



Women's voice at work and family-friendly firms

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Abstract

This paper exploits a unique and novel census of administrative records covering all firm-level collective agreements signed in Spain between 2010 and 2018 to examine whether the gender composition of worker representation aligns with the type of workplace policies negotiated with management. We compare firms that are subject to the same labour regulations but differ in terms of the presence of female representatives on employee bargaining committees. Firms with female worker representatives are more likely to include family-friendly policies in the agreement; by contrast, we find only mild positive effects for practices promoting gender equality and no differences for broader employment conditions such as wages or hours. These associations remain robust across alternative empirical specifications and matching exercises. Together, the findings suggest that the presence of women at the bargaining table can shape the content of workplace policies, particularly in ways that address work–family balance.

Keywords Women representation · Bargaining · Family-friendly firms

JEL Classification J16 · J32 · J53

1 Introduction

In recent decades, there has been considerable convergence between men and women in the labour market; however, gender gaps persist partly because household and family responsibilities tend to fall primarily on the shoulders of women, which affects

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their labour market choices and outcomes (Goldin 2021; Albanesi et al. 2023; Jessen et al. 2024; Olivetti et al. 2024).¹ Recent literature has highlighted the role of firms in shaping gender gaps (Card et al. 2016; Sorkin 2017; Casarico and Lattanzio 2019; Palladino et al. 2024); therefore, transforming firms into organizations that balance work and family life could help reduce gender inequality in the labour market (Hotz et al. 2018; Azmat and Boring 2020; Corradini et al. 2024; Costas Fernandez et al. 2024; Sharma et al. 2025).²

Creating more family-friendly workplaces calls for those who design company policies to take into account work–family trade-offs. However, workplace policies are negotiated by management and a few employee representatives, among whom women are often underrepresented. As a result, the need for workplace practices that support the balance between work and family life may not be a priority during negotiations. In this paper, we shed light on the association between the presence of female employee representatives at the bargaining table and the type of workplace policies, such as family-related job amenities, in firm-level agreements.

Our analysis leverages a unique and novel dataset that includes all firm-level collective agreements signed by Spanish companies between 2010 and 2018. This dataset, to the best of our knowledge, allows us to explore for the first time the gender composition of worker representatives at the bargaining table, along with the policies they negotiated with management. Besides the unique dataset, the Spanish context provides an interesting framework for our analysis for at least two reasons: on the one hand, the collective bargaining system allows us to examine how inclusive workplace representation can improve existing higher-level labour regulations enacted by the government to address gender inequality (Mora-Sanguinetti et al. 2023); on the other hand, existing evidence suggests that in sectors where work schedules can be easily adjusted to accommodate family responsibilities, the costs of childbearing disappear within three years, highlighting the potential of family-friendly policies to narrow the gender gap (de Quinto et al. 2021).

Drawing on the census of agreements, the empirical strategy consists of estimating linear probability models in which we relate the likelihood of a given policy being negotiated in a firm-level agreement to the presence of women among workers' representatives. For identification, we exploit variation across firms covered by the same sector–province collective bargaining agreement, i.e. firms operating in the same narrowly defined legal environment in terms of labour regulations. In this context, we explore whether women's representation at the bargaining table relates to the types of policies negotiated with management, above and beyond those covered by higher-level agreements or government regulations.

¹ According to the Spanish National Institute of Statistics (INE), 95% and 93% of women, respectively, spend several days a week on child-rearing activities and household chores. By comparison, the respective figures are 76% and 60% for their male counterparts. Moreover, survey evidence from 142 countries indicates that about 25% of women *and* men view “the balance between work and family” as the main challenge faced by women in salaried employment (Gallup and ILO 2017).

² Gender gaps in the labour market are not only caused by family responsibilities, as they also persist among men and women without such responsibilities because of factors such as occupational segregation, differences in how tasks are valued, and cultural biases. This analysis, therefore, looks at only one specific angle of gender gaps in the labour market.

The results indicate that women's representation at the bargaining table is positively correlated with the negotiation of workplace practices that improve work–family balance. We also find some association with the inclusion of policies promoting gender equality, although these estimates are imprecise, likely reflecting the fact that such provisions are often covered by higher-level labour regulations. By contrast, we detect no correlation between the gender composition of worker representatives and the negotiation of broader employment conditions such as wages or working hours. Alternative empirical strategies aim at mitigating the plausible role of selection in unobservables yield similar results. Our heterogeneity analysis shows that these patterns hold regardless of whether women constitute the majority of representatives or whether firms are small or large. However, the operating environment seems to constrain women's voices, as the effects are muted in industries where flexible work schedules are less common.

Our paper contributes to several strands of the literature. An emerging literature is bringing interest in worker representation in corporate decision-making to academic and policy debates (Gorton and Schmid 2004; Blandhol et al. 2020; Harju et al. 2021; Jäger et al. 2021, 2022a, b). Most studies find little or no effect of codetermination on broad worker or firm outcomes such as wages, job security, or productivity. We complement this literature by showing that the gender composition of worker representatives may matter for the content of negotiated workplace policies, particularly for non-wage dimensions that are typically overlooked in the literature but are relevant to employee well-being. In this regard, our work also connects with recent quasi-experimental evidence from higher-level worker representation by unions, which reveals that when unions make women central to their bargaining agenda, negotiated agreements are more likely to include female-friendly clauses (Corradini et al. 2024).

We also add to the literature investigating how female representation can affect policy outcomes in different settings, such as governments (e.g. Hessami and da Fonseca 2020; Lippmann 2022; Danzer et al. 2023) or corporations (e.g. Adams and Ferreira 2009; Smith 2018; Azmat and Boring 2020). Our analysis is directly linked to studies analysing how the presence of women among top managers affects worker and firm outcomes (Cardoso and Winter-Ebmer 2010; Smith 2018; Kunze and Miller 2017; Bertrand et al. 2019; Flabbi et al. 2019; Maida and Weber 2022). We contribute to this line of work by shifting the focus of analysis away from managers and on to employee representatives to shed light on how women's representation can help transform companies into workplaces that are more friendly towards reconciling work and family life and, hence, contribute to addressing some of the sources of the motherhood penalty (Hotz et al. 2018).

Finally, our paper also relates to the literature on the relevance of wage versus non-wage compensation. This body of work, which started with the seminal work of Freeman and Medoff (1985), has grown substantially in recent years as non-wage compensation and job amenities have become increasingly prevalent in the labour market and more valuable to workers (Maestas et al. 2023; Sockin 2022; Dube et al. 2022; Mas 2025), and they have become a pivotal component of collective agreements (Budd 2004; Bennett and Kaufman 2007; Knepper 2020; Lagos 2024; Arold et al. 2024). Our work adds to this literature by documenting that firm-level agreements

include several policies that are not directly linked to wages, and the type of amenities included correlates with the gender composition of worker representatives.

The rest of the paper is organized as follows: Section 2 describes the Spanish bargaining system and introduces the data; Sect. 3 presents the econometric model and discusses the results; and Sect. 4 concludes.

2 Data and institutional setting

Collective bargaining system. In Spain, there are two types of collective bargaining agreements (CBAs): province–sector and firm level.³ Regardless of the level, CBAs regulate a wide range of matters, including the scope of the agreement, remuneration packages, work organization, equality plans, family support policies, training, retirement, etc. Firm-level agreements, when negotiated, enhance (or add to) province–sector agreements and take precedence over them. Importantly, if the firm-level agreement does not cover a clause, higher-level agreements govern, and if a higher-level CBA has not been negotiated, the “workers’ statute” governs labour relations.

For negotiating firm-level agreements, there exist two workers’ representative bodies linked to firm size: *personnel delegates* for firms with fewer than 50 employees who are elected in open lists and whose decisions are taken jointly, and *work councils* for firms with 50 workers or more, in which workers elect labour unions in closed lists, and whose decisions are taken by majority rule.⁴ These bodies are in charge of carrying out negotiations with the management and reaching decisions about workplace policies that result in the CBA regulating firm labour relations until the agreement expires.⁵

Census of firm-level agreements. Our analysis is based on REGCON (*Registro de convenios y acuerdos colectivos*), a unique dataset that includes all agreements signed by Spanish companies between 2010 and 2018. This register contains 6066 business groups referring to 7478 workplaces signing 11,469 agreements. The dataset provides information on the timing of negotiations, whether the company had a firm-level agreement before the onset of negotiations, the gender composition of employee representatives at the bargaining table, and whether all representatives signed the agreement, as well as some firm-level characteristics, including private/public ownership, the number of employees by gender, the sector of activity (4-digit), and the location of the workplace.

Importantly, our dataset records the outcomes of firm-level bargaining between workers’ representatives and management, covering both compensation packages and other workplace policies. In particular, it collects every unique and distinct clause that appeared in at least one agreement signed between 2010 and 2018. These clauses are

³ Appendix A provides a comprehensive description of the collective bargaining system and other features of labour regulations in Spain.

⁴ This implies that, in companies with fewer than 50 employees, signed agreements are only observed in the data when all representatives reach a consensus.

⁵ If the validity of a firm-level agreement expires, there are three possible solutions: automatic extensions until a party wants to negotiate, or one year when a party wants to negotiate, or it is extended according to what was agreed in the CBA.

labelled with explicit reference to the specific dimension of working conditions that they regulate.⁶ Thus, our classification is based on their registered names.

Table 1 presents the specific clauses alongside the share of agreements in which each clause appears. The first category, *family-friendly* policies, comprises clauses that explicitly mention “family” or address parenthood issues. The second category, *gender-equality* policies, includes clauses containing the words “gender” or “sex”. Finally, the *other policies* category encompasses all remaining clauses, which regulate general working conditions without direct reference to family or gender.

Analysis sample. From the original dataset, we discard workplaces with fewer than five employees as well as those lacking workers’ representatives or information on the sector of activity and location, and details of the agreement. We also drop observations that exhibit inconsistencies, e.g. workplaces with more women (men) representatives than women (men) in the firm. The resulting sample includes 5949 business groups, corresponding to 7344 workplaces that signed a total of 11,173 agreements between 2010 and 2018. Importantly, we note that only 35% of workplaces signed more than one agreement during our sample period, and the average (median) number of agreements signed by the same workplace is 1.5 (1), implying that our dataset is mostly cross-sectional.

Table 2 presents summary statistics of our analysis sample of firm-level agreements.⁷ The numbers indicate that about half of the firm-level agreements had at least one woman among their employee representatives. These firms are substantially larger than those lacking women representatives, as well as being more gender balanced. They are also slightly more likely to be public, located in the capital region, Madrid, and operate in the service sector.

There is substantial heterogeneity across bargaining tables on the number of female representatives (see Fig. C.1 in Appendix C). For example, approximately 47% of agreements were signed without any female representative, and in firms that do include at least one woman, women make up half of the bargaining-table participants. Moreover, about 10% of agreements feature bargaining tables composed exclusively of women. This set of agreements corresponds to companies in which women represent more than 50% of the workforce, accounting for almost 30% of the firms that signed the agreements in our sample (see Fig. C.2). However, although the share of women among representatives increases with the proportion of women among employees, correlation analysis in Fig. C.4 shows that this relationship is not one-to-one and weakens once firm-level observables are taken into account.

Finally, almost all agreements covered at least one gender-neutral clause, while only half of them included practices related to gender equality, and just over two-thirds negotiated family-friendly policies. When comparing agreements with and without women among workers’ representatives, there appears to be no meaningful difference concerning general working conditions. However, agreements with women at the bargaining table seem to be more likely to have negotiated family-friendly policies (0.831 vs 0.705 of the agreements included at least one such clause) and gender-equality clauses (0.594

⁶ See Appendix B for an example of how clauses are labelled along descriptions of each item.

⁷ In Tables C.1 and C.2, we provide descriptive statistics on women’s representation at the bargaining table and policies negotiated in firm-level agreements as well as in sector–province CBAs.

Table 1 Policies included in signed firm-level agreements, 2010–2018

Negotiated workplace policy		Share of agreements
Family-friendly		
Balance	Measures to facilitate family time are established	0.436
Care	Family care leave measures are considered	0.200
Breastfeeding	Possibility of accumulating the right to breastfeeding is considered	0.471
Paid permits	Paid permits for family circumstances are considered	0.575
Gender equality		
Equality	A gender-equality plan is established	0.297
Opportunities	Measures targeted at promoting equal opportunities for men and women are regulated	0.305
Discrimination	Preferential measures in favour of the less represented sex are regulated	0.110
Anti-harassment	Measures for preventing sexual harassment measures are established	0.389
Other policies		
Wages	Wage changes are agreed	0.804
Working hours	Annual hours worked per worker are agreed	0.724
Part-time	Part-time contract clauses are agreed	0.091
Overtime	Clauses relative to overtime are agreed	0.162
Holidays	Annual holidays are agreed	0.945
Training	Training clauses are agreed	0.390
Retirement	Retirement clauses are established	0.469
Illness	Complementary payments over social benefits are established	0.798

Table 2 Analysis of sample statistics

	All agreements	No women's representation	Women's representation
Firm characteristics			
No. of employees	247.4	133.3	347.9
Share of women	0.350	0.201	0.481
Private firm	0.882	0.921	0.848
Madrid	0.155	0.134	0.174
Service sector	0.556	0.430	0.667
Bargaining-table characteristics			
No. of representatives	5.1	3.7	6.3
Share of women	0.273	0	0.514
Consensus among representatives	0.919	0.940	0.901
Negotiated policies			
Family-friendly	0.772	0.705	0.831
Gender equality	0.533	0.464	0.594
Other policies	0.994	0.993	0.995
No. of agreements	11,173	5,232	5,941
No. of firms	5,949	2,875	3,613

Madrid refers to the whole province, not only the city. The service sector encompasses the whole tertiary sector, including firms performing activities ranging from commerce to administration, transportation, financial and real estate activities, business and personal services, education, healthcare, and social work. The consensus among representatives relates to the firm-level agreements in which all representatives sign the contract. Negotiated policies refer to the proportion of firm-level agreements that included at least one of the four items concerning each of the broadest policies, i.e. family-friendly, gender equality, and gender-neutral

vs 0.464). Thus, the summary statistics suggest that in agreements where women were present at the bargaining table, family-related job amenities and practices aimed at promoting gender equality were negotiated more frequently. In the next section, we examine this issue more closely in a regression framework.

3 Women's participation and workplace policies

Econometric model. To investigate whether the participation of women at the bargaining table can promote family-friendly policies in the workplace, we estimate linear probability models of the following form:

$$y_{it} = \beta WRep_{it} + X_{it}\Omega + \delta_{spt} + \epsilon_{it} \quad (1)$$

where y_{it} is an indicator variable for whether a specific workplace policy is factored into the negotiations of firm-level agreement i signed at time t . Our main variable of interest is $WRep_{it}$, an indicator variable taking the value of one if there is at least one woman among the workers' representatives at the bargaining table. X_{it} refers to the characteristics of the firm at the time the agreement i was signed, including five indicators of firm size (25 or fewer employees, 26–49 employees, 50–99 employees, 100–249 employees, and 250 or more employees), three indicators of gender composition (no women, less than half women, and majority women), an indicator of public versus private ownership, and an indicator of whether a prior agreement existed. Controlling for firm size and gender composition is key in our setting. Firm size influences the identity of the negotiating agents, i.e. whether they are worker representatives or unions, and affects the extent to which the obligation to implement equality plans is binding. Additionally, firms with a predominantly female workforce may already have family-friendly policies in place, which reduces the need for further negotiation over such provisions. δ_{spt} represents four-digit sector \times province \times year-of-signature fixed effects capturing common (unobserved) shocks *within* higher-level CBAs.⁸ Thus, the association between the presence of women at the bargaining table and the likelihood of negotiating a given workplace policy, β , is estimated by exploiting variation across companies covered by the *same* sector–province agreement.

In this framework, a positive β indicates that women's presence at the bargaining table increases the likelihood that a specific workplace policy is negotiated among firms covered by the same sector–province CBA. Because all firms are subject to clauses negotiated in higher-level agreements, our point estimate reflects the probability that a given policy is negotiated in addition to the provisions already included in sector–province CBAs. For inference, we account for potential correlation in shocks across firms operating within the same province *and* sector by clustering standard errors.

Women's voice at work. Table 3 Panel A reports the estimates from Eq. (1), where we assess whether the presence of at least one woman at the bargaining table is correlated with the likelihood of negotiating family-friendly policies, gender-equality practices, or general working conditions. The OLS estimates indicate that women's

⁸ In Appendix C.2, Table C.4, we estimate the model under an alternative grouping for the fixed effects.

Table 3 Women’s voice and workplace policies

	(1) Family-friendly	(2) Gender equality	(3) Other policies
A. OLS			
$\overline{\text{WRep}}$	0.0479 (0.0154)	0.0409 (0.0185)	0.0032 (0.0023)
B. IPW			
$\overline{\text{WRep}}$	0.0447 (0.0151)	0.0436 (0.0215)	0.0025 (0.0019)
C. Firm FE			
$\overline{\text{WRep}}$	0.0372 (0.0204)	0.0336 (0.0268)	0.0008 (0.0007)
D. Oster			
$\overline{\text{WRep}}$	0.0420 (0.0141)	0.0365 (0.0190)	0.0007 (0.0013)
Sample mean	0.772	0.533	0.994
Observations	11,173	11,173	11,173

All columns refer to linear probability models following Eq. (1) using alternative workplace policies as the dependent variable and estimation methods. WRep is an indicator variable identifying firm-level agreements negotiated with at least one woman among workers’ representatives at the bargaining table. All specifications include indicators for different firm size categories (5), categories of women’s share of the workforce (3), firm ownership (private vs public), and whether the firm is negotiating an agreement for the first time or not, as well as year×sector×province fixed effects. Standard errors clustered at the province×sector level are in parentheses. The inference in Panel D is based on the wild bootstrap method with 100 repetitions, following Cameron et al. (2008)

representation is positively associated with the likelihood of negotiating both family-friendly policies and workplace practices that promote gender equality. In particular, we document a 0.049 pp increase in the probability of family-friendly policies (or 6.3% relative to the sample mean) and a 0.041 pp increase (7.7%) in the probability of practices to promote gender equality. Unsurprisingly, we find no association with other policies. Since virtually all firms include at least one general workplace policy in their agreements regardless of the composition of the bargaining table, the lack of correlation between female representation and the negotiation of these policies serves as a test to assess whether the empirical strategy produces spurious correlations.

Our econometric approach compares firms that are subject to the same narrowly defined labour regulations, which helps account for both observed and unobserved confounding factors; however, our results may still be affected by selection bias. For instance, if some firms are inherently more family-friendly and these firms are also more likely to have female representatives, unobserved factors could lead to an upward-bias in our estimates. Thus, we conduct three exercises to explore the potential role of selection before proceeding to further characterize how female worker representatives might influence workplace policies.

In Panel B of Table 3, we leverage information on the membership of *elected* workers’ representatives to a specific union as well as other firm-level characteristics in

our benchmark model to estimate the probability that there is at least one woman at the bargaining table.⁹ We then use the predicted probability as inverse probability weights to re-estimate our benchmark model (Hirano et al. 2003).¹⁰ The estimates show similar correlations to the standard OLS model: a positive correlation between the presence of women workers' representatives at the bargaining table and the likelihood of negotiating family-friendly policies. The positive correlation with practices to promote gender equality also remains, but the estimate becomes more imprecise.

In Panel C, we focus on the subset of firms for which multiple signed agreements are observed. This allows us to apply a fixed-effects approach, where β is identified solely from firms that switch between having and not having women's representation at the bargaining table. Although changes in the gender composition of the bargaining table may not be random, we adopt this strategy to hold constant firm-specific unobserved heterogeneity and thus compare the workplace policies implemented by the same firm when it has at least one woman among its employee representatives and when it does not. With this set-up, our results would be more informative about whether the presence of a woman affects the likelihood of a particular workplace policy being negotiated, rather than about the type of firm. The results of this strategy are consistent with simple OLS estimates. In particular, the point estimates for the correlation between female representatives and family-friendly or gender-equality policies in the workplace are still positive and sizable, representing roughly 80% of the OLS estimates, but the latter is no longer statistically significant.

As discussed in Sect. 2, the median number of agreements signed by a given firm in our sample is one, and only 35% of firms have signed more than one agreement. To address omitted variable bias arising from unobserved heterogeneity across all firms, not just those with multiple agreements, we implement the approach proposed by Oster (2019). Specifically, we estimate the degree of selection of unobservables (δ) that reconciles the difference in coefficients and R^2 values between Panel A and Panel C models. Using the estimated degree of selection, we adjust the OLS coefficient in Panel A to account for the potential omitted variable bias arising from unobservables under the assumption that the selection process identified from within-firm variation in the restricted sample holds in the full sample. Panel D presents bias-adjusted estimates at roughly 90% of the OLS benchmark and about 15% higher than the firm fixed-effects benchmark. Importantly, as in both the inverse probability weighting and firm fixed-effects specifications, the precision of the gender-equality policy coefficient declines, suggesting that women's representation at the bargaining table is primarily associated with family-friendly workplace policies rather than gender-equality practices or general working conditions.

In Appendix C.2, we use coarsened exact matching (Blackwell et al. 2009) to restrict the sample to firms that share key characteristics, such as the number of female employees, sex ratios, size, industry, location, and start of negotiations. Each of the exercises

⁹ Although the election of representatives based on union affiliation is not random, the idea is to use employees' revealed preferences for particular unions and their policies as a proxy for unobserved components to predict the presence of a female representative.

¹⁰ We calculate the predicted probability that a firm has at least one woman among the workers' representatives at the bargaining table, $\hat{p}(WRep_i)$, and construct the weights for the other companies as $w_i = \frac{1}{(1-\hat{p}(WRep_i))}$.

points to very similar results with respect to the influence of women's representatives on the likelihood that a firm includes family-friendly policies in the signed agreement. Importantly, in Panel E, we performed coarsened matching on all selected observed characteristics and restricted the sample to firms with a majority-female workforce, which reduced the sample to 10% of our original estimation sample. This exercise reveals that the estimates of the correlation between women's representation and the inclusion of family-friendly policies in the agreement are meaningful and, if anything, stronger, implying that firms with at least one woman at the bargaining table are more likely to adopt family-friendly provisions, regardless of whether women hold a majority. Notably, any correlation with gender-equality policies vanishes, and the point estimate even turns negative.

Specific policy issues. In our benchmark analysis, we group all workplace policy clauses in firm-level agreements into three categories, ensuring sufficient within-firm variation for firm fixed-effects models or adequate sample sizes for coarsened matching to validate our estimates. However, this aggregation overlooks information on individual clauses. We therefore examine results at the clause level to better characterize how female worker representatives influence different policy elements. Disaggregation reduces within-firm variation in the dependent variable, potentially affecting bias-adjusted estimates, and thus, while the Oster method addresses bias from unobservables, estimates may be sensitive to the identification of the selection parameter from the firm fixed-effects model. Since our benchmark results indicate that OLS and Oster estimates are similar when broad workplace policies are used, we report both to ensure that none of the findings are driven by poor identification of selection.

Table 4, Panel A presents estimates for family-friendly items. The clause-level analysis suggests that women's voice is positively associated with most of the specific workplace practices included in firm-level agreements aimed directly at regulating work–life balance. Specifically, the results reveal that women's voice is particularly strong when negotiating breastfeeding needs, which has been identified as a critical issue for working women (Albanesi and Olivetti 2016). The estimates also suggest that agreements negotiated with at least one woman present are more likely to include flexible work schedules (Balance) or time off (Care) to accommodate family needs. In contrast, the inclusion of company-sponsored paid family leave in the agreement does not appear to be affected, likely due to the additional labour costs it imposes on employers.

Panel B shows the estimates for each gender-equality clause. Examining them individually reveals that the presence of women at the bargaining table does not affect the likelihood of negotiating these provisions. This lack of correlation supports the findings in Panels B and C of Table 3, which address selection concerns and suggest a noisy estimated effect. However, in the clause-level analysis, this pattern holds for the OLS estimates as well, unlike the aggregate category in Panel A of Table 3, where the OLS estimates resemble those for family-friendly policies. In recent years, national and regional regulations aimed at reducing gender disparities have increased, prompting many firms to adopt equality plans (Mora-Sanguinetti et al. 2023). Because our identification exploits variation within CBAs, defined as four-digit sector \times province \times year cells, the combination of a lower incidence of these individual

Table 4 Women’s voice and specific policy issues

A. Family-friendly		Care		Breastfeeding		Paid permits	
	Balance	OLS	Oster	OLS	Oster	OLS	Oster
WRep	0.0490 (0.0185)	0.0651 (0.0156)	0.0482 (0.0171)	0.0989 (0.0208)	0.1214 (0.0259)	0.0349 (0.0190)	0.0247 (0.0194)
B. Gender equality		Opportunities		Discrimination		Anti-harassment	
WRep	0.0099 (0.0195)	0.0082 (0.0177)	0.0165 (0.0171)	0.0008 (0.0151)	0.0296 (0.0314)	0.0127 (0.0171)	0.0027 (0.0178)
C. Other policies		Working hours		Part-time		Overtime	
WRep	-0.0200 (0.0127)	0.0389 (0.0152)	0.0530 (0.0248)	-0.0028 (0.0100)	-0.0057 (0.0091)	0.0023 (0.0149)	-0.0020 (0.0151)
WRep	0.0086 (0.0083)	-0.0162 (0.0161)	-0.0427 (0.0133)	-0.0199 (0.0181)	-0.0111 (0.0543)	-0.0094 (0.0127)	-0.0042 (0.0314)
Observations	11,173	11,173	11,173	11,173	11,173	11,173	11,173

Notes: All columns refer to linear probability models following Eq. (1) using specific policy issues as the dependent variable estimated by OLS or using the bias-adjusted estimates from Oster (2019). WRep is an indicator variable identifying firm-level agreements negotiated with at least one woman among workers’ representatives at the bargaining table. All specifications include indicators for different firm size categories (5), categories of women’s share of the workforce (3), firm ownership (private vs public), and whether the firm is negotiating an agreement for the first time or not, as well as year × sector × province fixed effects. Standard errors clustered at the province × sector level in parentheses. Inference in Oster is based on the wild bootstrap method with 100 repetitions, following Cameron et al. (2008)

clauses across agreements and the likelihood that some provisions are mandated at the CBA level (and thus need not be restated in firm-level agreements) likely attenuates the estimated association at the clause level relative to the aggregate category.¹¹

The estimates in Panel C are consistent with those from the aggregate category of other policies, which suggests that women's voice generally does not matter when negotiating general working conditions. However, the item-level analysis reveals that, in firm-level agreements where at least one woman is among the worker representatives, the likelihood that the agreement regulates annual working hours increases. This positive association might indicate that annual working hours arrangements are closely linked to work–life balance, and female representatives may therefore be more inclined to push for this clause, in line with our findings on family-friendly policies.¹² Interestingly, the Oster estimates indicate an inverse correlation between the presence of female representatives and the adoption of training policies. As discussed above, although this finding should be interpreted with caution, it hints at potential trade-offs among the specific policies negotiated in firm-level agreements.

Taken together, although our estimates are not causal, the alternative approaches yield consistent evidence of the plausible role of women's voice at work. In particular, they suggest that female representatives likely influence to some extent the content of firm-level agreements that favour workplace policies promoting work–family balance. These results align with existing literature indicating that the presence of women in decision-making roles can shift policy outcomes to reflect their preferences (Chattopadhyay and Duflo 2004; Hessami and da Fonseca 2020; Lippmann 2022; Danzer et al. 2023). As traditional gender roles often place family responsibilities primarily on women's shoulders (Goldin 2021; Albanesi et al. 2023; Jessen et al. 2024; Olivetti et al. 2024), the presence of women at the bargaining table may bring greater attention to the need to reconcile work and family life, increasing the likelihood that such considerations are included in workplace policies. In this respect, our findings depart from the median voter theorem, which holds that candidate characteristics, such as orientation and background, are irrelevant for policy outcomes (Downs 1957). Instead, our evidence is more consistent with the citizen-candidate framework, which emphasizes that candidates run to implement their own preferred policies and reflect their identities, including race, religion, or gender (Osborne and Slivinski 1996).

Heterogeneous effects. Our analysis indicates that women's representation at the bargaining table is positively correlated with the negotiation of family-friendly policies; however, these effects may vary across key dimensions such as the sex ratio of the bargaining table, firm size, and the broader operating environment. To examine this potential heterogeneity, Table 5 presents OLS and Oster clause-level estimates from

¹¹ This argument is consistent with the fact that the discrepancy between aggregate and clause-level regressions when looking at gender-equality policies does not emerge when using separate fixed effects for sector, province, and year.

¹² As shown in Table 1, most agreements regulate annual working hours rather than specific overtime or part-time clauses. This likely explains why the impact on the latter items is almost zero compared to the impact on annual working hours.

separate models, each interacting the dummy for at least one female representative with an indicator for one of the dimensions of interest.¹³

In our analysis, women's voice refers to the presence of at least one woman at the bargaining table. To test whether the degree of representation matters, Panel A interacts this baseline indicator with a dummy for cases where women are the majority gender. The interaction coefficients are generally negative and imprecise, with large standard errors, particularly in OLS estimates, where identification is unaffected by the absence of within-firm changes in the sex ratio of representatives. The lack of meaningful correlations suggests that just the presence of women may be enough to influence the policies included in the agreement, which would be consistent with theoretical arguments and empirical evidence that group-specific representation can shape policy outcomes even when the group is not in the majority (Pande 2003).

Existing evidence suggests that parental leave policies might have different effects on firms depending on their ability to replace workers. For example, small firms may face higher adjustment costs due to greater organizational rigidity and limited internal substitutes (Ginja et al. 2023). In Panel B, we illustrate whether the likelihood of female representatives negotiating family-friendly policies differs for small firms. As in Panel A, the point estimates for the interaction term are negative and imprecise in most cases, with the exception of the OLS estimate in breastfeeding policies, which indicates that these policies are less likely to be implemented. Thus, despite potentially higher adjustment costs, the evidence does not suggest that small firms are in general less likely to adopt workplace practices that support work–family balance. One possible explanation is that because these policies are the outcome of bargaining between employee representatives and management, potential costs are already internalized in the negotiation process, allowing firms to plausibly plan for and coordinate adjustments when leave occurs. This interpretation is consistent with evidence that parental leave does not necessarily disproportionately affect small firms (Brenøe et al. 2023), especially when they have contingency plans for such absences (Huebener et al. 2024).

Flexible work schedules (or the lack thereof) and how long and unexpected hours are rewarded in different workplaces are an important source of the gender pay gap, as women tend to place greater value on flexibility (Mas and Pallais 2017; Cortes and Pan 2018; Azmat et al. 2022). To explore how our results relate to flexibility in terms of hours, we classify industries using the 2010 Spanish Structure of Earnings Survey, a stratified survey of firms and their workers. For each firm with at least five employees in the survey, we compute the standard deviation of employees' normal weekly hours. Following Labanca and Pozzoli (2022) and Cubas et al. (2023), we view firms with zero dispersion in hours as having constraints on hours or coordinated schedules. We then define non-flexible sectors as those above the median in the share of such firms.¹⁴ The results in Panel C indicate that the positive correlation between the presence of women at the bargaining table and the negotiation of family-time and breastfeeding policies is stronger in sectors with greater variation in work schedules.

¹³ We report the results of this exercise for gender-equality clause and general working condition items in Appendix C.2.

¹⁴ Table C.3 in Appendix C lists the sectors classified as flexible and non-flexible.

Table 5 Women’s voice at work and family-friendly policies: heterogeneity

	Balance		Care		Breastfeeding		Paid permits	
	OLS	Oster	OLS	Oster	OLS	Oster	OLS	Oster
A. Female representatives								
WRep	0.0503 (0.0208)	0.0473 (0.0170)	0.0750 (0.0174)	0.0568 (0.0159)	0.1046 (0.0221)	0.1187 (0.0251)	0.0460 (0.0212)	0.0339 (0.0173)
WRep×Majority	-0.0041 (0.0242)	-0.0154 (0.0197)	-0.0303 (0.0207)	-0.0288 (0.0196)	-0.0173 (0.0222)	0.0104 (0.200)	-0.0340 (0.0249)	-0.0289 (0.0349)
B. Firm size								
WRep	0.0530 (0.0212)	0.0467 (0.0173)	0.0673 (0.0170)	0.0553 (0.0163)	0.1155 (0.0245)	0.1420 (0.0313)	0.0344 (0.0209)	0.0254 (0.0187)
WRep×Small firm	-0.0182 (0.0312)	-0.0176 (0.0292)	-0.0094 (0.0266)	-0.0281 (0.1321)	-0.0730 (0.0345)	-0.0916 (0.0752)	0.0020 (0.0359)	-0.0056 (0.0369)
C. Hours flexibility								
WRep	0.0611 (0.0208)	0.0643 (0.0206)	0.0616 (0.0186)	0.0473 (0.0183)	0.1204 (0.0228)	0.1489 (0.0252)	0.0356 (0.0229)	0.0183 (0.0230)
WRep×No-flexibility	-0.0435 (0.0390)	-0.0700 (0.0337)	0.0126 (0.0319)	0.0039 (0.7667)	-0.0764 (0.0408)	-0.0899 (0.0331)	-0.0025 (0.0389)	0.0402 (0.0410)
Observations	11,173		11,173		11,173		11,173	

All columns refer to linear probability models following Eq. (1) using specific policy issues as the dependent variable estimated by OLS or using the bias-adjusted estimates from Oster (2019). WRep is an indicator variable identifying firm-level agreements negotiated with at least one woman among workers’ representatives at the bargaining table. All specifications include indicators for different firm size categories (5), categories of women’s share of the workforce (3), firm ownership (private vs public), and whether the firm is negotiating an agreement for the first time or not, as well as year×sector×province fixed effects. Standard errors clustered at the province×sector level are in parentheses. Inference in Oster is based on the wild bootstrap method with 100 repetitions, following Cameron et al. (2008)

This suggests that although women's voice can make firms more family-friendly, its effectiveness may depend on the environment in which firms operate. In other words, supply- and demand-side factors in the workplace may limit the ability of representatives to influence negotiated policies at the firm level.

4 Conclusions

This paper leverages for the first time the administrative census of firm-level agreements signed by Spanish firms between 2010 and 2018 to shed light on whether the presence of women among employee representatives at the bargaining table can shape the workplace policies negotiated with the management.

Our findings indicate that women's representation in workplace negotiations is positively associated with a greater likelihood of including family-related amenities in company policies and, to a lesser extent, measures that promote gender equality. However, this association does not extend to the negotiation of general working conditions. Family-friendly policies remain more likely to be included in the agreement when comparing bargaining tables with and without a majority of female worker representatives or in firms with fewer than 20 employees, where adjustment costs to family leave might be higher. Notably, our heterogeneity analysis reveals that these effects are more pronounced in sectors characterized by more flexible in work arrangements.

In line with theoretical frameworks that suggest that voice at work enhances information flow, coordination, and cooperation between workers and management (Malcomson 1983; Freeman and Lazear 1995; Harju et al. 2021), our results suggest that *women's voice at work* can foster the transformation of workplaces into more family-friendly organizations. This transformation addresses a critical source of gender inequality, namely work–family balance (Olivetti et al. 2024). Consequently, policies aimed at increasing women's participation in labour negotiations and workplace decision-making processes could play a critical role in addressing gender gaps in the labour market (Hotz et al. 2018; Corradini et al. 2024; Costas Fernandez et al. 2024; Sharma et al. 2025; Firouzi-Naeim et al. 2025).

It is important to acknowledge that, while informative, our analysis remains descriptive because we lack exogenous variation in the gender composition of employee representatives negotiating workplace policies. Therefore, identifying the causal effect of women's representation in workplace negotiations remains an important direction for future research, as does understanding the consequences of the negotiated policies for both firms and workers.

Supplementary Information The online version contains supplementary material available at <https://doi.org/10.1007/s13209-025-00323-y>.

Data Availability The database utilized in this study is not publicly available due to access restrictions; however, the information underlying the findings can be accessed through the REGCON portal embedded in the web page of the *Ministerio de Trabajo*, which hosts the relevant data. Researchers interested in reviewing the data are encouraged to visit the REGCON web page for further details.

Declarations

Conflict of interest There are no conflict of interest that might compromise the results of this work.

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