

Voter Bias or Candidate Resources? The Effects of Candidate Gender in Primary Elections

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WORK IN PROGRESS

November 8, 2010

Abstract

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1 Introduction

Women are underrepresented in legislatures across the world.¹ Female parliamentarians accounted for only 19.1% of sitting legislators at the end of February this year and the average proportion of female legislators was 17.4%.² As depressing as these figures may be, they only tell half the story. A number of states have implemented gender quotas, which suggests that women are even more disadvantaged when it comes to political competition. In a smaller sample of 110 countries, the electoral law or the constitutions of 44 countries include provisions regarding gender quotas. In addition, political parties in 54 of the countries have voluntarily adopted gender quotas. Taken together, gender quotas have been adopted in some form in the great majority (86) of these countries.

While gender quotas can be seen as positive development in terms of improving the representation of women, their existence also suggests that some aspects of the political system are biased against women.³ The literature on female representation has suggested numerous factors that influence the degree to which women are represented in national legislatures. In general terms, the explanatory factors can be divided into two groups, which we will term demand side and supply side factors. Demand side explanations basically focus on the willingness of voters to vote for female candidates. Various cultural, religious, and socioeconomic factors are commonly used as proxies for voters' willingness to vote for women. Supply side explanations focus on the supply of female candidates, i.e., whether women are equally as likely to run for office as men are. Naturally, the decision whether to run for office is not independent of demand side factors – women should be less likely to run for office if voters are reluctant to vote for them. However, successfully running for office requires other resources. The cost of running for office may deter women from running where their economic status tends to be lower than that of men. Women may similarly be disadvantaged when it comes to having the social networks that are necessary to gain nomination, run successful

NOTE: I ALSO DISCOVERED THAT CITING THESE STATISTICS IS AN EXTREMELY POPULAR WAY TO START A PAPER ON FEMALE REPRESENTATION! AS MOST OF THE PAPERS ARE PUBLISHED, I FOLLOW SUIT.

¹Rwanda is, at the moment, the only country in the world where women represent more than half of the members of the legislature. Twenty-four of the eighty seats in the legislature are reserved for women elected by an electoral college.

²Based on data on the composition of 186 legislatures at the Inter-Parliamentary Union website, <http://www.ipu.org/wmn-e/classif.htm>.

³It is, of course, possible that gender quotas tend to be adopted where they are least needed. Caul (2001), e.g., finds that quotas are more likely to be adopted where women have been successful in climbing the party ladder.

campaigns, or simply provide the encouragement to step forward. Generally, quantifying the supply side factors is more difficult, which probably explains the popularity of the phrase ‘glass ceiling’ in this context.

It is, however, important to assess the importance of the two types of explanations as it appears reasonable to argue that different policy prescriptions are appropriate depending on whether female underrepresentation is caused by demand side or supply side factors. Gender quotas, e.g., would appear to be an effective effect tool where demand side factors, i.e., voter bias, is the source of female underrepresentation. In contrast, gender quotas would only appear to be a partial solution and may even be employed to strengthen the position of male candidates (Fréchette et al., 2008).

Institutional factors are also often cited as an important determinant of female representation. While institutions clearly appear to matter, it is important to recognize that the effects of electoral institutions on female representation is conditional on demand side and supply side determinants. That is, all commonly used electoral systems satisfy the condition of *neutrality*, i.e., it are only the votes cast that determine the winner(s) and not the identity of the candidate. In other words, votes are generally not counted differently depending on whether the candidate is male or female. The electoral system may, however, influence how the presence of a (slight) voter bias translates into disproportional outcomes. A slight voter bias is likely to have a big impact in single member district elections under plurality rule, because a small share of votes can make a big difference, whereas the same bias is unlikely to have the same effect under proportional representation systems with large district magnitude.

The aim of this paper is to examine the degree to which voter bias can explain female underrepresentation in the Icelandic parliament. Although probably not of a great substantive interest to most scholars, Iceland is an interesting case for studying female representations for several reasons. First, Iceland appears to be one of the most equal countries in the world in terms of gender equality. Iceland ranks high (no. 5) in terms of female representation with 42.9% of the MPs being female. Iceland also placed first in the 2009 Global Gender Gap Report (Hausmann et al., 2009). Thus, it is reasonable to assume that Icelandic voters care less about candidate gender than voters in most other places. In other words, if we find evidence of voter bias in Iceland, it is plausible to assume that other countries are plagued by the same problem – and probably to a greater extend. Second, there are certain methodological advantages

to study female representation in Iceland. Iceland employs a proportional representation system, which generally complicates studying the effect of gender on candidate success. The Icelandic political parties have, however, employed primary elections to select candidates for the party lists since the 1970s. These primaries, which employ a preferential voting system, offer an excellent opportunity to study the effects of gender. One of the benefits is that ideology plays a far more limited role in party primaries than in legislative elections. Another benefit stems from the preferential voting nature of the electoral system and the fact that we have obtained access to the actual ballots for a subset of the primaries held before the last legislative elections. Having access to individual voters' ranking of candidates allows us to examine the effects of gender on candidate success in a far more rigorous manner than previously possible.

2 The Icelandic Primaries

The Icelandic political parties began adopting primaries as a method of candidate selection in the early 1970s and the four major parties had all employed primary elections in at least some of the constituencies.⁴ The parties were cautious at first. Typically they were not formally bound to follow the results of the primaries held ahead of the local elections in 1970 and the parliamentary elections in 1971 – although it can be assumed that ignoring the results would have opened the parties up for criticism of being undemocratic. Today the parties' primary rules vary along several dimensions. Most of the primaries are binding although there are examples of 'guiding' primaries, i.e., the local party is only obligated to take account of the primary results when it assembles the party list in the district. Most of the primaries are open only to party members but there are also examples of open primaries that permit any voter to take part. [Kristjánsson \(1994\)](#) even reports instances in which a party received fewer votes in the parliamentary election than the number of voters that took part in a party's primary. In recent years the parties have also begun adopting gender quotas. In some instances the quota requires women to occupy a certain proportion of the top seats on the party's list while in other cases the parties have adopted a 'zipper' format, i.e., a requirement that men and women alternate on the party list. The variation in the rules guiding candidate selection,

⁴There are, however, earlier examples of primaries by the end of the decade. The 'old' Independence party held primaries in 1914.

including whether a primary is held, is in large party due to the fact that the local parties are responsible for fielding the parties' lists in each constituency. Thus, the format of the primary doesn't only vary across parties but also across constituencies for the same party.⁵

While the primaries differ quite a bit along the dimensions discussed above, they all use the same peculiar electoral system. The primary voters are asked to rank 5-10 candidates in order of their preference – the number generally depends on how many seats the party can expect to win in the upcoming election. The first seat on the party list is allocated to the candidate that receives the most first preference votes. The second seat goes to the candidate that receives the most first and second preferences votes and so on until all the seats on the list have been filled. Table 1 shows the allocation of seats in the Northeast district for the Left Movement. The numbers in the table represent the cumulative votes for each seat, e.g., Puriður Backman received the second seat on the party list with two first preference votes and 200 second preference votes. One doesn't have to think long and hard about this system to notice that it has several strange (and possibly undesirable) features. It does, for example, not respect Independence of Irrelevant Alternatives, i.e., a candidate with no hope of garnering a seat on the list can easily influence the outcome. The system only considers the part of the voters' preference ordering that is relevant for the allocation of a particular seat. To take an example, in the allocation of a second seat a candidate that is ranked first by 1000 voters (and second by none) loses to a candidate that is not ranked first by a single voter but is ranked second by 1001 voters.

The primary candidates, and the voters, face a particular coordination problem. In an effort to solve this coordination problems the candidates typically announce which seat, or seats, they would like voters to consider them for. A primary in which the candidates simply announce their candidacy provides the voters with very limited clues about how to rank the candidates. Imagining a party consisting of two factions highlights this problem. Suppose the faction that constitutes a majority within the party fails to coordinate while the

⁵We use 'primary' to refer to the candidate selection methods of all the parties although the parties have used different names. Today, the Left Movement, for example, calls it primary 'forval' or 'pre-selection'. It appears, however, that the name by which the primary goes is unrelated to its characteristics.

TABLE 1: THE RESULTS OF THE 2009 PRIMARY OF THE LEFT MOVEMENT IN THE NORTHEAST DISTRICT
CUMULATIVE VOTES FOR EACH SEAT (1-x)

CANDIDATE	SEAT							
	1	2	3	4	5	6	7	8
Bjarkey Gunnarsdóttir	1	77	92	130	161	185	200	217
Björn V. Gíslason	1	27	194	226	258	270	280	284
Dýrleif S. Ingimarsdóttir	1	29	43	87	100	141	167	200
Hlynur Hallsson	39	65	110	119	134	148	169	186
Jóhanna Gísladóttir	0	5	6	77	107	144	160	177
Steingrímur J. Sigfússon	422	433	448	449	451	451	453	453
Þorsteinn Bergsson	0	12	58	97	161	184	209	227
Puríður Backman	2	202	238	261	279	303	311	325

minority faction is highly coordinated. If each voter is equally likely to place a candidate in each of the n seats then each candidate's expected vote for seat x is $\frac{x}{n}$ times the number of majority faction voters. The vote share for the candidate for seat x of the highly coordinated minority party simply equals the number of the minority fraction's supporters. Thus, if ten seats are up for grabs and there are three majority faction supporters for each minority faction supporter then the minority faction could win as much as half the seats including the top two seats on the list.

While factions usually don't play a big role in Icelandic party politics this example highlights the problem facing the candidates. By simply announcing candidacy without informing the voters of what seat he aims for, the candidate is exposed to the risk that his supporters will distribute their votes too widely – with the result being that the candidate ends up lower on the list than he perhaps might have. The primary candidates, therefore, soon realized that announcing which seats they were aiming for provided their supporters with a focal point. Not announcing candidacy for particular seats also opens established politicians up to the risk of being perceived as challenger for the top seat on the list – and, thereby, effectively placing them in a contest with one of the party leaders.⁶ Announcing candidacy for particular seats, however, comes with different risks. Voters may come to view the contest for each seat in isolation. That is, a voter may have a favorable opinion of the candidates competing for the same seat but the less preferred candidate may end

⁶The 2009 primary of the United Front in Reykjavík provides a good example of how these concerns come into play. In the middle of the primary campaign, Foreign Minister Ingibjörg Sólrún Gísladóttir, announced her retirement from politics. Her announcement was followed by at least three candidates announcing that they would be seeking a seat higher on the party's list.

with no vote instead of the voter simply ranking her lower. In sum, the candidates face rather complex strategic situations in which they must take account of both the identity of the candidates they go up against as well as the number of candidates contesting the seat.

Although interesting, the focus of this paper is only indirectly related to the strategic calculations facing the candidates. However, the fact that candidates are driven to announce what seat they aim for turns out to be useful when it comes to considering what factors influence the candidates' success in the primaries.

3 Gender & Primary Success

The Icelandic primary elections offer an unique opportunity to answer the question whether candidate gender influences voters' propensity to vote for a candidate. The focus of our analysis here is on the five primaries held by the United Front (the Social Democratic Party) and two of the primaries held by the Left-Green Movement before the 2009 parliamentary election for which we have obtained the ballots cast by the primary voters.⁷ For these primary we, thus, have information about how each participant ranked six to eight of their most preferred candidates.

Considering the effect of gender might seem straightforward at first but their are several factors that complicate the analysis. One must take account of the fact that the number of female and male candidates is not necessarily equal (Indridason & Sigurjónsdóttir, 2009). If male candidates outnumber female candidates, it is unreasonable to expect males and females to be represented in an equal proportion in the results of the primary. Indeed, if voters are not gender biased, one would expect the outcome of the primary to reflect the proportion of male and female candidates competing in the primary. We use rank-ordered logit model to model the voters' ranking of the candidates, which allows the estimation of the effects of the covariates bases on the comparison of the whole set of candidates. We discuss the rank-ordered logit model in greater detail below but it focuses on candidate characteristics in a manner similar to the conditional logit model.

⁷We hope to be able to extend the analysis to the primaries held by the other parties but they have been reluctant to share their ballots with us.

TABLE 2: THE UNITED FRONT: CANDIDATE GENDER BY DISTRICT

GENDER	DISTRICT					TOTAL
	NE	NW	REYKJAVÍK	S	SW	
MALE	11	6	11	8	8	44
FEMALE	7	5	8	5	7	32
TOTAL	18	11	19	13	15	76

The rank-ordered logit model would, thus, provide a solution to the problem that the set of male and female candidates isn't evenly balanced were it not for the fact that candidates declare what seats that they are competing for. In other words, a candidate that declares for the first seat on the list is generally not in direct competition with a candidate that declares for the fifth and sixth seat. However, the declarations do not bind voters in any way so it is not necessarily true that a candidate that declares for the first seat is not in competition with a candidate that declares for the second seat. Thus, candidates in the same primary face different degrees of competitiveness – a candidate may find herself to be the sole candidate having declared candidacy for a particular seat while other candidates may find themselves in competition with a number of other candidates. Generally, we expect candidates that face a high number of competitors to have a lower chance of success, i.e., facing numerous choice for a particular seat a voter is more likely to rank the candidate lower (or not include the candidate in the list of six or eight ranked candidates).

Hypothesis 1 *Candidates that face a higher number of competitors are more likely to be ranked lower by voters.*

Gender can also be expected to interact with the number of competitors that a candidate face. If voters' choices are not biased on the basis of gender, the number of competitors should affect male and female candidates in the same way. If voters vote on the basis of gender, then the gender composition of the competitors will affect the candidate's likelihood of success. Suppose, for example, that all men only vote for men and that all women only vote for women. If that is the case, the number of competitors of the same gender has implications for a candidate's success. Being the sole candidate of his or her gender affords the candidate a great advantage – the candidate will win approximately half the vote (assuming the males and females are equally represented among the voters). If, on the other hand, there are a number of competitors of the

same gender, the voters are more likely to be split among the competitors of that gender, reducing the likelihood of success. The same argument holds if only a proportion of the voters are gender biased or if gender doesn't play such a deterministic role in vote choice – the only difference is that the effect should be smaller. Finally, note that how gender conditions the effect of competitiveness does not only depend on the number of candidates of the same gender. Rather, it depends on the composition of the pool of competitors. That is, women should be advantaged if male competitors outnumber female competitors. In other words, whether the competition is between one candidate of each gender or, e.g., three candidates of each gender should not lead us to find differences in success in terms of gender. In the latter case both men and women will have a lower chance of success but there is no reason to believe that the effect would be larger for women (or men).

Hypothesis 2 *The greater the proportion of competitors of the same gender, the more likely the candidate is to be ranked lower by voters.*

While we are interested in the effects of gender on candidate success we don't have clear theoretical expectations about female candidates should fare worse or better in the primaries. Generally, the traditional view of voters is that they are reluctant to vote for women. If that is true, one might expect women to do worse than men in the primaries. However, there are also reasons to believe that female candidates might benefit. Gender equality is a salient issue in Iceland politics and the gender composition of party lists is scrutinized once they are made public. There is a sense that presenting a list with too few many women on it or insufficiently high on the list is detrimental to a party's electoral fortunes. This sense doesn't only exist among the party elite, regular primary voters share the sense that gender balance on the party list is an important consideration. Voters may, therefore, cast their votes not solely on the basis of their personal preferences – which might mean using their preference vote for only men (or women) – but take into account how the composition of the list might affect the electoral fortunes of the party. In practice, this means that the proportion of women (or men) on the party list should not depart much from parity – at least to the extent that the party's list look significantly worse in this respect than the list of the other parties. That is, the concern for the party's electoral success will generally drive voters to distribute their preference votes fairly equally between men and women. This should advantage female candi-

dates because fewer women than men tend to run in the primaries (see table 2).

3.1 Analysis

We analyze the data using the exploded logit model (Punj & Staelin, 1978), which is also known as the rank-ordered logit model (Beggs et al., 1981). Each voter i faces a choice set J_i , which here consists of the candidates running in the primary the voter takes part in. Thus, the choice set facing voters in the same primary are identical. Each candidate, j , has certain characteristics, X_j , which include gender, incumbency, age, etc. Each voter ranks the candidates in her choice set (or a subset of the candidate in the choice set) on the basis of how she evaluates the candidates. The voter's ranking is treated as a series of choices, i.e., if a voter facing the choice set $\{A, B, C, D, E\}$ provides the partial ranking (B, C, A) , it is treated as reflecting three choices: i) B is preferred to all the other candidates, ii) C is preferred to A, D , and E , and iii) A is preferred to D , and E . Each of these choices can be formulated as choices in the conditional logit model are, i.e., the probability that voter i chooses j^* is expressed as:

$$P_{ij^*k} = \frac{e^{\theta X_{ij^*k}^T}}{\sum_{j \in J_k} e^{\theta X_{ij}^T}} \quad (1)$$

where k is the rank of being considered and J_k is the subset of J that excludes the alternatives ranked higher than k .⁸ Note, that equation (1) denotes the covariates as X_{ij^*k} suggesting that the covariate vector may include individual (rather than alternative) specific variables. As the primaries are conducted using a secret ballot, our analysis only focuses on candidate specific covariates. The likelihood of observing the voters' rankings can be written out using (1) in the standard fashion and the parameter estimates $\hat{\theta}$ obtained via a maximum likelihood procedure.⁹

Our data consists of the complete ballots cast in eight of the primary elec-

⁸Note that the analysis focuses on only the first choice, the model reduces to the conditional logit model.

⁹It is interesting to note the similarity between the rank ordered logit model and some survival models. E.g., Cox's proportional hazard model does not take into account actual duration but only the order in which subjects fail and is, thus, basically deals with ranked data. Roughly speaking, early failure in the Cox proportional corresponds to being highly ranked in the rank ordered logit model.

TABLE 3: NUMBER OF BALLOTS & CANDIDATES RANKED

	Reykjavík	United Front				Left-Green		B
		NE	NV	S	SV	NE	NV	SV
BALLOTS	2363	2573	853	1999	2201	458	376	1054
# CANDIDATES	8				8	8	6	5

TABLE 4: NUMBER OF BALLOTS & CANDIDATES RANKED

	Reykjavík	United Front				Left-Green		B	Total
		NE	NV	S	SV	NE	NV	SV	
BALLOTS	2364	2573	854	2002	2206	458	375	1054	11886
RANKED	8	8	6	6	8	8	6	5	-
MALE	11	11	6	8	8	13	11	6	75
FEMALE	8	7	5	5	7	8	9	4	52
TOTAL	19	18	11	13	15	21	20	10	127

tions held prior to the 2009 legislative election in Iceland. These include all of five the primaries of the United Front (a single primary was held for the Reykjavík–South and Reykjavík–North districts), two of the primaries held by the Left-Green Movement (North-East and North-West),¹⁰ and one of the primaries held by the Progressive Party (South-West). In total there are 11777 ballots. Fewest voters (376) participated in the Left-Green Movement primary in the North-West district and most (2573) in the United Front’s primary in the North-East district. Primary voters were not required to provide a complete ranking of the candidates but, rather, to rank four to eight candidates (depending on the primary). In some instances voters ranked fewer or more candidates. Although these votes may have not have been considered valid in the primaries we include them in our analysis as long as the voter does not omit seats from his ranking, i.e., we only drop observations where the voter puts not candidate in seat x where x is less than the lowest seat that the candidate places a candidate in.¹¹

Our primary variable of interest is candidate gender, FEMALE CANDIDATE, which is coded one if the candidate is female and zero otherwise. INCUMBENCY indicates whether the candidate is currently a member of parliament.

¹⁰Information for eighteen ballots in the North-East districts was missing.

¹¹To clarify, if a voter ranks candidate A in seat 1 and candidate B in seat 3 but no candidate is ranked second the observation is dropped. The reason is that it is difficult to rationalize providing this sort of an incomplete ranking – it appears more likely that the voter simply forgot to fill in a candidate for the second seat and, therefore, treating candidate B as preferred to everyone but A would be incorrect.

Incumbency is essentially a measure of political experience or visibility. It is also possible that incumbents have greater access to resources. However, many of the parties imposed campaign spending limits on primary candidates in the 2009 primaries so the effects of incumbency appear more likely to be important in raising the profile of the candidate. Incumbency is only a rough measure of how well the candidate may be known. Age is also likely to be an indicator of how well the candidate is known. Younger candidate will generally have less political experience and will, therefore, face an uphill battle in the primaries. Very old candidates may be similarly disadvantaged. While they are more likely to have political experience, old age may raise doubts about the candidate's effectiveness. In addition, the context in which the 2009 election was called may serve to magnify the effect. The collapse of the Icelandic banks in 2008 raised serious questions about the role of politicians, their inability to foresee the impending economic disaster, and their ties with the banking industry. The 2009 election was, thus, called in the context of demands for political renewal, which is likely to have made the situation more difficult for older politicians. Thus, we include AGE and AGE² among our independent variables to account for the potentially nonlinear effect of candidate age.

The candidates' announcements about which seat(s) they are seeking need to be controlled for – a candidate campaigning for the top seat on the party list may end up high on the voters' ballots whereas a candidate looking for a seat lower on the list will almost never be ranked higher than the seat that she requests. The candidates frequently announce a range of places on the party list that they are seeking votes for, i.e., they may announce that they are seeking votes for any seat from the second through the fourth. We include, as a control, the highest and lowest seats the candidate announces an interest in, SEAT HIGH and SEAT LOW.¹² Whether the candidate competes for a single seat or multiple seats may affect her chance of success. Campaigning for multiple seats may lead voters to distribute their votes across the whole range of seats the candidate is seeking, thereby reducing the candidate's chance of the seat at the upper end of the range of seats she declared interest in – a fourth place ranking on a ballot is effectively a vote against placing the candidate in the third seat. Announcing candidacy for multiple places on the party list also places the candidate in competition with more candidates, which also may af-

¹²Alternatively, one could control for either the highest or lowest place sought on the party list and the range of places the candidate seeks. As each of these variables is a linear combination of the others, the results are identical.

fect the candidate adversely.

We also seek to control for the competition that each candidate faces. If a candidate is the sole candidate seeking a particular place on the party list, chances are that the candidate will win the seat. The more candidate are vying for the same place, the lower the candidate's chances of winning the seat are. As candidates can announce candidacy for multiple places on the party list, it is not straightforward how to measure competitiveness. The more places on the party list the candidate announces an interest in, the more competitors she faces. To gauge the competition the candidate faces, the average number of candidates competing for each of the places on the party list the candidate is seeking is calculated, $COMP'S/PLACES$.¹³

It is possible that voters exhibit more subtle forms of bias. They may, e.g., be quite willing to vote for women but they may be reluctant to place them at the top of the party list. This is consistent with our previous findings that focus on aggregate level data – women are less likely to lead party lists and, perhaps not without reason, are less likely to seek voters' endorsement for the top seat on the list. To examining this possibility, the variables $SEAT\ HIGH$ and $SEAT\ LOW$ are interacted with gender. In addition, we create a dummy variable for whether the candidate sought the first seat on the party list, $FIRST\ PLACE$, and interact it with gender, $FEMALE*FIRST\ PLACE$.

3.2 Results

The results are displayed in table 5. A positive coefficient in the rank ordered logit model indicates that a higher value on the covariate makes the candidate more likely to be ranked higher by the voters. The results are largely in line with expectations. Incumbents are more likely to ranked highly and the lower the candidate aims in terms of placement on the party list, the lower she tends to be ranked.¹⁴ The average number of competitors per place sought on the party list also tends to reduce the ranking of the candidate.

¹³However, each competitor is only counted once, i.e., if there are only two candidates seeking the second or the third seat on the party list then each is only considered to face a single candidate for each seat and the competitiveness measure equals $\frac{1}{2}$.

¹⁴Admittedly the coding of the $SEAT\ LOW$ and $SEAT\ HIGH$ is a bit confusing as a higher number on these variables indicates that the candidate is seeking a place *low* on the party list.

**TABLE 5: CANDIDATE RANK & GENDER
RANKED ORDERED LOGIT**

	(1)	(2)	(3)	(4)	(5)
FEMALE CANDIDATE	0.11*** (0.000)	0.11*** (0.000)	-0.23*** (0.000)	0.19*** (0.000)	0.034 (0.265)
AGE	-0.040*** (0.000)	-0.040*** (0.000)	-0.043*** (0.000)	-0.035*** (0.000)	-0.043*** (0.000)
AGE ²	0.00041*** (0.000)	0.00041*** (0.000)	0.00045*** (0.000)	0.00034*** (0.000)	0.00045*** (0.000)
INCUMBENT	0.42*** (0.000)	0.42*** (0.000)	0.39*** (0.000)	0.40*** (0.000)	0.38*** (0.000)
COMP'S/PLACES		-0.011*** (0.000)	-0.013*** (0.000)	-0.0034 (0.281)	0.0047 (0.139)
SEAT LOW	-0.24*** (0.000)	-0.25*** (0.000)	-0.28*** (0.000)	-0.25*** (0.000)	-0.28*** (0.000)
FEMALE*SEAT LOW			0.083*** (0.000)		0.100*** (0.000)
SEAT HIGH	-0.098*** (0.000)	-0.086*** (0.000)	-0.10*** (0.000)	-0.043*** (0.000)	-0.019** (0.017)
FEMALE*SEAT HIGH			0.020*** (0.007)		-0.079*** (0.000)
FIRST PLACE				0.25*** (0.000)	0.30*** (0.000)
FEMALE*FIRST PLACE				-0.24*** (0.000)	-0.27*** (0.000)
Observations	187403	187403	187403	187403	187403
ll	-189635.6	-189626.7	-189404.7	-189473.1	-189291.0
N_g	11886	11886	11886	11886	11886

p-values in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Contrary to the common claim that primaries have disadvantaged women in Icelandic politics, female candidate appear to do better in the primaries than

their male counterparts. While the coefficient for FEMALE CANDIDATE is not consistently positive (model 3) or statistically significant (model 5), it is important to note that gender is interacted with candidate announcements in these models and, hence, one must focus on both the direct and conditional effect of gender in these models. The message is clear when the conditional effect is taken into account – female candidates are clearly advantaged in terms of winning seats on the party list.

However, the fact that women are favored by voters when it comes to being placed on the party doesn't tell the whole story. Models 3 and 4 suggest that while women are more likely to be ranked highly, there are limits to how highly they tend to be ranked. In model 3, gender is interacted with the candidates' announcement about which place on the party list they seek. Generally, the lower the candidate's ambition, the lower he/she tends to be ranked. The positive coefficient of the interaction terms tell us, however, that there are differences between male and female candidates. The effect of modest ambitions is lower for women – indeed, ambition seems to have a negative effect for female candidates if they aim as low as the 4-5th place on the party list. Focusing on the effect of gender, conditional on what place on the party list the candidate aims for, female candidates suffer if they have set their sights on the first two places on the list but they are advantaged relative to men if they aim any lower than that.

Model 4 tells the same story – and perhaps more clearly so. Here the indicator variable for whether the candidate announced he/she was seeking the first place on the party list and an interaction term with the candidate's gender. The coefficient of FIRST PLACE is positive, indicating that candidates that are seeking the first place on the party list are likely to be ranked higher than other candidates. The interaction with gender is negative and of roughly the same magnitude. In effect, female candidates win essentially no additional or higher preference by seeking first place on the party list.

The final model, includes all gender interacted with both the highest and lowest seat sought and whether the candidate sought the first place on the list. In short, the same results obtain. Overall, women hold an advantage when it comes to being placed on the party list while male candidates tend to receive more votes in the top places of the party list.

4 Conclusions

Female underrepresentation can occur for different reasons. It may occur because female candidates lack the same resources as male candidates, e.g., campaign resources or social network. While campaign resources are somewhat unlikely to be a crucial factor in Icelandic primary elections, social networks may well be important. Indeed, previous research has cited such simple factors as an encouragement to run for office as one of the causes of female underrepresentation in Iceland. The other main reason for why women are underrepresented is that voters do take gender into account and are less willing to vote for female candidates. In this paper, we have asked whether there is evidence of such voter bias in Iceland. To answer that question we analyze a unique dataset consisting of the ballots cast in eight primaries in Iceland ahead of the 2009 parliamentary election. As the primaries employ a form of preference voting, the ballots offer an unique insight into how voters rank candidates and what factors affect their decisions.

Our findings, while preliminary, are intriguing. Female candidates actually have a better chance than male candidates of ending up on the party list. Given the unequal representation of the sexes in parliament this finding may appear counterintuitive but the main explanation is simple – there are fewer women in parliament because fewer women than men run in the primaries. However, things might be worse were it not for the fact that women, as individuals, tend to do better in the primaries.

This explanation is, however, at best, incomplete. The results also show that although voters are quite willing to vote for women, they are not entirely unbiased. The voters appear to be more willing to place male candidates than female candidates in the top places on the party list, that is, male candidates that announced that they were seeking votes for one of the top places on the party list tended to do better than the female candidates seeking the same seats. In contrast, women aiming for seats lower on the party list tended to better than similarly ambitious men. Thus, voters might be seen as compensating for voting for men in the top places on the party list by being more likely to vote for women in other seats on the list. While this form of voter bias might seem less consequential than outright reluctance to vote for women, it potentially has a significant effect on female representation as the district magnitude is relatively small. Thus, no party can expect to win more than a handful of seats in each

district and, because of the voters' preference for placing men in the top spots of the party lists, those seats are more likely to be filled by male candidates.

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