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To cite this article: Mirjam Allik (2015) Who stands in the way of women? Open vs. closed lists and candidate gender in Estonia, *East European Politics*, 31:4, 429-451, DOI: [10.1080/21599165.2015.1084924](https://doi.org/10.1080/21599165.2015.1084924)

To link to this article: <http://dx.doi.org/10.1080/21599165.2015.1084924>



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Published online: 10 Nov 2015.



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Who stands in the way of women? Open vs. closed lists and candidate gender in Estonia

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(Received 6 October 2014; accepted 5 August 2015)

The literature on women's descriptive representation has looked at the debate on open and closed lists as a choice between electoral systems. This article instead focuses on whether voters or the parties are biased against female candidates. Using data from six Estonian elections, the article finds that voters are not consistently biased against female candidates and open lists do not necessarily decrease women's representation. However, unknown and non-incumbent female candidates fare significantly worse than similar men. The analysis also shows that parties do not place women in electable positions on closed lists, and closed lists do not improve women's representation.

Keywords: candidate gender; voter preference; political parties; candidate selection; electoral systems; Estonia

1. Introduction

In most countries, women are far less likely to hold elected office than men, and there has been virtually no change in the gender composition of parliaments in some countries since the 1970s. This is the case despite advances made in women's education, employment rates, and substantial changes in public attitudes about female leadership. What or who is still standing in the way of electing women to office? This article looks at the debate on the effect of closed and open lists on women's representation, an issue that ultimately comes down to the question of whether political parties or voters disadvantage female candidates. While previous research in this area has tested theories about list types at the country level, this article reassesses the accuracy of this theory at the individual level, that is, at the level of the actual causal mechanism.

I use data from six parliamentary elections in Estonia between 1992 and 2011. The Estonian case is insightful for many reasons. First, during the 20-year span, the electoral system has largely remained unchanged and simultaneously combines both closed and open lists. The uniqueness of the system allows us to test the effect of list types on women's election while holding everything pertaining to each election constant. Second, the availability of detailed party and candidate data permits the testing of the theories at the level of the mechanism rather than observing a relationship at the country level. Third, previous research on individual-level data has focused on candidate-centred systems – mainly single member districts (SMD), but also single transferable vote (STV) – and analysed only a single point in time. The Estonian data provide the opportunity to test the effect of gender on votes, election chances and list position in a party-centred proportional system over a 20-year period.

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Using these data, the article first analyses the effect of gender on votes and finds that women are associated with fewer votes at some elections, but not at others. A closer examination reveals that the gender gap in votes is driven by a large group of weak non-incumbent candidates who do not stand a chance for office. Among competitive candidates, that is, those with a realistic chance of winning a seat, women do not receive fewer votes than men. Second, the article tests the effect of gender on getting elected from open lists, and finds little evidence that women are associated with lower election probability from open lists. These two results together suggest that there is no consistent voter bias against female candidates in Estonia and, thus, open lists do not harm women's election to parliament. Lastly, the article turns to potential party biases and looks at the effect of gender on placement on closed party lists. Interestingly, women are often associated with lower places on closed lists, suggesting that parties do not support female candidates. Thus, unlike much of the previous macro-level research, this article finds that closed lists are not necessarily beneficial for women's elections, and open lists are not necessarily unfavourable.

2. Closed vs. open lists and women

The explanations of women's underrepresentation in politics are varied, ranging from institutional factors to socioeconomic conditions and public attitudes. Of all these, institutional obstacles and particularly electoral systems have probably received the most attention. For decades, researchers have observed a positive association between proportional representation (PR) systems with high district magnitudes and women's percent among representatives (Duverger 1955; Rule 1987, 1994; Taagepera and Shugart 1989; Matland 1998; McAllister and Studlar 2002; Salmond 2006). High district magnitudes are likely to increase the number of seats a party receives in a district and advance women's representation, because the second and third positions in party lists are often also captured by women. Thus, the more seats a party wins in a district (i.e. the higher the party magnitude), the more likely will there be women among the delegates (Matland 1993).

Others have argued that PR systems increase women's representation because they are less candidate centred, emphasising party representation and reducing personal vote incentives (Rule 1987; Kenworthy and Malami 1999; Thames and Williams 2010). Until recent decades, most PR systems made voters choose between parties rather than candidates. For this reason, the closed list PR systems are called party centred – the focus of the electoral contest is the differences between parties and not candidates' personal traits. In contrast, SMD, STV, single non-transferable vote and also open-list PR systems are candidate centred – voters have to choose between candidates. Some cross-national studies have found that countries using closed lists elect more females than those with open lists (Rule 1987; Kenworthy and Malami 1999; Thames and Williams 2010). Systems where candidates are highly visible can reduce women's representation compared to the party-centred systems because parties may be reluctant to nominate women as such nominations can reduce the party's electoral success (Thames and Williams 2010). If female candidates receive fewer votes at the polls, then including them will reduce the parties' chances of election.

The empirical evidence on the benefits of closed lists is, however, not wholly conclusive. While Valdini (2012) finds that women are less likely to be nominated in open-list systems, she adds that this is only the case in more traditional societies, and whether the list is open or closed has no effect in more egalitarian societies like Finland. A number of other researchers have found no difference in women's representation between countries with closed and open lists (Schmidt 2009; Schwindt-Bayer 2009), and scholars have started to question the theory (Matland 2005).

The typical way of looking at this debate on list types is to see it as one between electoral systems – which institutional settings are related to higher female representation. But we can also interpret this discussion as one about who the assumed culprit is, that is, whether it is the biased voters who do not want to vote for women, or the parties with male-dominated hierarchies. Closed lists should be superior to open lists only if parties support women's candidacy and voters do not. The causal mechanism linking closed lists to higher women's representation rests on party and voter behaviour, and as such we should look for evidence at the individual, rather than cross-national, level. The most substantial proof would be to detect voters to be less likely to give their support to women, and, find parties to support women's election by placing them at the top of closed lists.

Individual-level research on the effects of gender on votes and getting elected is still less common, but has become more widespread in the last 10–15 years. Most work has focused on candidate-centred systems such as SMD or STV. If these candidate-centred systems indeed reduced women's representation through voter behaviour, gender should have a significant effect on candidates' votes and election probability. Some individual-level research on STV systems does indeed suggest a voter bias against women (Ortega Villodres 2008; Schwindt-Bayer, Malecki, and Crisp 2010), but the effects are small and conditional on other factors (e.g. party size). Research on SMD in Canada shows that women who contest open seats cost the party more in popular vote loss than men at similar races, but the gender vote gap is marginal when an incumbent is running for re-election (Young 2006).

While the above works give some indication of voter biases, many other scholars have found no relationship among candidates' gender, election probability, and votes (Norris and Lovenduski 1995; Black and Erickson 2003; Kunovich 2012). Even in Ireland, where women's representation has remained at one of the lowest levels among democracies, researchers have found no evidence that women receive fewer first preference votes (McElroy and Marsh 2010, 2011). The work on Ireland also suggests that, despite the lack of clear voter bias, a third of female and 17% male candidates still believe that voters prefer male candidates. In addition, a majority of female candidates say that women are not given enough opportunities by parties, suggesting rather a party bias at the nomination phase (McElroy and Marsh 2011).

A good way to gauge party support for female candidates is to look at the placement of candidates on election lists. Previous work has distinguished three main types of list positions – mandate, fighting, and ornamental (Skard and Haavio-Mannila 1985). If women were placed in the mandate positions, that is, those from which the chances of being elected are good, party support for women would be strong. Candidates in fighting positions may or may not be elected depending on how well the party does. Women placed in those positions have some party support. If, however, parties were more likely to place women into positions where the prospect of election is minimal, that is, ornamental positions, parties could be considered biased against female candidates. Recent studies have found the latter to be the case, showing that it is parties rather than voters who do not support women (Kunovich 2003; Esteve-Volart and Bagues 2012). In particular, Tavits (2010) finds that in Estonia women are ranked almost four places lower on closed lists than men.

Party elites may also have a more subtle effect on women's election. Fox and Lawless (2010) show that women receive less encouragement from party elites to seek office, and are also less likely to be approached and recruited by political actors. This affects the political ambitions of potential candidates and, as a result, women are less likely to even consider running for office (Fox and Lawless 2004, 2010).

The notion that closed lists improve women's representation also assumes that all parties support women's representation to the same extent. This contradicts party-level research that has found left-wing parties to be associated with higher levels of women among party MPs (Caul 1999; Holmsten, Moser, and Slosar 2010). Left parties also have more women among the higher ranks of the party, which in turn can affect the percent of female candidates a party nominates and sends to the elected office (Kunovich and Paxton 2005; Kittilson 2006, 124; Cheng and Tavits 2011). Thus, closed lists would benefit women if the party system was dominated by (left-wing) parties who were more supportive of female candidates.

A more recent study has argued that the effect of preferential voting on representation varies across countries and years depending on the interaction between parties' and voters' concerns regarding women's representation (Matland and Lilliefeldt 2014). When parties and voters are in harmony and believe that women's representation is important, electoral rules have very little impact. But when parties and voters do not agree on the role of women in politics, electoral rules can either increase or decrease representation based on the precise nature of the interaction between parties' and voters' attitudes towards women's representation.

The juxtaposition of work on women's representation conducted at different levels of analysis brings to light some interesting contradictions. While the macro-level research suggests that closed lists should benefit women because then voters cannot reduce women's chances of election, individual-level research finds little evidence that voters care about the candidate's gender at all. On the contrary, it appears that parties may even be more biased than the voters, meaning that closed lists may even harm, rather than improve, women's representation. Because individual-level research gets to the heart of the theory better than cross-national work, this article will study the effects of list types on representation at the individual level. The uniqueness of the Estonian electoral system also allows us to test the effects of closed and open lists on women's representation simultaneously, something that the previous work has been unable to do.

This article will investigate whether parties or voters are more likely to stand in the way of women's election to the parliament. Section 3 provides a brief overview of the electoral system and women's representation in Estonia. Sections 4 and 5 explore the potential voter bias by looking into the effect of gender on votes and election probability from open lists. Section 6 investigates party bias and analyses the effect of gender on placement on closed national lists.

3. Women and elections in Estonia

The 101 members of the Estonian parliament are elected through a proportional two-tier system that combines closed and open lists. The system has largely remained unchanged over the six elections. The country is divided into 12 districts (11 in 1995 and 1999) along administrative borders. The number of mandates available in a district is proportional to the district's population size, such that larger districts receive more seats. The average district magnitude is eight, while the smallest district has five and the largest has 14 seats. Parties present separate candidate lists for each district (open lists) and one single national list containing all candidates (closed). All candidates nominated by parties are included in 1 of the 12 district lists and also in the national list. Neither of the two lists is alphabetical and candidates are ordered in accordance with the preferences of the parties and their leadership. No legislative quotas apply to either list.

Each voter has one vote that they cast for a candidate on the district list. Within each district and party, the candidates will be reordered based on the number of votes they receive. A candidate receiving votes higher or equal to the quota of his or her district is elected by the *personal mandate*.¹ Votes for the candidates of each party are then pooled at the district level and

parties receive a number of mandates equal to the number of times the party meets the Hare quota. As of 2003, a party is given an additional mandate if the remainder of votes is at least 75% of the quota. The *district mandate* will then be given to candidates who rank highest in their party after the votes are tallied. If a party received two mandates in a district, the two candidates receiving the most votes in that party will be elected to the parliament from that district.

Other than the 75% of quota rule, the remainders do not count towards receiving a district mandate in Estonia. This usually leaves some of the district mandates undistributed. These undistributed mandates are pooled nationally, determining the total number of *compensatory mandates*. Compensatory mandates are distributed between parties in a manner that is proportional to the remainders of each party – parties with larger remainders receive more compensatory mandates. The candidates that receive the compensatory mandates are determined by their place in the closed national lists. The mandate is given to candidates further up in the national list even if they received fewer votes in the district than someone further down the national list. If a candidate has already received a personal or a district mandate they are skipped on the national list.

The number of candidates elected under each type of list is not predetermined. Rather, this depends on the number and strength of parties in districts. If there are many competitive parties, votes will be split between them, lowering the chances of each individual party receiving a district mandate and leaving more seats to be distributed by the compensatory mandate. This was the case in the first elections when most seats were determined by the closed lists. In the 2000s, the number of competitive parties decreased and more mandates were distributed at the district level using the open lists. Table 1 shows the number of candidates elected under each list type. While more and more candidates have been elected under open lists, this does not mean that the trend will continue. As the Estonian party system keeps changing, the number of representatives elected under either list type will, inevitably, also change. It is difficult to predict the number of representatives elected under each type of list at the party and at the national level.

The electoral system Estonia uses is quite unique in the way it combines open and closed lists. It makes voters choose between candidates, but also allows parties to support certain candidates by placing them at the top of national lists.² This provides for an interesting case study where we can look at both voter and party biases during the same election.

Table 1 shows the number and percent of female candidates and elected representatives over the six elections. The first democratic elections were associated with poor political representation of women, something that has been common to all post-communist countries (Matland and Montgomery 2003). While women were involved in the process of democratisation in Eastern Europe, they did not do so as women or feminists. Initially, many women actually expressed the desire not to participate in the workforce or in politics. Issues of gender equality were associated with the discredited communist regime, and the initial rejection of feminism and egalitarian goals was, to a large extent, a rejection of communism (Jaquette and Wolchik 1998).

Survey results confirm the explicit rejection of women's participation in politics. In the mid-1990s, nearly 80% of men and about 60% of women in Estonia believed that "men make better political leaders" (Wilcox, Stark, and Thomas 2003, 45). But attitudes changed quite rapidly in the following years. A survey asking a similar question in 2005 found the respective percentages to be 53 and 34 (Dreman et al. 2006, 19), showing a marked decrease in just 10 years. Similarly, in 2005, only 19% of men and 40% of women believed that there should be more women representatives in the Estonian parliament, and these percentages were 32 and 49 just four years later (Vainu, Järviste, and Biin 2010, 137). Today, the majority of Estonians are willing to vote for female candidates.³

Table 1. Female candidates and representatives by list type and overall retention rates, 1992–2011.

	1992			1995			1999			2003			2007			2011		
	T	F	F%	T	F	F%	T	F	F%	T	F	F%	T	F	F%	T	F	F%
Elected	101	13	12.9	101	12	11.9	101	18	17.8	101	19	18.9	101	24	23.8	101	20	19.8
Open	41	3	7.3	49	3	6.1	55	9	16.4	74	11	14.9	75	17	22.7	82	18	22
Closed	60	10	16.7	52	9	17.3	46	9	19.6	27	8	29.6	26	7	26.9	19	2	10.5
Candidates	629	88	14.0	1256	218	17.7	1884	508	27.0	963	206	21.4	975	264	27.1	789	178	22.6
Retention					51	50.5		53	52.5		39	38.6		68	67.3		67	66.3

Notes: T, total number of candidates, F, female candidates, F%, percent female. Data on retention rates from Möttus and Sikk (2011).

The dynamics in public attitudes are consistent with women's electoral success in the open lists. At the first two elections, under 10% of those elected through open lists were women; this increased to 15–16% during the turn of the century, and 22% of representatives from open lists were women in the last two elections. Because of the low percentages of women elected through the open lists and the (initially) negative attitudes about women's participation in politics, the blame for the underrepresentation of women is often put on the voters. It is argued that including more women among candidates does not make for a good campaign strategy for the parties, as voters would not want to vote for them (Raitviir 2000, 2002).

Other researchers have also investigated the role of parties in the representation of women in Estonian politics. The results are not at all flattering for the parties – their executives are not interested in supporting the representation of women (Biin 2004), and some female politicians have voiced concerns of discrimination by male party elites (Laur 2003). Table 1 shows that the proportion of women elected to parliament through closed lists is generally higher compared to the open lists, but there is considerable variation. It is difficult to make conclusions from this about the good intentions of the parties and the positive effect of closed lists, particularly because the results of the national tier are dependent on the district results. What is not dependent on the district results is the order in which candidates are placed on the national lists. Thus, a more accurate test of the parties' potential biases is not the outcome of the national tier, but their initial intentions, that is, the order in which parties have placed the candidates on the closed list.

To analyse the potential voter and party biases in more detail, the article will next look at the effects of gender on votes, election chances from the open lists and on placement in the closed national lists. Together, these individual-level analyses will test the causal mechanism between lists types and women's representation more accurately than macro-level research could. If open lists have a negative effect on women's representation due to voter bias, we would find female candidates to be associated with fewer votes and lower election probability from the district open lists. We might also expect a stronger effect of gender on votes and election probability at the earlier elections, during which public attitudes towards female leadership were more negative.

To study the biases of parties, I test whether women are placed at electable positions on the closed national lists. It should be reiterated that while the closed lists are publicly available before the elections, they are not presented to the voters at the polling booths. This may mean that parties feel less pressure for gender balance on the closed lists as they might in countries where closed lists are the only basis for election. On the one hand, this might make the Estonian findings less applicable to other countries, but on the other hand, this also means that the closed lists in Estonia represent parties' true preferences even more. Finally, it should be noted that while the two lists are (to an extent) interdependent, the best strategy for any party to get a particular candidate elected is to place them as far up as possible on both lists. In terms of getting elected, there is nothing to be gained from placing a candidate in the middle or further down the closed list.

4. Gender and votes

If open lists disadvantage women, we should expect female candidates to receive fewer votes. Table 2 shows the median votes for the six elections. The median vote for women is lower than men's in five of the six elections, but the difference is exceptionally large in 1995, 1999, and 2007. At those three elections, the median for women was as low as 50–60% of men's. In 2003 and 2011, women performed about as well as men in terms of the median votes, and the median for women was even higher than for men in 1992.

This initial look at the data suggests that, rather than consistently performing worse, women do particularly poorly in some elections and not in others. There are two main reasons for the poor

Table 2. Median votes by gender and incumbency.

Election year	1992	1995	1999	2003	2007	2011
Women	314	70	43	186	100	220
Men	290	102	71	206	196	238
<i>Women's vote as % of men's</i>						
All	108.5	68.6	61.3	90.3	51.3	92.7
Not incumbents	111.1	71.3	66.4	99.4	50.0	93.1
Incumbents	95.8	114.1	133.6	98.0	139.7	86.6

Notes: The median number of votes for both genders is affected by the number of candidates running for office. In 1995 and 1999, the number of candidates was very large and subsequently the median vote is low.

performance of female candidates in 1995, 1999, and 2007. First, these three elections saw increases in the number of female candidates (Table 1). With this general increase in female candidates, there was also an increase in weak female candidates, that is, those who received very few votes. Second, the gender vote gap is particularly high among the non-incumbent candidates and lower among incumbents.⁴ Table 2 shows that incumbent female candidates do just as well or even better than men – the women's vote as a percent of men's is close to 100 or even higher. But when a candidate has not held office at the national level before, gender differences emerge. The gap among the non-incumbents is especially large in 1995, 1999, and 2007 and we also see the increase in female candidates and the overall gender vote gap in these years. In conclusion, it appears that gender differences in votes are driven by a surge in female candidates, many of whom performed poorly at the polls.

So what caused this surge among weak performers? Before 2003 candidate lists were not capped, and parties had the opportunity to file as many candidates as they wanted. This resulted in the parties filing as many as 300 candidates each, triple the amount of representatives in the parliament. The strategy was to increase the votes for the party by having more vote-seeking candidates on the lists. The surge in female candidates in 1995 and 1999 was part of this strategy and not really a move to improve women's political representation. The percent of female candidates dropped in 2003 as the lists were capped. The next increase in the number of female candidates in 2007 was more likely due to changing attitudes among the public and (some of) the parties about women's role in politics. It is likely that many women themselves became more interested in running for office, but were possibly seen by the voters as lacking political experience.

Because other personal and/or party characteristics such as age or popularity of the party also influence voters, the above evidence on its own is not sufficient to determine the effect of gender on votes. The analysis to follow will control for candidate's placement in district and national lists, incumbency, age, and popularity of the party. Table 3 shows the ordinary least squares (OLS) regressions explaining votes for the six elections. The dependent variable in these models is the logit transformation of the candidate's share of district votes. Without the transformation the vote shares are an inappropriate dependent variable, because the values are bound between 0 and 1, and also because most observations are clustered close to zero.⁵ After the transformation, the dependent variable y becomes

$$y = \log\left(\frac{v_i/V_d}{1 - v_i/V_d}\right),$$

where v_i denotes the number of votes for any candidate i and V_d is the number of valid votes in district d .

Table 3. Explaining vote shares, 1992–2011.

DV: logit (% district votes)	1992	1995	1999	2003	2007	2011
Intercept	-5.162*** (0.595)	-7.177*** (0.441)	-7.569*** (0.302)	-7.276*** (0.389)	-6.798*** (0.434)	-5.829*** (0.435)
Female	0.250** (0.120)	-0.189** (0.085)	-0.218*** (0.056)	-0.102 (0.071)	-0.203*** (0.073)	-0.057 (0.080)
National list place	0.001 (0.002)	-0.001 (0.001)	-0.003*** (0.001)	-0.006*** (0.001)	-0.001 (0.001)	-0.005*** (0.001)
District list place	-0.288*** (0.024)	-0.199*** (0.014)	-0.088*** (0.005)	-0.153*** (0.013)	-0.187*** (0.012)	-0.183*** (0.014)
Incumbent	0.862*** (0.162)	1.060*** (0.133)	1.509*** (0.127)	0.649*** (0.104)	0.842*** (0.119)	0.768*** (0.112)
Age	0.019 (0.025)	0.056*** (0.019)	0.052*** (0.013)	0.082*** (0.017)	0.058*** (0.019)	0.023 (0.019)
Age ²	-0.000 (0.000)	-0.001*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)	-0.000 (0.000)
Party district votes	5.745*** (0.533)	7.871*** (0.323)	8.816*** (0.318)	9.228*** (0.293)	8.360*** (0.316)	7.544*** (0.315)
<i>N</i>	629	1251	1884	963	975	789
<i>R</i> ²	0.412	0.470	0.499	0.617	0.589	0.616

Note: Standard errors in parentheses.

****p* < .01.

***p* < .05.

The results in Table 3 are consistent with the analysis of votes presented previously. According to the models, female candidates received fewer votes in five of the six elections, but the coefficient is large and significant only in three – in 1995, 1999, and 2007. These were the elections where we also saw a surge in the number of female candidates. In 2003 and 2011, the coefficient for “Female” is small and the effect falls well below significance. As already indicated by the medians, women are, all else being equal, associated with a greater vote share during the first elections in 1992. This is surprising in light of the negative public attitudes towards female leadership in the early 1990s, but not implausible. It is likely that in 1992 many potential female candidates did not even consider running for office. Or as Fox and Lawless (2004, 2011) put it, many women “weed themselves out” by never entering the arena. The women that did run were exceptionally strong candidates.

The transformation of the dependent variable makes the coefficients difficult to interpret from the table. For this reason, the effect of gender is shown in Figure 1 for the 1999 election. The figure shows the predicted vote shares and 95% confidence intervals for incumbent and non-incumbent candidates of both genders by the popularity of the party. All predictions are for a candidate who is of average age, placed 20th on the national list and 3rd on the district list.

Figure 1 shows that the effect of gender on votes is statistically significant for those candidates who are not incumbents, but not significant for incumbents. When the party’s popularity in the district reaches 20%, the predicted vote share for a male incumbent is 3.8% and 3.1% for a female incumbent. While the difference is noticeable (about 275 votes in an average district), the confidence intervals overlap and include the mean of the other group. For candidates who have not held a national office, men receive about 0.2% more votes than women. While the gap is small, the confidence intervals do not always overlap and the difference is statistically significant. The comparison of gender differences in votes for the two groups of candidates tells us

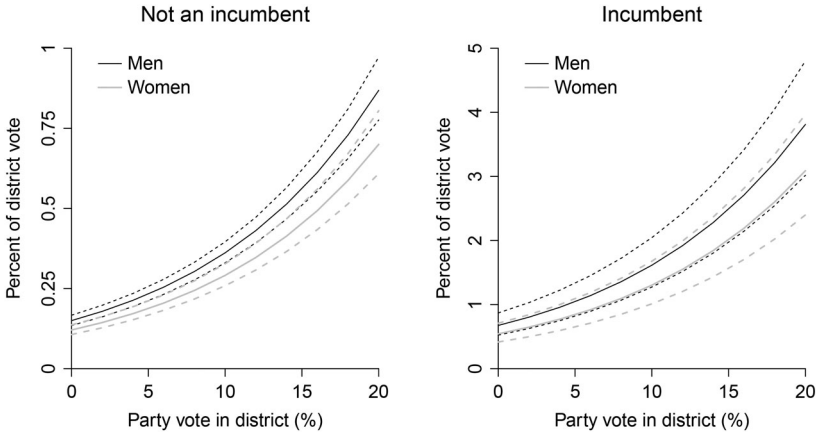


Figure 1. Predicted vote shares by gender and incumbency, 1999.

that the statistically significant effect of gender in Table 3 is driven by a large group of non-incumbent candidates, among whom women do much worse than men.

To provide further support for this, the same regression model was repeated after splitting the candidates of the 1999 election into two groups based on incumbency. The coefficient for “Female” for the non-incumbents was large (-0.227) and highly significant, but for incumbents it was small, insignificant, and positive (0.071). Furthermore, the absence of a gender gap can also be attributed to a broader popularity or visibility of the candidate rather than just incumbency. For example, the candidates of the 1999 election were split into two groups based on votes – those who received minimum 10% of the quota (eligible for a district mandate according to the law) and those who received under 10% of the quota (not eligible for a district mandate). The first group included most of the incumbents but also a number of other strong candidates (business, local or other notables). The coefficient for “Female” was again small (-0.011) and insignificant among these strong candidates, but large (-0.199) and significant among the weak candidates (results shown in the Appendix Tables A2 and A3). In other words, gender had an effect on votes only among the weak candidates, but not when the candidate is otherwise familiar to voters.

From these results, we can conclude that gender does not have a consistent effect on votes. Rather, the analysis of votes tells us that the statistically significant effect of gender is driven by a large group of weak candidates among whom women do much worse than men. But the statistically significant difference in votes among the weakest candidates is not substantively significant in terms of the election outcomes. These weak candidates, regardless of gender, have little chance of being elected.

These findings have two important implications. First, it may mean that women have a more difficult time entering the arena than men – when candidates are new or relatively unknown to voters, the preference is for the male candidate. This would explain why women receive fewer votes among the non-incumbent candidates. At the same time, once a candidate has reached a certain level of visibility, such as incumbency, voters do not seem to care about gender. This explains the lack of a gender gap among incumbents. Second, if gender differences in votes only exist among the less visible and less popular candidates, it will not necessarily translate into an effect of gender on election chances. A gender gap in the probability of getting elected would require a gender vote gap among the competitive candidates. In fact, the percent of women in the parliament actually increased during the 1999 and 2007 elections, suggesting again that the gender vote gap applied in a limited manner, not to all women, but to the weaker and less visible.

Multilevel models with the same variables were also tested, which added party random effects to capture other party-level variation not explicitly measured (results shown in the [Appendix Table A1](#)). While there is some change in the coefficients, particularly for party district votes, the main conclusions from the multilevel models are the same as from the OLS regression. Interaction terms between party effects and gender (random slopes on “Female”) were also included, but none of the party-specific slopes were statistically significant, nor added anything to the model’s explanatory power. This is partially due to the small number of female candidates per party – it is difficult to estimate an effect with just 10–20 observations.

The other control variables in the model had their expected effects. Ranking lower on the district and national lists is associated with fewer votes. The sizes of coefficients vary across elections, but are roughly of the same magnitude. Making conclusive statements about the causality of the effect between placement and vote shares is somewhat difficult. Parties can and often do place popular candidates at the top of the list, and popularity thus influences list position. On the other hand, voters take cues from list placement and are more likely to support higher ranked candidates. There is likely a two-way causality by which higher ranked candidates receive more votes and are in return placed high on the list.

Also as expected, incumbency increases a candidate’s votes in all six elections. There is some variation in the size of the coefficient, with the effect being smallest in 2003, when the elections resulted in an exceptionally high turnover. To capture party effects, the model uses the share of party votes in the district of the candidate. [Table 3](#) shows that the party’s popularity in a district is strongly associated with candidate’s votes, and the size of the effect changes little over the years. The effect of age on votes is inverse U-shaped as shown by the coefficient on the squared term. Initially, an increase in age increases votes, but the effect plateaus at 55 and then reverses. The size of the effect is fairly constant across elections, but not significant in 1992 and 2011. Overall, district list position, incumbency, and popularity of the party in the district are the most consistent predictors of candidate’s votes.

The model fit is reasonably good for the years 2003–2011, but weaker for the first three elections, where the covariates explain only about a half of the variation in vote shares. This change in model fit can be explained by the consolidation of the party system and democracy, which have made elections more predictable through the conventional variables. Major parties and popular candidates have emerged and people have a clearer idea of what each of them represents. This is especially so as much of the explanatory power can be attributed to the popularity of the candidate’s party.

5. Gender and getting elected

We now turn to testing the hypothesis that, compared to men, women are disadvantaged in getting a seat through open lists. While Section 4 found the female candidates sometimes receive fewer votes, it was emphasised that this may not have a consequence for women’s election chances. If the statistically significant gender vote gap is driven by a large group of candidates who have little or no chance of election, we might find that gender has no impact on election probability.

[Table 4](#) shows the results of a standard logistic regression where the dependent variable is coded one if a candidate is elected from the district (that is through open lists) and zero otherwise. District size is accounted for by including it as an explanatory variable. Using an interaction between gender and district magnitude, we can test whether women have a higher chance of election in larger districts compared to smaller districts. Other controls are the same as in the previous section.⁶

Table 4. Getting elected from districts (open lists), 1992–2011.

DV: Elected (=1)	1992	1995	1999	2003	2007	2011
Intercept	-10.354*** (3.885)	-5.640 (4.237)	-7.834** (3.939)	-4.566 (3.299)	1.520 (2.926)	-5.107 (3.365)
Female	1.951 (2.549)	1.427 (5.839)	-0.471 (2.423)	-7.111** (2.855)	-3.083 (1.883)	0.852 (1.577)
Female*DM	-0.226 (0.300)	-0.182 (0.641)	0.044 (0.246)	0.741** (0.317)	0.368* (0.204)	-0.086 (0.168)
National list place	-0.002 (0.012)	-0.027** (0.012)	-0.015** (0.006)	-0.016* (0.009)	-0.023*** (0.008)	0.007 (0.010)
District list place	-0.805*** (0.202)	-0.777*** (0.170)	-0.690*** (0.126)	-1.069*** (0.168)	-0.891*** (0.150)	-1.486*** (0.222)
Incumbent	1.162** (0.505)	1.514*** (0.499)	1.231*** (0.414)	-0.127 (0.420)	1.456*** (0.394)	1.004** (0.407)
Age	0.118 (0.157)	-0.080 (0.156)	0.077 (0.155)	0.018 (0.129)	-0.181 (0.123)	0.081 (0.145)
Age ²	-0.001 (0.002)	0.001 (0.001)	-0.001 (0.002)	-0.000 (0.001)	0.001 (0.001)	-0.001 (0.002)
DM	0.344*** (0.105)	0.307* (0.182)	0.251** (0.107)	0.216* (0.128)	0.153 (0.113)	0.275*** (0.096)
Party district votes	22.974*** (3.062)	19.655*** (2.301)	21.782*** (2.698)	20.237*** (2.146)	16.392*** (2.004)	18.667*** (2.357)
N	629	1251	1884	963	975	789
% correct (all)	95.23	97.68	98.09	94.91	95.49	95.31
% correct ($\nu=1$)	41.46	57.14	50.91	55.41	61.33	68.29
AIC	176.20	178.18	232.12	249.47	234.92	222.13

Note: Standard errors in parentheses.

*** $p < .01$.

** $p < .05$.

* $p < 0.1$.

The results show, with two significant exceptions, that gender has a fairly marginal effect on election from open lists. Women are, according to the models, associated with better chances of election from the districts in 1992, 1995, and 2011, but the effect is far from significant. In 1999, the effect is negative, but small and not significant. Though we previously found that female candidates received fewer votes in 1995 and 1999, this has not affected their chances of election. The results are expected as the difference in votes was driven by candidates who had little chance of election. While the dependent variable “votes” distinguishes between candidates who receive 5, 50, or 500 votes, it makes little difference for the variable “elected from open lists” – none of these candidates have a realistic chance of winning a district seat.

However, female candidates are disadvantaged in getting elected in 2003 and 2007, with the effect being especially large and significant in 2003. The effect is smaller and just below conventional significance levels in 2007. Why do we find such a strong effect of gender in 2003? The question is particularly interesting as we found no effect of gender on votes that year.

The answer lies in party turnover. The party that gained most seats in 2003 was *Res Publica*, a party with fewer women among candidates than other parties. *Res Publica* had no women at the top of the district lists and only 17% of top three candidates in districts were women. Other parliamentary parties had some female candidates placed at the top of the list and most also had more women among the top three. *Res Publica* was also a new party that had no incumbents among their ranks. As we saw previously, without the advantages of incumbency or other means of visibility, women are disadvantaged at the polls compared to men. Thus, the popularity of a party with

no incumbents and few top-ranking women has, in this case, had an adverse effect on women's election to office.

The lack of women among the first few candidates is also why the effect of gender is confined mostly to small districts, where party magnitudes are very small and placing first is often the only result that matters. We see this by looking at the interaction term between gender and district magnitudes, which is large and significant for 2003. While women are disadvantaged in getting elected (negative coefficient for "Female"), this ceases to be the case as district size grows (positive coefficient for the interaction term).

Figure 2 nicely illustrates this effect by showing the predicted probability of election for a male and female candidate by district size. Both candidates are placed 2nd in the district, 30th nationally, with other variables kept at the means and medians. While the second ranked men have some chance of election (approximately 20%) in districts with five to seven seats, women in these districts have almost no chance at all (probability below 5%). Also notice that the 95% confidence intervals do not overlap in these districts, and the effect of gender on election probability is significant. The effect disappears and even reverses in average sized (8–9 seats) and in larger districts, but the election gap benefiting women is not significant.

To see what effect *Res Publica* has on the 2003 results, the above model was rerun excluding the party from the data. This reduced the size of the coefficient for "Female" and for the interaction term, and increased both standard errors. As a result, neither coefficient was statistically significant. The same model on only *Res Publica* candidates produced a very large and statistically significant coefficient for gender.

Because of the sudden success of *Res Publica*, one might ask if other parties responded to this by altering their candidate lists accordingly, for example, bringing in new non-incumbent faces or reducing the number of women among candidates. There is no evidence that these calculations affected the decisions of other parties with respect to candidate selection. In fact, the number of female candidates rose in 2007. The reason why *Res Publica* did not have a lasting effect on Estonian politics is probably that its immense success was followed by just as an impressive decline in popularity. Before the election of 2007, polls showed the support for *Res Publica* to be below the 5% electoral threshold, and the party merged with the *Pro Patria Union* to avoid losing all of its seats.

The results of 2003 are also noteworthy, because in this case high legislative turnover hindered women's representation – the party that gained most from turnover nominated few

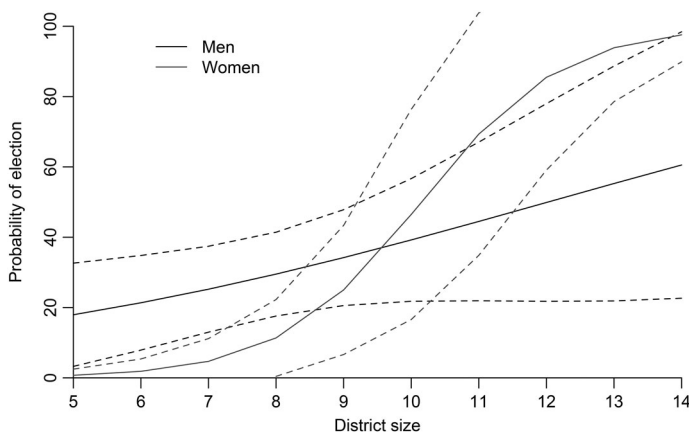


Figure 2. Predicted probability of election by gender and district size, 2003.

female candidates. This result is contrary to previous work that mostly concludes that high legislative turnover increases women's representation (Matland 1993; Darcy, Welch, and Clark 1994; Schwindt-Bayer 2005). It has been argued that since incumbency has a very strong positive effect on re-election and most incumbents are male, lower turnover will disadvantage women and perpetuate the gender gap. But we can clearly see from the 2003 example that the effect of turnover is conditional on party preferences about female candidates. Gains made by a (right-wing) party with few female candidates do not increase women's representation.

Of the other controls, placement in national and district lists, party support in a district, and incumbency have a consistent and a significant effect on candidate's election chances, just as they did on votes. Incumbency generally increases a candidate's election probability, except in 2003, when it had a much smaller effect because of the large turnover caused by the very successful entry of the new party *Res Publica*. Their success has largely been attributed to the lack of incumbents among the candidates and the party's newness (e.g. see Taagepera 2006; Sikk 2011).

While a candidate's age had an effect on votes from 1995 to 2007, the logit regressions in Table 4 show that this did not translate into an effect on the success of getting elected. The table also shows that an increase in district magnitude increases the probability of election from open lists for all candidates. This occurs because larger districts are generally less competitive in terms of the candidates per mandate ratio. The size of the effect fluctuates over years, but is generally of the same degree. Most of the models can correctly predict the election of more than half of those who indeed were elected. Predictions are the least accurate in 1992, which can be due to the generally higher uncertainties surrounding early democratic elections.

6. Gender and placement in national list

Thus far, we have looked at potential voter bias against female candidates. While gender was related to votes and being elected on some occasions, it did not have a consistent effect on a candidate's votes or election chances from open lists. In other words, we did not find conclusive evidence of voter bias. This section explores the possibility of party bias against female candidates by looking at the effect of gender on election from closed national lists. Top placement on the closed national list can be seen as a means to guarantee the election of candidates the party considers important, but who might not be popular among voters. As such, observing the relationship between gender and national list position is the best way to gauge party bias.

Table 5 presents an overview of the relationship between gender and placement in national lists. The first two columns for each year show the number of men and women at each placement group, and the third column shows the ratio of men to women. Highlighted cells show cases where men are disproportionately over-represented compared to the overall ratio of men to women. A pattern emerges across all elections – men are over-represented among the top 20–30 positions and also among the bottom 20–30 positions. Women are disproportionately placed in the middle, sometimes in places 20–30, but most often at places 30–40 and beyond. Given the small size of the *Riigikogu* (101 members) and the multiparty system, a place below the 30th rarely matters – few parties ever take over 30 seats, and candidates placed lower than 30 have a very small probability of election through national lists. Thus, women are less likely to be placed in electable positions on the closed list than men.

The table also shows the number of men and women in mandate, challenge, and ornamental positions – positions from which election is almost guaranteed, from which it is likely if the party does well, and from which it is impossible respectively (Skard and Haavio-Mannila 1985). Similar to the work of Jones (2004), mandate positions are defined for each party as those from which candidates were elected to office from that party at two consecutive elections (i.e. the current and the previous elections).⁷ Challenge positions are those where candidates were

Table 5. Ratio of men and women in national lists, 1992–2011.

Placement	1992			1995			1999			2003			2007			2011		
	M	F	Ratio	M	F	Ratio	M	F	Ratio	M	F	Ratio	M	F	Ratio	M	F	Ratio
Mandate				23	6	3.8	45	11	4.1	52	14	3.7	49	17	2.9	66	20	3.3
Challenge				103	12	8.6	67	15	4.5	53	10	5.3	33	8	4.1	22	8	2.8
Ornamental				901	199	4.5	1248	479	2.6	638	180	3.5	624	237	2.6	496	145	3.4
1–10	131	18	7.3	140	20	7.0	100	21	4.8	88	22	4.0	82	28	2.9	74	16	4.6
11–20	90	16	5.6	134	24	5.6	98	22	4.5	75	19	3.9	69	23	3.0	62	15	4.1
21–30	64	11	5.8	117	29	4.0	89	31	2.9	76	14	5.4	62	28	2.2	41	19	2.2
31–40	42	8	5.2	105	16	6.6	81	35	2.3	65	12	5.4	59	26	2.3	44	16	2.8
41–50	42	7	6.0	95	25	3.8	79	30	2.6	52	18	2.9	58	22	2.6	50	10	5.0
51–60	35	5	7.0	83	20	4.2	85	25	3.4	50	20	2.5	51	22	2.3	47	13	3.6
61–70	35	5	7.0	77	20	3.8	67	25	2.7	57	13	4.4	53	17	3.1	45	15	3.0
71–80	25	8	3.1	65	18	3.6	54	26	2.1	50	20	2.5	49	21	2.3	46	14	3.3
81–90	24	6	4.0	56	24	2.3	58	22	2.6	51	19	2.7	50	20	2.5	44	14	3.1
91–100	24	3	8.0	73	7	10.4	59	21	2.8	51	19	2.7	49	21	2.3	40	10	4.0
101–110	4	0	Inf	33	8	4.1	53	27	2.0	54	12	4.5	55	13	4.2	39	11	3.5
111–120				12	2	6.0	52	28	1.9	49	11	4.5	48	12	4.0	36	14	2.6
121–130				8	2	4.0	54	26	2.1	25	5	5.0	21	9	2.3	16	6	2.7
130+				29	2	14.5	431	166	2.6									
Total	516	87	5.9	1027	217	4.7	1360	505	2.7	743	204	3.6	706	262	2.7	584	173	3.4

Note: Highlighted cells refer to cases where the number of men was disproportionately high compared to the overall ratio of men in that election year.

elected from at one election, but not at another election. Ornamental positions were defined as those from which candidates were not elected in either election. Since many parties in Estonia often win seats in only one or two elections, there are a lot of challenge positions, especially in 1995 and 1999. Overall, the picture is similar to what saw with placements – women are more likely to be placed in unelectable ornamental positions than in electable mandate or challenge positions. The proportion of women in mandate positions is quite high in some cases (e.g. 1995 and 2003), but as the proportion of mandate positions themselves is often quite low, it does not have a very strong effect on the overall representation of women. We can also notice that women’s placement in the closed lists over the six elections has improved, and that the proportion of men and women at different positions has become more similar.

Of course, placement can also be influenced by other candidate characteristics, particularly incumbency, and this should be taken into account. Designing a multivariate test for list placement poses, however, some challenges. One option would be to use OLS, with placement as the dependent variable. But here we should be reminded that the relationship between gender and placement in Table 5 is not linear across the whole list. A linear relationship can mostly be noted among the top 40 or 60 positions. An option would thus be to drop all cases beyond some reasonable cut-off point (e.g. 30, 40, or 60) from the data set and run the analysis on the smaller subset. In general, this may prove a fruitful strategy, but problems arise when the cut-off point is poorly defined. Consider, for example, the placements in 2003 in Table 5. Women are underrepresented among the first 40, but the underrepresentation is higher among positions 21–40 than among places 1–20. Thus, only analysing positions up to 40 without any reference to places 41–60 or beyond we would make the wrong conclusion about the relationship between gender and placement. A reasonable cut-off point – one that provides sufficient reference to the overall male–female ratio of candidates – depends on the election in question.

Some authors have used a binary dependent variable such as “first position” or “top position” to analyse the relationship between gender and list placement (e.g. Kunovich 2003). Few positions, such as the first three or five, are defined as the “top positions” and the rest as not. This method takes account of all places, thus avoiding the problem of no or incomplete reference to the lower places, but the flip side is losing information in the dependent variable (it is now binary).

Because of the different shortcomings of the two approaches, this article uses both methods with various cut-off points and definitions of “top position”. Results for the variable “Female” are shown in Figure 3. All models also controlled for other individual-level predictors of national list placement such as age (including a squared term) and incumbency.

The OLS models with cut-off points set at 30, 35, 40, 60, and 90 show that female candidates were always positively related to the position on the national list, meaning that women placed lower after controlling for age and incumbency. The size and the 95% confidence intervals for the coefficient for “Female” are shown in the left-hand panel of Figure 3. The statistical significance of the effect depends on the year and the cut-off point. Women were associated with lower positions more frequently in 1995, 1999, and 2011, placing, *ceteris paribus*, two to five positions lower than men. In 2003, the effect becomes statistically significant when the cut-off is increased to the 90th place. Gender had no statistically significant effect on national list placement in 1992 and 2007.

For the logit models, the binary variable “top position” was defined as placing first, or among the 3, 5, 10, or 15 top-ranked candidates. The size and the 95% confidence intervals of the coefficient for “Female” are shown in the right-hand panel of Figure 3. Female candidates were always negatively related to obtaining a top position. The effect of gender was strongest for the elections of 1995, 1999, and 2003 when the effect was significant for two definitions of the top position. An effect is also visible in 2011, when women were less likely to obtain a place among the first 15. In 2007, the coefficient for gender was significant at $p < .1$ level, and gender had no effect on placement in 1992.

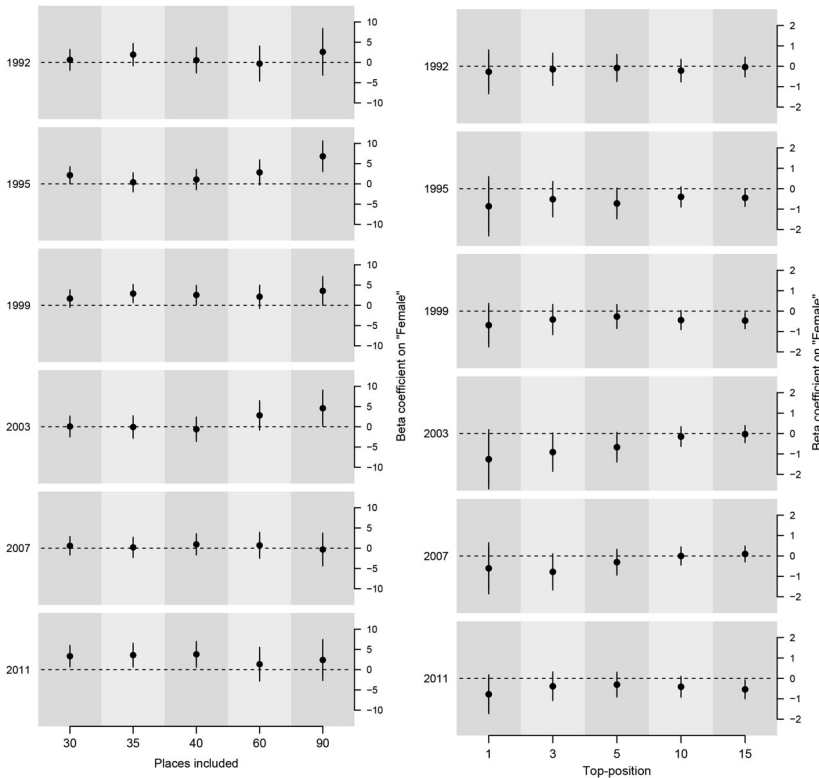


Figure 3. The effect of “Female” on national list placement, 1992–2011.

These two types of regression models on the effect of gender on list placement conform to what was presented in Table 5; parties do not place female candidates at the top of the closed national lists. While it has been argued that women can benefit from closed lists because parties place them at electable positions, these data show no evidence of this. In fact, the results are quite the opposite. The negative effect of being a woman on receiving a top ranking is evidence that parties are, to an extent, biased against female candidates, and hinder women’s chances of election from the closed lists. This is particularly true for the elections of 1995, 1999, 2003, and also 2011. However, the effect was not completely consistent and in 1992 and 2007, the effect of gender on placement was smaller and not significant.

The effect gender has on placement may also vary across parties. For example, parties on the ideological left are associated with more women among party executives, candidates, and elected officials in Estonia. Between 1998 and 2011, the percentage of female party executives has been about 30% in the left-leaning *Estonian Social Democrats* (SDE) and the *Centre Party*. In the right-leaning *Reform Party* and the *Pro Patria and Res Publica Union* (IRL), women only comprise 12–16% of the executives during the same period. Also, while the percent of women executives has, to an extent, increased in SDE and *Center Party*, it has remained constant in the *Reform Party* and IRL.

To test for differences in women’s placement between left and right parties’ models with interactions between party ideology and candidate gender were ran for 2003–2011.⁸ Two different codings for left and right were used. Ideology was coded only for the four major parties in the first case, and all seven parliamentary parties of the period were coded in the second case. The OLS models on list place with various cut-off points showed that, regardless of the coding,

women were usually associated with better positions in the left parties compared to those of the right. The results for the logistic regressions on “top positions” were very similar – women were more often associated with these positions in left parties rather than in right parties. For both types of models, the differences between parties were most noticeable for 2007. However, most coefficients for the interactions were not significant at the conventional levels. This is not very surprising as the number of women among this subgroup of candidates is small and the estimation becomes difficult when we further split female candidates by party ideology. Thus, the results on the effect of ideology should be taken with great caution.

Overall, these results tell us that without any quotas or placement mandates parties did not improve women’s election chances by placing them further up in the closed list. On the contrary, parties were more likely use these lists to guarantee the election of male candidates. But there are again some exceptions – in 1992 and 2007 gender did not have an effect on closed list placement.

7. Conclusions

The debate on the benefits and drawbacks of closed and open lists on women’s representation is often seen as a choice between electoral systems. Researchers have compared the level of women’s representation in countries with different levels of personal vote incentives and sometimes conclude that women have better chances of election in countries with closed lists compared to open lists. This article has argued that we can also look at this debate from the perspective of who stands in the way of women to elected office – whether it is parties who do not endorse women’s candidacy or voters who do not vote for them. Looking at the problem this way allows us to test the causal mechanism that links list types to representation more closely. The article used data from six Estonian parliamentary elections from 1992 to 2011. The Estonian case is useful here as the country uses both open and closed lists, allowing us to simultaneously test both party and voter biases. This makes the work quite unique as most of previous research has either focused on the relationship between voters and candidates or parties and candidates.

The first democratic elections resulted in very few female representatives, particularly from the open lists. This caused speculation that voters are biased against female candidates. However, the multivariate models presented here show little evidence of a consistent voter bias. While female candidates were sometimes associated with fewer votes, the effect was statistically significant in only three of the six elections. More importantly, a detailed analysis showed that the effect of gender on votes was driven by a large group of weak candidates, those who had no chance of elections. The relationship between gender and votes ceases to be significant among incumbents and other visible candidates. In other words, if the candidate is relatively well known, gender has no impact on the decisions of voters.

The article then looked at the probability of election and found even less evidence of any gender difference. While gender sometimes has an effect on votes, this did not translate into an effect on the probability of being elected – women did not have a significantly lower chance of election. This is an interesting finding, and occurs because the relationship between gender and votes was driven by a large group of weak candidates who had no realistic chance of election. An exception was the election of 2003, when female candidates had a significantly lower election probability from open lists compared to men. This occurred due to the successful entry of a new party, *Res Publica*, which had no women among the first ranked positions and fewer women than other parties among the top three in district lists. This played an especially big role in smaller districts, where even the successful parties usually only win one seat. In such districts, even those female candidates who ranked second or third after the votes were tallied were unable to win a seat. In average sized and larger districts gender had no impact on election.

On a positive note, the above results on the effect of gender on votes and election chances in open lists tells us that, when candidates have achieved a certain level of recognition, gender has no significant impact on the decisions of voters. An incumbent or otherwise visible female candidate is just as likely as a man to receive a lot of votes and win an open list seat. From this perspective, the poor representation of women from open list seats at the first elections was not due to a consistent voter bias, but rather a consequence of few electable female candidates and small party magnitudes. On the negative side, we still find that there is a significant gender vote gap among the large group of weak and unknown candidates. This may mean that when a candidate is new to the public, voter preference is more likely to be for the male contender, making it more difficult for an unknown female candidate to enter politics.

Candidates' visibility and electability can be significantly improved by the parties, either by campaign or by list placement. The Estonian electoral system allows parties to rank order candidates in the national and in the district lists. Particularly important for a new candidate can be the placement in the closed national party list, where a high ranking can guarantee election. Previous research has argued that closed lists are beneficial for women's election for exactly this reason – parties can get female candidates elected by placing them at the top of the closed lists.

The evidence presented in this article shows that parties are anything but supportive of female candidates. Women are associated with lower places on closed lists, even when controlling for incumbency and age. Women generally occupy middle positions on the lists, and men are more often placed at the top and the bottom of lists. Candidates placed in the middle or in the second half of the list have little chance of getting elected from the closed list. Given this, it is hard to argue that closed lists necessarily improve women's representation. Much depends on parties' willingness to support female candidates, and at least in Estonia, this willingness has in general been lacking.

In conclusion, it appears that entering the political arena is still the major obstacle for women, particularly for those who do not belong to any social, economic, or political elite. Unknown female candidates are likely to fare worse than men at the polls. While the parties could have a major impact on the visibility of unknown female candidates by placing them further up on the closed lists, they do not help women along. In fact, they even disadvantage women further by placing them further down on national lists.

Acknowledgements

I would like to thank Michael Marsh, Jonathan Slapin and Johan Elkind for comments on this paper.

Disclosure statement

No potential conflict of interest was reported by the author.

Notes

1. Estonia uses the simple quota, i.e., Hare quota.
2. This is unlike preference voting systems (e.g., Sweden), where voters can choose whether to give a vote to a party or to a candidate.
3. According to the World Values Survey and the Eurobarometer, these trends are similar to public attitudes in other Eastern European countries, such as Latvia, Lithuania, and Poland. In 1995, over 60% of respondents in the three countries agreed that men make better leaders, but this had dropped to 40–47% by 2005. In contrast, this percentage has consistently been below 20% in Scandinavian countries.
4. Incumbents include members of the parliament, cabinet ministers, and MEPs (from 2007). For the election of 1992, the members of the Supreme Council of Estonia (elected in 1990 in the first multi-party elections in decades) are considered as incumbents.

5. The use of this transformation is problematic when a candidate receives no votes (the log becomes minus infinity). To avoid the problem, candidates with no votes are assigned one vote. Over the six elections, there are only five such candidates, one in 1992 and four in 1999.
6. It was not possible to estimate multilevel models in this case as the number of candidates elected per party (particularly female candidates) is so small.
7. Results could not be provided for 1992 as the elections preceding this used a different electoral system.
8. The first three elections were excluded here as it is difficult to define ideology for many parties contesting elections and winning seats in the 1990s.

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Appendix

Table A1. Explaining vote shares, 1992–2011 (multilevel models).

DV: logit (% district votes)	1992	1995	1999	2003	2007	2011
<i>Fixed part</i>						
Intercept	−5.037*** (0.590)	−6.347*** (0.452)	−7.227*** (0.325)	−6.730*** (0.408)	−5.587*** (0.468)	−5.154*** (0.439)
Female	0.164* (0.117)	−0.199*** (0.076)	−0.145*** (0.051)	−0.042 (0.063)	−0.129** (0.060)	−0.100 (0.073)
National list place	−0.003* (0.002)	−0.004*** (0.001)	−0.005*** (0.001)	−0.009*** (0.001)	−0.008*** (0.001)	−0.008*** (0.001)
District list place	−0.278*** (0.023)	−0.222*** (0.013)	−0.083*** (0.005)	−0.159*** (0.012)	−0.189*** (0.011)	−0.175*** (0.014)
Incumbent	0.789*** (0.158)	0.815*** (0.123)	1.419*** (0.118)	0.442*** (0.096)	0.511*** (0.100)	0.678*** (0.103)
Age	0.012 (0.025)	0.027* (0.017)	0.050*** (0.012)	0.069*** (0.015)	0.019 (0.016)	0.009 (0.017)
Age ²	0.000 (0.000)	0.000* (0.000)	0.000*** (0.000)	−0.001*** (0.000)	0.000 (0.000)	0.000 (0.000)
District party votes	4.636*** (0.662)	5.114*** (0.726)	5.933*** (0.798)	5.244*** (0.614)	4.568*** (0.822)	4.127*** (0.621)
<i>Random part/variances</i>						
Candidate level	0.964 (0.055)	0.947 (0.040)	0.908 (0.031)	0.586 (0.028)	0.627 (0.030)	0.686 (0.037)
Party level	0.220 (0.092)	0.604 (0.216)	0.297 (0.124)	0.552 (0.233)	1.021 (0.426)	0.383 (0.182)
District party level	0.000 (0.000)	0.074 (0.024)	0.101 (0.023)	0.049 (0.017)	0.120 (0.028)	0.064 (0.023)
ICC	18.6	37.2	22.7	46.5	57.7	34.0
−2 LogLik	1795	3611	5317	2321	2464	2025
N candidates	629	1251	1884	963	975	789
N parties	18	17	13	12	12	10
N district parties	1720	183	142	143	135	119

Note: Standard errors in parentheses.

*** $p < .01$.

** $p < .05$.

* $p < .1$.

Table A2. Explaining vote shares, 1992–2011 (weak candidates).

DV: logit (% district votes)	1992	1995	1999	2003	2007	2011
Intercept	-5.549*** (0.532)	-7.564*** (0.392)	-7.617*** (0.28)	-7.623*** (0.385)	-7.201*** (0.399)	-6.251*** (0.402)
Female	0.195* (0.116)	-0.129* (0.076)	-0.199*** (0.052)	-0.092 (0.074)	-0.209*** (0.070)	-0.044 (0.079)
National list place	0.007*** (0.002)	0.001 (0.001)	-0.002*** (0.000)	-0.004*** (0.001)	0.002** (0.001)	-0.002 (0.001)
District list place	-0.173*** (0.023)	-0.130*** (0.013)	-0.066*** (0.005)	-0.090*** (0.014)	-0.129*** (0.012)	-0.141*** (0.013)
Incumbent	0.179 (0.270)	0.339* (0.174)	1.000*** (0.191)	0.364** (0.160)	0.290 (0.199)	0.116 (0.194)
Age	0.014 (0.023)	0.055*** (0.017)	0.041*** (0.012)	0.076*** (0.017)	0.042** (0.017)	0.017 (0.017)
Age ²	0.000 (0.000)	-0.001*** (0.000)	0.000*** (0.000)	-0.001*** (0.000)	0.000** (0.000)	0.000 (0.000)
Party district votes	1.718*** (0.542)	5.312*** (0.361)	7.040*** (0.315)	7.374*** (0.378)	6.948*** (0.349)	6.472*** (0.345)
<i>N</i>	406	1062	1685	716	752	571
<i>R</i> ²	0.171	0.236	0.333	0.394	0.419	0.428

Note: Standard errors in parentheses.

****p* < .01.

***p* < .05.

**p* < .1.

Table A3. Explaining vote shares, 1992–2011 (strong candidates).

DV: logit (% district votes)	1992	1995	1999	2003	2007	2011
Intercept	-5.014*** (0.684)	-4.808*** (1.075)	-4.619*** (0.798)	-4.674*** (0.643)	-4.722*** (0.701)	-3.462*** (0.716)
Female	0.033 (0.118)	-0.258 (0.174)	-0.011 (0.124)	-0.045 (0.094)	-0.045 (0.096)	-0.173* (0.102)
National list place	-0.001 (0.002)	-0.002 (0.002)	-0.002** (0.001)	-0.003* (0.002)	-0.004*** (0.001)	-0.003 (0.002)
District list place	-0.260*** (0.029)	-0.147*** (0.023)	-0.092*** (0.016)	-0.146*** (0.020)	-0.132*** (0.017)	-0.131*** (0.025)
Incumbent	0.267** (0.113)	0.314*** (0.119)	0.378*** (0.113)	0.120 (0.091)	0.223** (0.091)	0.278*** (0.095)
Age	0.046 (0.029)	0.043 (0.044)	0.026 (0.032)	0.046 (0.028)	0.067** (0.03)	0.002 (0.031)
Age ²	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	-0.001* (0.000)	-0.001*** (0.000)	0.000 (0.000)
Party district votes	5.858*** (0.538)	3.602*** (0.442)	4.014*** (0.651)	3.515*** (0.438)	2.897*** (0.395)	2.456*** (0.424)
<i>N</i>	223	189	199	247	223	218
<i>R</i> ²	0.485	0.379	0.350	0.383	0.430	0.429

Note: Standard errors in parentheses.

****p* < .01.

***p* < .05.

**p* < .1.