluntary quotas by PSOE (1988). The sample is restricted to towns with PSOE representation before and after 1988. For this test, we use the indicator version of family type (above/below 1.05 married or widowed women per household in 1860 census), a full set of controls (population, population squared, a dummy for municipalities larger than 50,000 inhabitants, number of parties, caloric yields, area, coastal municipality, mean temperature, precipitation and ruggedness, and latitude and longitude), and separate year and region fixed effects. 95% CI.

Figure A-12 shows that having representation of the most popular leftist party in the local council is not automatically associated with higher female representation. Before the adoption of voluntary quotas in 1988, towns with PSOE representation in historical nuclear family regions had lower female representation than towns with PSOE representation in stem family regions. That gap disappeared only after the adoption of voluntary quotas.

L.4 Feminist Movements and Adoption of Voluntary Quotas

Previous scholarship has argued that voluntary quotas raised women’s representation in local councils in Spain (Threlfall, 2007; Verge, 2012). Our analysis contributes to this literature by showing one specific way in which voluntary quotas mattered: They helped to narrow the gap between regions with different historical family structures. We discuss in this section why voluntary quotas were adopted. This question is relevant to interpret our results as implying that an exogenously imposed rule can close gaps in female representation related to historical experiences—that is, we aim to show that the adoption of quotas was not driven by forces related to those historical experiences. This section explains how voluntary party quotas were the result of intense lobbying by small feminist groups within leftist parties.

Feminist activism in Spain has a long tradition, dating as early as the Second Republic, 1933–1936. Under the Francoist regime, 1939–1978, feminism was qualified as “decadent, immodest, and anti-Spanish” (Scanlon, 1990, p.96). More generally, during the dictatorship women’s rights experienced a strong regression: legal equality between men and women was abolished (Threlfall, 2007, p.18), adultery (for women, not men) was a crime, and divorce, birth-control, and abortion remained illegal. Women were ostracized from public life and the job market. By 1970, 86 % of Spanish women were homemakers.

The first modern feminist group was formed in hiding in 1962 by militant women of the Catalan Communist Party (PSUC). The movement spread to other parts of Spain, creating the Democratic Movement of Women (MDM) and holding its first General Assembly in Barcelona. This group mobilized for the rights of women and the end of the autocratic regime, collecting signatures and organizing boycotts. Early efforts of feminist groups were also directed towards leftist political parties, whose male cadres suspected of Spanish women’s commitment to socialism (Threlfall, 1970).¹¹

Feminists within the Communist and Socialist parties had to combat prejudice. Their first political successes happened during the democratic transition, 1975–1978. Feminist groups persuaded the Communist party (PCE) to hold its first conference on the woman question in October and the PSOE to formally commit to women’s liberation during its 27th Party Congress in 1976 (Threlfall, 2007, p.28). During this transition period, a vast majority of feminist women and organizations opted for working within political parties as caucuses (Valiente, 2003), and “persuade male and even female party colleagues of the worth of equality policy” (Threlfall, 2007, p.31). In the Constitutional debate, feminist groups lobbied the President of the National Parliament (or *Cortes*) to raise awareness of women’s rights in the drafting of the constitution. The PSOE and PCE also consulted with

¹¹ Notice that the Socialist party opposed women franchise in the Second Republic because women were thought to favor conservative parties (Scanlon, 1976, p.148-153).

feminist groups on important pieces of legislation at early stages of the democratic transition, including the principle of equal treatment between men and women in access to employment and anti-discriminatory treatment to women in collective bargain agreements (law passed in 1980), legalization of divorce (1981), and abortion (1985) among other issues.

Within PSOE, feminist organized into the Women and Socialism caucus (est. 1976) and they lobbied for policy change and political voice within the party and elected offices. The first material achievement happened in 1981 when “for the first time a declared feminist [...] reached the top of the PSOE hierarchy [the Federal Executive Committee] as a result of internal feminist pressure” (Threlfall, 2007, p.42). The caucus continued to lobby for further representation during the 1980s and 1990s. The adoption of voluntary quotas was a milestone in this process. In other words, voluntary quotas were not granted, but conquered by relentless internal lobbying of feminist activists (Threlfall, 2007, p.148).

The adoption of voluntary quotas was no easy ride. Feminist activists within PSOE overcame local and regional resistance by lobbying directly the highest ranks of the party. It was an exercise of “enlightened elitism” (Threlfall, 2007, p.126), a top-down process imposed by party cadres onto the lower ranks of the party. Party leaders accepted this demand (arguably against its political survival or that of their allies within the party) when the electoral vigor of PSOE began to fade in the late 1980s. Upon adoption of voluntary quotas in 1987, one-third of all PSOE deputies were women in the next national parliament election in 1989. Felipe Gonzalez, the prime minister and leader of PSOE, made women and youth the two pillars of the party renewal initiated in the early 1990s (Threlfall, 2007, p.152).

Voluntary quotas were extended in 1994 and again in 1997. In the late 1990s, already in opposition, PSOE campaigned for the introduction of mandatory quotas, which PP opposed. And yet, PP gradually incorporated many women to its lists and executive positions to avoid losing women support to political rivals (Ruiz Jiménez, 2006), mirroring a “contagion effect” occurred in France (Jenson and Valiente, 2003) and Norway (Matland and Studlar, 1996). Along electoral pressures, women within PP were also crucial to expand women’s representation in the conservative party. In this case, a group of female leaders self-organized into a caucus named Women for Democracy, which lobbied to keep expanding women’s power within the PP once it reached office in 1996 (Ruiz Jiménez, 2006, p.192).

In sum, feminist groups were key actors in the adoption of voluntary quotas. Once the parity norm was shared within political elite circles, it was enshrined into the Equality Law of 2007, which introduced mandatory quotas. By then, however, a significant part of the road to gender parity in elected bodies had already been walked.

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