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, and under what conditions do they persist and fade? We address both sets of questions by examining the role of historical family types on modernday 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 on Todd's (1990) foundational typology of historical family structures, we focus on the two most prevalent configurations in pre-industrial Europe. In extended or "stem families," one couple—typically the eldest son and his wife—remained in the husband's family home, cohabiting with the older generation after marriage. In "nuclear families," by contrast, all newlyweds moved out to establish independent households, typically consisting of only two generations: parents and children. We argue that stem family structures allowed working-age women to share domestic responsibilities (e.g., child-rearing) with their mothers-in-law, freeing time for labor market participation. In turn, women's participation in paid employment softened the gendered division of labor and patriarchal norms compared to nuclear family structures. Although stem families largely disappeared in the first half of the twentieth century due to industrialization, we contend that their legacy of more equitable gender norms persisted, exerting a lasting positive influence on female political representation.

To test this argument, we examine the relationship between historical family types and female representation in Spanish local councils from 1978 to 2015. Spain provides a well-suited case for studying the effect of historical family structures on female political representation, as both stem and nuclear families had coexisted there since medieval times for reasons unrelated to preexisting gender attitudes. We build an original dataset on female councilors for all Spanish municipalities using electoral records from the Spanish Ministry of Finance and Public Administration. Following best practices in demographic research, we measure historical family structure as the average number of married and widowed women per household at the district level, drawing this information from Spain's earliest high-quality census, conducted in 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, Autonomous Community or "region" fixed effects and address issues of demographic sorting. 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 also 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.

We provide direct evidence for the two mechanisms of *persistence* in our theoretical argument. First, using historical census data from 1887 and contemporary microdata from the Active Population Survey (1976–2015), we find that women's participation in paid employment was—and remains—higher in stem-family areas. Second, we systematically analyze survey data on gender attitudes (both general and political) from the Spanish Center for Sociological Research (CIS) and the survey firm Metroscopia, covering 1975–2020. This evidence shows that individuals from former stem-family zones hold significantly more gender-equal attitudes than those from historically nuclear-family zones.

Examining the *dynamic impact* of historical family structures on female political representation across elections, we find that the gap between historical family areas began to close in the 1990s. We hypothesize that this shift was driven by the staggered introduction of voluntary party quotas in the late 1980s and early 1990s, which helped narrow regional disparities. Supporting this hypothesis, our findings indicate that voluntary quotas had a stronger effect in regions historically dominated by nuclear families. This suggests that electoral institutions can mitigate the enduring effects of gender discrimination shaped by historical family structures. However, on a less optimistic note, the adoption of voluntary quotas in Spain was not accompanied by improvements in female paid employment or gender attitudes in historically nuclear-family regions.

This article examines historical and contemporary determinants of gender gaps in political representation. Building on Alesina, Giuliano and Nunn (2013), who link patriarchal norms to plough agriculture, we introduce family structure as a novel historical factor shaping female political representation. Our findings align with research connecting breadwinning roles to women's political participation (Bernhard, Shames and Teele, 2021; Iversen and Rosenbluth, 2010). We also contribute to the literature on family structure and political outcomes. Prior work (Brulé and Gaikwad, 2021; Hager and Hilbig, 2019; Robinson and Gottlieb, 2021) highlights the role of inheritance rules in shaping gender norms. We extend this by demonstrating how multigenerational cohabitation facilitated women's labor force participation, with lasting political consequences. Finally, we engage with research on electoral institutions, such as gender quotas (Hughes et al., 2019; Krook, 2009; Weeks, 2018) and proportional representation (Kittilson and Schwindt-Bayer, 2010). Our study shows how these institutions can counteract historically embedded gender norms. In this, we draw on insights from Alesina and Giuliano (2015) and Bisin and Verdier (2017) on the persistence and evolution of cultural norms.

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. 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 While our main argument may also hold for joint families, the positive effect of corresidence may be counterbalanced by other aspects surrounding joint families, such as restrictive norms about female mobility and autonomy (Anukriti et al., 2020).

2 From historical family types to female representation

We argue that differences in how families were organized in the past shaped whether women could engage in paid work outside the household. In stem families, where two adult women often cohabited, women faced lower barriers to entry into paid employment, strengthening their bargaining power at home. This, in turn, had lasting effects on gender norms, sustaining higher female labor force participation even after stem-family structures declined during industrialization. Past patterns of labor force participation and gender norms continue to influence contemporary female employment and, in turn, shape women's political representation in democratic societies. As summarized in Figure 1 and elaborated below, our argument links historical family structures to modern female political representation through two mutually reinforcing channels: labor market participation and gender norms.²

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, Rodríguez-Pose and Sandall, 2009), corporations (Greif, 2006), public pol-

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.

²While the causal diagram traces a path between historical family types and female political representation, it does not rule out alternative explanations or a direct link to gender norms.

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



icy design (Galasso and Profeta, 2018), and government quality (Akbari, Bahrami-Rad and Kimbrough, 2019; Broms and Kokkonen, 2019).

Recent political science research explores how lineage and inheritance practices shape women's political engagement. Societies with more equitable inheritance laws exhibit higher female political participation (Brulé and Gaikwad, 2021) and greater representation in public office (Hager and Hilbig, 2019), while matrilineal systems correlate with gender-equal norms in politics (Robinson and Gottlieb, 2021).

We examine a largely overlooked aspect of family structure: historical family types characterized by multi-generational cohabitation. Emmanuel Todd classified family-related institutions into three main types based on detailed historical records. Our focus is on the two predominant types in Western Europe and, specifically, in Spain, which differ in their approach to multi-generational cohabitation. In stem families, a single heir—typically a son—remained in the family home, while in nuclear families, inheritance was divided among siblings, each establishing a separate household upon marriage.

The factors driving the adoption of specific family structures across Europe remain debated, with little consensus on the role of economic forces (Gruber and Szołtysek, 2012; Ruggles, 2009; Szołtysek et al., 2020). In Spain, regional differences in stem and nuclear family arrangements trace back to the *Christian Conquest* (722–1492), the centuries-long process in which Christian kingdoms "reconquered" Muslim Al-Andalus. In the west, independent Christian kingdoms emerged from Visigoth noblemen who had retreated to Asturias, eventually forming the Kingdom of Castile. In the northeast, the Frankish Empire established the Hispanic March—a buffer zone between the Pyrenees and the Ebro River to protect against Muslim forces—which evolved into a loose confederation of subkingdoms that later unified as the Crown of Aragon.

Christian conquerors implemented distinct family laws in eastern and western Spain. In the decentralized Northeast, the nobility secured *freedom of testation*, allowing them to preserve landholdings across generations through a single-heir system. In contrast, the more centralized western kingdoms, under stronger monarchical control, mandated equal inheritance 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 evidence that regional differences in family structures stemmed from preexisting disparities in gender equality. In medieval times, gender equality was low across both areas, and the implications of each family system for gender roles were ambiguous. In stem families, heirs were expected to support their sisters' marriages and help maintain their social status. In nuclear families, women could inherit land, but it was typically of lower quality (Carrasco and Jesús, 2009; González, 2000) (see Appendix H for details).

2.2 Mechanisms of persistence: Employment and gender norms

The geographic distribution of family structures, shaped by military and political considerations in the High Middle Ages, locked in and persisted until the early twentieth century. When paid employment outside agriculture expanded—primarily with industrialization in the late 19th century—existing family structures influenced women's ability to enter the labor market (Tur-Prats, 2019). In stem families, cohabitation under one roof enabled the sharing of domestic responsibilities, allowing women to engage in paid work at a time when domestic work required intensive dedication and public childcare was unavailable. As a result, women in stem families often took on part-time wage-earning jobs, such as shopkeeping, personal services (e.g., laundering), or factory work. In contrast, in nuclear families, where cohabitation was rare, adult women had fewer opportunities to delegate domestic work and were therefore less able to participate in paid employment. This dynamic reinforced a strict gendered division of labor, with husbands engaging in paid work while wives, as the sole adult women in the household, specialized in domestic production.

Supporting our claim that historical family structures influenced female labor force participation, Borderías and Ferrer-Alòs (2017) and Sasaki (2002) document higher labor force participation among women from stem families in early 20th-century Catalonia and modernday Japan, respectively. In France, Tudor (2022) shows that the Napoleonic Code's reinforcement of the nuclear family elevated husbands' authority within newlywed households, undermining wives' economic and political power. Returning to Spain, Tur-Prats (2019) finds that 19th-century women of reproductive age were more likely to engage in paid work in stem-family regions. We replicate this finding in Appendix B.

Although not directly focused on historical family structures, modern evidence also highlights the positive impact of multigenerational cohabitation on women's labor force participation. Tienda and Glass (1985) find that co-residence with grandmothers in the US increases single mothers' paid employment, regardless of ethnicity or income level. Using cross-national survey data from Western Europe, Jappens and Bavel (2012) provide the clearest evidence of the underlying mechanism: cohabitation with grandparents increases the likelihood of delegating child-rearing to the oldest household members, with this effect being stronger where formal childcare is less accessible.

Women who contribute financially to the household gain greater bargaining power both at home and in their communities (Iversen and Rosenbluth, 2010). Building on this insight, we propose that regions with a history of stem families developed more gender-equal norms—beliefs about appropriate behavior for women in private and public life—compared to areas with nuclear families, where the gendered division of labor was more rigid. Once established, gender norms tend to persist (Evans, 2015) and be transmitted across generations within families and communities (Bisin and Verdier, 2001; Fernández and Fogli, 2009), reinforcing patterns of female participation in both domestic and market production.

Although no direct evidence links family structure to *historical* gender norms, two findings support our argument. First, Tur-Prats (2019) attributes the higher prevalence of intimate partner violence in nuclear-family regions to differences in women's productive roles. Second, Beltrán Tapia and Gallego-Martínez (2020) show that 19th-century gender ratios were more balanced in areas with a higher prevalence of stem families.³ Consistent with our hypothesis, they argue that multi-generational female cohabitation improved girls' survival rates by enabling more women to work, thereby increasing their economic contribution to the household.

2.3 Downstream implications for female political representation

Although multigenerational cohabitation has largely disappeared in Spain (see Appendix C), we argue that historical differences in gender norms and labor market participation persist, helping to explain variations in female political representation. Specifically, we expect female political representation to be higher in former stem-family regions than in areas historically dominated by nuclear families, driven by both demand- and supply-side 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). Empirical research is consistent with this claim, showing that women's labor market participation influences how they are perceived as political leaders (Andersen and Cook, 1985; Rindfuss, Brewster and Kavee, 1996).

On the supply side, a history of female subordination may weaken women's political ambition—an important factor into the decision to "emerge" (Fox and Lawless, 2014). Socialization into traditional gender roles can undermine the confidence of otherwise viable candidates, reducing the pool of women in politics. Additionally, lower female labor market

 $^{^{3}}$ For the link between unbalanced gender ratios and female discrimination, see Das Gupta et al. (2003), Hudson and Den Boer (2002), and Sen (1990).

participation in more traditional regions may limit women's interest in running for office. As Iversen and Rosenbluth (2008, p.483) note, "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." Finally, even when ambition and interest are present, low female employment rates in historically nuclear-family regions limit access to critical resources—income, information, and professional networks—that facilitate political participation (Kenworthy and Malami, 1999; van der Lippe, de Ruijter, de Ruijter and Raub, 2011).

3 Case and data

The stem-nuclear family divide in Spain emerged during the Christian Conquest in the medieval period for reasons unrelated to gender norms (see above and Appendix H) and disappeared by the mid-20th century due to economic modernization and rural-to-urban migration. Modern census data indicate uniformly small household sizes across all regions (see Appendix C). The disappearance of stem families provides a suitable setting to test Todd's (1990:42) intuition that historical family structures have lasting cultural effects.

3.1 Measuring historical family types

To measure the historical prevalence of nuclear and stem families, we use data from the 1860 population census, the first high-quality census to reliably capture family structures across Spain.⁴ Following previous research using Spanish historical data (Tapia and Martinez-Galarraga, 2018), we use the 400+ judicial districts recorded in the 1860 census as our unit of observation and map them onto Spain's 8,000+ present-day municipalities.⁵

⁴Conducted in December, a period of minimal internal migration due to low agricultural activity, this census is particularly well-suited for measuring family structure (Gozálvez Pérez and Martín-Serrano Rodríguez, 2016, p.341).

⁵Judicial districts were established in the early 19th century to define court jurisdictions and have remained largely unchanged.

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, 1992; Rowland, 1987).⁶ 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. In our baseline specifications, we use the continuous measure in Figure 2a as our main independent variable, standardized for easier interpretation. We also employ a binary measure classifying areas as predominantly nuclear or stem family regions. Given the bimodal distribution, we set a cutoff at 1.05 average married or widowed women per household in 1860 (see Appendix F for alternative thresholds)

Figure 2b shows the geographic distribution of our continuous measure of family types across districts. Stem families were more common in northern and eastern Spain, while nuclear families predominated in the west and south of the Iberian Peninsula. This pattern only partially overlaps with the historical territories of the Crown of Aragon and the Kingdom of Castile, which developed distinct norms and institutions, including family law. To account for heterogeneity across historical regions, we include Autonomous Community (region) fixed effects. In our preferred specification, we exploit *within-region* variation in family structure, controlling for unobserved region-specific factors that may be correlated with both historical family type and contemporary female political representation.

 $^{^{6}\}mathrm{See}$ Tur-Prats (2019, 2021) and Beltrán Tapia and Gallego-Martínez (2020) for further details about this measure.



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

3.2 Institutional context

Our analysis of the long-term effects of historical family structures focuses on female political representation in municipal elections held after 1978, Spain's first period of stable democratic rule. Local councils play a significant role in governance, managing around 14% of the national budget—a share comparable to Belgium, Austria, and Germany. Councilors elect the mayor, approve the local budget, and oversee municipal affairs, making the share of women in local councils a key indicator of women's political influence.

Local elections take place every four years across Spain's 8,000+ municipalities. The number of council seats, ranging from 3 to 57, is proportional to population size. Our empirical analysis focuses on municipalities with more than 250 inhabitants, where councilors are elected through a proportional representation (PR) system using the D'Hondt formula and closed-party lists.⁷ The final dataset comprises an unbalanced panel of 51,079 municipality–election observations, covering approximately 5,000 municipalities across 10 election cycles.⁸

 $^{^7\}mathrm{Municipalities}$ with 250 or fewer inhabitants use a majoritarian system, but we exclude them due to extensive missing data.

 $^{^{8}}$ The total, N=51,079, excludes territories outside mainland Spain: Ceuta, Melilla, and the Canary

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, originally collected by municipalities, were later compiled by the *Ministerio de Hacienda y Administraciones Públicas* (Spanish Ministry of Finance and Public Administration), which granted us access. The dataset is nearly complete, covering 602,323 elected local politicians. Of these, 112,998 (19%) are classified as women and 489,188 (81%) as men, with gender information missing for only 137 individuals (0.02%). We use the share of elected female candidates as our measure rather than the share of women on party lists, as the latter data are unavailable before 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.

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

Municipality population and area covariates capture any (nonlinear) relationship between urbanization, progressive gender norms, and female political participation. Population size also determines the number of council seats and, consequently, the proportionality of the electoral system—a key predictor of female representation (Kittilson and Schwindt-Bayer,

Islands.

2010). To account for economic growth potential and exposure to foreign (i.e., more progressive) cultures through trade and tourism, we include an indicator for coastal areas. Soil productivity—measured through an index of caloric yield, temperature, precipitation, and ruggedness—may have historically supported larger, wealthier families, influencing both historical family structures and contemporary female representation. We also control for latitude and longitude to capture the north—south divide and proximity to the Mediterranean, both of which may affect economic development and trade. Additionally, political parties tend to place men in top positions on electoral lists (Krook, 2009). As a result, a greater number of competing parties in a municipality may push women into lower-ranked positions, reducing their chances of winning a seat. To address this potential bias, we control for the total number of parties with council representation in each municipality–year. Appendix E provides a detailed description of 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 democratization on our measure of historical family types:

Share of Women Councilors_{idt} =
$$\alpha + \beta Stem \ Family_d$$

+ $\gamma \mathbf{X}_{idt} + \delta_t Election_t + \eta_r Region_r + \epsilon_{idt}$ (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.

Because we observe multiple electoral results for a given municipality over time, we cluster the standard errors at the municipal level to account for potential autocorrelation within each municipality over time, following the consensus when dealing with our type of panel data structure (Cameron and Miller, 2015). In recent work, Abadie et al. (2023) recommend clustering standard errors at the level at which the treatment is assigned—the historical district, in our case. However, Abadie et al. (2023)'s recommendations pertain to cross-sectional data and, to the best of our knowledge, have not been extended to panel data, as in our setting. In the absence of clear methodological guidelines, we report results using both clustering approaches—at the municipality level (in the main text) and at the district level (in Appendix G). Our preferred specification—including the full vector of controls plus election-region fixed effects—is robust to cluster by district as well as alternative treatments of the standard errors, including two-way clustering (by municipality and year, and by district and year) as well as to Conley-standard errors with varying spatial radii.⁹

4.1 Results: Historical family types and female representation

Table 1 reports our estimated coefficient of interest, $\hat{\beta}$, which captures the effect of a historical prevalence of stem families on contemporary female political representation, with models progressively incorporating additional controls. 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. 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 point estimate remains fairly stable and statistically significant when controlling for population size, city status, and the number of parties in column 2, and when adding geographical controls in column 3. The effect also holds after introducing election fixed effects in column 4, which account for the sustained rise in female political representation over recent

 $^{^{9}}$ Results for the year-by-year or 'dynamic model' (Figure 3) are robust to multiple cluster structures, including district-level. We elaborate further in Section 4.3 and Appendix G.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Stem Family	0.322^{***}	0.303^{***}	0.314^{**}	0.307^{**}	0.320**	0.329^{**}	
	(0.098)	(0.093)	(0.133)	(0.129)	(0.137)	(0.137)	
Stom Fam Dummy							0 797**
Stem Fam. Dummy							(0.302)
Pop., City, & No. parties		\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	$\overline{\checkmark}$
Geographic controls			\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Election (year) FE				\checkmark	\checkmark		
Region FĚ					\checkmark		
election–region FE						\checkmark	
\overline{N}	51,079	51,047	50,701	50,701	50,701	50,701	50,701
$\mathrm{Adj.}R^2$	0.000	0.030	0.049	0.512	0.523	0.535	0.049

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

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.

decades, as shown in Figure A-3. As expected, the adjusted R^2 increases substantially with the inclusion of election fixed effects, but the coefficient of interest remains statistically significant, with only a slight reduction in magnitude.

We introduce region fixed effects in column 5, relying on within-region variation in historical family types for identification. This stricter specification controls for time-invariant regional confounders, addressing concerns that our results may be driven by differences between more and less developed areas in Spain. Our preferred and most rigorous specification, shown in column 6, includes election-region fixed effects to account for region-specific trends. In both specifications, the coefficients remain statistically significant and of similar magnitude.

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

We conduct additional analyses in Table 2 to test the robustness of this key result. These models build on our most stringent specification (column 6 of Table 1) by adding several relevant controls. However, caution is needed in interpreting these results, as some controls may themselves be influenced by historical family types (i.e., "bad controls").

First, we control for demographic variables to account for potential gender imbalances that could affect our main measure of historical family types. If, for example, nuclear-family regions had fewer women than men, this could have mechanically lowered the number of women per household. To capture this, we construct two district-level measures based on the 1860 census. Column 1 includes the sex ratio in the general population, while column 2 adds the share of single men. Although these controls slightly reduce the magnitude of our coefficient of interest, we continue to find a positive and statistically significant effect of the stem family type on female political participation.¹⁰

Second, following Oto-Peralías and Romero-Ávila (2016), we account for the historical influence of the Catholic Church—and religiosity more broadly—by including the ratio of priests, monks, and nuns per thousand inhabitants, as well as the percentage of mass attendees at the district level, both derived from the 1860 census (column 3). This control is crucial if, for example, nuclear-family regions were historically more religious and if strong Catholic influence has discouraged female political representation over time.

Third, we address historical landholding inequality by including the ratio of agricultural laborers to landlords and the share of the population employed in agriculture from the 1860 census (column 4). Family structures may have emerged in areas with distinct land characteristics or may have shaped land inequality patterns that, in turn, influenced political beliefs and gender attitudes, presenting an alternative causal pathway.

Fourth, we assess the potential effects of migration in various ways. In column 5, we

 $^{^{10}}$ Results are robust to computing the sex ratio for children aged 0 to 4, following Beltrán Tapia and Gallego-Martínez (2020) and Hudson and Den Boer (2002).

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Stem Family	0.252^{*}	0.256^{*}	0.298**	0.243^{*}	0.314**	0.309**	0.324**
	(0.140)	(0.140)	(0.139)	(0.139)	(0.140)	(0.140)	(0.137)
Population, City, & No. parties	\checkmark						
Geographic controls	\checkmark						
Election \times Region fixed effects	\checkmark						
Sex ratio control	\checkmark						
Male Singles control		\checkmark					
Religious controls			\checkmark				
Land-inequality controls				\checkmark			
Share of (internal) migrants					\checkmark		
Excluding Barcelona & Vizcaya						\checkmark	
Excluding All Cities Stem							\checkmark
\overline{N}	50,532	50,437	50,532	50,532	50,437	47,461	50,478
Adj. R^2	0.535	0.535	0.535	0.535	0.535	0.535	0.534

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

See text for a detailed description about the controls. 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 measures female population divided by male population, measured at the district level for 1860 census. Share of Male Singles measures the number of male singles divided by the total population, measured at the district level for 1860 census. Religious controls include the ratio of prisest, 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.

control for historical internal migration at the district level using data from the 1860 census. Another concern is that our results may be influenced by the self-selection of individuals with more feminist attitudes into stem-family regions. For example, individuals with progressive views may have left more traditional areas for cities like Barcelona, which historically followed a stem-family tradition and had strong left-wing movements.¹¹ Since disaggregated data on historical migration flows are unavailable, we address this concern by excluding stem-family areas that were more likely to receive migrants. In column 6, we remove the provinces of Barcelona and Vizcaya—the two largest industrial centers with dominant stem—family traditions and high migration inflows. In column 7, we further restrict the sample by excluding all municipalities with more than 50,000 inhabitants in stem-family districts. Reassuringly, our results are robust to these additional tests.

¹¹During the industrialization period (1877–1930), migration was primarily driven by economic factors, with most internal migrants relocating to nearby cities (Silvestre, 2005), which were likely within the same historical cultural zones.

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 expand on 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 help explain differences in female political representation since Spain's democratic transition. 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 with historical family type:

Share of Women
$$Councilors_{idt} = \alpha + \beta Stem \ Family_d + \gamma \mathbf{X}_{idt} + \eta Region_r + \delta_t Election_t + \kappa_t Election_t \times Stem \ Family_d + \epsilon_{idt}$$
 (2)

We report the marginal effects in Figure 3, scaling the coefficient of historical family types to capture any time-varying impact on women's representation.¹² Notably, female political

¹²Whereas Figure 3 reports results with cluster by municipality, cluster by district, two-way cluster (by

representation increased more than tenfold between 1979 and 2015 (values in parentheses on the horizontal axis of Figure 3). The substantive effect of historical family types (vertical axis) should be interpreted in the context of this broader secular trend.

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 ($\beta Stem Family + \kappa(Election \times Stem Family)$) 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 municipal level.

We estimate the effect of historical family types in the first democratic election at 0.65, corresponding to a 22% increase in the average number of female councilors that year (i.e., $100 \times 0.65/2.92$).¹³ The positive effect of historical family types persists until the late 1990s. However, as the mean of the dependent variable increases over time, the *relative effect* of historical family types gradually weakens, becoming negligible in 1999—not only because the confidence interval crosses the zero line but also because the effect, relative to the mean, is only a fraction of what it was in 1979, as illustrated by the smaller circles in Figure 3. By 2003, for example, the point estimate for historical family type is -0.33, reflecting just a

municipality and year, and by district and year), Huber-White (robust) standard errors, and cluster by district-year are all reported in Figures A-4 to A-8, respectively, in the Appendix.

¹³Specifically, a one standard deviation increase in the average number of widowed and married women per household in the 19th century is associated with a 0.65 percentage point increase in female representation, holding all else constant.

1.2% change in average female representation that year (compared to 22% in 1979), and it is not statistically significant.

Overall, we find strong evidence of a political representation gap at the start of the democratic period between areas historically dominated by stem families and those with nuclear family traditions. This effect is consistently estimated and remains robust to controls for variables known to influence the share of women elected to office. However, the marginal effect of stem families declines over time, and by 1999, the difference between cultural zones is no longer statistically significant. A similar pattern emerges when examining time-varying effects under the instrumental variable strategy (Appendix H) and remains robust to alternative treatments of standard errors (Appendix G). In Section 6, we explain this gradual decline: as parties adopted voluntary gender quotas, differences in female political representation diminished between areas with different historical families.

5 Persistence

5.1 Intermediate Outcomes

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, this right was briefly granted to women in the late 1920s and early 1930s. In Appendix J, we provide evidence that female representation in local councils was higher in provinces with a prevalence of stem families, aligning with our long-term findings.

5.2 Mechanisms of Persistence

We consider two causal mechanisms connecting historical family structures to modern female political participation: one related to labor market practices and the other to cultural norms. In Appendix I, we examine—and ultimately dismiss—a third potential mechanism, which suggests that differences in historical family types led to uneven investment in women's education across regions.

5.2.1 Labor Market Outcomes

Using a sample of districts in the 1860 census, Mikelarena Peña (1992, p.52-5) shows that households 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 1887 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 4 presents the results of our descriptive analysis. The first panel shows that while gender gaps in labor market participation have narrowed significantly over recent decades, they remain wider in historically nuclear-family regions—and if anything, the gap has grown in recent years. The second panel indicates that although the gender gap in inactivity rates has also declined in both areas, the difference has remained stable over time, with slightly higher inactivity rates among women in nuclear-family regions. The third panel reveals

Figure 4: 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. 6 for list.

that gender disparities in unemployment were similar across both areas at the start of the period, but a gap emerged around the 1990s, with lower female unemployment in stemfamily regions compared to nuclear-family areas. These findings suggest that, much like in the 19th century, gender gaps in labor force participation and inactivity remain larger in areas historically dominated by nuclear families.

5.2.2 Gender Norms in the Population

A strong gendered division of labor reinforces patriarchal norms within households and society, which persist over time through socialization. We expect gender norms to be more traditional in areas historically dominated by nuclear families. Indeed, using survey data from the 1995 and 2000 World Values Survey and the 2011 CIS, Tur-Prats (2021) finds the expected gaps in attitudes toward both partners working and contributing to household income. We extend her analysis over a longer time span and to attitudes regarding women's participation in politics.

We reviewed hundreds of questionnaires to select broadly comparable items from studies conducted by CIS and Metroscopia at different points in time. Although many gender-related questions have been asked over the years, wording changes frequently, making it difficult to find consistent questions from the 1970s through the 1990s and 2000s. Appendix K provides details on the selected studies and question wording.

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 egalitarian attitudes toward gender show higher awareness of gender inequality in society. Second, we select similar questions focused specifically on women in politics. Here, we assume that respondents with more egalitarian views are more likely to recognize that women face greater barriers to political leadership, while those with less egalitarian views are less likely to agree. We acknowledge that these questions blend descriptive and prescriptive attitudes, but they represent the best available compromise between consistency over time and indicator quality. Finally, we consider a question on 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.

We classify respondents as living in an area historically dominated by stem or nuclear families based on their province of residence. Provinces are categorized using our definition of historical family types, which relies on the average number of married and widowed women per household in 1860, applying a 1.05 threshold. We then estimate the effect of historical family structures on gender attitudes by regressing individual-level survey responses on an indicator for historical stem-family regions. Figure 5 presents the results.¹⁴

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 5 shows the results.¹⁵

 $^{^{14}\}mathrm{The}$ list of provinces in each category is provided in footnote 6 in Appendix J.

¹⁵Find the list of provinces in each area in footnote 6 in Appendix J. Note that our empirical strategy here differs slightly from the approach used in the previous labor market analysis, where we first aggregate individual-level data into provincial averages before comparing historical family type regions. The reason is



(a) Does Gender Inequality Exist?



(c) Are Women Unfit for Office?



(b) Does Gender Inequality in Politics Exist?

Note: The plots show the differential effect of the historical family structure on attitudes in three survey questions: (a) Perceived gender inequality (in general); (b) Perceived gender inequality specific to politics; (c) Agreement that women are unfit for office. Survey questions are normalized between 0 and 1 for longitudinal comparability. The dots represent coefficient estimates of linear models regressing individual-level attitudes on a dummy variable equal to 1 for living in a province with historical prevalence of stem families (0 otherwise, hence nuclear). 95% CI. Data are from surveys conducted by the Spanish Center for Sociological Research and Metroscopia.

We find a gap in awareness of gender inequality—both in general and in politics—between regions historically dominated by stem and nuclear families. Respondents in stem-family areas are more likely to acknowledge gender inequality and discrimination in politics and less likely to agree that women are unfit for office. This evidence suggests that cultural differences rooted in historical family structures existed in the early years of democratic rule and have persisted over time. This pattern, along with the findings in Figure 4, supports our theoretical claim that female labor market participation and gender-equal norms are both

Figure 5: Attitudes Toward Gender Inequality and Women in Politics

simple: The average CIS poll used in this section typically contains between 1,300 and 2,500 observations for all 50 Spanish provinces—two orders of magnitude fewer than the data used in the labor market analysis. Given the relatively small number of observations per province, we assign individuals directly to the two historical areas, bypassing the intermediate step of province-level aggregation.

persistent and mutually reinforcing.

6 Mechanisms of change: How quotas trump legacies

The empirical evidence supports the claim that historical family structures had longlasting effects on women's engagement in public life, primarily through two mechanisms: female paid employment and gender norms. However, history is not deterministic. Starting in the 1990s, the gap in female political representation across historical family regions gradually disappeared. What explains this shift?

One possible explanation is the faster expansion of economic activity and the service sector in regions with nuclear families. However, labor market data suggest that women did not enter paid employment at a higher rate in these regions than in those historically dominated by stem families. Instead, we argue that electoral institutions played a decisive role. Specifically, the introduction of voluntary electoral quotas in the late 1980s helped counterbalance the stronger patriarchal norms in regions with a legacy of nuclear families, ultimately closing the gap in female political representation.

6.1 The adoption of voluntary quotas in Spain

Mandatory quotas in Spain were adopted in 2007, more than two decades after the introduction of voluntary quotas.¹⁶ The first voluntary quota was implemented by the Catalan Socialist Party (PSC) in 1982, reserving a minimum of 12% of party and elected offices for women—elevated to 15% in 1987. The Spanish Communist Party (PCE) followed in 1987 with a 25% quota. In 1988, the largest left-wing party, the PSOE—Spain's ruling party from 1982 to 1996—established a 25% quota for party offices and electoral lists (Valiente, 2005, p.181). In the following years, quotas expanded across leftist parties. Izquierda Unida (IU), a coalition of Eurocommunist parties, adopted a 35% quota, while its Catalan branch,

 $^{^{16}\}mathrm{Appendix}$ L reviews evidence showing that the 2007 mandatory quotas had a modest and transient effect on female representation.

Iniciativa per Catalunya (ICV), set a 30% threshold. The PSC also increased its quota to 25% (Verge, 2012, p.398). By 1997, the PSOE and IU had committed to a "parity norm," ensuring at least 40% representation for each gender in party committees and electoral lists. Their Catalan counterparts, PSC and ICV, followed in 2000 and 2002, respectively. Regional parties soon adopted similar measures: Bloque Nacionalista Galego (BNG, left-wing) in Galicia and Coalición Canaria (CC, center) in the Canary Islands introduced parity quotas in 1998 and 2000, respectively. The Republican Left of Catalonia (ERC, left-wing) and the Basque Nationalist Party (PNV, center) followed in 2004 and 2007. By 2004, nine of the twelve parties represented in Spain's national lower house had implemented voluntary quotas (Verge, 2012, p.399).¹⁷

Never a societal demand in Spain, voluntary quotas were imposed in a top-down, staggered fashion by central party leadership, following 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 adopted solely due to pressure from women's caucuses.¹⁸ Their enforcement was relatively straightforward, as all elections in Spain used closed-list proportional representation, allowing party leadership to maintain tight control over electoral lists. Qualitative accounts indicate that parties diligently implemented 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) highlight the crucial role of voluntary quotas in expanding women's representation in Spain. We build on their argument by investigating whether party quotas had a stronger impact in regions historically populated by nuclear families, thereby helping to close the representation gap across different family systems.

The gradual adoption of voluntary quotas, as outlined in the previous section, established

 $^{^{17}\}mathrm{Appendix}$ M.1 provides a visual timeline of voluntary quotas.

¹⁸Appendix M.4 provides a brief historical account of feminist groups' lobbying efforts for voluntary quotas within political parties.

benchmarks (e.g., 12%, 15%, 25%) that were, at each stage, not far from the levels of female political representation already observed in the most gender-progressive areas. We expect that quotas had a smaller additional effect in regions where baseline representation was already close to the benchmark (stem family regions) than in areas where it lagged further behind (nuclear family regions).



Figure 6: 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.

Figure 6 plots the share of female councilors in municipalities where at least one party with voluntary quotas secured representation and those where no such party did. It compares female representation in towns from regions where nuclear families prevail (left panel) and stem families dominate (right panel). Two patterns emerge. First, the presence of parties with voluntary quotas increases the average number of women in municipal councils, regardless of cultural legacies. Second, this positive effect is stronger in towns with nuclear families than in regions with stem families. Next, we examine this relationship using a regression framework. $\begin{array}{ll} \textit{Share of Women Councilor}_{idt} &= \alpha + \beta_1 \textit{Quota}_{it} + \beta_2 \textit{Quota}_{it} \times \textit{Historical Nuclear Family}_d \\ &+ \mathbf{X}\Gamma_{it} + \eta_t + \psi_i + \epsilon_{idt} \end{array}$

(3)

For interpretability, we create two versions of the quota variable. The dummy version, Quota_{it}, equals 1 if at least one party in the municipality has adopted voluntary quotas and 0 otherwise. The continuous version of Quota_{it} incorporates both the quota's magnitude (e.g., 12%, 25%) and the share of seats won by the party that voluntarily adopted it.¹⁹ Since municipalities with parties that adopt electoral quotas may differ systematically from those without (e.g., local constituencies may have a stronger affinity for leftist parties), we include municipality fixed effects, ψ_i , thereby focusing on within-municipality longitudinal variation. Additionally, we control for a set of time-varying municipality-level covariates, $\mathbf{X}\Gamma_{it}$, and a full vector of year fixed effects, η_t , which account for the secular increase in female representation across regions.

To facilitate the interpretation of the interaction term, $\hat{\beta}_2$, we reverse the historical family type variable. For the continuous version, we multiply the original variable by -1, so that *Nuclear* = 1 and *Stem* = 0. If quotas contributed to narrowing the gap between historical regions, their effect should be stronger in areas formerly inhabited by nuclear families than in those populated by stem families—implying $\beta_2 > 0$. We report the OLS estimates for Equation (3) in Table 3.²⁰

Column 1 shows that the introduction of voluntary quotas increased female representation by an average of 1.32 percentage points in former stem-family municipalities. The effect is 1.108 percentage points larger in former nuclear-family municipalities, totaling 2.428 percentage points, confirming our expectation. In Appendix M.2, we examine the temporal variation in female political representation across regions by interacting historical family

¹⁹We assign a quota to each councilor (including zeros if no quota was adopted) based on their party affiliation and year, then take the average at the municipal-election level. Details in Appendix E.

²⁰These results are robust to clustering at the historical district level (see Appendix G).

	Binary	Continuous
Voluntary quota	1.320^{***}	0.191^{***}
	(0.304)	(0.008)
Historical Nuclear Family×Voluntary quota	1.108^{+++}	(0.019^{***})
Population City & Number of parties	(0.313)	(0.003)
Election (year) fixed effects	↓	↓
Municipality fixed effects	\checkmark	\checkmark
$\operatorname{Adj-}R^2$	0.616	0.622
N ,	$50,\!843$	$50,\!843$

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

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.

type with the election year in a model that also includes municipality and year fixed effects. The results show that the gap between historical family regions narrowed only in the early 1990s, coinciding with the introduction of voluntary quotas by all major parties (except the conservative PP). In Appendix M.3, we confirm that the pre-quota gap between nuclear- and stem-family regions also existed in municipalities with leftist party representation—specifically the PSOE—addressing endogeneity concerns between gender attitudes and partisan preferences. In sum, by exerting a stronger effect in regions historically populated by nuclear families, voluntary quotas contributed to narrowing the representation gap across historical family zones.

7 Conclusion

This paper provides evidence of the long shadow cast by historical family structures on women's political representation, labor market participation, and societal attitudes in Europe. Family systems that enabled the (partial) delegation of domestic production to older household members allowed working-age women to participate in the labor market, increasing their bargaining power within the family and, by extension, their community. In regions where stem families were uncommon, a stark gendered division of labor emerged: Women participated in the labor market at lower rates, reinforcing patriarchal norms. Our analysis reveals the persistence of these norms and their impact on female political representation today; however, we also identify opportunities for progress through electoral quotas, making our argument one of both continuity and change.

Regarding historical *continuity*, our findings indicate that gender roles and norms can persist beyond the historical stem-nuclear family divide, providing a novel explanation for female political underrepresentation. Variation in family structures presents multiple avenues for further research. One particularly intriguing case is Italy, the only country in Western Europe with a significant presence of historical joint families in certain regions. This unique context offers an opportunity to examine women's political empowerment in a wealthy yet relatively traditional society. A second promising research direction involves cross-national, longitudinal analyses of family types and female political representation—much in the spirit of Duranton, Rodríguez-Pose and Sandall (2009), who focus on economic outcomes. A key empirical challenge in extending this analysis to other contexts would be addressing the endogeneity of historical family types, as well as the timing of industrialization, democratization, and regional variations in electoral quota adoption.

In support of *change*, our findings demonstrate that top-down institutional reforms can effectively counteract a legacy of patriarchal norms. Following the introduction of voluntary quotas, female political representation in Spain increased more in former nuclear-family regions than in former stem-family regions, ultimately closing the representation gap. This shift would likely not have occurred without feminist organizations, which successfully mainstreamed gender parity among political leaders across the ideological spectrum. However, our results also suggest that elite-driven norm change may not be (immediately) mirrored by shifts in societal attitudes. Our analysis shows that regions historically dominated by nuclear families still exhibit lower levels of female labor force participation and weaker gender-equal attitudes. Whether codified norms and electoral institutions can reshape deeply ingrained patriarchal socialization in the long run remains an open question.

References

- Abadie, Alberto, Susan Athey, Guido W Imbens and Jeffrey M Wooldridge. 2023. "When Should You Adjust Standard Errors for Clustering?" <u>Quarterly Journal of Economics</u> 138(1):1–35.
- Akbari, Mahsa, Duman Bahrami-Rad and Erik O Kimbrough. 2019. "Kinship, fractionalization and corruption." Journal of Economic Behavior & Organization 166:493–528.
- Alesina, Alberto and Paola Giuliano. 2015. "Culture and Institutions." Journal of Economic Literature 53(4):898–944.
- Alesina, Alberto, Paola Giuliano and Nathan Nunn. 2013. "On the origins of gender roles: Women and the plough." Quarterly Journal of Economics 128(2):469–530.
- Alesina, Alberto, Yann Algan, Pierre Cahuc and Paola Giuliano. 2015. "Family values and the regulation of labor." Journal of the European Economic Association 13(4):599–630.
- Andersen, Kristi and Elizabeth A. Cook. 1985. "Women, Work, and Political Attitudes." <u>American</u> Journal of Political Science 29(3):606–625.
- Anukriti, S, Catalina Herrera-Almanza, Praveen K Pathak and Mahesh Karra. 2020. "Curse of the Mummy-ji: The influence of mothers-in-law on women in India." <u>American Journal of</u> Agricultural Economics 102(5):1328–1351.
- Beltrán Tapia, Francisco and Domingo Gallego-Martínez. 2020. "What explains the missing girls in nineteenth-century Spain?" <u>Economic History Review</u> pp. 59–77.
- Bernhard, Rachel, Shauna Shames and Dawn Langan Teele. 2021. "To Emerge? Breadwinning, Motherhood, and Women's Decisions to Run for Office." <u>American Political Science Review</u> 115(2):379–394.
- Bisin, Alberto and Thierry Verdier. 2001. "The Economics of Cultural Transmission and the Dynamics of Preferences." Journal of Economic Theory 97(2):298–319.
- Bisin, Alberto and Thierry Verdier. 2017. On the joint evolution of culture and institutions. Technical report National Bureau of Economic Research.
- Borderías, Cristina and Llorenç Ferrer-Alòs. 2017. "The stem family and industrialization in Catalonia (1900–1936)." The History of the Family 22(1):34–56.
- Broms, Rasmus and Andrej Kokkonen. 2019. "Inheritance regimes: Medieval family structures and

current institutional quality." Governance 32(4):619–637.

- Brulé, Rachel and Nikhar Gaikwad. 2021. "Culture, capital, and the political economy gender gap: Evidence from Meghalaya's Matrilineal Tribes." Journal of Politics 83(3):000–000.
- Burch, Thomas K. 1970. "Some Demographic Determinants of Average Household Size: An Analytic Approach." Demography 7(1):61–69.
- Cameron, A. Colin and Douglas L. Miller. 2015. "A Practitioner's Guide to Cluster-Robust Inference." The Journal of Human Resources 50(2):317–372.
- Carrasco, Gómez and Cosme Jesús. 2009. "Herencia y transmisión del patrimonio a finales del Antiguo Régimen: Diferentes estrategias en la comunidad mercantil y en la élite local." Investigaciones históricas: Época moderna y contemporánea pp. 97–128.
- Conley, Timothy G. 1999. "GMM estimation with cross sectional dependence." <u>Journal of</u> econometrics 92(1):1–45.
- Das Gupta, Monica, Jiang Zhenghua, Li Bohua, Xie Zhenming, Woojin Chung and Bae Hwa-Ok. 2003. "Why Is Son Preference so Persistent in East and South Asia? A Cross-Country Study of China, India and the Republic of Korea." Journal of Development Studies 40(2):153–187.
- Duranton, Gilles, Andrés Rodríguez-Pose and Richard Sandall. 2009. "Family types and the persistence of regional disparities in Europe." <u>Economic geography</u> 85(1):23–47.
- Evans, Alice. 2015. "History lessons for gender equality from the Zambian Copperbelt, 1900–1990." Gender, Place & Culture 22(3):344–362.
- Fernández, Raquel and Alessandra Fogli. 2009. "Culture: An Empirical Investigation of Beliefs, Work, and Fertility." American Economic Journal: Macroeconomics 1(1):146–177.
- Fox, Richard L. and Jennifer L. Lawless. 2014. "Uncovering the Origins of the Gender Gap in Political Ambition." American Political Science Review 108(3):499–519.
- Galasso, Vincenzo and Paola Profeta. 2018. "When the state mirrors the family: The design of pension systems." Journal of the European Economic Association 16(6):1712–1763.
- Gómez-Ferrer Morant, Guadalupe and Marta Del Moral Vargas. 2015. Las Pioneras en la Gestión Local: Concejalas y Alcaldesas Designadas durante la Dictadura de Primo de Rivera y el Gobierno Berenguer (1924-1930). In <u>Mujeres en los Gobiernos Locales: Alcaldesas y Concejalas en</u> la España Contemporánea, ed. Gloria Nielfa Cristóbal. Madrid: Biblioteca Nueva pp. 43–88.

- González, Francisco García. 2000. Las estrategias de la diferencia. Familia y reproducción social en la Sierra. Madrid: Ministerio de Agricultura, Pesca, y Alimentación.
- Gozálvez Pérez, Vicente and Gabino-Antonio Martín-Serrano Rodríguez. 2016. "El Censo de la Población de España de 1860. Problemas Metodólógicos. Inicio de la Aportación Social en los Censos." Boletín de la Asociación de Geógrafos Españoles (70):329–370.
- Greif, Avner. 2006. "Family structure, institutions, and growth: The origins and implications of Western corporations." American economic review 96(2):308–312.
- Gruber, Siegfried and Mikołaj Szołtysek. 2012. "Stem families, joint families, and the European pattern: What kind of a reconsideration do we need?" Journal of Family History 37(1):105–125.
- Hager, Anselm and Hanno Hilbig. 2019. "Do Inheritance Customs Affect Political and Social Inequality?" American Journal of Political Science 63(4):758–773.
- Hudson, Valerie M and Andrea Den Boer. 2002. "A surplus of men, a deficit of peace: Security and sex ratios in Asia's largest states." International Security 26(4):5–38.
- Hughes, Melanie M, Pamela Paxton, Amanda B Clayton and Pär Zetterberg. 2019. "Global gender quota adoption, implementation, and reform." Comparative Politics 51(2):219–238.
- Iversen, Torben and Frances Rosenbluth. 2008. "Work and power: The connection between female labor force participation and female political representation." <u>Annual Review of Political Science</u> 11:479–495.
- Iversen, Torben and Frances Rosenbluth. 2010. <u>Women, Work, & Politics: The Political Economy</u> of Gender Inequality. New Haven: Yale University Press.
- Jappens, Maaike and Jan Van Bavel. 2012. "Regional family norms and child care by grandparents in Europe." Demographic Research 27:85–120.
- Kenworthy, Lane and Melissa Malami. 1999. "Gender Inequality in Political Representation: A Worldwide Comparative Analysis." Social Forces 78(1):235–268.
- Kittilson, Miki Caul and Leslie Schwindt-Bayer. 2010. "Engaging Citizens: The Role of Power-Sharing Institutions." Journal of Politics 72(4):990–1002.
- Krook, Mona Lena. 2009. Quotas for Women in Politics. New York: Oxford University Press.
- Mikelarena Peña, Fernando. 1992. "Las estructuras familiares en la España tradicional: geografía y análisis a partir del censo de 1860." <u>Revista de Demografía Histórica-Journal of Iberoamerican</u>

Population Studies 10(3):15-62.

- Nielfa Cristóbal, Gloria and Rosario Ruiz Franco. 2015. La Nueva Ciudadanía de la Mujeres en el Ámbito Municipal: Alcaldesas y Concejalas en la Segunda República (1931-1939). In <u>Mujeres</u> <u>en los Gobiernos Locales: Alcaldesas y Concejalas en la España Contemporánea</u>, ed. Gloria Nielfa Cristóbal. Madrid: Biblioteca Nueva pp. 89–171.
- Oto-Peralías, Daniel and Diego Romero-Ávila. 2016. "The economic consequences of the Spanish Reconquest: The long-term effects of Medieval conquest and colonization." <u>Journal of Economic</u> Growth 21(4):409–464.
- Parish, William L. and Moshe Schwartz. 1972. "Household Complexity in Nineteenth Century France." American Sociological Review 37(2):154–173.
- Rindfuss, Ronald R., Karin L. Brewster and Andrew L. Kavee. 1996. "Women, Work, and Children: Behavioral and Attitudinal Change in the United States." <u>Population and Development Review</u> 22(3):457–482.
- Robinson, Amanda Lea and Jessica Gottlieb. 2021. "How to Close the Gender Gap in Political Participation: Lessons from Matrilineal Societies in Africa." <u>British Journal of Political Science</u> 51(1):68–92.
- Rowland, Robert. 1987. "Nupcialidade, Familia, Mediterráneo." <u>Boletín de la Asociación de</u> Demografía Histórica 2:128–143.
- Ruggles, Steven. 2009. "Reconsidering the Northwest European family system: Living arrangements of the aged in comparative historical perspective." <u>Population and Development Review</u> 35(2):249–273.
- Sasaki, Masaru. 2002. "The Causal Effect of Family Structure on Labor Force Participation among Japanese Married Women." Journal of Human Resources 37(2):429–440.
- Sen, Amartya. 1990. "More Than 100 Million Women Are Missing." <u>New York Review Books</u> 37(20):61–66.
- Silvestre, Javier. 2005. "Internal migrations in Spain, 1877–1930." <u>European Review of Economic</u> History 9(2):233–265.
- Szołtysek, Mikołaj, Bartosz Ogórek, Radosław Poniat and Siegfried Gruber. 2020. "Making a place for space: A demographic spatial perspective on living arrangements among the elderly in

historical Europe." European Journal of Population 36:85–117.

- Tapia, Francisco J Beltrán and Julio Martinez-Galarraga. 2018. "Inequality and education in preindustrial economies: Evidence from Spain." Explorations in Economic History 69:81–101.
- Threlfall, Monica. 2007. "Explaining gender parity representation in Spain: The internal dynamics of parties." West European Politics 30(5):1068–1095.
- Tienda, Marta and Jennifer Glass. 1985. "Household Structure and Labor Force Participation of Black, Hispanic, and White Mothers." Demography 22(3):381–394.
- Todd, Emmanuel. 1990. L'Invention de l'Europe. Paris: Seuil.
- Tudor, Carissa Leanne. 2022. Whose Modernity? Revolution and the Rights of Woman PhD thesis Princeton University.
- Tur-Prats, Ana. 2019. "Family types and intimate partner violence: A historical perspective." Review of Economics and Statistics 101(5):878–891.
- Tur-Prats, Ana. 2021. "Unemployment and intimate partner violence: A Cultural approach." Journal of Economic Behavior & Organization 185:27–49.
- Valiente, Celia. 2005. The Women's Movement, Gender Equality Agencies, and Central-State Debates on Political Representation in Spain (1983–2003). In <u>State Feminism and Political</u> Representation., ed. Joni Lovenduski. New York: Cambridge University Press p. 174–194.
- van der Lippe, Tanja, Judith de Ruijter, Esther de Ruijter and Werner Raub. 2011. "Persistent Inequalities in Time Use between Men and Women: A Detailed Look at the Influence of Economic Circumstances, Policies, and Culture." <u>European Sociological Review</u> 27(2):164–179.
- Verge, Tània. 2012. "Institutionalising gender equality in Spain: From party quotas to electoral gender quotas." West European Politics 35(2):395–414.
- Weeks, Ana Catalano. 2018. "Why Are Gender Quota Laws Adopted by Men? The Role of Interand Intraparty Competition." Comparative Political Studies 51(14):1935–1973.

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, Rodríguez-Pose and Sandall (2009)'s, who corrected errors in Todd's map about the region of Andalucía.

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.





(a) Todd's Map

ure z. ranny types in Europe.

(b) Duranton et al's Map





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 FamilyRegion

	Nu	mber of Inactive Won	nen
	>12 year-old	12-40 year-old	>41 year-old
Stem Family	-0.30**	-0.39**	-0.14
	(0.142)	(0.155)	(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. Cohabitation of generations of women had a positive effect on girls' survival rates because it enabled more women to participate in the labor market. This result is consistent with girls having higher status in stem family regions, if only because they were treated as future bread earners.

B.2 Other Demographic Variables: Female Mortality and Fertility

We also investigate gender status by focusing on 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 (not shown here for space reasons, but shared with reviewers) 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.

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 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 firsts 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. Refer to the Replication materials for a detailed list of sources. 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.

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 4.

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 K.

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.

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

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

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.

	(1)
Stem Family (All)	0.282^{**}
	(0.122)
Population, City, & No. parties	\checkmark
Geographic controls	\checkmark
election–region fixed effects	\checkmark
N	$50,\!606$
Adj. R^2	0.534

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

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 the results of our preferred specification for the average results (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 (Table 1, column 6). In column 2 we cluster by the (historical) district level, namely 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 (historical) 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.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Stem Family	0.329^{**}	0.329^{*}	0.329^{**}	0.329	0.329^{***}	0.329^{***}	0.329
	(0.137)	(0.196)	(0.139)	(0.195)	(0.083)	(0.099)	$(0.154)^{**}$ [10 km]
		. ,	· · · · ·	· · · ·	· · · ·		$(0.171)^*$ [20 km]
							(0.199)* [30 km]
							(0.236) [40 km]
Standard Errors	Cluster	Cluster	2-way Cluster	2-way Cluster	Robust (\equiv Cl.	Cluster	Conley (1999)
Cluster-level	Municip.	Dist.	Mun. & Year	Dist. & Year	MunYear)	District-Year	
No. Clusters	6,231	463	6,231 & 10	463 & 10	,	4,612	
election–region FE	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Observations	50.701	50.701	50.701	50.701	50.701	50.701	50.701

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

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.

We repeat this exercise with Figure 3, which reports our dynamic results, that is, 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. Figure A-4 shows results with standard errors clustered at the (historical) district; Figure A-5 with two-way municipality and year cluster standard errors; Figure A-6 with two-way (historical) district and year cluster standard errors; Figure A-7 with robust standard errors; and Figure A-8 with (historical) district \times year cluster standard errors. 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.

FIGURE A-4: Marginal effect of historical family type on female political representation. Cluster by (historical) 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 (β Stem Family + κ (Election × 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: See note in Figure A-4.

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



Note: See note in Figure A-4.

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



Note: See note in Figure A-4.

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



Note: See note in Figure A-4.

We also report our dynamic or year-by-year results with fewer controls and fixed effects in Table A-5, which mirrors Table 1 in the main paper, but instead of running equation (1), we run Equation (2), and cluster our standard errors at the (historical) district level. For the sake of space and to avoid including many more figures, we report the coefficients for the marginal effects in tables rather than in figures. We start by looking at the effect of historical family types on female political participation year by year with no controls in column (1), and subsequently include more controls and fixed effects in columns (2)-(4). Election fixed-effects are required in all the specifications since we are estimating the marginal effects for each election—year. For the same reason, region—year fixed effects cannot be included in these specifications, but it is worth reminding that the average effects with region—year fixed-effects were robust to clustering by district (column 2, Table A-4). Column (5) uses a binary indicator for historical stem family instead of the continuous one, which is the equivalent to column (7) in Table 1. Throughout the specifications, our results show the same pattern of persistence and change that we found in Figure 3. Reassuringly, the point estimates are statistically significant regardless of whether we cluster at the municipal or at the (historical) district level.

	(1)	(2)	(3)	(4)	(5)
1979	0.438^{***}	0.528^{***}	0.628^{***}	0.646***	1.778***
	(0.105)	(0.102)	(0.212)	(0.230)	(0.493)
1983	0.601^{***}	0.676^{***}	0.724^{***}	0.711^{***}	1.882^{***}
	(0.125)	(0.120)	(0.201)	(0.219)	(0.513)
1987	0.486^{***}	0.662^{***}	0.659^{***}	0.695^{***}	1.646^{***}
	(0.169)	(0.163)	(0.234)	(0.239)	(0.615)
1991	0.525^{**}	0.577^{***}	0.727^{***}	0.768^{***}	1.451^{**}
	(0.218)	(0.206)	(0.255)	(0.238)	(0.672)
1995	0.341	0.258	0.458	0.431^{*}	0.483
	(0.270)	(0.249)	(0.296)	(0.257)	(0.779)
1999	0.051	-0.039	0.175	0.180	-0.664
	(0.328)	(0.310)	(0.339)	(0.303)	(0.835)
2003	-0.496	-0.598*	-0.382	-0.330	-1.865^{**}
	(0.362)	(0.337)	(0.342)	(0.308)	(0.785)
2007	-0.279	-0.437	-0.179	-0.150	-0.909
2011	(0.365)	(0.335)	(0.340)	(0.298)	(0.833)
2011	-0.197	-0.306	-0.061	-0.060	-0.344
2015	(0.328)	(0.308)	(0.311)	(0.274)	(0.813)
2015	(0.009)	(0.115)	(0.304)	(0.305)	(0.390)
	(0.340)	(0.324)	(0.341)	(0.305)	(0.830)
Population City & No parties		1	1	1	1
Geographic controls		•	, ,	, ,	, ,
Region fixed effects			·		•
Election fixed effects	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Stem Family Dummy					\checkmark
N	51,079	51,047	50,701	50,701	50,701

TABLE A-5: Dynamic Results: Marginal Effects. Cluster by (Historical) District

The coefficients represent 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. *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 (historical) district in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01.

In Table A-6 we report the year-to-year results that would be equivalent to Table 2 in the main text, clustering at the (historical) district level. We follow the same sequence as in Table 2, by adding the different historical controls and sample restrictions in columns (1)-(7). Again, the results show a consistent pattern of results that keeps its statistical significance when we apply clustering at the (historical) district level.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1979	0.570**	0.548^{**}	0.612**	0.556^{**}	0.610***	0.712***	0.662***
	(0.233)	(0.225)	(0.240)	(0.237)	(0.237)	(0.255)	(0.231)
1983	0.649^{***}	0.641^{***}	0.692^{***}	0.642^{***}	0.700^{***}	0.687^{***}	0.709^{***}
	(0.223)	(0.215)	(0.229)	(0.222)	(0.224)	(0.246)	(0.218)
1987	0.625^{***}	0.611^{***}	0.670^{***}	0.615^{**}	0.669^{***}	0.681^{***}	0.703^{***}
	(0.242)	(0.231)	(0.249)	(0.244)	(0.245)	(0.259)	(0.239)
1991	0.690^{***}	0.691^{***}	0.732^{***}	0.678^{***}	0.749^{***}	0.725^{***}	0.769^{***}
	(0.240)	(0.234)	(0.245)	(0.244)	(0.244)	(0.256)	(0.239)
1995	0.344	0.340	0.387	0.334	0.399	0.486^{*}	0.437^{*}
	(0.256)	(0.246)	(0.263)	(0.259)	(0.261)	(0.274)	(0.259)
1999	0.091	0.109	0.133	[0.079]	0.167	0.294	0.174
	(0.304)	(0.294)	(0.308)	(0.307)	(0.305)	(0.323)	(0.304)
2003	-0.417	-0.399	-0.373	-0.429	-0.343	-0.337	-0.352
	(0.309)	(0.301)	(0.308)	(0.307)	(0.311)	(0.314)	(0.308)
2007	-0.226	-0.209	-0.183	-0.237	-0.155	-0.242	-0.178
2011	(0.297)	(0.294)	(0.297)	(0.298)	(0.301)	(0.307)	(0.297)
2011	-0.119	-0.094	-0.075	-0.131	-0.037	-0.215	-0.080
2015	(0.279)	(0.279)	(0.280)	(0.273)	(0.277)	(0.304)	(0.274)
2015	0.232	0.238	0.275	(0.221)	0.298	0.203	(0.305)
	(0.309)	(0.303)	(0.310)	(0.303)	(0.310)	(0.334)	(0.308)
Population, City, & No. parties	1	1	1	1	1	1	1
Geographic controls	1	, ,		, ,	, ,	1	, ,
Election and Region fixed effects							
Sex ratio control	\checkmark						
Male Singles control		\checkmark					
Religious controls			\checkmark				
Land-inequality controls				\checkmark			
Share of (internal) migrants					\checkmark		
Excluding Barcelona & Vizcaya						\checkmark	
Excluding All Cities Stem							\checkmark
N	50.532	50.437	50.532	50.532	50.437	47.461	50.478

TABLE A-6: Dynamic Results: Marginal Effects, With Additional Controls. Cluster by (Historical) District

The coefficients represent 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. 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 measures female population divided by male population, measured at the district level for 1860 census. Share of Male Singles measures the number of male singles divided by the total population, 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 (historical) district in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01.

Finally, we report in Table A-7 the results shown in Table 3 in the main text, clustering at the (historical) district level instead. Once again, our results are robust to this alternative treatment of the standard errors.

TABLE A-7: Voluntary Quotas and Historical Family Regions with Municipality Fixed Effects. Cluster by (Historical) District

	Binary	Continuous
Voluntary quota	1.320^{***}	0.191^{***}
	(0.370)	(0.009)
Historical Nuclear Family×Voluntary quota	1.108^{**}	0.019^{***}
	(0.481)	(0.007)
Population, City, & Number of parties	\checkmark	\checkmark
Election (year) fixed effects	\checkmark	\checkmark
Municipality fixed effects	\checkmark	\checkmark
$Adj-R^2$	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 (historical) district level in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01.

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.¹

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 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

¹ 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.

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.² 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.³ 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 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.

 $^{^{2}}$ 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.

 $^{^{3}}$ By 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.



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:

Stem family_{*idpt*} =
$$\alpha + \theta$$
FreedomTestation_{*p*} + $\gamma \mathbf{X}_{idpt} + \epsilon_{idpt}$ (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}) .⁴

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

Share of Women Councilors_{*idpt*} =
$$\alpha + \delta$$
Stem Family_d + $\gamma \mathbf{X}_{idpt} + \epsilon_{idpt}$ (5)

To explore the dynamics uncovered in the OLS analysis, we estimate equations 4 and 5 separately for each election year. Table A-8 presents the results of the IV analysis and Figure A-10 displays the second-stage estimated coefficients. We find a strong correlation

⁴Because 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.

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.

	Panel A: First-Stage Results									
	(1979)	(1983)	(1987)	(1991)	(1995)	(1999)	(2003)	(2007)	(2011)	(2015)
Freedom of Testation	1.40***	1.39***	1.41***	1.36***	1.39***	1.38***	1.40***	1.38***	1.41***	1.39***
	(0.190)	(0.193)	(0.198)	(0.185)	(0.184)	(0.184)	(0.184)	(0.179)	(0.185)	(0.185)
F-statistic	54.28	52.03	50.42	54.45	57.19	56.50	57.96	59.81	58.01	56.64
	Panel B: Second-Stage Results									
	(1979)	(1983)	(1987)	(1991)	(1995)	(1999)	(2003)	(2007)	(2011)	(2015)
Stem Family	0.918***	1.092^{***}	0.813**	0.618	0.302	-0.301	-1.312	-1.212	-0.612	-0.170
	(0.200)	(0.250)	(0.371)	(0.461)	(0.646)	(0.840)	(0.801)	(0.778)	(0.734)	(0.734)
Pop., City, Parties	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Geographic controls	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
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 Dep. Variable	2.92	4.33	6.81	10.81	15.00	20.97	25.58	30.07	33.08	36.15

TABLE A-8: Effect of Historical Family Type on Female Political Representation. IV Results

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.





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.⁵

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.

 $^{^{5}}$ 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-9 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.

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

Table A-9: Women Literacy Rates in the Nineteenth Century by Family Type

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 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 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.⁶ Figure A-11 shows the result of this exercise.





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

⁶Álava, Barcelona, Girona, Guipuzcoa, Huesca, Lleida, Navarra, Tarragona, and Vizcaya fall into the stem-family category, and all remaining provinces into the nuclear-family category 1930 Population Data is drawn from INE https://www.ine.es/jaxi/Datos.htm?path=/t20/e245/p06/l0/&file=1930.px (last accessed: Jan 24, 2025).

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.

K Public opinion data

We report further details about the surveys summarized in Section 5.2.2, 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 5 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?⁷
- 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?

⁷Under Francoism, women's civil and labor rights were curtailed.

- 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 5 presents the coefficients of regressing the historical family type on responses to questions about the existence of inequality between men and women in 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?
- 2005 (CIS 2597): Do you think that the situation of women is worse than the situation of 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): Do you believe that the current situation of women in Spain is better, the same, or worse than that of men in terms of access to positions of political responsibility?
- 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 5 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."

L 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 cutoff, 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.

M Voluntary Quotas

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

M.1 Timeline of Voluntary Adoption

Figure A-12, which reproduces Figure 1 in Verge (2012), shows the timeline of adoption and expansion of voluntary electoral quotas in Spain.



FROM PARTY QUOTAS TO ELECTORAL QUOTAS

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

M.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-10 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.

Figure A-12: Timing of Voluntary Electoral Quotas in Spain (Verge 2012)

TABLE A-10: 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)
$Nuclear \times 2007$	2.07^{***}	(0.479)
Nuclear×2011	1.88^{***}	(0.508)
$Nuclear \times 2015$	1.59^{***}	(0.504)
Population, City, & No. parties	\checkmark	
Election (year) fixed effects	\checkmark	
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 \sim 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.

M.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:

Share of Women
$$Councilor_{itj} = \alpha + \beta_1 \text{Before Voluntary Quotas}_{it} + \beta_2 Nuclear Family_d + \beta_3 \text{After Voluntary Quotas}_{it} \times Nuclear Family_d + \mathbf{X}\Gamma_{it} + \eta_t Election_t + \rho_r Region + \epsilon_{it}$$

(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-13 shows the marginal effect of historical family type before and after voluntary quota

Figure A-13: Effect of PSOE Adoption of Voluntary Quotas 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) and a full set of controls. 95% CI.

Figure A-13 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.

M.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 exogeneously 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).⁸

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

 $^{^{8}}$ 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).

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 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.

Appendix References

- Bagues, Manuel and Pamela Campa (2021). Can gender quotas in candidate lists empower women? Evidence from a regression discontinuity design. Journal of Public Economics 194, 104315.
- Bartolomé, Juan Manuel, Máximo García Fernández, et al. (2011). Patrimonios urbanos, patrimonios burgueses. herencias tangibles y transmisiones inmateriales en la Castilla interior.
- Beltrán Tapia, Francisco and Domingo Gallego-Martínez (2020). What explains the missing girls in nineteenth-century Spain? Economic History Review, 59–77.
- Carrasco, Gómez and Cosme Jesús (2009). Herencia y transmisión del patrimonio a finales del Antiguo Régimen: Diferentes estrategias en la comunidad mercantil y en la élite local. Investigaciones históricas: Época moderna y contemporánea, 97–128.
- Das Gupta, Monica, Jiang Zhenghua, Li Bohua, Xie Zhenming, Woojin Chung, and Bae Hwa-Ok (2003). Why is son preference so persistent in East and South Asia? A cross-country study of China, India and the Republic of Korea. Journal of Development Studies 40(2), 153–187.
- De Moor, Tine and Jan Luiten Van Zanden (2010). Girl power: the European marriage pattern and labour markets in the north sea region in the late medieval and early modern period. The Economic History Review 63(1), 1–33.
- Ferrer-Alòs, Llorenç (2011). Acceso y distribución de los medios de producción: Herencia y reproducción social. In Familias: historia de la sociedad Española (del final de la Edad Media a nuestros días), pp. 255–324. Cátedra.
- Goldschmidt, Walter and Evalyn Jacobson Kunkel (1971). The structure of the peasant family. American Anthropologist 73(5), 1058–1076.
- González, Francisco García (2000). Las estrategias de la diferencia. Familia y reproducción social en la Sierra. Madrid: Ministerio de Agricultura, Pesca, y Alimentación.
- Hager, Anselm and Hanno Hilbig (2019). Do inheritance customs affect political and social inequality? American Journal of Political Science 63(4), 758–773.
- Jenson, Jane and Celia Valiente (2003). Comparing two movements for gender parity: France and Spain. In L. A. Banaszak, K. Beckwith, and D. Rucht (Eds.), <u>Women's Movements Facing the</u> Reconfigured State., pp. 63–93. New York: Cambridge University Press.
- Matland, Richard E. and Donley T. Studlar (1996). The contagion of women candidates in singlemember district and proportional representation electoral systems: Canada and norway. <u>Journal</u> of Politics 58(3), 707–733.
- Moret, Segismundo (1863). La familia foral y la familia castellana: memoria premiada por la Academia Matritense de Jurisprudencia y Legislación en el concurso abierto en 20 de junio de 1862. Imprenta y Librería de la Señora Viuda e Hijos de José Cuesta.
- Oto-Peralías, Daniel and Diego Romero-Ávila (2016). The economic consequences of the Spanish Reconquest: The long-term effects of Medieval conquest and colonization. Journal of Economic Growth 21(4), 409–464.
- Ruiz Jiménez, Antonia María (2006). De la Necesidad, Virtud: La Transformación "feminista" del

Partido Popular en perspectiva comparada, 1977-2004. Madrid: Centro de Estudios Políticos y Constitucionales.

- Scanlon, Geraldine M. (1976). <u>La Polémica Feminista en la España contemporaánea : 1868-1974</u>. Madrid: Siglo XXI de España Editores.
- Scanlon, Geraldine M. (1990). El movimiento feminista en España, 1900-1985: Logros y dificultades. In J. Astelarra (Ed.), <u>Participación Política de las Mujeres</u>, pp. 83–106. Madrid: Centro de Investigaciones Sociológicas and Siglo Veintiuno de España.
- Sen, Amartya (1990). More than 100 million women are missing. <u>New York Review Books</u> <u>37</u>(20), 61–66.
- Tapia, Francisco J Beltrán and Julio Martinez-Galarraga (2018). Inequality and education in preindustrial economies: Evidence from Spain. Explorations in Economic History 69, 81–101.
- Threlfall, Monica (1970). El socialismo y el electorado femenino. <u>Sistema: Revista de Ciencias</u> Sociales (32), 19–33.
- Threlfall, Monica (2007). Explaining gender parity representation in Spain: The internal dynamics of parties. West European Politics 30(5), 1068–1095.
- Tur-Prats, Ana (2019). Family types and intimate partner violence: A historical perspective. Review of Economics and Statistics 101(5), 878–891.
- Valiente, Celia (2003). The feminist movement and the reconfigured state in Spain (1970s-2000). In L. A. Banaszak, K. Beckwith, and D. Rucht (Eds.), <u>Women's Movements Facing the Reconfigured</u> State, Number 30-47, Chapter 2. New York: Cambridge University Press.
- Verge, Tània (2012). Institutionalising gender equality in Spain: From party quotas to electoral gender quotas. West European Politics 35(2), 395–414.
- Wängnerud, Lena (2009). Women in parliaments: Descriptive and substantive representation. Annual Review of Political Science 12, 51–69.