Women and Power: Unpopular, Unwilling, or Held Back? Comment

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Abstract

Casas-Arce and Saiz (2015) study how gender quotas in candidate lists affect voting behavior using evidence from the introduction of quotas in the 2007 Spanish local elections in municipalities with more than 5,000 inhabitants. Using a difference-in-differences strategy, they show that parties that listed fewer female candidates in the previous election obtained more votes in the subsequent election in larger municipalities, a pattern that they attribute to the quota. We show robustness and placebo tests suggesting that the quota did not have an economically or statistically significant impact on voting behavior.

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1 Introduction

As Casas-Arce and Saiz (2015) (hereafter, CS) point out, a better understanding of how voters react to gender quotas in candidate lists may help to shed light on the underlying causes for the underrepresentation of women in politics. If it is due to the lack of qualified women who are willing to participate in politics, or to the existence among voters of negative stereotypes about the ability of female politicians, candidates who enter politics through quotas would tend to attract fewer votes. However, if the lack of women is due to discrimination by party leaders, the introduction of gender quotas might force parties to replace some male candidates with female candidates who are more popular among voters.

CS analyze empirically the impact of gender quotas on voters' behavior using information from the 2007 Spanish local elections. In the context of a proportional representation electoral system with closed lists, a quota requiring at least 40% of candidates of each gender in candidate lists was introduced in municipalities with more than 5,000 inhabitants. In order to limit the systematic placement of the under-represented sex at the bottom of electoral lists, the quota also applied to every five-position bracket of the list. As CS document, the quota increased the share of female candidates in these municipalities by around 8 p.p. (21%). Furthermore, CS show that party lists that had fewer women in the previous election and, therefore, were expected to be affected to a larger extent by the quota, obtain relatively better electoral results in 2007 in municipalities with more than 5,000 inhabitants, a pattern they attribute to the impact of the quota. The magnitude of the estimate is large. Quotas would have increased the electoral support for lists that had no female candidates in the previous election by 6.6 percentage points, about 54% of a standard deviation.[1] This is an important result which would point towards the existence of severe agency problems in political parties as the source of the underrepresentation of women in politics.

This Comment presents a re-analysis of CS. There are at least two reasons why their findings may deserve further scrutiny. First, the large positive impact observed by CS is even more remarkable given the very short time span considered in their analysis. Quotas were approved in March 2007, just two months before the May local elections. Some of the mechanisms through which quotas are

[1] The size of this effect is one order of magnitude higher than the impact of other determinants of voting behavior considered in the literature. For instance, Bagues and Esteve-Volart (2016) show that in Spanish general elections each additional point of GDP growth is associated to 0.3 p.p. more votes for the incumbent. In the context of U.S. presidential elections, Fair (2009) finds a figure of 0.7 p.p.

expected to help to improve candidates' quality may require a longer time span. In the short term, parties' capability to attract the most talented women to their lists may be limited. Moreover, new female candidates are likely to lack political experience, a feature that may be valued by voters and which may be helpful in order to break down negative stereotypes regarding female politicians (Beaman et al., 2009). Second, CS' empirical strategy relies on the implicit assumption that voting behavior in small municipalities provides a reliable counterfactual for what would have happened in large municipalities in the absence of the quota. This is a non-trivial assumption that might not be satisfied if the timing of political and social changes is somehow related to municipality size.

We provide robustness and placebo tests that cast doubts on the validity of this assumption. Party lists with fewer women in the previous election generally obtain better electoral results in 2007 in relatively larger municipalities independently of whether these municipalities were affected by the quota. As a result, when we control linearly for population in CS' main specification, the estimated effect of quotas changes sign, becoming negative, and is not significantly different from zero.

Furthermore, using CS' main specification, we conduct a number of placebo tests considering the impact of 'fake' quotas on the sample of municipalities that had fewer than 5,000 inhabitants and, therefore, were not affected by the quota. These placebo tests, conducted at 100-intervals between 1,000 and 4,000 inhabitants, yield statistically significant results in over 80% of the cases and the estimates are of a similar magnitude to the effect found by CS at the 5,000 threshold.

2 Replication

We use the dataset provided by CS, which includes electoral information for all party lists that participated in Spanish local elections in 2003 and 2007 in municipalities with more than 250 and less than 10,000 inhabitants.

We reexamine the main analysis of CS, which considers all party lists in the dataset (see CS *Section 4.C: Relative Growth of Female Candidates and Vote Share*). Specifically, we focus on the reduced form estimation reported by CS in Table 5, column 1. CS estimate how the introduction of quotas in 2007 affects the electoral results of party lists that had relatively fewer women in the 2003 election using the following equation:

$$\Delta Votes_{pm} = \beta_0 + \beta_1[\max\{0, \text{quota - } female_{pm}^{2003}\} \times large_m] + \\ + \beta_2 female_{pm}^{2003} + \beta_3 (female_{pm}^{2003})^2 + \phi_m + \lambda_p + \varepsilon_{pm}, \quad (1)$$

where $\Delta Votes_{pm}$ stands for the change in the vote share received by party p in municipality m between 2003 and 2007; *quota* is equal to 40%, $female_{pm}^{2003}$ is the share of female candidates on the list in 2003; $large_m$ is an indicator that takes value one in municipalities with more than 5,000 inhabitants, and ϕ_m and λ_p are, respectively, municipality and party fixed-effects. Each observation is weighted by the vote share obtained by the list in the previous election and standard errors are clustered at the regional level. In what follows we refer to municipalities with more and less than 5,000 inhabitants as *large* and *small* municipalities respectively.

As expected, our replication using the same specification and the same dataset as CS provides identical results. The further a list is from the 0.40 threshold in 2003, the larger the improvement in its electoral performance in 2007 in large municipalities, relative to the performance of similar lists in smaller municipalities (see Table 1, column 1). The magnitude of the effect is substantial: lists that had no women in 2003 obtain 6.6 p.p. more votes in municipalities subject to the quota, about 54% of a standard deviation.[2,3]

The above estimates would capture the causal impact of the quota under the usual parallel trends assumption: the evolution of electoral outcomes in small municipalities provides a reliable counterfactual of what would have happened in large municipalities absent the quota. While this assumption is essentially untestable, below we examine standard robustness tests that were not reported in CS.

Placebos In order to examine the plausibility of the identifying assumption, we estimate placebo regressions in the subsample of municipalities that were not affected by the quota (municipalities with less than 5,000 inhabitants). More precisely, using equation (1), we study the 'impact' of placebo quotas at all possible cutoffs between 1,000 and 4,000 inhabitants, at increments of 100.

[2]The standard deviation of the variation in the share in votes is equal to 0.12.

[3]Results are essentially unchanged if we take into account that, due to indivisibilities, the 40% quota implies that party lists should include at least 46.1% (6 out of 13) candidates of each gender.

As shown in Figure 1a, the placebo analyses yield significant positive effects in over 80% of the cases and the size of these estimates oscillates between 0.8 and 0.17, a magnitude comparable to the one observed by CS at the 5,000 threshold. Estimates are relatively more precise between 2,000 and 3,00 inhabitants and, within this range, placebo analyses yield significant positive effects in 100% of the cases.

A possible explanation for these findings, which would be still consistent with CS hypothesis, is that somehow party lists may have increased the share of female candidates substantially more in larger municipalities, even if these municipalities were not subject to the quota. To address this issue, we estimate the 'impact' of placebo quotas on the share of female candidates in the list. As shown in Figure 1b, these estimates tend to be small - between 0 and 0.1 - and in general not significant. For comparison, the graph also displays the increase in the share of female candidates observed at the 5,000 cutoff, which is estimated using information from all municipalities. In this case, party lists that had no female candidates in 2003 increased the share of women by approximately 0.40.

Overall, the evidence provided by Figures 1a and 1b strongly suggests that lists with a lower share of women in 2003 gained relatively more votes in 2007 in larger municipalities for reasons unrelated to the quota.

Accounting for municipality size To account for the relationship between municipality size and electoral performance, we augment equation (1) by adding a linear interaction between population size and how far away the list was in 2003 from satisfying the quota requirement (in bold below).

$$\begin{aligned} \Delta Votes_{pm} =& \beta_0 + \beta_1[\max\{0, \text{quota - } female_{pm}^{2003}\} \times large_m] + \\ &+ \beta_2[\mathbf{\max\{0, quota - } \boldsymbol{female_{pm}^{2003}}\mathbf{\} \times } \boldsymbol{population_m}] + \\ &+ \beta_3 female_{pm}^{2003} + \beta_4 (female_{pm}^{2003})^2 + \lambda_p + \phi_m + \varepsilon_{pm} \end{aligned} \tag{2}$$

As shown in Table 1, column 2, the evolution of voting behavior between 2003 and 2007 is captured better by a linear function of population than by the *large* municipality dummy. In fact,

once we control for population linearly, being in a municipality with more than 5,000 inhabitants has, if anything, a negative impact on the electoral performance of party lists that had fewer women in the 2003 election, although this effect is not statistically significant at standard levels.

3 Conclusion

In this Comment, we re-analyze CS' study of the impact of gender quotas on voters' behavior using data from the 2007 Spanish local elections, when candidate quotas were introduced in municipalities with more than 5,000 inhabitants. CS show that party lists that had fewer women in their ranks in the previous election obtained more votes in the subsequent election in municipalities subject to the quota. This is an important finding that would suggest that the lack of women in politics is due to discrimination by political parties as opposed to a lack of qualified women who are willing to participate or negative stereotypes concerning female politicians among voters.

We present robustness and placebo tests that cast doubts on the validity of CS' empirical strategy. Party lists that were previously less feminized obtained better electoral results in larger municipalities regardless of the quota. Moreover, CS' difference-in-differences estimates are very sensitive to accounting for municipality size, reflecting the existence of relevant time-variant differences in voting behavior between small and large municipalities. Our findings are consistent with the evidence in Bagues and Campa (2018), who exploit a regression discontinuity design based on the existence of a population cutoff and fail to reject the null hypothesis that quotas did not affect voters' behavior. They also find similar results when they extend the analysis to the 2011 election, when the quota was applied to municipalities with more than 3,000 inhabitants.

References

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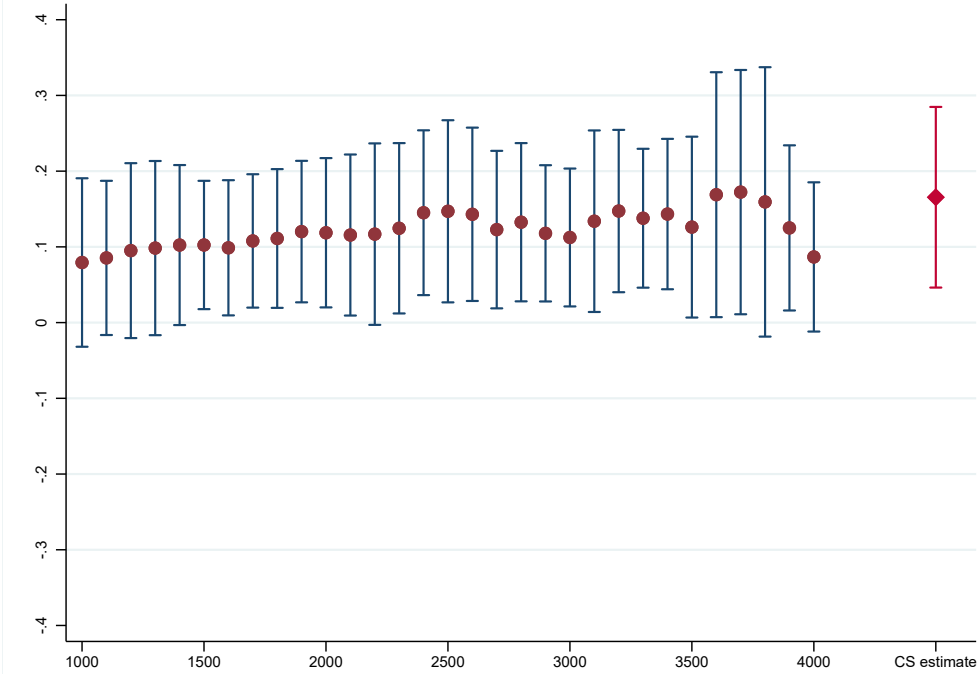
Table 1: Impact of Quotas on Electoral Results: All Lists

Dependent variable:	Δ Vote share	
	(1)	(2)
(Quota - $female^{2003}$) x large	0.166***	-0.076
	(0.056)	(0.096)
(Quota - $female^{2003}$) x population		0.043**
		(0.020)
Adj. R-squared	0.421	0.422
N	11562	11562

Note: *Large* is a dummy variable that takes value one for municipalities with more than 5,000 inhabitants. All regressions include controls for a quadratic polynomial of female share in 2003, municipality fixed effects and party fixed effects. Standard errors clustered by region (N=17) in parenthesis. Significance levels: 1% ***, 5% ** and 10% *

Figure 1: Placebo regressions

(a) Share of votes



(b) Share of female candidates

Notes: The upper figure reports the results of a series of placebo regressions of equation (1) in the sample of municipalities with less than 5,000 inhabitants. Each estimate corresponds to a different regression where we vary the (placebo) population threshold from 1000 to 4000 at increments of 100. The lower figure shows the results from a similar exercise where the dependent variable is the share of female candidates.