

# Gender stereotyping and candidate evaluations: evidence from an experimental study of direct and indirect voter bias

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## Abstract

Studies employing election results and survey data conclude overwhelmingly that when women in developed countries run for office they tend to win at the same rates as their male counterparts. It appears therefore that the electorate does not hold negative gender stereotypes about women that disadvantage them in the polls. However, studies examining the same question but using experimental methodologies often find that voters do discriminate among candidates on the basis of their sex. Proponents of this approach rightly argue that the phenomenon of voter bias is a complex one: beyond candidate sex influencing decisions at the ballot box (direct voter bias), voters may also evaluate male and female candidates differently (indirect voter bias). This paper aims to reconcile the conflicting conclusions of both strands of the literature by testing for the presence of both direct and indirect voter bias on the basis of candidate sex using data gathered from 420 undergraduate participants by means of a survey experiment. The stimulus is a dossier about a fictional Irish general election candidate differing according to two treatments, sex and party identification. We find no evidence for direct sex-based voter bias; respondents are not more likely to vote for a male candidate than a female one. Additionally, the evidence that voters rely on gender stereotypes when evaluating issue-specific competence of candidates is limited. Women are judged to be more competent at dealing with only one so-called women's issue, while they are evaluated as less competent on a gender neutral issue. Overall, these results suggest that traditional gender stereotypes operate to a much lesser degree than is concluded by the experimental literature. We conclude that the extreme artificiality and lack of information provided is responsible for the discrepancy in the results from the observational and experimental approaches to the question.

**Key words:** Experiment; Election Campaigns; Female Candidates; Voter bias; Stereotyping; Cognitive Biases

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<sup>1</sup> This is a draft paper. Please do not cite without the author's permission.

## Introduction

Currently women make up on average just 22.8 per cent of lower houses of parliament around the world (Inter-Parliamentary Union, 2016). For those who believe increasing this share to parity or near parity will increase the representativeness of national assemblies, a goal for its own sake, as well as improving the lot of women in general<sup>2</sup>, proposing initiatives that can address women's relative absence from political life is an important endeavour. In Western democracies these initiatives focus chiefly on encouraging women to put themselves forward as candidates, providing them with support once they do so, and encouraging parties to propose female candidates, sometimes through the use of targets or quotas. Such measures arise from the assumption that women are underrepresented because they will not put themselves forward and because parties will often act as a barrier to their candidacy. There is strong evidence that a lack of political ambition and a degree of hostility from parties do lead to fewer women than men occupying roles in political life (see Fox, Lawless and Feeley [2001]; Fox & Lawless [2005, 2010]; Carroll [1994]; Niven [1998, 2006]; Stambough & O'Reagan [2007]). However, it is also important to think about the role that the electorate may play in selecting female legislators or depressing their candidacies. If women are vote losers for a party, for example, then it makes sense that they would not appear on the ticket or, at the very least, would do so with less frequency. The aforementioned policies anticipate that by increasing the number of women on the ballot, the share of women occupying space in the legislature will automatically increase. This is the case only if voters do not discriminate between candidates on the basis of sex.

Previous research on this issue, chiefly originating from the United States, finds that voters are not biased against women candidates, concluding that when women run they win as often as their male counterparts (Welch et al., 1985; Burrell, 1992; McDermott, 1997; Smith & Fox, 2001; Lawless & Pearson, 2008; Fox, 2010; McElroy & Marsh, 2010; 2011). However, these studies rely primarily on the examination of aggregate electoral data and though this allows us to test for the operation of voter bias in the real world, it does not entirely solve the problem of differential candidate quality.

Finding that women win just as often as men is encouraging, but only to the extent that candidate quality does not differ across male and female candidates. If there are other barriers to women's entry into political life, then it may be that only those women who are truly exceptional have managed to overcome them to stand as candidates (Lawless, 2015). If this is the case, then exceptionally qualified women are competing against qualified but comparatively inferior men and being elected at the same rate as them. Pearson and McGhee (2008) find that women running for the US House of Representatives are able to attract greater financial resources than their male counterparts, an indicator that this may indeed be the case. While Lawless and Pearson find that examining the rates at which women are elected to the House conceals the intensive primary competition that they must see off prior to gaining their party's nomination. They conclude that "[w]omen have to be "better" than their male counterparts in order to fare equally well" (ibid: 67).

Aggregate analyses of electoral results can, and do, attempt to control for candidate quality using variables such as incumbency and political experience – Black and Erickson's (2003) paper on the 1993 Canadian election employs survey data from candidates in combination with aggregate results, concluding that women do not have to be more qualified than their male colleagues in order to achieve the same result. However, methodological limitations mean that efforts to control for candidate quality will remain imperfect. Matland and King (2002) rightly point to the issue of over-identification which arises when employing election results and survey analysis, and instead argue that experiments offer precise estimates of the way in which voters respond to candidate sex.

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<sup>2</sup> This distinction is described in detail Pitkin's (1967) seminal work, *The Concept of Representation* which outlines the difference between so-called descriptive and substantive representation.

Indeed experimental approaches are uniquely suited to tackling this issue of candidate quality since experimenters can use simulated ballots, while providing participants with identical information about candidates, varying only candidate sex to test for voter bias. In this way, researchers can attempt to make inferences about what would happen at the polls if women were to run against men with exactly the same credentials. That is what this paper aims to examine.

## Literature

Even assuming that female candidates are as qualified to obtain higher office as their male equivalents, the reason why bias against them could emerge is due to the fact that their sex might be used as a heuristic or shortcut for voters looking to compare candidates, particularly in instances where there is low information. Essentially, in the absence of clarifying information, sex is used to make inferences about candidates' beliefs, traits, and issue positions (Aalberg & Jensen, 2007). Where traditional gender stereotypes are held among the electorate about women candidates (that they are only interested in women's issues, that they are poor leaders, that they are less suited to public life etc.), there may be a negative impact felt by these candidates at the polls.

Though, as has been noted above, aggregate analyses have found little evidence for a direct effect of candidate sex on vote choice, its impact may be less than straightforward. As Sanbonmatsu (2002: 22) points out "[t]hat male and female candidates win their races at similar rates on average does not preclude the existence of an inclination to vote for male or female candidates; these preferences may cancel each other out in [aggregate studies]." Indeed some of those studies that do find evidence for an impact of sex on voter choice sometimes conclude that not only are female candidates not discriminated against by the electorate in general, but they actually receive more support from female voters who are exhibiting a positive bias with respect to these candidates (see Burrell, 1994; Smith & Fox, 2001; Black & Erickson, 2003). In these cases women voters appear to take the sex of a candidate as indication of whether their interests will be represented in parliament.

With respect to those results from surveys that find little or no evidence for a candidate sex preference on the part of voters (that is, those papers that have been cited above), it may be that such preferences vary across time, across geographic areas, and due other contextual factors related to the campaign. In other words, traditional gender stereotypes may be held but may only translate into voter bias under certain conditions. Lawless (2004) argues that this seemed to be the case in the United States. In a post-9/11, increasingly security conscious environment, voters in Lawless' study concluded that men would be best suited to dealing with security concerns; even expressing a preference for traditionally masculine traits (e.g. aggressiveness and assertiveness) in candidates and office-holders.

Experimental approaches to this question of voter bias tend to investigate either the direct effects of candidate sex (i.e. the impact on voter choice) or its indirect effect (i.e. its impact on voter perception of issue closeness, candidate ideology, and level of competence) (Matland & King, 2002). While direct effects of candidate sex are more straightforward to identify, assessments of candidate competency is likely to differ across issue area. Indeed, gendered policy areas – that is, policy areas where either men or women are thought to be more capable – have included reproductive rights, child abuse, welfare reform and education for women (Applegate, Cullen & Fisher, 2002), and business, the economy, and the military for men (Sapiro, 1981). Female candidates may therefore be favoured by the electorate for dealing with areas like education, but may fail to be seen as proficient in dealing with typically 'male' areas. There is some evidence that ministerial portfolio allocation takes place along these gendered lines (Connolly, 2013).

Decomposing voter bias into its direct and indirect components is important since it allows us to think about this phenomenon in a more nuanced way. Gender stereotypes need not systematically disadvantage women at the polls or in voter evaluations, for some issues they may be deemed more competent than their male counterparts, while for others they may be thought of as less capable. The phenomenon is therefore complex: traditional gender stereotypes have the potential to both advantage and disadvantage women. Voter bias resulting from such stereotypes about the roles of men and women should thus be thought about as a cognitive bias whereby “human cognition reliably produces representations that are systematically distorted compared to some aspect of objective reality” (Haselton, Nettle & Murray, 2015: 968). As a psychological term, the word bias thus has no value judgement attached to it: if voters favour a female candidate over an identical male it is present, as it would be were the positions reversed. Though the phenomenon is investigated here due to its potential explanatory power with respect to women’s underrepresentation, as will be discussed in the subsequent section, it is our expectation that such bias will at times benefit female candidates.

As a whole, experimental evidence with respect to voter bias has been mixed. It has been argued that this lack of consistency has been due to the tendency of researchers to conduct their experiments among undergraduate students and, more seriously, to fail to include party identification as part of the design (Matland & King, 2002). This latter point is particularly important since despite good evidence that there is a personal vote component to voter choice (e.g. Wattengerg, 1991; Hayes & McAllister, 1997; Blais et al., 2003), the party that a candidate comes from matters. Indeed, Matland and King’s (2002) experiment examining differences in evaluations of male and female Republican candidates found that female Republican candidates were viewed more favourably by independent and Democrat voters, while Republicans tended to regard them with suspicion. In this case gender stereotypes were operating – Republican women were regarded as being more liberal than their male counterparts – in a manner that advantaged and disadvantaged female candidates, depending on the party identification of the voter. Since sex effects for candidates from the Republican Party only were examined here, these findings need to be treated with caution. The results for a female Democratic candidate would be worth examining; Independent voters and Republicans would likely view her as too liberal and therefore evaluate her unfavourably (if ‘woman’ is taken as a marker of liberalism as it is in this experiment), however it is difficult to know whether differences would emerge with respect to Democratic voters. It is likely the case that for this latter group, some other factor (such as feminist orientation) would add additional explanatory power. What the results of this paper do suggest it that it is important to build in candidate party identification into the design of the model: voter bias may look different for candidates from parties of the Left and the Right and to examine it properly treatments in any experiment must be varied to take account of this.

This project makes a contribution to the existing work in this area by taking account of the latter criticism, while testing for both direct effects and a broader range of indirect effects of candidate sex. It also aims to approximate a real-world election scenario as far as possible by providing information regarding the candidate’s background as well as a range of issue positions. It is important to tackle the extreme artificiality that is present in many of the experiments on this topic and to attempt to give participants the kind of information that they would have when going to the polls to cast their vote. This is because findings that voters are biased against or in favour of nameless female candidates about whom almost no information is provided<sup>3</sup> are perhaps less interesting than findings with respect to those candidates about whom participants have as much information as they would do were they actually going to the polls to vote in a real election. By

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<sup>3</sup> Experiments in this area typically rely on an extremely short paragraph containing almost no information about the background or policy positions of the candidate. At six lines, Matland and King’s (2002) candidate description is one of the longest.

incorporating parties of the Left and Right into the study design and taking advantage of an upcoming election to provide a scenario to respondents that more closely approximates the real world, it is hoped that a more nuanced pattern of voter bias will emerge, revealing the circumstances under which women female candidates may be both disadvantaged and advantaged by their sex.

## **Hypotheses**

The two specific research questions that this project aims to respond to may be stated in the following way: 1) does candidate sex impact the likelihood of a member of the electorate voting for a given candidate? 2) is there a gender gap in the evaluation of candidate competency by voters? Following from the review of the literature discussed above, two core hypotheses have been identified, the first tests for the presence of direct voter bias, while the other tests for indirect bias:

H1: Voters will be less likely to vote for female candidates.

H2: Candidate sex will matter for assessments of competence in issue areas.

H2a: Female candidates will be rated as more competent than male candidates on issues that are gendered 'female'

H2b: Female candidates will be rated as less competent than male candidates on issues that are gendered 'male'

H2c: Female candidates will be rated as less competent than male candidates on issues that are non-gendered.

## **Data collection: participants and procedure**

Data were gathered from six classes of undergraduate students at different stages of their degree. It is true that these individuals will not be typical of the national population on a variety of demographics (Matland & King, 2002) and also that these individuals were largely chosen due to logistical reasons. However, the advantage of using relatively homogenous participants in experimental design is that it makes controlling for confounding factors through random assignment more effective (Kirk, 1982). Additionally, the presence of four experimental conditions necessitated a relatively large number of participants in order to detect the presence of any treatment effects. Though undergraduates are employed as the sample in the study, it was important that different types of undergraduates be included since students who are interested in politics might be unrepresentative of the wider demographic. Only three classes of students, or 263 respondents, were taking a political science module, two of these modules were introductory and less than thirty percent of those students enrolled in the modules had elected to study political science. The three other groups were made up of Computer Science, Engineering, and Sociology students. Incorporating these other groups into the study also helped to achieve near parity in the gender composition of the sample.

Since revealing the purpose of the study to participants would allow them to conceal the very biases that are being tested for, a methodology that did not alert participants to the true nature of the experiment was used (see Smith, Paul & Paul, 2007). Participants were told that they were part of a study examining campaign communication. Each participant was given a dossier relating to a fictitious candidate containing information regarding the candidate's background and policy positions on various issues then asked to fill out the accompanying questionnaire. Since one of the

aims of the project was to make the scenario as realistic as possible, participants were informed that the candidates would be standing for the first time at the 2016 Irish general election in an urban constituency outside of the capital.

Respondents were asked to read the dossier and then to answer a series of questions about their perceptions of the candidate based on the information provided. Though four experimental conditions were employed, with candidates differing with respect to party identification and sex, each participant evaluated only one candidate. The information received by the participants was identical and varied only with respect to these treatments. Assignment to the experimental conditions took place on a random basis within each of the six classes. This study design is therefore concerned with the study of between- rather than within-person differences in evaluations.

As was noted above, there are four experimental conditions in total, each varying with respect to candidate sex and party. It was not feasible to create experimental conditions for each of the main parties in the Irish political system since this would involve recruiting close to 800 participants. However, it was important to include parties of both the Left and the Right in the design of the experiment, for the reason outlined above. The government of the moment provided the opportunity to feature parties of both the Left and Right in the study design. The existing Fine Gael/Labour coalition enabled us to include these parties without fear of differences in evaluations resulting from a government versus opposition effect, which could have a strong impact on evaluations (particularly where anti-government sentiment is strong). The four experimental conditions along with the number of participants assigned to each group are represented below:

Table 1. Assignment of experimental conditions

<b>Party \ Sex</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>
<b>Fine Gael</b>	104	102	206
<b>Labour Party</b>	102	112	214
<b>Total</b>	206	214	420

After the parties were chosen, it was necessary to construct their biographies and issue positions. The *Irish Times* Nealon data from the last three general elections was employed in order to construct a small biography for a likely Dáil candidate. Issue areas covered in the dossiers relate to stereotypically female (childcare) and male (economic growth, employment) policy areas, as well as one gender-neutral area covering constituency service (improving road quality). Reproductive rights was a second female issue according to which respondents were asked to evaluate the competence of their candidate. However, for reasons that will be discussed below, information relating to the candidate's position on the issue was not included in the dossier.

It is important to say a few words relating to the construction of the issue positions. Since the design of the study necessitated that each respondent receive an informational dossier containing exactly the same information, regardless of candidate sex or party, it was important to find issue positions that are common across members of both Fine Gael and Labour. To this end, a search was made of campaign literature employed at the 2011 election, and of recent statements made to the press by existing TDs of both parties<sup>4</sup>. Issues were selected that would not only meet the criteria of being gendered but would also have positions that could be accommodated by both parties.

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<sup>4</sup> The Irish Election Literature Wordpress blog, as well as articles from *The Irish Times*, *Irish Independent*, and various other newspapers were employed.

With respect to the 'male' issue areas, this was an easier task: support for economic growth and employment is common across Irish political parties. The issue that represented the biggest challenge was that of reproductive rights. While it is true that the Irish Labour Party is among the most committed to increasing access to abortion<sup>5</sup>, the broad position of the party cannot be described as particularly radical and the party accommodates within it a range of positions. Fine Gael, as a Christian Democratic party, has had a much less liberal record in this area. However, a diversity of opinions on this issue exists within the party. One of the stated aims of the experiment is to try to approximate the information available to voters when casting their ballot at the election. However, with respect to this issue few candidates chose to campaign on it and many reluctant to state their position to the electorate. It is likely the case then that voters have substantially less information relating to this position and must therefore evaluate candidates on the basis of their party label and, as is hypothesized here, their sex with respect to this issue. It is for this reason that information relating to candidate position on abortion has not been included in the dossier.

Data collection for the study took place in the two weeks prior to the 2016 general election on February 26th. 420 usable responses were returned.

## Data

Two categories of dependent variables are employed in this study: 1) propensity to vote and 2) issue-specific competency evaluations. Propensity to vote for a candidate was measured by asking respondents to indicate on an eleven-point scale (where 0 is not at all probable, and 10 is very probable) the probability that they would cast a vote for the candidate at the general election if the candidate were running in his or her constituency.

The other category of dependent variables relates to issue-specific evaluations of competency. As has already been stated above, our expectations are that women will receive more positive evaluations with respect to so-called women's issues but will be perceived to be less competent in other areas. Participants were asked to indicate the extent to which they thought the candidate would handle each of the issues. The items were measured on an eleven-point scale from 'not at all well' to 'very well'<sup>6</sup>. The so-called male issues were captured by two items; 'ensuring that the Irish economy continues to grow' and 'creating jobs', while the women's issue areas were captured by; 'providing support for working mothers' and 'dealing with the campaign to reduce restrictions regarding abortion'. A single item, 'improving road quality in the constituency' was employed as a gender-neutral issue.

Although random assignment of the experimental conditions was employed, it was important to collect additional demographics from respondents to ensure that this had been done correctly. Additionally, these demographics could enable us to identify predictors of particular attitudes towards male and female candidates if a gender gap in attitudes is indeed found to exist.

Data relating to respondent gender, age, and social class<sup>7</sup> were collected. Ideology was captured using an eleven-point scale measuring left-right self-placement and also by asking respondents to indicate the party that they would vote for if the election were held tomorrow. Identification as a feminist was also measured since we would expect those individuals who strongly identify as feminists to have more positive evaluations in general with respect to female candidates (and for the

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<sup>5</sup> The procedure is illegal in Ireland, except where the life of the mother is at risk.

<sup>6</sup> Adapted from Sapiro's (1981) measures of competency.

<sup>7</sup> Measured by mother's and father's occupation, and coded using the CSO's classification.

converse to be true for those who do not identify as feminists). This feminist identification variable was measured on an eleven-point scale, where 0 is 'not at all a feminist' and 11 is 'strong feminist'. Finally, since those who are informed about politics in general might have stronger views or indeed be less likely to be swayed by the sort of cues used in low-information situations (here, sex of candidate), we asked respondents to indicate whether they were eligible to vote in the up-coming general election, and how closely they follow politics (measured on a four-point scale).

## **Analysis**

### ***Descriptives***

Table 1A in Appendix 1 presents the frequency distributions for the key demographic variables. The sample was almost evenly split by sex: 206 respondents were male and 214 were female. The average age of participants was just over 21 years and no respondent was older than 60 years of age. Over 17 per cent of respondents were not eligible to vote at the next general election<sup>8</sup>. As we might also expect from a sample of university students, the vast majority of individuals come from the professional or managerial/technical classes (as measured by parents' occupation). We can see by looking at ideology, as measured by left-right self-placement, that the sample is skewed to the left as we might expect since the sample is drawn from an undergraduate population.

We can see this preference for parties on the Left of the spectrum more clearly in Figure 1. below. Fine Gael does receive the most support in the sample, with 26.2 per cent of respondents indicating that they would vote for the party if the election were held tomorrow, a proportion that is only 0.7 points higher than the actual general election result. However, the Social Democrats, the Labour Party, and the Green Party all received much greater support among the undergraduate students than they did in the general population. Most significantly, Fianna Fáil's 24.3 per cent vote share received in the general election is just under two-and-a-half times that received from the experiment participants. The preferences expressed by this sample are much more closely aligned with a poll of the university's students conducted in mid-February (Parle & Heaphy, 2016)<sup>9</sup> indicating that the respondents are broadly representative of the student body, if not the electorate.

The next section examines whether these differences are statistically significant using regression analysis.

### ***Regression analysis***

The two hypotheses are tested by means of an ordinary least squares model for hypothesis one, and a series of ordered logit models for hypothesis two. Table 2 presents the results. Model 1, which tests for direct voter bias, provides no support for the hypothesis that respondents will be more likely to vote for an identical male candidate over a female one. Though the coefficient for the female candidate dummy variable is negative as expected, the large standard error means that it is not statistically significant.

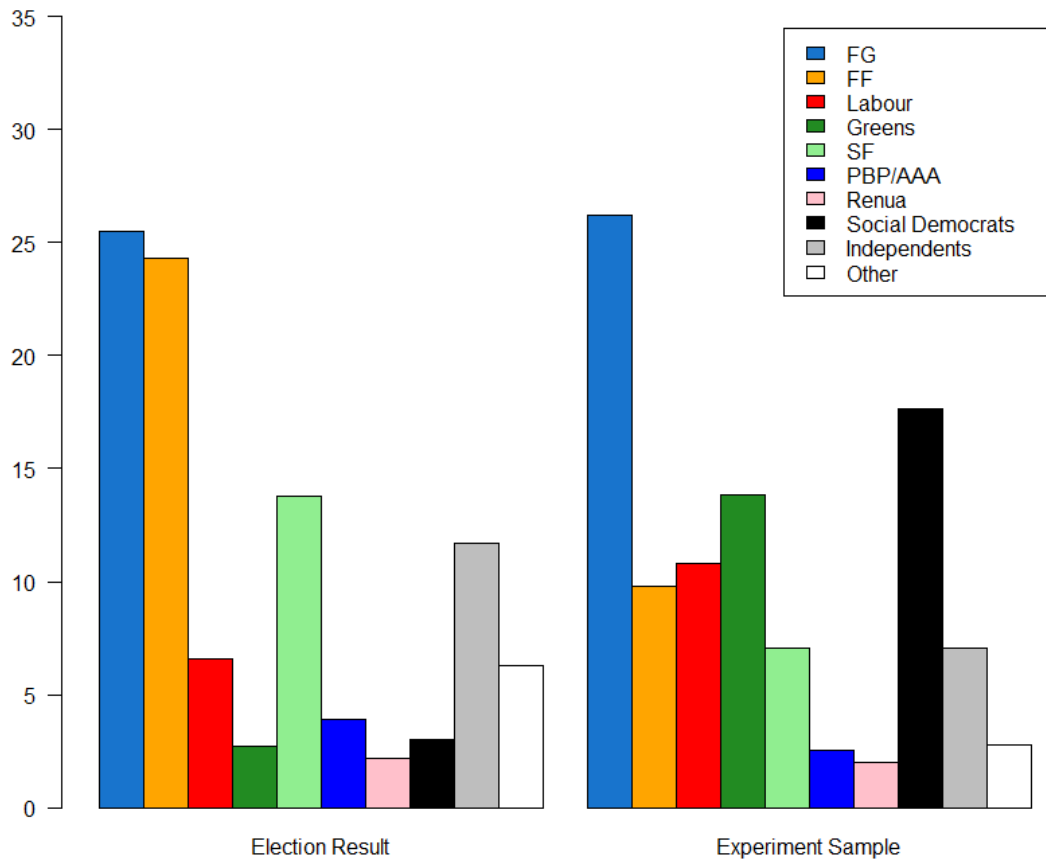
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<sup>8</sup> Some were not registered, while others did not meet the criteria for registration. The results presented below are robust even where these non-eligible students are excluded.

<sup>9</sup> Though not for the Green Party, who received a 6 per cent vote share in that poll, but 13.85 per cent in this sample.



**Fig. 1. Vote choice: election result and experiment sample**



Hypothesis 2, relating to issue-specific evaluations of competency, receives some support in the data. Female candidates are viewed as more likely than their male counterparts to effectively provide support for working mothers (Model 2), though in Model 3 women are not evaluated as being more effective at campaigning to reduce restrictions regarding abortion (the coefficient is positive as expected, but not statistically significant). Hypothesis 2a therefore receives partial support. Models 4 and 5 test hypothesis 2b; that men will be evaluated as more competent at dealing with issues that are gendered male. Though the coefficients for the female candidate dummy are negative in both models, as predicted by the hypothesis, neither is statistically significant. We cannot conclude therefore that respondents think that men are better at ensuring that the economy continues to grow (Model 4), or creating jobs (Model 5). Model 6 tests H2c; that female candidates will be rated as less competent than male candidates on issue areas that are non-gendered. Here, the candidate sex variable is negative and statistically significant at the 0.01 per cent level. Respondents rated women as less effective than their male counterparts at improving road quality, in line with our expectations. Hypothesis 2c is thus supported by the model. Overall, Hypothesis 2 receives partial support; there is some limited evidence here for indirect issue-specific voter bias.

**Table 2. Regression results**

	H1	H2				
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
(Intercept)	5.03 <sup>***</sup> (0.76)					
<i>Candidate characteristics</i>						
Female candidate	-0.19 (0.22)	0.38 <sup>*</sup> (0.18)	0.08 (0.18)	-0.26 (0.18)	-0.24 (0.18)	-0.55 <sup>**</sup> (0.18)
Labour candidate	0.44 <sup>*</sup> (0.22)	0.02 (0.18)	0.64 <sup>***</sup> (0.18)	-0.10 (0.18)	-0.11 (0.18)	0.18 (0.18)
<i>Participant characteristics</i>						
Age	-0.05 (0.02)	-0.08 <sup>***</sup> (0.02)	-0.04 (0.02)	-0.06 <sup>*</sup> (0.02)	-0.08 <sup>***</sup> (0.02)	-0.06 <sup>***</sup> (0.02)
Feminist orientation	0.12 <sup>**</sup> (0.04)	0.04 (0.04)	0.07 (0.04)	0.05 (0.04)	0.03 (0.04)	0.10 <sup>**</sup> (0.04)
Female	0.16 (0.24)	0.25 (0.20)	-0.37 (0.20)	0.23 (0.20)	0.29 (0.20)	-0.26 (0.19)
Social class	0.08 (0.13)	0.12 (0.11)	0.05 (0.10)	0.26 <sup>*</sup> (0.11)	0.14 (0.11)	0.01 (0.11)
Political interest	-0.07 (0.11)	0.02 (0.09)	-0.20 <sup>*</sup> (0.09)	0.07 (0.09)	-0.06 (0.09)	0.17 (0.09)
Left-right self-placement	0.18 <sup>**</sup> (0.06)	0.08 (0.05)	0.13 <sup>**</sup> (0.05)	0.09 (0.05)	0.16 <sup>***</sup> (0.05)	0.10 <sup>*</sup> (0.05)
R <sup>2</sup>	0.06					
Adj. R <sup>2</sup>	0.04					
Num. obs.	396	393	393	395	394	395
RMSE	2.18					
AIC		1600.67	1704.75	1685.17	1695.27	1741.07
BIC		1672.20	1776.28	1756.79	1766.85	1812.69
Log Likelihood		-782.33	-834.38	-824.58	-829.64	-852.54
Deviance		1564.67	1668.75	1649.17	1659.27	1705.07

\*\*\* p < 0.001, \*\* p < 0.01, \* p < 0.05

With respect to the controls that are included in the models, most are not statistically significant. Political interest and social class are predictors of candidate evaluations for only two of the models<sup>10</sup>.

It is worth discussing the respondent sex and feminist orientation controls in more detail. In none of the models does the female respondent coefficient achieve significance. Additional models (not presented here) were run, including interaction terms between candidate and respondent sex, and, subsequently, feminist orientation and respondent sex. The female candidate effects in Table 2 were robust to these specifications and of the twelve models run, only two of the interactions terms achieved significance without substantially altering the existing results. The models presented in Table 2 are the most parsimonious and more complex specifications have therefore been excluded.

The age control included in the models tells us that overall older respondents are more sceptical about candidates in general. This result is driven primarily by some mature students in the sample. Restricting the sample to those who were twenty-three and under did not substantially alter the results.

Finally, it is worth noting that the left-right self-placement variable<sup>11</sup> is positive and statistically significant in all but two of the models (Models 2 and 4); on the whole, as respondents move to the right of the political spectrum they are more likely to vote for and to evaluate favourably the candidates. This is likely an artefact of a general favourability of those to the right of the political spectrum towards the existing government. The government has after all implemented several socially liberal policies (e.g. marriage equality, limited liberalisation of abortion restrictions) while maintaining economic policies that are liberal rather than strongly redistributive, a combination which should find favour with respondents as they move towards the right of the political spectrum.

## **Discussion**

Overall, these results accord with those found elsewhere in the literature which employs observational data. We find no evidence for direct voter bias: respondents do not discriminate between identical candidates on the basis of sex. This result fits not only with the work that has been produced in a predominantly American setting but also research that has been done in an Irish context. McElroy and Marsh (2010; 2011) analyze results from one district that trialled electronic voting at the 2002 Irish general election, aggregate electoral data, and simulated ballots from a sample of voters taking part in the Irish National Election Study (INES), and conclude that although PR-STV affords voters the opportunity to discriminate on the basis of sex, where women run for office in Ireland they win just as often as men. These results receive further support here using an alternative methodology.

The results with respect to indirect voter bias indicate that gender stereotypes appear to be operating among respondents but to a very limited extent. Women are rated as more effective at

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<sup>10</sup> This is likely due to the lack of variation in the social class variable (see Appendix 1 for more detail) and also due to the small scale on the political interest variable.

<sup>11</sup> As a robustness check, these models were run replacing the left-right self-placement with the party that respondents indicated they would vote for if the election were held tomorrow. This did not substantially alter the results and therefore the specifications in Table 2 have been retained for the sake of simplicity.

dealing with an issue area that is gendered female (supporting working mothers) but less effective at providing a constituency service (improving road quality in the constituency). Sex is supposed to be a cue used by voters in the context of low information to make inferences about a candidate. Here, even where individuals have access to the type of information available to them, both with respect to the individual candidate and the candidate's party them when they cast their vote on election day, they do not rely heavily on candidate sex to make their decisions.

Lawless' (2004) paper reminds us that the context in which voters make their decisions about candidates matters, and that this context evolves as particular issues become more or less salient. That no evidence for direct voter bias is found here is encouraging. However though the magnitude of their effect is small, the limited evidence for the presence of indirect voter bias in this sample indicates that traditional gender stereotypes are still held and could potentially be mobilised at future elections in ways that might either advantage or disadvantage women in the polls.

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## Appendix 1: Descriptive Statistics

Table 1A. Frequency distributions (n=420)

Variable	Frequency
<b>LR-self-placement</b>	
0 (left)	11 (2.66%)
1	20 (4.84%)
2	61 (14.77%)
3	91 (22.03%)
4	66 (15.98%)
5	76 (18.40%)
6	33 (7.99%)
7	32 (7.75%)
8	14 (3.39%)
9	5 (1.21%)
10 (right)	4 (0.97%)
NA	7
<b>Social class</b>	
Professional	135 (33.01%)
Managerial/ Technical	211 (51.59%)
Non-manual	42 (10.27%)
Skilled-manual	18 (4.40%)
Semi-skilled	1 (0.25%)
Homemaker/unemployed	2 (0.49%)
NA	11
<b>Political knowledge</b>	
Very closely	87 (20.76%)
Closely	121 (28.88%)
Somewhat closely	123 (29.36%)
Not closely	88 (21.00%)
NA	1
<b>Feminist ideology</b>	
0	35 (8.43%)
1	5 (1.20%)
2	13 (3.13%)
3	15 (3.61%)
4	14 (3.37%)
5	57 (13.74%)
6	45 (10.84%)
7	58 (13.98%)
8	60 (14.46%)
9	45 (10.84%)
10	68 (16.39%)
NA	5 (1.20%)