# Gender quotas as (non-)binding constraints: The case of semi-open list formation in Flemish municipalities

Bruno Heyndels[a], Colin R. Kuehnhanss[b,*]

[a] *Vrije Universiteit Brussel, Department of Applied Economics, Pleinlaan 2, 1050 Brussels, Belgium*
[b] *Stockholm School of Economics in Riga, Department of Economics, Strēlnieku iela 4a, 1010 Riga, Latvia*

**Abstract**

In semi-open list systems, parties present pre-selected pools of candidates to the electorate. Candidates' assigned ranks on the party lists heavily influence their election odds and may reflect party leaders' preferences, notably a possible gender bias. To strengthen female representation, parties' choices are increasingly subject to legal quotas. These quotas are expected to be less binding for left-wing parties, which tend to be more women-friendly. Analyzing 854 party lists presented to Flemish voters in the 2012 local elections, we find that right-wing party leadership discriminate in favor of female candidates by offering them higher positions in the party lists. For leftist parties, we observe discrimination in favor of men, not women. Importantly, parties offering higher positions to women tend to do so in parts of the party list certain to lead to either election (left-wing parties) or non-election (right-wing parties). For positions with critical election-odds, no gender bias is identified.

*Keywords:* Legal quota, Female representation, Local elections, Flanders, Preferential voting
*JEL classifications:* B54, D72, H70

## 1. Introduction

One of the major changes in Western democracies is the continuing increase in women's representation in politics. Notwithstanding the still considerable gender gap in both representative and executive power, the trend is unambiguous. This increase in representation reflects the interplay of many factors at macro-, meso- and micro-levels (Wängnerud, 2009). In most general terms, the remaining under-representation of women could be attributed to either a female lack of interest to run for office, discrimination by voters, or the party leadership (Casas-Arce and Saiz, 2015).

Party leaders act as gatekeepers. They have direct influence on female politicians' careers. In party-list proportional representation, parties pre-select and rank candidates on the ballot before they are presented to the electorate. The composition of these lists is a standard constrained optimization problem with parties' preferences and constraints interacting. With predominantly male party leadership, gendered preferences may bias party list composition as well as hamper female candidates' careers.

To counteract differential treatment of men and women in politics, many countries have introduced legal gender quotas. Such quotas can be thought of as a constraint on political parties' behavior. While, technically, quotas may force parties to shift their power balance towards either women or men, they are typically meant to do the former. Crucially, the degree to which the constraint is binding may not be homogeneous among parties. Parties with a culture of gender equality or with strong connections to the women's movement may hardly – or even 'adversely' – be affected. 'Male-dominated' parties, on the other hand, may need to fundamentally re-organize their internal workings. The literature on gendered attitudes

*Corresponding author.
*Email addresses:* bruno.heyndels@vub.be (Bruno Heyndels), colin.kuehnhanss@sseriga.edu (Colin R. Kuehnhanss)

NB: This is an accepted manuscript of an article published by Taylor & Francis in:
**Feminist Economics**, 2020, DOI: 10.1080/13545701.2019.1685675

and preferences finds women in parliament to be more leftist than men (Wängnerud, 2009), female voters to have more leftist preferences (Edlund and Pande, 2002), and the taste for equal treatment of male and female candidates to be stronger on the left-hand side of the political spectrum (Caul, 1999). Given these observations and the fact that right-wing parties tend to be disproportionately male (Campbell and Childs, 2015), imposed gender quotas can be expected to be more binding for parties on the right-hand side of the ideological spectrum.

The composition of a party list has two distinct dimensions. Party leaders both select and order candidates. Legal gender quotas tend to constrain the former by prescribing a minimum presence of candidates of each gender. In addition, placement mandates and zipper quotas go a step further and influence the latter by obliging parties to rank (fe-)male candidates in positions that offer higher prospects of being elected. In general terms, male party leaders (trying to preserve male candidates' power) are expected to only comply with the constraints in order to serve their self-defined interests. Where selection but not placement mandates are defined, the number of female candidates may no longer be a choice variable. Their positions in the party list, however, are. Assigned list positions may thus reflect the underlying gender preferences and/or power balance of the party leadership (Esteve-Volart and Bagues, 2012). Testing this proposition is the central purpose of this paper.

Using data on 854 party lists presented to Flemish voters in 308 municipalities in the 2012 local elections, we analyze whether a gender bias is present in the party list compositions. We find that overall, female candidates get fewer votes than their positions in the party lists would suggest, indicating discrimination in women's favor by party leaders. Unequal treatment of female candidates is only observed in party list positions that are (almost) certain to lead to either election or non-election. Importantly, significant and substantive differences among parties exist and a clear ideological effect is identified. In positions that are expected to (almost) certainly lead to election, left-wing parties tend to bias lists in women's favor by offering them higher places in the party list. Right-wing parties, in contrast, offer women higher places only in positions with little (or no) prospect of election. No gender discrimination is observed for 'critical' positions with uncertain prospect of (non-)election.

## 2. Candidate ranking in semi-open list systems and gender quotas

In party-list proportional representation, parties present lists of their pre-selected pools of candidates to the electorate. The decision power with respect to the final selection of representatives is shared between parties and voters. In closed-list systems, the power balance tilts in favor of parties and seats are allocated to candidates following their pre-determined order on the party ballot. In open-list systems, power is held by the voters and seats are allocated to those candidates receiving the largest number of preferential votes.[1] Both these systems – closed- and open-list – are extremes of a continuum. Many electoral systems are hybrid forms. Such semi-open list systems allocate seats according to both the preferential votes candidates receive and their position on the party ballot. Consequently, the ordering of candidates can be crucial. A higher rank not only increases the probability of election for any single candidate because list votes are transferred to candidates in order of their rank in the party ballot, it also tends to increase visibility. It should, therefore, not be surprising that fierce intra-party competition for better, typically higher, places in the party list tends to precede the formal electoral process. For completeness, it should be noted that the last position may be preferred by individual candidates also. While it does not benefit from sharing in the transfer of list votes, it offers better visibility (Geys and Heyndels, 2003).

Deciding on the rank order tends to be a highly delicate exercise for party leaders. They need to balance the interests and ambitions of individual party members, interest groups, and other stakeholders (see Devos et al. (2008) for the Flemish context). Ultimately, this balancing could be seen as serving the single purpose of winning as many seats as possible for the party (André et al., 2017). Individual candidates, in turn, aim

[1] André et al. (2012) show that preference voting is a form of sophisticated voting behavior. Politically interested and well-resourced voters make more active use of the option to express preference votes. Closer relationships between voters and politicians, as well as the (perceived) effectiveness of preference votes increase their use.

to maximize their own probability of being elected. Both objectives – the party's goal to win a maximum number of seats and the candidates' wish to be elected – can best be reconciled by ranking candidates according to their expected number of preferential votes (Crisp et al., 2013).

However, parties are not homogeneous entities solely acting in the interests of their constituents and maximizing electoral support. Party leaders – as agents – may follow their own agenda and ignore constituents' (i.e., the principal's) wishes, creating a trade-off between leadership survival and party success. Casas-Arce and Saiz (2015) model such an agency problem for a male-dominated party leadership selecting a set of female candidates suboptimal for maximizing the party's vote share in order to maximize their own. In a similar vein, Besley et al. (2017) show party leaders to be reluctant to promote talent within the party if their own position is threatened. The underlying agency problem reflects a tension between the preferences of party leadership and constituents and implies that the discretion of the former will depend on the competitiveness of the environment. To the extent that voters' responses are a constraint on the agents' behavior, we expect party leadership to most closely follow its own agenda in instances when electoral implications are lowest. Identifying discrimination against female candidates in nomination policies in Spanish Senate elections, Esteve-Volart and Bagues (2012) find such discrimination to be weaker the more competitive the political environment, i.e. the more uncertain the expected electoral outcome. In close races, male and female candidates are assigned similar positions. In the least competitive races women are nominated to significantly worse positions on the ballot.

In addition to intra-party constraints, there are exogenous constraints on the decision how to order candidates. Legal candidate quotas are a case in point. Such quotas can take two forms. First, they may specify the required (minimum) proportion of candidates of each gender in the party list. Second, quotas may take the form of placement mandates that impose ranking requirements. For example, the so-called 'zipper method' obliges parties to order candidates in such a way that no two successively ranked candidates are of the same gender. Alternatively, a quota may specify that the N highest ranked candidates should not all be of the same gender. Of course, external constraints like quotas are not aimed at increasing parties' seat shares. Their purpose and immediate consequence is to influence parties' recruitment and ranking of candidates. In other words, quotas are meant to be binding constraints. The constraints are non-binding only for those parties that would already meet the requirements in the absence of quotas. That a party would 'spontaneously' meet quota requirements may be a consequence of own rules or of chance. In the former case, parties' self-imposed quotas can be assumed to serve the party's ambition to maximize electoral success.

Quotas will be more binding the more they diverge from parties' 'default' choices. In general, quotas aimed at promoting women's interests will be most binding for those parties that tend to neglect such interests (Bonomi et al., 2013). Exactly how binding quota rules are will depend on their nature. A 'male-dominated' party will be more constrained by a rule imposing a minimum share of 40% female candidates than by one requiring 20%. The literature provides ample empirical evidence that women are (on average) more leftist than men (Edlund and Pande, 2002; Wängnerud, 2009). Parties on the left of the political spectrum tend to be more women-friendly as reflected not only in their policy platforms, but also by having more women among their members and representatives (Stadelmann et al., 2014). This leads us to hypothesize that legal gender quotas have a larger impact on right-wing parties. This is exactly what Luis F. Miguel (2008) finds when analyzing the introduction of quota rules in Brazilian politics: the increase in the number of female candidates was strongest among right-wing parties. Whether reflecting a scarcity of female candidates or a gender-biased leadership, it was also observed that "many of the vacancies set aside for female candidates were filled by candidates with no electoral viability" (Miguel, 2008, 207). In line with this finding, Górecki and Kukołowicz (2014) show that, after the introduction of a quota in Poland, votes for the average female candidate fell more in socially conservative parties than in other parties.[2] While imposed gender quotas are a constraint on parties' behavior, the above-discussed agency issue between party leadership and voters draws attention to the fact that parties are filters between voters' preferences and elected politicians. If these filters are biased, imposed (quota) constraints may actually align outcomes

[2]The finding that leftist parliamentarians (in Poland) were more supportive of quota regulations is therefore unsurprising (Dubrow, 2011).

with these preferences. Casas-Arce and Saiz (2015) find that the introduction of quotas (forcing party leaders to select female candidates) in Spanish municipalities increased the vote share of those parties for which the quotas were the most binding (in the sense that these parties had to increase the share of female candidates more than other parties in order to comply with the new rules). More generally, quotas have been shown to increase the quality of incumbents. Baltrunaite et al. (2014) show how gender quotas in Italian municipalities positively affected politicians' quality. Besley et al. (2017) find that the introduction of zipper quotas by the Swedish Social Democratic Party significantly increased the quality of elected (male) representatives. Of course, quotas cannot resolve all agency issues. For example, Esteve-Volart and Bagues (2012) find no effect from the introduction of quotas on the assignment of female candidates to ballot positions with lower electoral prospects. The effectiveness of quota rules in overcoming agency problems or increasing female descriptive representation depends on institutional and other factors. The actual nature of the quota rules in place is highly relevant. As they are typically introduced by male dominated decision-making bodies, Fréchette et al. (2008) argue that quota rules are more likely to be introduced in contexts where they will not be effective (see also Murray et al., 2011). From a comprehensive cross-national analysis, Schmidt (2009) concludes that only placement mandates have an unambiguous effect on women's descriptive representation.

## 3. Institutional context and preferential voting in the 2012 Flemish local elections

Elections in Flemish municipalities are held every six years in October, most recently in 2012, using a semi-open list PR system. Voters can cast either a list vote for their preferred party, or one or more preferential votes within a single list.[3] To allocate seats to parties, the number of list votes and the number of ballots with (one or more) preferential votes are summed for each party. Once seats have been allocated to parties (using Imperiali), they have to be assigned to individual candidates. The semi-open list character implies that these are selected in a three-step procedure. First, for each party the so-called eligibility threshold is calculated.[4] Candidates receiving a number of preferential votes at least equal to this threshold are directly elected. Second, one third of party votes is transferred to the remaining candidates according to their ranking in the ballot up until they reach the threshold level.[5] As party votes are transferred in the order of the candidates' appearance on the party ballot, higher ranked candidates will be elected more readily than their lower ranked colleagues. In a third step of the procedure, remaining seats are assigned to those candidates receiving – irrespective of their rank in the party list – the highest number of preferential votes.

Depending on the size of the municipality, councils are composed of seven to 55 representatives. The length of ballots varies across municipalities, with the maximum length corresponding to the local council size. The political landscape in most municipalities is highly fragmented. In the 2012 election, on average 5.4 party lists were presented to voters. These parties are either chapters of regionally organized parties (note that political parties in Belgium are organized at the regional, not the national, level), or they are 'local' in the sense that they do not have an unambiguous tie to one of the regionally organized parties. Different factions may enter the elections as electoral alliances ("kartels"). In Flemish municipalities, gender quota rules impose a two-fold constraint on party list formation. First, they require the number of candidates of each gender not differ by more than one. There must be perfect gender balance if the party list has an even number of candidates. If the party list has an uneven number of candidates, the number of men may be one more (or less) than the number of women. Second, a placement mandate specifies that the two highest ranked candidates must not be of the same gender. While the legal gender quotas guarantee the presence of

[3] Voting is compulsory in Belgium and the nation-wide turnout in the 2012 municipal elections was 89.7% (Marien et al., 2017). The share of voters expressing preference votes is about 86% (see Wauters et al., 2012).

[4] This "verkiesbaarheidscijfer" is calculated as the number of votes (list votes + ballots with preferential votes) multiplied by (number of seats) / [ (number of seats) + 1].

[5] More precisely [(number of list votes)*(seats won)] / 3 are transferred. If the first candidate did not reach the eligibility threshold already, these "transferable votes" ("over te dragen stemmen") are added to his/her preferential votes until the threshold is met. If the threshold was already met, the second ranked candidate is considered, and so on. Remaining transferable votes are distributed to the next-ranked candidate(s) until the set of transferable votes is exhausted.

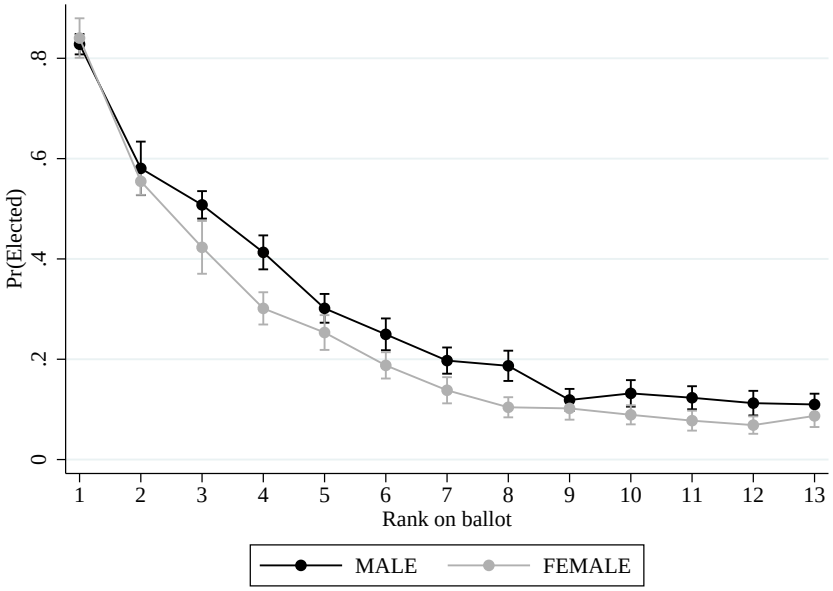


**Figure 1:** Predicted likelihood of being elected as a councilor (with 95% CIs)

women in the party lists, they need not guarantee female representation as such. In the 2012 elections, the share of female candidates elected as councilor (15 percent) lies well below that of men (25 percent). In semi-open list systems, the lower female representation, by definition, reflects the (lower) number of preferential votes and/or the less attractive positions women are assigned in party lists. To single out the latter effect, figure 1 summarizes probabilities of being elected into the council as a function of candidates' positions in their party lists. The figure shows predicted probabilities from a logit model estimating the likelihood that a candidate was elected as a function of the position in the party ballot. The graph shows only the first 13 positions in each party's list for the full population, which corresponds with the 95th percentile of all elected candidates. Given the earlier discussion, it is not surprising to find the probability of being elected to negatively relate to the ranking on the ballot. For example, across all party lists, first ranked candidates had a probability of being elected into the council greater than 80%. This likelihood falls quickly for candidates further down the party list. Importantly, figure 1 indicates that the likelihood of being elected is – for any given rank on the ballot – typically lower for women. While not significant, the gender difference is reversed in the first position so that female candidates topping the party list have a (marginally) higher chance of being elected than their male colleagues.

A different reading of figure 1 is that parties (constrained by quota rules) offer women ballot positions that are higher than would be the case if only preference votes mattered. For example, women in rank three, four, or five on the party list tend to have a probability of election equaling that of men in positions four, five, or six, respectively. To the extent that voters do not follow the parties' (quota imposed) 'up-grading' of female candidates, they cast fewer preferential votes and thereby decide on the non-election of women unless list votes assure election.

Given their impact in a semi-open list system, preferential votes (help to) explain women's under-representation in legislative bodies. As gender quotas are a constraint on parties' behavior rather than on voters' choices, we expect them to create a situation in which the rank candidates are assigned on the ballot are less reflective of their electoral strength as defined by (anticipated) preferential votes. If gender quotas succeed in promoting women's interests, female candidates will be ranked higher in the party list than would have been the case if the ranking were based only on the predicted number of their preferential votes. Empirically, this implies that female candidates will receive, for any given position, a lower share of

preference votes than their male colleagues.

If (in some parties) women were advantaged before the introduction of quotas, the gender-neutral quota system for Belgian municipal elections implies that the quotas would in those instances serve to promote male candidates' interests. We would then expect men to receive, for any given position in the ballot, fewer preference votes than women. A first indication of quota rules in some cases actually serving men's rather than women's interests might be seen in the fact that local branches of the leftist green party (Groen) report finding it hard to recruit sufficient male candidates to comply with the quota requirement of gender balance (Celis et al., 2013). This situation is in (stark) contrast to the situation of most other parties, which tend to need explicit actions at the local level to recruit sufficient numbers of female candidates.

In section 5 we test whether a mismatch between preferential votes and candidates ranking, indicating bias in the party list composition, exists in Flemish municipalities. We ask whether such a bias is conditional on the ideological position of the party. Specifically, we identify gender biases through mismatches between the vote share distribution and candidate rankings within party lists. From the set of all 36,660 candidates in the 2012 election we make a selection using two criteria. First, we restrict our analysis to the chapters of the six parties that enter the local elections using only their regionally organized party's name. The pragmatic reason is that we lack information on the ideological position of the other parties, which are either local parties or electoral alliances. Second, we limit our sample to those candidates appearing on complete party lists, i.e. lists that correspond to the size of the local council.[6] This leaves us with a sample of 22,022 candidates.

To order parties along a left-right scale we use data from Deschouwer et al. (2013). Based on a large-scale survey, these authors provide for each party the average ideological value self-reported by members of the local chapters of that party on an 11-point scale ranging from 0 on the left to 10 on the right. On the left-hand side of the political spectrum are Groen, with a self-reported value of 2.2, and Sp.a, with a value of 2.6. On the right-hand side, Vlaams Belang members reported a value of 9.3. The centrist party CD&V (5.5) and center-right parties Open VLD (6.6) and N-VA (6.7) fill in the ideological landscape in Flemish municipalities.

**Table 1:** Number of party lists and vote share in the 2012 municipal elections

| | All lists | | Complete lists |
|---|---|---|---|
| | Number of lists | Average vote share | Number of lists |
| Groen | 96 | 9% | 62 |
| Sp.a | 139 | 14% | 119 |
| CD&V | 241 | 29% | 240 |
| Open VLD | 181 | 17% | 163 |
| N-VA | 259 | 22% | 223 |
| Vlaams Belang | 181 | 7% | 47 |
| TOTAL | 1097 | | 854 |

Table 1 gives an overview of the number of municipalities in which each party entered the election with its own list, their overall electoral success as reflected in the (unweighted) average vote share, and the number of complete lists. Parties are ordered according to their ideological position. The distribution of votes shows centrist(-right) parties to have been most successful. The ideologically farthest left (Groen) and farthest right (Vlaams Belang) parties average vote shares below 10%. The N-VA and especially the CD&V have vote shares (well) above 20%. Whereas the result for the N-VA reflects its recent success on the regional level, the high vote share of the CD&V derives from an historical dominance of the (Catholic) party in Flemish municipalities (see Deschouwer, 2012). While constraining party list formation, the legal quota rules allow party leaderships considerable freedom in ranking candidates according to their own preferences and strategies. The final ballot could therefore be seen as reflecting the power balance between men and women within a party.

[6]This allows excluding atypical cases from the main analysis, the most extreme being party lists composed of a single candidate (by definition receiving a vote share of 100% of the party list).

Table 2 summarizes information on the gender balance in the party lists. The first column gives a general indicator by comparing the average rank of male and female candidates. It shows the share of all complete party lists in which women are on average ranked higher (i.e., better) than men. The second column provides the share of party lists in which male and female candidates were on average ranked equally.[7] The share of lists with men being on average ranked higher is the complement of the two.

The data indicate a clear, ideologically-related gender bias. The leftist Groen is the only party where the share of lists with women being ranked higher than men (43.6%) is larger than vice versa (40.3%). For all other parties, male candidates tend to be ranked higher in the lists. This male advantage increases along the ideological spectrum. For the most rightist parties – NV-A and Vlaams Belang – women are on average ranked higher than men in only one out of four party lists. As those parties also do not tend to use the zipper principle – which would signal equal treatment of men and women – we observe for them a clear majority of party lists with men being on average ranked higher. To be more precise, for the NV-A men are on average ranked higher in 63.7% of lists. For Vlaams Belang this share is an even larger 70.2%.

Female prominence is also reflected in the share of party lists that have a female candidate in first position. All parties tend to predominantly reserve the first position for male candidates, including the pro-women green party, for which three out of four candidates leading a list are male.

**Table 2:** Gender balance in rankings of complete party lists

| | Share of lists with women on average ranked higher than men | Share of lists with equal average ranking | Woman in first position |
|---|---|---|---|
| Groen | 43.6% | 16.1% | 25.8% |
| Sp.a | 35.3% | 15.1% | 16.8% |
| CD&V | 40.0% | 10.4% | 23.3% |
| Open VLD | 38.0% | 14.7% | 22.1% |
| N-VA | 25.6% | 10.7% | 17.5% |
| Vlaams Belang | 25.5% | 4.3% | 19.1% |

In sum, the data in table 2 are mixed with respect to the expectation of an ideologically driven ranking of candidates according to gender. The picture is relatively clear for the green party. It conforms to the view that leftist parties are more women-friendly, though this is more apparent at a general level (considering the whole party list) than at the level of the first position. While female candidates for the green party receive higher ballot positions on average, men are assigned three quarters of first positions. On the right-hand side of the political spectrum (NV-A and Vlaams Belang) men tend to generally be better ranked in the lists as a whole, as well as to be more prominent in the top position. For the other parties, the initial picture is more ambiguous. Given its leftist position, the low number of female candidates in first position is especially noteworthy for Sp.a.

## 4. Empirical strategy

In an unconstrained setting with unbiased leadership, and following André et al. (2017), we consider the ranking in a party list as reflective of the party's expectations of its candidates' popularity. In a world of perfect foresight, we expect the voters' ranking to correspond with the party's ranking. It is hardly surprising to find that such a perfect mapping does not always occur as foresight is unlikely to be truly perfect and/or party leadership may impose its own preferences and present a (gender) biased ranking of candidates.[8]

[7] These ties largely correspond to zipper-lists, as some party chapters self-impose the requirement that no two successive candidates on the ballot should be of the same sex. Thus, they signal a clearly gender-neutral position.

[8] Candidates who beat their parties' expectations, i.e. receive more preferential votes than their rank in the party list would suggest, not only increase their probability of being elected. They also tend to get better (i.e. higher) ranks in the following elections (Crisp et al., 2013; Folke et al., 2016).

The overarching question for legal gender quotas is to what extent they succeed in placing (female) candidates in positions that would be out of reach without quota. Our focus is thus on the individual party list, and more specifically on the distribution of votes among candidates within such a list. In practical terms, we aim to explain individual candidates' preferential votes as a percentage of all preferential votes for candidates on their party list. To test for a gender-related mismatch between this within-party distribution of votes and assigned ranks, we start from the following log-linear model:

$$\begin{aligned} \ln v_{i,j} = a &+ b.\text{LISTLENGTH}_j \\ &+ c.\text{RELATIVE RANK}_i \\ &+ d.\text{FEMALE}_i \\ &+ e.\text{IDEOLOGY}_j \\ &+ f.\text{FEMALE}_i \times \text{IDEOLOGY}_i \\ &+ g.X_{ij} + \varepsilon_i \end{aligned} \tag{1}$$

where $v_{i,j}$ is the vote share of candidate $i$ as a percentage of all preferential votes cast for candidates from party list $j$ (= 1; 854). The natural logarithm of the list vote share is taken in recognition of the non-linear relationship between the relative rank of candidates and their preferential votes (Marcinkiewicz, 2014; Put et al., 2015). It is a common characteristic of semi-open list systems that preference votes are highly concentrated among the highest ranked candidates. To illustrate, in our sample first ranked candidates receive on average 15.4% of the preferential votes in their party lists (see table A.1 in the appendix).

An important characteristic of our sample is that party lists are of very different lengths across municipalities (the number of candidates ranging from 11 to 55). Of course, any individual's vote share on a given party list will depend on the number of candidates on that list. To control for this circumstance, we include the variable $LISTLENGTH_j$ which equals that number for party list j.[9] Further, vote shares are expected to negatively correlate with the ranking of candidates. As given positions tend to bear different meanings – and have different electoral consequences – depending on the number of seats available, we follow Marcinkiewicz (2014) and define the candidates' ranks in percentile terms: RELATIVE RANK$_i$ standardizes each candidate's rank to a scale ranging from 0 (for the first ranked candidate) to 100 (for the candidate in the last position).

To test our hypothesis on the existence of a gender bias and its dependence on the ideological position of parties, we include the dummy $FEMALE_i$ which equals 1 if the candidate is female (and 0 if not) and a measure for party list $j$'s ideological position ($IDEOLOGY_j$). The latter variable places parties on a left-right scale. Values – as discussed above – are taken from Deschouwer et al. (2013). For a hypothetical party with $IDEOLOGY_j = 0$, discrimination against female candidates by party leadership would imply $d > 0$: female candidates systematically receive more votes than male candidates in the same ballot rank. Stronger discrimination against women by right-wing parties would imply $f > 0$. Legal gender quotas will lower the value of d. If they are more binding for right-wing parties f will fall. If the quotas succeed in creating complete gender-equality, then $d = 0$ and $f = 0$.

Finally, we include a set $X_{i,j}$ of control variables explaining the share of preferential votes. These can be subdivided into two categories. First, we have a set of variables capturing non-linearity, which is a common characteristic of the distribution of preferential votes, as well as ballot position effects. It comprises dummy variables for candidates in the top 10% of their party list (FIRST DECILE$_i$ = 1), in first (FIRST POSITION$_i$ = 1), and in last position (LAST POSITION$_i$ = 1). Note that this definition of variables, notably of the FIRST DECILE-variable, is chosen to be in line with the idea that relative positions

[9] We consider two alternatives. First, taking a similar approach as McElroy and Marsh (2010), we redefine the dependent variable as $ln[vi, j/v * j]$ where $v * j$ is the average vote share for any candidate on the party list (in other words, $v * j$ is the inverse of the list length). Second, following Górecki and Kukołowicz (2014), we use the logarithm of the absolute (instead of relative) number of preferential votes and estimate by negative binomial regression. Both alternatives give highly comparable results and do not change any of the conclusions presented in the paper. Results available upon request.

matter.[10]

Second, we have variables controlling for candidate specific characteristics. They are the candidate's age ($AGE_i$), its squared value ($AGE^2$), and any incumbency positions. We include separate dummies for mayors ($MAYOR_i$), aldermen ($ALDER_i$), and councilors ($COUNCIL_i$). As candidates in the municipal election can be expected to benefit from an incumbency status at other (higher) levels of government, we include dummies for those who are minister ($MINISTER_i$) or Member of Parliament ($PARLIAMENT_i$) at either the regional or federal level at the time of the election.

The results of the above estimation provide a general view on whether party leaders treat female candidates differently. Still, such differential treatment may take varying forms. Assigning higher ballot positions to women does not necessarily imply offering actual political power. As discussed in section 2, women may only be placed on higher ballot ranks in sections of the party list offering very low election probabilities. Favoring women (or men) in positions most unlikely to lead to election would be cheap talk. The general idea behind quota rules is, of course, that women are offered the opportunity to participate in the election in positions 'that matter'. At the same time, male politicians in power may try to preserve their own positions and only be willing to rank women better if they are no 'threat'.

To test whether any female (dis)advantage depends on the candidates' position within the party list (and thus on the prospect of actual political power), we split our sample respectively grouping candidates in 'safe', 'critical', and 'low-chance' positions. The number of seats that will be won in an election is not a complete black box at the time the lists of candidates are drawn up. Parties are able, at least to some extent, to predict the number of votes and seats they will receive (Jottier et al., 2012). Of course, 'critical positions' – i.e. ranks in the ballot where the uncertainty of (not) being elected is largest – differ among party lists. Being ranked fourth by a party that (based on historical evidence or otherwise) expects to get 17 seats is different from being ranked in that position by a party expecting three or four seats.

To split our sample, we identify list-specific 'critical positions'. For each party list, we start from the number of seats won, $N_j$. Assuming parties had (on average) perfect foresight, we define a set of critical positions as those ranks in the range $[N_j - k; N_j + k]$, where $k$ is an integer number reflecting the uncertainty of the electoral prediction.[11] The more certain one is about the number of seats that will be won, the lower $k$.[12] Of course, only strictly positive ranks are included. For our empirical analysis we let $k$ take different values ($k = 0, 1, 2$). A first subsample comprises the candidates in 'safe' positions, i.e. in positions on the party list with a very high likelihood of being elected. These are the (positive) positions nominally below $N_j - k$, so the positions of the highest ranked candidates. The second subsample groups candidates in critical positions as defined above. The third subsample consists of candidates ranked further down the party list. Table A.2 in the appendix summarizes the distribution of candidates over the respective subsets for $k = 0, 1$, and 2. It is noteworthy that the distribution is not gender-neutral. Women tend to be overrepresented in the low-chance positions, whereas the critical and (even more so) the safe positions are rather reserved for men.

[10] It could be argued that being in one of the top positions mainly offers an advantage in terms of visibility. If this were the case, we would expect absolute positions to be more relevant. Being second in a list of 11 candidates or in a list of 55 may be similar from a perception perspective. To capture this possibility, we re-estimate by replacing the relative FIRST DECILE indicator with dummies for absolute positions: $POSIT2_i$, $POSIT3_i$, $POSIT4_i$, ... $POSIT10_i$ for politicians in second, third, fourth, up to 10th position on their party's ballot (Put et al., 2015). The results do not change any of the conclusions reported below and are available upon request.

[11] We considered three alternatives. First, we define $N_j$ as the number of seats won in the previous 2006 election (see Esteve-Volart and Bagues, 2012). In this case the sample is limited: as the party landscape at the local level is highly volatile with parties entering electoral alliances or breaking them up, the number of observations drops to 12,419. Second, we split samples in a more rudimentary way by considering subsamples of the 'top x' versus 'bottom 1-x' positions (with x = 20%, 30%, 40%, respectively). Finally, the sample is split into 'serious' and 'non-serious' contenders. The latter approach follows Put et al. (2015) and defines '(non-)serious' contenders as those that were (not) actually elected. The results are broadly in line with those presented here and available upon request.

[12] With the transfer of list votes being limited to one third, the possibility remains for candidates ranked lower on the ballot to get elected purely based on their own preference votes. As discussed above, the last position is one such special case which frequently leads to election despite falling within our low-chance category. While we control for the last position, other candidates on low-chance positions may also get elected. However, the chance of being elected on such a position is below 6% in our sample.

As a robustness check to the analysis above, we perform an additional test comparing vote shares of candidates of different sex ranked just above (below) each other in their party list. The unit of observation is thus the pair of candidates. For each pair ($l = 1; 14,574$) we test whether or not the second ranked candidate outperforms the first. We assign a value of 1 if the second ranked candidate strictly outperforms the first (and 0 if this is not the case) and estimate a logit model explaining this variable. While this slightly narrows down our sample size, it allows for more direct comparison of (almost) identically ranked candidates' electoral performance. Within pairs, candidates' outperforming of their 'neighbors' reveals their electoral superiority. Party leaderships' discrimination against female (male) candidates in the process of forming the lists will be reflected by women (men) systematically outperforming men (women) ranked just above them. Our main variables of interest are $FEMALE_l$, which equals 1 if the second ranked candidate is female (and 0 if not), the party's ideology ($IDEOLOGY_j$), and the interaction between them. Party leadership discrimination against women again implies a positive coefficient for $FEMALE_l$.

We include the number of candidates in the party list ($LISTLENGTHj$) and the positional variables RELATIVE RANK$_l$ and LAST POSITION$_l$ which refer to the ballot position of the second candidate in the pair as control variables in our logit model. Finally, we compare candidates' individual characteristics. We define WITHIN PAIR AGE DIFFERENCE$_l$ as the age of the second candidate minus that of the first. We also include indicators for WITHIN PAIR INCUMBENCY ADVANTAGE$_l$. These equal 1 (-1) if the second (first) candidate is mayor, councilor, minister or MP while the first (second) candidate is not. It equals 0 if neither (or both) are incumbents.

## 5. Empirical results

A summary of our main empirical results operationalizing specification (1) is presented in tables 3 and 4. Each time, the dependent variable is the natural logarithm of individual candidates' list vote share. Table 3 gives the results for our most general specifications. Three sets of results are given. First, we report the results from a benchmark regression including a set of standard explanatory variables as used in the literature. Second, we add the variable capturing the ideological position of the candidate's party. Finally, in column (3), we introduce the interaction between a candidate's gender and his/her party's ideological position.

All specifications have good explanatory power. Unsurprisingly and in line with previous empirical findings, the positional controls are highly significant. Candidates' with a higher relative rank value (and thus a worse rank) have a lower vote share. Politicians leading the party list, as well as candidates in the very last position, have an additional advantage reflected in higher vote shares. We find that candidates' age negatively affects their electoral success. The effect is small (a candidate's vote share decreases by 0.3% per year) and the joint test for the significance of $AGE_i$ and $AGE^2$ is significant at the 5%-level ($F = 5.40$). Entering the elections as an incumbent at either local or higher level of government positively affects one's vote share. These results too are in line with earlier findings. The incumbency gain is considerable and reflects the hierarchy of positions. Being a minister at either the regional or federal level is associated with an increase in votes of more than 70%. Having served as a councilor has the smallest (though still considerable) effect which is significant at the 0.1% level.

Turning to our main variables of interest, column (1) shows that female candidates receive a significantly lower share of votes than their list rank would predict. This mismatch indicates that any (latent) anti-women bias in list formation is neutralized – and in fact overcompensated – in the current electoral system with its quota rules. Women indeed hold positions they would not have gotten if parties had ranked candidates purely based on their expected vote share. It should be noted that the effect is rather small. Female candidates receive on average 2% lower vote shares than their male colleagues, all else equal.

Our main hypothesis concerns the ideological dimension of the gender bias found in column (1). To test it, we enter an interaction term between gender and the ideological variable. The results in column (3) provide convincing evidence: the more right-wing a party is, the larger the discrepancy in favor of women between the expected vote share given the rank and the actual outcome. This result can be taken to indicate that quota rules are effective and more constraining for these parties. For the most right-wing party in our sample (Vlaams Belang, with a score of 9.3 on the ideological scale) the vote share for women is on average

**Table 3:** Shares of preferential votes in Flemish municipal elections for complete party lists

| | ln(voteshare) | | |
|---|---|---|---|
| | (1) | (2) | (3) |
| FEMALE | $-0.019^{**}$ | $-0.019^{**}$ | $0.053^{**}$ |
| | (0.006) | (0.006) | (0.019) |
| IDEOLOGY | | $-0.003$ | 0.003 |
| | | (0.002) | (0.003) |
| FEMALE × IDEOLOGY | | | $-0.013^{***}$ |
| | | | (0.003) |
| RELATIVE RANK | $-0.005^{***}$ | $-0.005^{***}$ | $-0.005^{***}$ |
| | (0.000) | (0.000) | (0.000) |
| LISTLENGTH | $-0.038^{***}$ | $-0.038^{***}$ | $-0.038^{***}$ |
| | (0.001) | (0.001) | (0.001) |
| FIRST DECILE | $0.393^{***}$ | $0.393^{***}$ | $0.393^{***}$ |
| | (0.012) | (0.012) | (0.012) |
| FIRST POSITION | $0.664^{***}$ | $0.664^{***}$ | $0.665^{***}$ |
| | (0.020) | (0.020) | (0.020) |
| LAST POSITION | $0.714^{***}$ | $0.714^{***}$ | $0.713^{***}$ |
| | (0.019) | (0.019) | (0.019) |
| AGE | $-0.002^{*}$ | $-0.003^{*}$ | $-0.003^{*}$ |
| | (0.001) | (0.001) | (0.001) |
| $AGE^2$ | 0.000 | 0.000 | 0.000 |
| | (0.000) | (0.000) | (0.000) |
| MAYOR | $0.385^{***}$ | $0.385^{***}$ | $0.385^{***}$ |
| | (0.033) | (0.033) | (0.033) |
| ALDERMAN | $0.429^{***}$ | $0.428^{***}$ | $0.429^{***}$ |
| | (0.015) | (0.015) | (0.015) |
| COUNCILOR | $0.285^{***}$ | $0.285^{***}$ | $0.284^{***}$ |
| | (0.012) | (0.012) | (0.012) |
| MINISTER | $0.715^{***}$ | $0.714^{***}$ | $0.717^{***}$ |
| | (0.190) | (0.189) | (0.191) |
| PARLIAMENT | $0.463^{***}$ | $0.464^{***}$ | $0.464^{***}$ |
| | (0.073) | (0.074) | (0.073) |
| Constant | $-2.208^{***}$ | $-2.190^{***}$ | $-2.227^{***}$ |
| | (0.037) | (0.042) | (0.042) |
| Observations | 22022 | 22022 | 22022 |
| $R^2$ | 0.688 | 0.688 | 0.688 |

*Notes:* Ordinary least squares regressions, standard errors clustered at municipality in parentheses; $^{+}p < 0.10,^{*} p < 0.05,^{**} p < 0.01,^{***} p < 0.001$.

about 7% $(0.053 - 0.013 * 9.3)$ lower than for male candidates. For a hypothetical party with an ideological position of 4.1 the gender effect would be nonexistent. For parties with lower values on the ideological scale, women tend to have higher preferential vote shares than would be expected based on their rank on the ballot. In other words, in those (left-wing) parties, leadership actually favors male over female candidates in the ranking. This may reflect the adverse effect that quota rules have on pro-women parties. As discussed earlier, these parties (notably Groen) reported having difficulties finding sufficient male candidates to comply with the quota rules.

To test whether the above findings imply that women are offered actual political power, we split our sample according to the prospect of being elected for any given position in the party list. If women are offered higher positions in the party list, it will only have a substantive impact if they are 'positions that matter'. As discussed above, we split our sample into three subsamples, grouping candidates in 'safe', 'critical' and 'low-chance' positions. Table 4 shows the empirical results of our main specification for k=1. This choice of k implies that we consider a position 'critical' if it is positive and lies within $[Nj - 1; Nj + 1]$, where $N_j$ corresponds to the actual number of seats won by party $j$. Higher ranked candidates are in the subsample of those in 'safe' positions. Lower ranked candidates form the third subset of candidates in 'low-chance' positions. The choice of an uncertainty indicator $k = 1$ is made on pragmatic grounds, as this value

makes the magnitude of the subset of candidates in 'safe' positions similar to the magnitude of the subset of candidates in 'critical' positions (see table A.2 in the appendix).[13]

**Table 4:** Shares of preferential votes in Flemish municipal elections for 'safe', 'critical' and 'low-chance' ballot positions ($k = 1$) in complete party lists

| | ln(voteshare) | | |
|---|---|---|---|
| | Safe | Critical | Low-chance |
| FEMALE | $-0.172^{**}$ | 0.038 | $0.076^{***}$ |
| | (0.058) | (0.044) | (0.020) |
| IDEOLOGY | 0.010 | 0.007 | 0.002 |
| | (0.007) | (0.006) | (0.003) |
| FEMALE × IDEOLOGY | $0.023^{*}$ | $-0.008$ | $-0.016^{***}$ |
| | (0.010) | (0.007) | (0.003) |
| RELATIVE RANK | $-0.021^{***}$ | $-0.018^{***}$ | $-0.005^{***}$ |
| | (0.001) | (0.001) | (0.000) |
| LISTLENGTH | $-0.026^{***}$ | $-0.035^{***}$ | $-0.041^{***}$ |
| | (0.002) | (0.001) | (0.001) |
| FIRST POSITION | $0.690^{***}$ | $0.598^{***}$ | |
| | (0.027) | (0.033) | |
| LAST POSITION | | | $0.639^{***}$ |
| | | | (0.019) |
| AGE | 0.001 | 0.002 | $-0.003^{**}$ |
| | (0.004) | (0.003) | (0.001) |
| AGE$^2$ | $-0.000$ | $-0.000$ | $0.000^{*}$ |
| | (0.000) | (0.000) | (0.000) |
| MAYOR | $0.331^{***}$ | | $0.570^{***}$ |
| | (0.033) | | (0.100) |
| ALDERMAN | $0.348^{***}$ | $0.482^{***}$ | $0.594^{***}$ |
| | (0.019) | (0.042) | (0.025) |
| COUNCILOR | $0.178^{***}$ | $0.291^{***}$ | $0.412^{***}$ |
| | (0.018) | (0.019) | (0.017) |
| MINISTER | $0.632^{***}$ | $1.917^{***}$ | $0.540^{*}$ |
| | (0.054) | (0.058) | (0.220) |
| PARLIAMENT | $0.419^{***}$ | $0.493^{***}$ | $0.367^{**}$ |
| | (0.073) | (0.128) | (0.123) |
| Constant | $-2.219^{***}$ | $-1.991^{***}$ | $-2.152^{***}$ |
| | (0.127) | (0.102) | (0.046) |
| Observations | 3260 | 2455 | 16307 |
| $R^2$ | 0.739 | 0.691 | 0.553 |

*Notes:* Ordinary least squares regressions, standard errors clustered at municipality in parentheses; $^{+}p < 0.10,^{*}p < 0.05,^{**}p < 0.01,^{***}p < 0.001$.

Table 4 reports the results for specification (1), replicating column (3) of table 3 for each of the subsets. The results are clear: significant effects can be identified for both 'safe' and 'low-chance' positions. In both cases, the effects have a distinct ideological dimension. For 'critical' positions – where the electoral stakes are highest – no gender effect can be identified. Irrespective of the party's ideological position female and male candidates tend to receive similar vote shares in this subset.

Considering the highest positions in the party lists, we observe that female candidates receive as a rule fewer preferential votes than male candidates in equal position. This discrimination favoring female politicians in terms of their ranking, however, dampens as one moves along the ideological spectrum. The dampening effect – significant at the 5% level – is of considerable size. For the leftmost party in our sample (with ideological score 2.2) the results in table 4 suggest that female candidates receive on average 12% fewer votes than their male colleagues. Moving right-wards along the ideological spectrum, the advantage weakens to such an extent that it is absent for the rightmost party. This indicates that right-wing female

[13]Replicating the analysis with different values for $k$ gives, however, highly comparable results (results for $k = 2$ can be found in table A.3 in the appendix).

politicians in top positions on their ballot do not get any benefit (or disadvantage). Their position reflects their popularity in the electorate. Interestingly, for low-chance positions the result is reversed. On the left, female candidates are disadvantaged in the ranking (they receive more preferential votes than do male candidates in equal position) whereas this discrimination turns into a female advantage as one moves to the right of the political spectrum. The statistical effects among the low-chance positions are strong in terms of significance. Female candidates of Groen receive almost 4% more votes than their male colleagues, indicating that they are placed in positions that are lower than would be the case if only expected preferential votes were taken into account in the party list formation. This discrimination against female candidates disappears when moving right-wards along the political spectrum. In a hypothetical party with an ideological score of 4.5, male and female candidates would be ranked according to their (expected) preferential votes. For more right-wing parties women are on more attractive positions in this subsample.

These results indicate party policies that do not discriminate against candidates in critical positions due to their gender. Parties' gender biases only become apparent when electoral uncertainty is low (i.e. in 'safe' and in 'low chance' positions). Left-wing parties offer women higher positions in the top parts of the party list than their preferential votes would suggest; right-wing parties offer them in the bottom parts. By offering female candidates more visible positions, left-wing parties may promote the perception of their party as progressive and women friendly. Indeed, politicians tend to view higher positions in their party's ballot as an important signal of trust and 'career plans' the party might have for them. This is also the case independent of the expected impact on actual election prospects. There are plenty of examples of politicians fighting over top positions prior to elections even in lists with relatively larger numbers of seats expected to be won.[14]

The results in tables 3 and 4 give general evidence of discriminatory forces (and their ideological dimension) in party list formation. As a robustness test, we estimate a logit model with pairs of candidates of different gender that were ranked next to each other on their party list. We estimate the probability that a candidate outperforms the candidate ranked one position higher. The results are presented in table 5. Column (1) shows the estimation results for the full sample. Columns (2), (3) and (4) provide the results distinguishing, as in table 4, 'safe', 'critical' and 'low-chance' positions.

The main results are in line with our prior findings. Estimating the model for the full sample, we find the probability of a female candidate outperforming a male candidate preceding her in the party list to be related to parties' ideology and lower on the right-hand side of the spectrum. This effect is again driven by the pairs of candidates in low-chance positions. In such positions, female candidates in left-wing parties are lower on the list than their preferential votes would dictate. Male candidates are placed higher on the list. As a result, left wing party lists reflect an unequal playing field where female candidates generally outperform their male neighbors in low-chance positions. Whereas we observe significant discrimination in favor of female candidates among right-wing parties in table 4, it is noteworthy that the coefficient sizes for the main and interaction effects for low-chance positions in table 5 no longer indicate such a significant reversal of the effect for the right-hand side of the political spectrum.

For critical positions, too, the results in table 5 are in line with those reported earlier. We do not observe any systematic bias due to gender, neither on the left nor on the right. For safe positions, the results in table 4 are not confirmed, though the ideological variable has the expected positive sign. It indicates that female candidates in 'safe' positions are least likely to outperform men on the left-hand side of the political spectrum, which corresponds to the finding in table 4 that women on the left tend to be assigned higher positions in party lists.[15]

The relative rank has a positive effect on the likelihood of outperformance. This probability increases further down the list. This may either reflect that the within-pair differences between candidates become

[14]To rule out that the effect observed for 'safe' positions is a consequence of the placement mandate (imposing parties to have both a male and a female candidate in the first two positions), we re-estimate the regressions in table 4 leaving out candidates in those positions. The main conclusions are unaffected, and results are available upon request.

[15]To test whether any of our findings in the logistic model are driven by pairs led by (fe-)male candidates, we also run the same estimations with the sample split according to whether the female, respectively the male candidate, was ranked second. The results confirm the findings reported (results available upon request).

smaller or that other determinants (beyond expected vote share) are relatively more important in the process of party list formation. Finally, the results for the other control variables all confirm the results in tables 3 and 4: higher age lowers the probability of outperforming the preceding candidate; being in last position positively affects this probability; and being an incumbent retains a highly significant and positive effect.

**Table 5:** Likelihood of lower ranked candidate outperforming neighboring higher ranked candidate of opposite gender. Full sample and strictly in 'safe', 'critical' and 'low-chance' ballot positions ($k = 1$) with complete lists

| | Outperformance | | | |
|---|---|---|---|---|
| | Full sample | Safe | Critical | Low-chance |
| FEMALE | $0.708^{***}$ | $-1.345$ | $-0.717$ | $1.026^{***}$ |
| | (0.178) | (0.904) | (0.483) | (0.178) |
| IDEOLOGY | $0.040^{*}$ | $-0.090$ | $-0.058$ | $0.054^{**}$ |
| | (0.016) | (0.075) | (0.051) | (0.016) |
| FEMALE × IDEOLOGY | $-0.088^{**}$ | 0.122 | 0.097 | $-0.111^{***}$ |
| | (0.028) | (0.146) | (0.079) | (0.028) |
| RELATIVE RANK | $0.013^{***}$ | $0.036^{***}$ | $0.021^{***}$ | $0.009^{***}$ |
| | (0.001) | (0.005) | (0.004) | (0.001) |
| LAST POSITION | $1.468^{***}$ | | | $1.667^{***}$ |
| | (0.152) | | | (0.160) |
| LISTLENGTH | $0.004^{*}$ | 0.012 | 0.013 | 0.002 |
| | (0.002) | (0.007) | (0.009) | (0.002) |
| WITHIN PAIR AGE DIFFERENCE | $-0.006^{***}$ | $-0.007^{+}$ | $-0.005$ | $-0.005^{***}$ |
| | (0.001) | (0.004) | (0.004) | (0.001) |
| WITHIN PAIR INCUMBENY ADVANTAGE | | | | |
| *MAYOR* | $4.797^{***}$ | $3.748^{***}$ | | $2.574^{+}$ |
| | (0.551) | (0.614) | | (1.378) |
| *ALDERMAN* | $2.339^{***}$ | $1.824^{***}$ | $2.299^{***}$ | $2.897^{***}$ |
| | (0.150) | (0.197) | (0.506) | (0.330) |
| *COUNCILOR* | $1.172^{***}$ | $0.860^{***}$ | $1.113^{***}$ | $1.544^{***}$ |
| | (0.075) | (0.132) | (0.151) | (0.149) |
| *MINISTER* | $1.824^{***}$ | $1.359^{***}$ | | |
| | (0.533) | (0.323) | | |
| *PARLIAMENT* | $1.757^{***}$ | $2.070^{***}$ | $2.236^{***}$ | 0.529 |
| | (0.346) | (0.412) | (0.632) | (0.942) |
| Constant | $-1.253^{***}$ | $-0.913^{+}$ | $-0.883^{*}$ | $-1.104^{***}$ |
| | (0.109) | (0.522) | (0.391) | (0.117) |
| Observations | 14574 | 1956 | 1136 | 10414 |
| $Pseudo - R^2$ | 0.091 | 0.167 | 0.100 | 0.061 |

*Notes:* Logistic regressions, coefficients reported, standard errors clustered at municipality in parentheses; $^{+}p < 0.10,^{*}p < 0.05,^{**}p < 0.01,^{***}p < 0.001$.

## 6. Conclusion

Female representation is a major concern in today's politics. Party leadership's gatekeeping power has been identified as a potential barrier hindering such representation. The leadership, typically dominated by male politicians, may impose its potentially gendered preferences through many channels. In semi-open list systems, the process of list formation is one such channel. There is by now convincing evidence that party leadership uses the nomination of candidates and the composition of party lists as an instrument to consolidate power – party list formation does not take place in a vacuum. The electoral rules, notably the presence of gender quotas, may be used as an instrument to close the gap between male and female presence in legislative (and executive) bodies of government. As the preference for equal treatment of women tends to have an ideological dimension (with left-wing parties more in favor), quota rules are expected to be more binding for parties on the right-hand side of the political spectrum.

Flemish municipalities provide an excellent example to analyze whether and how gendered preferences are present in party list formation under a quota system. The multi-party setting provides a rich set of (ideologically) different parties. These are obliged to present a balanced ballot in which the numbers of candidates of each gender are equal or at most differ by one. Moreover, a placement mandate instructs parties to reserve the first two positions for candidates of different genders. While imposing a constraint on

parties' list formation, voters are free to express their preferences through the (multiple) preferential votes they may cast.

Analyzing the 2012 electoral results for the six major parties in all 308 Flemish municipalities, we find evidence that female candidates are on average positioned higher – not lower – in the party ballot than would have been the case if such positioning were only based on the (expected) electoral success as expressed by the number of preferential votes. This general finding may suggest that gender quotas are (highly) successful. Indeed, under the semi-open list system in use, candidates in higher positions are ceteris paribus more likely to win a seat.

A closer look at the effects, however, reveals a more complex pattern, one that may give less reason for optimism from the perspective of those advocating for gender equality in political power. We find that the benefit of women being better positioned on lists is, with some exception for left-wing parties, restricted to those parts of the ballot in which such an 'upgrade' does not affect the probability of being elected. In 'critical' positions, i.e. positions with the most uncertain probability of election, female and male candidates are ranked according to their expected electoral success in terms of preferential votes. We find this gender neutrality to exist irrespective of parties' ideological position.

Where the uncertainty surrounding the odds of actual election is low, we find a gendered treatment of candidates. In positions that are (almost) certain to lead to election, left-wing party leaderships place female candidates higher than would be expected based on their electoral success in terms of preferential votes. Such positive discrimination dampens completely as one moves along the ideological spectrum. Interestingly, the picture is reversed in 'low chance' positions, i.e. for ballot positions (almost) certainly leading to non-election. Here, we find right-wing parties to offer female candidates higher positions and left-wing parties to actually discriminate against women by offering them lower positions than would be expected if positions were assigned based on anticipated preferential votes.

Our results are consistent with a model in which left-wing parties have a pro-women preference (while right-wing parties are pro-men) and quota rules affect list formation. These rules force parties to offer female candidates (better) positions on the ballot. This constraint is more binding for right-wing parties. They respond by complying with quota rules in a minimalistic manner and offer female candidates positions that do not lead to election.

The findings clearly demonstrate that in the process of party list formation and in the setting of Flemish municipalities: (a) female candidates are treated differently depending on the party's ideological position; (b) such discrimination depends on electoral competitiveness; and (c) pro-women treatment in left-wing parties occurs most in safe positions while in right-wing parties it is found in low-chance positions. To disentangle the impact of gendered preferences on the one hand and quota-imposed constraints on the other, it would be necessary to replicate our study on data of elections before the introduction of quota. Unfortunately, such data are not available for the Flemish municipalities. A second question is whether and to what extent our results can be generalized to different settings. Replication in different contexts would thus be highly welcome. While more pro-women preferences among left-wing parties are well documented, the role that quota rules play depends on their very nature and context. It could be expected that the degree to which such rules can (partially) neutralize any gender bias correlates with their effectiveness in terms of promoting female representation. In other words, and in line with the conclusions of Schmidt (2008), we may expect gender biases to be neutralized more effectively under placement mandates than under the more general quota rules specifying minimum presence of female candidates in the party list.

**Acknowledgements**

We wish to thank three anonymous referees for very detailed and constructive reviews, as well as Joshua Holm, Paola Profeta, Joanna Siwinska-Gorzelak, Kartsen Staehr and the participants of the European Public Choice Society Annual Meeting in Rome (April 2018) and of the Research Seminar of the Institute of Economic Analysis and Finance at Tallinn University of Technology (May 2018) for helpful comments and suggestions. Colin R Kuehnhanss is grateful to the Research Foundation Flanders (FWO) for financial support in the form of a PhD-Fellowship up until 2018 (grant nr. 11V2117N). Colin is also an official at the European Commission, however this contribution is authored in private capacity and expresses exclusively the personal opinion of its authors. It does not necessarily reflect the official opinion of the European Commission.

## Appendix.

**Table A.1:** Overview of party lists (all lists and complete lists respectively

| | Groen | Sp.a | CD&V | Open-VLD | N-VA | Vlaams Belang | TOTAL |
|---|---|---|---|---|---|---|---|
| Ideology | 2.2 | 2.6 | 5.5 | 6.6 | 6.7 | 9.3 | |
| Number of lists | 96 | 139 | 241 | 181 | 259 | 181 | 1097 |
| Average list length | 23.40 | 24.12 | 24.66 | 24.64 | 24.14 | 16.25 | 22.97 |
| Standard deviation | 8.561 | 7.154 | 5.978 | 7.116 | 7.086 | 11.165 | 8.384 |
| Min number of candidates | 8 | 6 | 11 | 7 | 7 | 1 | 1 |
| Max number of candidates | 55 | 47 | 51 | 55 | 55 | 55 | 55 |
| Average vote share (all candidates) | 0.043 | 0.041 | 0.041 | 0.041 | 0.041 | 0.062 | 0.044 |
| Average vote share for top position | 0.141 | 0.159 | 0.154 | 0.160 | 0.150 | 0.292 | 0.176 |
| Average vote share for top three positions | 0.286 | 0.297 | 0.290 | 0.300 | 0.282 | 0.494 | 0.324 |
| Average vote share for top five positions | 0.387 | 0.397 | 0.394 | 0.398 | 0.380 | 0.597 | 0.423 |
| Share of complete lists | 0.646 | 0.856 | 0.996 | 0.901 | 0.861 | 0.260 | 0.779 |
| Number of complete lists | 62 | 119 | 240 | 163 | 223 | 41 | 854 |
| Average list length | 29.39 | 27.17 | 26.13 | 27.33 | 27.09 | 33.01 | 27.45 |
| Standard deviation | 8.394 | 6.916 | 6.700 | 7.293 | 7.191 | 9.107 | 7.479 |
| Min number of candidates | 19 | 17 | 11 | 17 | 11 | 19 | 11 |
| Max number of candidates | 55 | 47 | 51 | 55 | 55 | 55 | 55 |
| Average vote share (all candidates) | 0.036 | 0.039 | 0.040 | 0.039 | 0.039 | 0.032 | 0.039 |
| Average vote share for top position | 0.132 | 0.154 | 0.154 | 0.156 | 0.145 | 0.216 | 0.154 |
| Average vote share for top three positions | 0.286 | 0.297 | 0.290 | 0.300 | 0.282 | 0.494 | 0.324 |
| Average vote share for top five positions | 0.387 | 0.397 | 0.394 | 0.398 | 0.380 | 0.597 | 0.423 |

**Table A.2:** Overview of positions by chances of electoral success for complete lists

| | Safe positions | Critical positions | Low-chance positions | All positions |
|---|---|---|---|---|
| $k = 0$ | | | | |
| # candidates | 4021 | 840 | 17161 | 22022 |
| % candidates | 18.3 | 3.8 | 77.9 | 100 |
| % female | 42.8 | 48.1 | 50.4 | 48.9 |
| $k = 1$ | | | | |
| # candidates | 3260 | 2455 | 16307 | 22022 |
| % candidates | 14.8 | 11.2 | 74.1 | 100 |
| % female | 42.5 | 46.2 | 50.6 | 48.9 |
| $k = 2$ | | | | |
| # candidates | 2602 | 3966 | 15454 | 22022 |
| % candidates | 11.8 | 18.0 | 70.2 | 100 |
| % female | 42.5 | 46.1 | 50.7 | 48.9 |

**Table A.3:** Shares of preferential votes in Flemish municipal elections for 'safe', 'critical' and 'low-chance' ballot positions ($k = 2$) in complete party lists

| | ln(voteshare) | | |
|---|---|---|---|
| | Safe | Critical | Low-chance |
| FEMALE | $-0.241^{**}$ | 0.019 | $0.081^{***}$ |
| | (0.084) | (0.033) | (0.020) |
| IDEOLOGY | 0.001 | 0.007 | 0.003 |
| | (0.009) | (0.005) | (0.003) |
| FEMALE × IDEOLOGY | $0.034^{*}$ | $-0.006$ | $-0.016^{***}$ |
| | (0.014) | (0.005) | (0.003) |
| RELATIVE RANK | $-0.022^{***}$ | $-0.018^{***}$ | $-0.004^{***}$ |
| | (0.001) | (0.001) | (0.000) |
| LISTLENGTH | $-0.025^{***}$ | $-0.035^{***}$ | $-0.041^{***}$ |
| | (0.002) | (0.001) | (0.001) |
| FIRST POSITION | $0.699^{***}$ | $0.613^{***}$ | |
| | (0.028) | (0.029) | |
| LAST POSITION | | | $0.623^{***}$ |
| | | | (0.019) |
| AGE | 0.005 | $-0.002$ | $-0.004^{**}$ |
| | (0.005) | (0.003) | (0.001) |
| AGE$^2$ | $-0.000$ | $-0.000$ | $0.000^{*}$ |
| | (0.000) | (0.000) | (0.000) |
| MAYOR | $0.317^{***}$ | $0.355^{***}$ | $0.569^{***}$ |
| | (0.034) | (0.030) | (0.100) |
| ALDERMAN | $0.335^{***}$ | $0.474^{***}$ | $0.590^{***}$ |
| | (0.020) | (0.029) | (0.025) |
| COUNCILOR | $0.163^{***}$ | $0.283^{***}$ | $0.404^{***}$ |
| | (0.021) | (0.017) | (0.017) |
| MINISTER | $0.631^{***}$ | $1.933^{***}$ | $0.539^{*}$ |
| | (0.048) | (0.050) | (0.218) |
| PARLIAMENT | $0.403^{***}$ | $0.513^{***}$ | $0.364^{**}$ |
| | (0.079) | (0.094) | (0.124) |
| Constant | $-2.277^{***}$ | $-1.916^{***}$ | $-2.198^{***}$ |
| | (0.136) | (0.082) | (0.047) |
| Observations | 2602 | 3966 | 15454 |
| $R^2$ | 0.747 | 0.681 | 0.553 |

*Notes:* Ordinary least squares regressions, standard errors clustered at municipality in parentheses; $^{+}p < 0.10,^{*}p < 0.05,^{**}p < 0.01,^{***}p < 0.001$.

## References


André, A., Depauw, S., Shugart, M.S., Chytilek, R., 2017. Party nomination strategies in flexible-list systems: Do preference votes matter? Party Politics 23(5), 589–600. DOI: 10.1177/1354068815610974.

André, A., Wauters, B., Pilet, J.B., 2012. It's not only about lists: Explaining preference voting in Belgium. Journal of Elections, Public Opinion & Parties 22(3), 293–313. DOI: 10.1080/17457289.2012.692374.

Baltrunaite, A., Bello, P., Casarico, A., Profeta, P., 2014. Gender quotas and the quality of politicians. Journal of Public Economics 118, 62–74. DOI: 10.1016/j.jpubeco.2014.06.008.

Besley, T., Folke, O., Persson, T., Rickne, J., 2017. Gender quotas and the crisis of the mediocre man: Theory and evidence from Sweden. American Economic Review 107(8), 2204–2242. DOI: 10.1257/aer.20160080.

Bonomi, G., Brosio, G., Di Tommaso, M.L., 2013. The impact of gender quotas on votes for women candidates: Evidence from Italy. Feminist Economics 19(4), 48–75. DOI: 10.1080/13545701.2013.825375.

Campbell, R., Childs, S., 2015. 'To the left, to the right': Representing conservative women's interests. Party Politics 21(4), 626–637. DOI: 10.1177/1354068813491536.

Casas-Arce, P., Saiz, A., 2015. Women and power: Unpopular, unwilling, or held back? Journal of Political Economy 123(3), 641–669. DOI: 10.1086/680686.

Caul, M., 1999. Women's representation in Parliament. Party Politics 5(1), 79–98. DOI: 10.1177/1354068899005001005.

Celis, K., Erzeel, S., Meier, P., 2013. Twintig jaar quota en wat nu? Een empirische reflectie op de tijdelijkheid van genderquota in de lokale politiek, in: Deschouwer, K., Verthé, T., Rihoux, B. (Eds.), Op zoek naar de kiezers. Academic & Scientific Publishers, Brussels.

Crisp, B.F., Olivella, S., Malecki, M., Sher, M., 2013. Vote-earning strategies in flexible list systems: Seats at the price of unity. Electoral Studies 32(4), 658–669. DOI: 10.1016/j.electstud.2013.02.007.

Deschouwer, K., 2012. The Politics of Belgium: Governing a Divided Society. Palgrave Macmillan, Houndmills, Basingstoke.

Deschouwer, K., Verthé, T., Rihoux, B., 2013. Op zoek naar de kiezers. Academic & Scientific Publishers, Brussels.

Devos, C., Reynaert, H., Verlet, D., 2008. Lijstvorming op lokaal vlak: Het spannende voorspel van de electorale strijd, in: Devos, C., Reynaert, H., Verlet, D. (Eds.), Tussen kiezer en hoofdkwartier: De lokale partijafdelingen en de gemeenteraadsverkiezingen van 2006. VUB Press, Brussels, pp. 47–72.

Dubrow, J.K., 2011. The importance of party ideology: Explaining parliamentarian support for political party gender quotas in Eastern Europe. Party Politics 17(5), 561–579. DOI: 10.1177/1354068810377190.

Edlund, L., Pande, R., 2002. Why have women become left-wing? The political gender gap and the decline in marriage. Quarterly Journal of Economics 117(3), 917–961. DOI: 10.1162/003355302760193922.

Esteve-Volart, B., Bagues, M., 2012. Are women pawns in the political game? Evidence from elections to the Spanish Senate. Journal of Public Economics 96(3-4), 387–399. DOI: 10.1016/j.jpubeco.2011.12.004.

Folke, O., Persson, T., Rickne, J., 2016. The primary effect: Preference votes and political promotions. American Political Science Review 110(3), 559–578. DOI: 10.1017/s0003055416000241.

Fréchette, G.R., Maniquet, F., Morelli, M., 2008. Incumbents' interests and gender quotas. American Journal of Political Science 52(4), 891–909. DOI: 10.1111/j.1540-5907.2008.00349.x.

Geys, B., Heyndels, B., 2003. Ballot layout effects in the 1995 elections of the Brussels' government. Public Choice 116(1/2), 147–164. DOI: 10.1023/A:1024269732436.

Górecki, M.A., Kukołowicz, P., 2014. Gender quotas, candidate background and the election of women: A paradox of gender quotas in open-list proportional representation systems. Electoral Studies 36, 65–80. DOI: 10.1016/j.electstud.2014.06.009.

Jottier, D., Ashworth, J., Heyndels, B., 2012. Understanding voters' preferences: How the electorate's complexity affects prediction accuracy and wishful thinking among politicians with respect to election outcomes. Kyklos 65(3), 340–370. DOI: 10.1111/j.1467-6435.2012.00542.x.

Marcinkiewicz, K., 2014. Electoral contexts that assist voter coordination: Ballot position effects in Poland. Electoral Studies 33, 322–334. DOI: 10.1016/j.electstud.2013.07.018.

Marien, S., Schouteden, A., Wauters, B., 2017. Voting for women in Belgium's flexible list system. Politics & Gender 13(2), 305–335. DOI: 10.1017/s1743923x16000404.

McElroy, G., Marsh, M., 2010. Candidate gender and voter choice: Analysis from a multimember preferential voting system. Political Research Quarterly 63(4), 822–833. DOI: 10.1177/1065912909336270.

Miguel, L.F., 2008. Political representation and gender in Brazil: Quotas for women and their impact. Bulletin of Latin American Research 27(2), 197–214. DOI: 10.1111/j.1470-9856.2008.00263.x.

Murray, R., Krook, M.L., Opello, K.A.R., 2011. Why are gender quotas adopted? Party pragmatism and parity in France. Political Research Quarterly 65(3), 529–543. DOI: 10.1177/1065912911414590.

Put, G.J., Maddens, B., Smulders, J., 2015. Buying local votes: The effect of individual campaign spending under a semi-open PR system in the Belgian local elections. Local Government Studies 41(1), 137–155. DOI: 10.1080/03003930.2014.904227.

Schmidt, G.D., 2009. The election of women in list PR systems: Testing the conventional wisdom. Electoral Studies 28(2), 190–203. DOI: 10.1016/j.electstud.2008.08.002.

Stadelmann, D., Portmann, M., Eichenberger, R., 2014. Politicians and preferences of the voter majority: Does gender matter? Economics & Politics 26(3), 355–379. DOI: 10.1111/ecpo.12039.

Wängnerud, L., 2009. Women in parliaments: Descriptive and substantive representation. Annual Review of Political Science 12(1), 51–69. DOI: 10.1146/annurev.polisci.11.053106.123839.

Wauters, B., Verlet, D., Ackaert, J., 2012. Giving more weight to preferential votes: Welcome or superfluous reform? The case of the local elections in Flanders (Belgium). Local Government Studies 38(1), 91–111. DOI: 10.1080/03003930.2011.629193.