

**WHAT UNDERLIES THE GENDERED QUALITY GAP?
THE ROLE OF PERCEPTIONS IN SHAPING THE SUPPLY OF FEMALE CANDIDATES**

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ABSTRACT

A durable relationship that emerges from the women in politics literature is: “when women run, they do as well as men.” Once interpreted as an absence of gender bias, more recent scholarship suggests that a gender gap in quality accounts for much of this electoral parity. Yet, the theoretical and empirical underpinnings of the gendered quality gap remain unclear. Using a national random sample of potential candidates for the state senate, I explore how individual-level perceptions of quality and bias interact with gender to alter run decisions. Compared to those who perceive gender equity, women who regard the political environment as biased are significantly more likely to shy away from opportunities to advance to higher office until they reach a threshold level of quality. Moreover, the type of quality that women emphasize seems to highlight stereotypically “feminine” strengths, as if women sought to negate punishment for pursuing incongruent gender roles.

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INTRODUCTION

An enduring finding that emerges from the quantitative work comparing the election rates of men and women is that: “when women run, they do as well as men” (Black and Erickson 2003; Burrell 1994; Darcy and Schramm 1977; Darcy, Welch and Clark 1994; Dolan 2004; Duerst-Lahti 1998; Ekstrand and Eckert 1981; Hedlund et al. 1979; Seltzer, Newman and Leighton 1997). Although this result was once taken to mean that the electorate treats men and women equitably, an alternative explanation holds that men and women differ with respect to many of the characteristics that voters value (Black and Erickson 2003; Ekstrand and Eckert 1981; Milyo and Schosberg 2000).

Research on congressional elections demonstrates that voters reward candidates for their experience, competence and integrity – those individual-level attributes that form the foundation of political quality (Mondak 1995; Krasno and Green 1988; Stone et al. 2010). If gender is correlated with quality – with women being higher quality than men – and if quality is influential in predicting vote-share, then omitting it will attenuate the effect of gender. Men and women may achieve office at equivalent rates, however the negative effects of discrimination may be obscured by the gender gap in quality. Because most quantitative models that compare the electoral fortunes of men and women omit measures for quality, the effects of sexism may be concealed by the gender gap in this variable.

After controlling for a number of alternative explanations, recent work demonstrates that women are more qualified than men, and connects this quality gap to the gender parity in electoral success (Fulton 2011). Absent a measure of quality, men and women garner equal amounts of electoral support. However, once the gender gap in

quality is taken into account, a significant vote disadvantage emerges for women. This research concludes that women candidates are as successful as men because they are higher quality.

Yet, the theoretical and empirical underpinnings of the gendered quality gap remain underdeveloped. Although the literature provides some explanations for the emergence of the quality disparity, the arguments are not fully convincing, in part because they rest on assumptions that have not withstood testing against alternative explanations. In addition, a direct empirical link between the causal mechanism and the outcome is in many cases, lacking.

The objective of this paper is to develop a theoretical and empirical model assessing the influence of one potential driver of the quality discrepancy: perceived sex discrimination. The theory holds that when deciding to run for office, women who deem the political environment as unequal will be more responsive than their male counterparts (and women who perceive no sex bias) to their estimates of quality. In order to counteract the effects of discrimination, women who anticipate sexism will withhold their candidacies until they attain a quality threshold. The perception of bias manufactures the quality gap by deterring low quality women from running. If the perception of bias is pervasive enough, then women's heightened attention to quality will alter the characteristics supplied by male and female candidates in the aggregate.

Moreover, the theory predicts that if prejudice stems from women's pursuit of leadership roles that are stereotypically incongruent with prevailing gender norms, then developing stereotypically "masculine" traits and competencies would only serve to compound the problem. Instead, the model holds that women who gauge the political

environment as unequal will attempt to counteract discrimination by investing and responding to “communal” qualities that play into women’s stereotypic strengths (Eagly 2004 and 2007; Eagly and Karau 2000; Williams and Best 1990). When deciding whether to run, women who perceive bias will be more responsive to qualities that are favorably associated with women, like: communication, honesty and selflessness. Importantly, these characteristics correspond with the “valence” attributes that recent research suggests are of particular concern to voters (Stone and Simas 2010).

Although the topic of this analysis is clearly gendered, on a broader level this research considers how perceptions about the political environment shape not only ambition to run for office, but also alter the qualitative attributes supplied by candidates to voters. It is well-known that assessments of the opportunity structure mediate candidates’ decisions about whether and when to run (Jacobson 1989; Lazarus 2008; Maestas et al. 2006; Stone et al. 2010). If perceptions of bias modify the type of candidate who runs, and the alternatives that are presented to voters, then this research advances a more expansive view about the factors that contribute to high quality forms of candidate competition and democratic representation.

MICRO-FOUNDATIONS OF THE GENDERED QUALITY GAP

Recent scholarship on the gendered quality gap suggests that it emerges from either forces external to the candidate, or pressures internal to her. External forces that could give rise to the quality gap include discriminatory practices on behalf of party leaders and challengers – whose actions may cultivate higher quality women who must survive a more competitive process (Fox and Lawless 2005; Lawless and Pearson 2008; Niven 1998; Palmer and Simon 2006; Sanbonmatsu 2006).

Alternatively, internal pressures derive from differential self-selection. Compared to men, women may lack confidence – implying that those women who overcome their own self-doubt about qualifications will be higher quality candidates (Fox and Lawless 2005). Moreover, if women judge the political arena as slanted in favor of men, then they should be more likely to abstain from running until they reach a level of quality sufficient to neutralize the negative effects of perceived sexism (Black and Erickson 2000; Milyo and Schosberg 2000).

Importantly, there is nothing about either the external or internal explanation that requires one to be correct at the expense of the other. To the contrary, they might reinforce and sustain one another. For instance, external discrimination by party leaders or challengers may promote only the most qualified women. And as a response to such discrimination, women may feel compelled to develop ever more impressive credentials to counteract the sex discrimination they have confronted. If external discrimination triggers an internal response, then both factors could jointly manufacture the gendered quality gap.

That said, testing the external basis for the quality gap is difficult – there are many factors that contribute to the decision of parties to recruit and challengers to compete, some of which may be correlated with gender. If any of these factors are omitted from the model of recruitment or challenger contestation, then the impact of gender on these outcomes will be overstated.

For instance, if party leaders believe that voters discriminate against women, and if beliefs about electoral success influence recruitment decisions, then women may be under-recruited. But rather than reflecting overt gender bias, this observation may stem

from party leaders promoting the interests of their party – anticipating voters’ behavior, and recruiting the candidate with the strongest electoral prospects. Sanbonmatsu (2006) makes this point: “Whether party leaders recruit and help to nominate women candidates is likely to be influenced by... beliefs about voter behavior...candidate gender factors into recruitment because party leaders anticipate voter reaction to candidates” (117-118).

Like party leaders, challengers may also anticipate voter discrimination against women. If challengers emerge in response to their electoral prospects, and gender and prospects are correlated, then women may spark increased challenger opposition not because they are discriminated against, but rather because they are perceived to have poorer ex ante electoral odds. Challengers may believe that women will be the subjects of discrimination by voters, and emerge accordingly.

Because it is extremely difficult to account for the many variables that influence recruitment and challenger emergence decisions, it is unclear whether and to what extent, discrimination by party leaders and challengers contributes to the quality gap. Most work in this vein falls short of empirically demonstrating the quality gap, much less the process that gives rise to it. More commonly, gender disparities in recruitment and challenger contestation are reported, a gendered quality differential is inferred, and the former is asserted to be the cause of the latter (e.g., Lawless and Pearson 2008).

An alternative basis for the gendered quality gap stems from internal mechanisms of selection. To see how the quality gap may manifest itself from gender differences in self-selection, Fox and Lawless (2005) explain that women consider themselves to be less qualified than men, and the development of their ambitions is more sensitive to their self-perceived qualifications. As a consequence, they theorize that women who have

overcome their own self-doubt to emerge as candidates, ought to be more qualified than their male counterparts. Although this claim holds a good deal of intuitive appeal, the causal connection between self-doubt about qualifications and the quality of the female candidate who emerges, is largely missing

For instance, the authors show that women's ambitions are more responsive to qualifications than men, but do not connect this finding to self-doubt. If the explanation is correct, then women who hold self-doubt ought to be more responsive to their qualifications than women without self-doubt (as well as men, with or without self-doubt), but evidence of this point is lacking. Moreover, women who overcome their self-doubt should be more qualified, but again, this point alludes testing.

THEORY AND HYPOTHESES

In this paper, I draw upon another internal process that may similarly give rise to the quality differential, but has received less scholarly attention – the anticipation of discrimination. The explanation holds that if women anticipate bias, then they will abstain from running until they reach a threshold level of quality sufficient to off-set the negative effects of discrimination (Black and Erickson 2000; Milyo and Schosberg 2000). Thus, the causal model posits the perception of bias as the mediating factor between qualification and running. Although the previous research on women candidates is suggestive, it fails to show that women are more likely than men to perceive bias, that the anticipation of discrimination has a chilling effect on women's office-seeking, and that women who perceive bias are more sensitive to their quality assessments when considering whether to run. My work will address these significant gaps in the research.

This explanation is rooted in social-psychological theories that propose gender roles as socially-constructed, context-dependent and sustained by gendered expectations and stereotypes (Deaux 1977; Deaux and Major 1987; Deaux and LaFrance 1998). According to the theory, people hold stereotypes regarding appropriate gender roles – men and women who uphold the norms of appropriate sex-typed behavior can expect to be rewarded, and those who violate it can expect to be the subject of societal punishment (Eagly 2004 and 2007; Eagly and Karau 2000). The greater the incongruity between stereotypic beliefs about sex, and beliefs about the demands of the role, the greater the penalty men and women can expect. In her writings on women in leadership positions, Eagly (2007) theorizes that:

Leader roles that are highly male-dominated or culturally masculine... present particular challenges to women because of their incompatibility with people's expectations of women... When leader roles are extremely masculine people may suspect that women are not qualified for them, and they may resist women's authority (6).

When women assume leadership roles that are incongruent with prevailing gender stereotypes, they become susceptible to prejudice because they are engaging in behavior that seems unusual. Under these conditions, a gender gap in political quality should result, because women will censor themselves from engaging in the more “masculine” arena of politics until they reach a threshold level of quality to compensate for the perceived discrimination. Consistent with this explanation, previous research shows that women are more “selective” about the races in which they choose to compete than men (Fulton et al. 2006; Gertzog 2002; Palmer and Simon 2003). Rather than jumping into

“hopeless” contests, women appear to wait until their odds of winning are viewed as promising. One way to tip the scales in their favor is to develop greater political quality, a phenomenon dubbed the “cream of the crop” effect (Milyo and Schosberg 2000).

An additional implication of this approach is that women’s selection decisions ought to be more responsive to those traits that emphasize women’s stereotypic strengths, rather than those strengths conventionally ascribed to men. Research on sex stereotypes suggests that people expect and prefer that men be “agentic” and exhibit personality traits like self-promotion, individualism and instrumentality. Women, on the other hand, are assumed to be “communal,” and are better-liked when they present themselves as communicative, caring and compassionate (Williams and Best 1990).

If the bias stems from role incongruity – that is, women behaving in ways that are incongruent with sex stereotypes – then investing in the development of traits that complement women’s stereotypic strengths is the most effective method for combating the perceived discrimination. To defy the role incongruity bias, women’s selection decisions ought to be more responsive to those qualities that emphasize women’s stereotypic strengths, rather than those stereotypic strengths traditionally ascribed to men. Developing and responding to qualities that correspond to men’s stereotypic strengths would not counteract perceived discrimination based on role incongruity. Instead, women should attempt to capitalize on those sex stereotypes that are favorably associated with them.

Importantly, the self-selection explanation makes no assumption about discrimination on the part of external actors, like party leaders or potential challengers.

Rather, all that it requires is that women anticipate discrimination, and behave in a way that disarms the perceived bias. This gives rise to four hypotheses:

Hypothesis 1: Women will perceive more bias than men.

Hypothesis 2: Compared to men (and women who perceive no bias), women who perceive bias will be more responsive to their quality when deciding whether to run.

Hypothesis 3: Compared to men (and women who perceive no bias), women who perceive bias will refrain from running until they reach a threshold level of quality.

Hypothesis 4: Compared to men (and women who perceive no bias), women who perceive bias will be the most responsive to qualities that play into women's stereotypic "communal" strengths.

DATA AND METHODS

Because the variable of interest is whether an individual selects into or out of a race, individuals who decide to run – as well as those who do not – must be examined. Towards this end, I concentrate on state assembly-members, and analyze their decision to select themselves as candidates for the state senate. Although this approach emphasizes progressive ambition – rather than initial ambition – it offers more analytical benefits than liabilities for a variety of reasons.

Most importantly, this research design enables me to hold the target office, as well as previous office-holding experience, constant. If men and women sought different types of offices – for example: if men sought legislative office, while women sought positions on school board – then attributing differences in the decision-making process to sex would clearly be invalid. The alternative explanation is that there are fundamental differences between offices, which raise the salience of some considerations, and diminish others. If gender is correlated with the type or level of office sought, then

inferences about men's and women's decisions to run would be confounded by this alternative interpretation.

Similarly, by holding previous office-holding experience constant, men and women with equivalent political backgrounds can be compared. If men were more likely than women to hold previous elective office, then it would be impossible to attribute differences in office-seeking to gender, as opposed to discrepancies in experience.

In addition, by controlling for the type of office sought, elements of the strategic environment that traditional candidate emergence studies regard as essential to the decision to run, can be explicitly taken into consideration (Black 1972; Rohde 1979; Schlesinger 1966). In terms of selecting themselves into and out of races, potential candidates evaluate the expected competitiveness of the race, the intrinsic benefit of the target office, and the personal and political costs involved in running for that position. In the absence of a referent office, linking such important attributes of the political opportunity structure to the decision to run would not be possible. As a result, controlling for the type of office sought avoids the peril of omitting dimensions of the electoral context that demonstrably relate to the selection decision.

Notwithstanding the benefits of this approach, this analysis cannot speak directly as to whether the perception of bias alters the effect of quality on the initial decision to run (Lawless and Fox 2005). However, because assembly-members already hold office, and because office-holders have already successfully navigated the electoral terrain, the individuals included in this research design ought to be less likely to acknowledge, and be influenced by, gender discrimination than initial runners, who have not yet surmounted those barriers. Rather than being a limitation, this design imposes a more

rigorous test of the hypothesis that the perception of bias differentially conditions men's and women's decisions to run. If female assembly-members who perceive bias are deterred from running for the senate until they reach a threshold level of quality, then this ought to have an even greater deterrent effect on initial runners who have not yet overcome barriers to office.

I administered a nationwide mail and Internet survey of state assembly members. I sampled the universe of female state assembly members nationally (n=1243), and then randomly sampled a number of men roughly equal to the proportion of women in each state assembly (n=1265). This sampling strategy maximizes the number of women, while maintaining equal proportions of men and women within each state assembly, so that in the aggregate neither men nor women are concentrated in a particular "type" of legislature (e.g., professional or unprofessional).

In all the analyses I report, I adjust for this sampling design by stratifying by gender to account for the fact that I sampled men and women separately. I cluster by state because observations within each state are not sampled independently. And, because the probability of being sampled is related to the number of women in the state assembly as well as the number of seats in the legislature, I weight each response by the inverse probability of being sampled.

Of the 2508 surveys I distributed, 972 were returned, for a response rate of approximately 39%. 52% of respondents were male, and 48% were female. Respondents were equally split across partisanship (48% Republican and 52% Democratic). In addition, respondents from all 49 state legislatures included in my sample were represented (Nebraska is excluded because it is unicameral).

My dependent variable is constructed from a question that asks respondents to rate their likelihood of running for a senate seat in the next one to two terms from “Extremely Unlikely” (1) to “Extremely Likely” (7). Overall, neither men nor women exhibit high likelihoods of running for the senate. The average likelihood of running for men is 2.970, while for women it is 2.882. These values correspond to being somewhat unlikely to run, and the difference between men and women is not statistically significant. Because my dependent variable is ordinal, in all of the analyses I use an ordered probit estimation.

To capture quality, I asked assembly-members to rate themselves and the incumbent senator from their district on six quality dimensions, using a seven-point scale that ranges from “Extremely Strong” (+3) to “Extremely Weak” (-3). These dimensions include: ability to stay in touch with the district, personal integrity, dedication to public service, name recognition, fundraising ability and public speaking ability. In order to control for systematic bias in how assembly-members assess themselves and others, I produce a relative quality measure by subtracting the senator’s rating from the assembly-member’s rating, so that higher values indicate an advantage for the assembly-member. I collapse these items into two quality indexes to correspond with stereotypically “masculine” and “feminine” traits, competencies and values: “agentic” and “communal” quality.

In its emphasis of the skills and resources that are necessary to advertise a candidacy and run an effective campaign – including: name recognition, fundraising ability and public speaking ability – agentic quality differentiates those who can market themselves to the electorate from those without such entrepreneurial talents. By

highlighting the transactional nature of electoral politics, this dimension correlates with the attributes and abilities stereotypically ascribed to men – particularly, confidence and self-promotion.

In contrast, communal quality is attached to an individual's character, personality and motivation for political involvement, such as: the ability to stay in touch with the district, personal integrity and dedication to public service. By tapping an individual's collaboration, faithfulness and sense of civic responsibility, communal quality overlaps with stereotypically "feminine" traits and competencies, like communication, fidelity and selflessness. Because communal quality emphasizes "feminine" traits, women ought to be especially conscious of this dimension in their attempt to offset perceived bias.

Not only do these variables tap theoretically-distinct constructs, but empirical distinctions can be made between them as well. To confirm my categorizations, I performed a principal component factor analysis, which retained two distinct factors: the items for communal quality loaded on the first factor at an average value of 0.792, and the items for agentic quality loaded on the second factor at an average value of 0.508. Moreover, while communal and agentic quality are correlated at 0.374 ($p < 0.01$), I estimate two separate models, one for each of the quality variables in order to minimize concerns about multicollinearity.

The perception of bias against women is constructed using the mean of respondents' reactions to six attitudinal statements regarding the treatment of women in politics: women have just as many political opportunities as men, women have more difficulty raising campaign funds than men, many voters are opposed to electing a woman, women have an advantage in politics because they are women, men try to keep

women out of politics, and female politicians face greater media scrutiny than men. Respondents answered using a seven-point scale ranging from “Strongly Agree” (+3) to “Strongly Disagree” (-3). But because two of the items indicate favoritism towards women, while the others signify discrimination, I invert the scale of the two advantaged items. In addition, because my hypothesis about selection is conditioned on three variables: bias, quality and sex, I dichotomize the bias variable to simplify the interpretation and analysis. Values from -3 to 0 are coded as 0 = perceives no sex bias; whereas values from 1 to +3 are coded as 1 = perceives sex bias. Consistent with Hypothesis 1, women perceive significantly more bias than men (0.566 to 0.199, $p < 0.01$).

My hypotheses posit an interactive relationship between gender, the perception of bias, quality and the decision to run. For example, hypothesis 2 suggests that the effect of quality on the decision to run depends on whether the respondent is male or female, and is influenced by extent to which the respondent perceives bias. In order to capture this conditional hypothesis, a multiplicative interaction model that includes all constituent terms is required (Brambor, Clark and Golder 2006; Kam and Franzese 2007):

$$P = \beta_0 + \beta_1 F + \beta_2 Q + \beta_3 B + \beta_4 FQ + \beta_5 FB + \beta_6 QB + \beta_7 FQB + \epsilon$$

Where P is the probability of running, F is female, Q is quality (agentic or communal), and B is the perception of bias.

In contrast to these attitudinal variables, rational choice theorists emphasize the importance of strategic factors in candidate selection decisions. Towards this end, I include control variables that capture district- and state-level elements of the strategic environment, as well as individual-level measures of personal and political costs and benefits, including: the likelihood of winning, attraction to a senate seat, the costs of

running for the senate, southern state, professionalism of the legislature, percentage of women in the legislature, office-holding experience, seniority, education, white, Democrat, married, children in the household and recruitment (see Appendix A for a description of these variables).

By blending social-psychological variables along with the more strategic dimensions of candidate decision-making, this work represents a significant departure from most economic models of candidate entry which discount attitudinal differences. Indeed, the rational choice approach is criticized more generally for its tendency to dismiss the processes by which perceptions, beliefs and attitudes are formed, as well as to discount the impact of such cognitive variables on individuals' subsequent behavior (Green and Shapiro 1994).

RESULTS AND ANALYSIS

To get a better sense of the data, Table 1 depicts the pairwise correlation coefficients between the variables of interest. As noted previously, women are more likely than men to perceive bias, however they are no different from men in terms of their assessed communal or agentic quality, and they are as likely as men to run for the state senate. Individuals who perceive bias are less likely to view themselves as strong on the agentic quality dimension, but they are no more or less likely to consider themselves as qualified on the communal quality items. In addition, the perception of bias is unrelated to the decision to run. Not surprisingly, agentic and communal quality are related, and both of these quality dimensions are positively associated with running.

Table 1 About Here

For ease of interpretation, Table 2 summarizes two separate ordered probit models, and reports the relevant coefficients and standard errors of the variables of interest: gender, perceived discrimination and quality. Appendix B provides the fully-specified models. The coefficients and significances revealed in Table 2 provide scant evidence to corroborate the thesis that the perception of bias causes women to respond differently to their quality than men. With the exception of the interaction for Agentic Quality*Perceive Bias ($b=-0.249, p<0.05$), none of the coefficients appear to be of any substantive or statistical significance. Moreover, assuming all the other coefficients in the model are zero, this interaction depicts the effect of agentic quality and bias for men – and shows that as quality increases, men who perceive bias are less likely to run – precisely the opposite of the theorized relationship.

Table 2 About Here

However, as Brambor, Clark and Golder (2006) and Kam and Franzese (2007) caution, when interpreting interactive hypotheses, results tables can be deceiving, because they fail to present substantively meaningful effects of the combined coefficients, and do not report combined standard errors. To illustrate the results in a more straightforward fashion, I generate four figures that plot the marginal effect of sex on running, varying agentic and communal quality – for those who perceive sex bias (Figures 1a and 2a), and those who do not (Figures 1b and 2b). In addition, I calculate 95% confidence intervals depicted as dashed lines.

Figures 1a and 1b focus on agentic quality. Because the 95% confidence interval always includes a “0” marginal effect of sex, the substantive interpretation is that men

and women respond similarly to their agentic quality when deciding whether to select themselves into races. These results are invariant to the perception of bias.

Figures 1a and 1b About Here

Figures 2a and 2b however, illustrate a different pattern of results for communal quality. The perception of bias alters the effect of quality on running for women. Consistent with Hypothesis 2, Figure 2a shows that women who perceive bias are more responsive to their communal quality when deciding whether or not to run. In contrast, Figure 2b shows that men and women who perceive no sex bias respond similarly to their communal quality – in other words, the effect of communal quality on running does not vary by sex among those who perceive no bias.

Figures 2a and 2b About Here

These results provide confirmatory evidence of the threshold hypothesis (Hypothesis 3): women who perceive bias are less likely than men to run, until they reach a threshold level of communal quality. Because the 95% confidence interval crosses a “0” marginal effect of sex when communal quality = 1, that threshold is reached when women estimate that they have a slight communal quality advantage relative to the senator. The difference in the slopes between Figures 2a and 2b suggest that the perception of bias contributes to the gendered quality gap, but does so by deterring women with low communal quality from running (communal quality < 1). That the perception of bias causes women to withhold their candidacies until they approach a level of quality, but does not have a significant effect on those who do not perceive bias, suggests that by weeding out low-quality women, the perception of bias contributes to the sex-based quality differential.

Interestingly, as predicted by Hypothesis 4, the type of quality to which women appear to be responsive emphasizes stereotypically feminine attributes and competencies – like communication, fidelity and selflessness – as if women were compensating for anticipated discrimination by developing attributes that under contemporary standards, are appropriately sex-typed.

Bearing in mind that district- and state-level elements of the strategic environment, as well as individual-level measures of personal and political costs and benefits are controlled for, these rather subtle effects are all the more remarkable, and highlights the need to include perceptions in models of candidate emergence. Although strategic considerations go a long way in explaining potential candidate behavior, such explanations are incomplete because they do not capture systematic variation in how men and women respond to perceptual variables. Incorporating perceptions of gender bias and political quality – which are often viewed as beyond the scope of models assuming strict rationality – adds value to existing models of candidate emergence because it paints a more realistic portrait of women’s decisions to run.

CONCLUSIONS AND IMPLICATIONS

Although perceptions shape individual-level decision-making, at a broader-level, they also systematically affect the quality of choices that voters are presented with. My results suggest that women who perceive bias and run for office, will be better candidates because they pay greater attention to the district, have greater personal integrity and are more dedicated public servants. Absent this perception of bias, the quality of candidates competing for office may suffer – that is, less qualified individuals who are less faithful in representing their constituents and working for the greater common good, may be

encouraged to enter races. At the aggregate-level then, the qualitative characteristics supplied by candidates are rooted in the perceived demand for them. The perception of bias has implications not only for individual-level decision-making, but also for the aggregate-level quality of candidate competition and representative democracy.

Although the perception of bias may have some salutary effects on the quality of female candidates and the choices that voters are given, it nevertheless may inhibit women's political career advancement. When women emphasize their more "feminine" communal quality traits, they may be limiting their ability to succeed at higher levels of office. Previous research suggests that voters expect and prefer high-level leaders to possess more "masculine" traits and attributes (Huddy and Terkildsen 1993; Kahn 1994, 1996). If women invest in developing and responding to their more "feminine" communal quality traits, then this may help them gain office at one level, but impede them when they compete for higher-level offices where voters prefer candidates to be "confident," "assertive," or "ambitious" – possessive of stereotypically "masculine" traits.

All of this raises the question of whether the perception of bias is merely perceptual in nature, or if it is rooted in more objective circumstances. Other work demonstrates that the electorate punishes women of lower quality (Fulton 2011), which provides an alternative basis for the quality gap. In other words, it is not only the perception of bias that systematically "weeds out" women of lower quality, but also voters who are less likely to support female candidates who are equivalently qualified as men. This suggests that the discrimination women anticipate produces part of the gap,

while the discrimination they confront on the part of the electorate reproduces it. The quality gap is sustained and amplified through a cycle of expectation and experience.

APPENDIX A. DESCRIPTION OF VARIABLES

Variable	Coding	Men	Women
Agentic Quality -- Difference between assembly-member and senator agentic quality ratings (name recognition, fundraising ability, public speaking ability)	-6 = Senator quality advantage 6 = Assembly-member quality advantage	-0.111 (0.065)	-0.258 (0.073)
Attraction to Senate Seat - Appeal of senate position	1 = Extremely unappealing 2 = Unappealing 3 = Somewhat unappealing 4 = In between 5 = Somewhat appealing 6 = Appealing 7 = Extremely appealing	3.868 (0.113)	4.029 (0.175)
Children in Household - Children under 19 living at home	0 = No Children 1 = Children	0.306** (0.029)	0.178 (0.021)
Communal Quality -- Difference between assembly-member and senator communal quality ratings (ability to stay in touch with the district, personal integrity, dedication to public service)	-6 = Senator quality advantage 6 = Assembly-member quality advantage	0.824 (0.072)	0.892 (0.053)
Costs of Running - Mean of nine personal and political costs measures (includes: losing personal and family privacy; dealing with the negative impact of losing upon political career; losing leisure time; enduring negative advertising attacks; being separated from family and friends; needing to raise large amounts of money; having to spend your own money to fund campaign; needing assistance from political party; the possibility of serving in minority party)	0 = Not at all discourage 1 = Somewhat discourage 2 = Discourage 3 = Strongly discourage	1.088 (0.044)	1.092 (0.033)
Democrat - Partisan affiliation	0 = Republican 1 = Democrat	0.448 (0.036)	0.601** (0.029)
Education - Formal education completed	1 = Less than High School 2 = High School Graduate 3 = Some College 4 = College Graduate 5 = Some Graduate School 6 = Graduate Degree	4.728 (0.051)	4.674 (0.073)
Likelihood of Running - Likelihood of running for senate in the next 1 to 2 terms	1 = Extremely unlikely 2 = Unlikely 3 = Somewhat unlikely 4 = Toss up 5 = Somewhat likely 6 = Likely 7 = Extremely likely	2.970 (0.117)	2.882 (0.179)

Likelihood of Winning - The joint conditional likelihood of winning the primary and general election for a state senate seat	1 = Extremely unlikely 14 = Unlikely 21 = Somewhat unlikely 28 = Toss up 35 = Somewhat likely 42 = Likely 49 = Extremely likely	29.021 (1.002)	29.224 (1.167)
Likelihood of Winning*Attraction to Senate Seat – Expected utility of a senate seat	1 = Lowest expected utility 343 = Highest expected utility	118.817 (5.617)	127.579 (8.634)
Married – Respondent is married	0 = Non-married 1 = Married	0.845** (0.017)	0.708 (0.027)
Office-Holding Experience – Held elective or appointive office	0 = No experience 1 = Held either elective or appointive office 2 = Held both elective or appointive office	0.797 (0.049)	0.781 (0.051)
Perceive Bias - Mean of six measures, scaled towards women confronting prejudice in politics (includes: women have just as many political opportunities as men, women have more difficulty raising campaign funds than men; many voters are opposed to electing a woman; women have an advantage in politics because they are women, men try to keep women out of politics; female politicians face greater media scrutiny than men). Dichotomized to indicate bias ($\Rightarrow 0$) or no bias (≤ 0).	-3 = Strongly disagree -2 = Disagree -1 = Somewhat disagree 0 = Neutral 1 = Somewhat agree 2 = Agree 3 = Strongly agree	0.199 (0.018)	0.556** (0.026)
Percentage of Women in Legislature - Percentage of women in the state assembly (source: Center for American Women in Politics)	0.10 = 10% 0.37 = 37%	0.239 (0.011)	0.236 (0.011)
Professionalism of Legislature - Based on Squire professionalism index	0.027 = Unprofessional 0.626 = Professional	0.164 (0.021)	0.169 (0.020)
Recruitment - Number of times assembly member has been contacted about running for the senate (includes: state political party; local political party; family and friends; community leaders; interest groups)	0 = No recruitment 6 = Recruitment by 6 or more groups/individuals	1.312 (0.086)	1.447 (0.092)
Seniority – Based on year elected	0 = Less than 1 year 38 = 38 years	7.423 (0.389)	6.900 (0.409)
Southern State -- Defined as 11 states of the former confederacy	1 = South 0 = Non-south	0.235 (0.063)	0.278 (0.073)
White - Respondent racial background is white	0 = Non-white 1 = White	0.875 (0.018)	0.855 (0.027)

Cell entries represent survey means with standard errors in parentheses. All significance tests are two-tailed. * $p \leq 0.05$, ** $p \leq 0.01$.

APPENDIX B. LIKELIHOOD OF RUNNING BY QUALITY

	Agentic Quality	Communal Quality
Female	-0.068 (0.109)	-0.114 (0.146)
Quality	0.039 (0.048)	0.080 (0.066)
Female*Quality	0.036 (0.089)	0.027 (0.105)
Perceive Bias	0.050 (0.186)	0.218 (0.215)
Female*Perceive Bias	-0.211 (0.206)	-0.421 (0.255)
Quality*Perceive Bias	-0.249* (0.126)	-0.136 (0.128)
Female*Quality*Perceive Bias	0.099 (0.160)	0.210 (0.166)
Likelihood of Winning	0.009 (0.009)	0.007 (0.009)
Attraction to Senate Seat	0.236** (0.061)	0.211** (0.059)
Likelihood of Winning*Attraction to Senate Seat	0.007** (0.002)	0.007** (0.002)
Costs of Running	0.115 (0.106)	0.085 (0.106)
Southern State	-0.023 (0.101)	-0.014 (0.099)
Professionalism of Legislature	-1.090** (0.436)	-1.024* (0.429)
Percentage of Women in Legislature	-0.079 (0.680)	-0.017 (0.664)
Office-Holding Experience	-0.044 (0.066)	-0.024 (0.067)
Seniority	-0.016 (0.009)	-0.018* (0.008)
Education	-0.032 (0.037)	-0.034 (0.036)
White	0.549** (0.156)	0.582** (0.152)
Democrat	-0.029 (0.101)	-0.013 (0.101)
Married	-0.100 (0.098)	-0.083 (0.103)
Children in Household	0.238* (0.115)	0.242* (0.115)
Recruitment	0.090** (0.030)	0.081** (0.030)
Number of Observations	679	677
F-Test	19.86**	20.83**

Cell entries represent survey ordered probit coefficients with standard errors in parentheses. Cutpoints not shown. All significance tests are two-tailed. * $p \leq 0.05$, ** $p \leq 0.01$.

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TABLE 1. PAIRWISE CORRELATION COEFFICIENTS

	Female	Perceives Bias	Communal Quality	Agentic Quality
Perceive Bias	0.378**			
Communal Quality	0.038	0.044		
Agentic Quality	-0.053	-0.066*	0.374**	
Likelihood of Running	-0.024	-0.045	0.112**	0.081*

All significance tests are two-tailed. * $p \leq 0.05$, ** $p \leq 0.01$.

TABLE 2. LIKELIHOOD OF RUNNING BY QUALITY

	Agentic Quality	Communal Quality
Female	-0.068 (0.109)	-0.114 (0.146)
Quality	0.039 (0.048)	0.080 (0.066)
Female*Quality	0.036 (0.089)	0.027 (0.105)
Perceive Bias	0.050 (0.186)	0.218 (0.215)
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Number of Observations	679	677
F-Test	19.86**	20.83**

Cell entries represent survey ordered probit coefficients with standard errors in parentheses. Controls are included in the estimation of the models, but not shown. Refer to Appendix B. All significance tests are two-tailed. * $p \leq 0.05$, ** $p \leq 0.01$.

FIGURE 1A. MARGINAL EFFECT OF SEX ON RUNNING BY AGENTIC QUALITY -- RESPONDENTS WHO PERCEIVE SEX BIAS

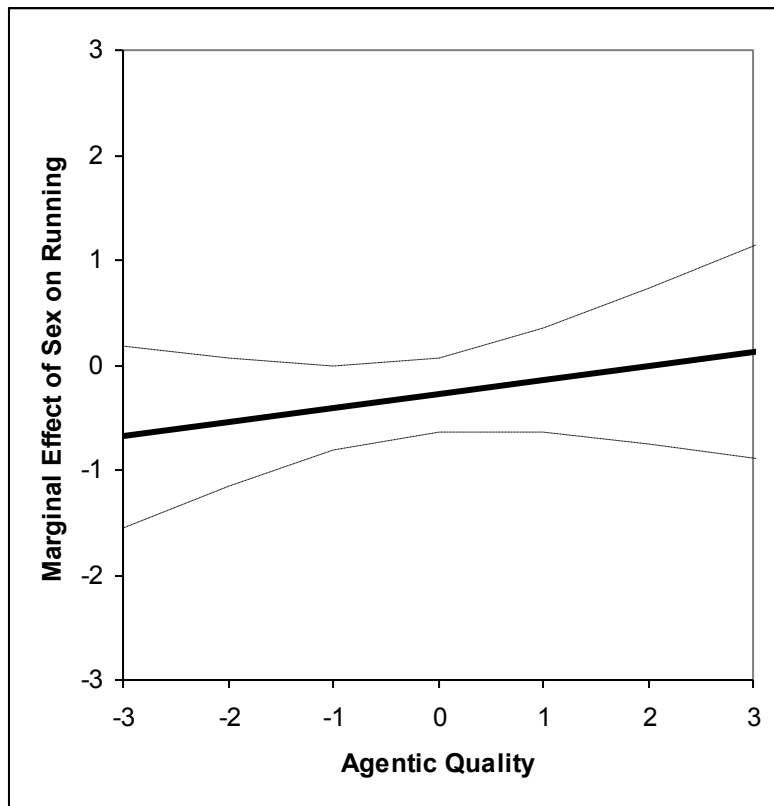


Figure 1a is constructed by calculating the marginal effect of sex from Appendix B. Dashed lines signify 95% confidence intervals.

FIGURE 1B. MARGINAL EFFECT OF SEX ON RUNNING BY AGENTIC QUALITY -- RESPONDENTS WHO PERCEIVE NO SEX BIAS

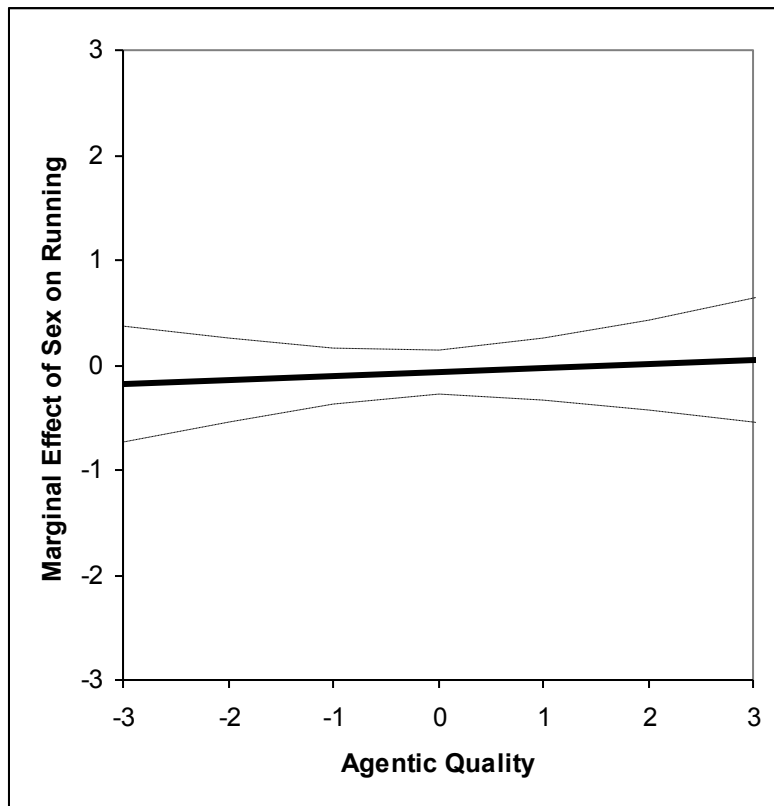


Figure 1b is constructed by calculating the marginal effect of sex from Appendix B. Dashed lines signify 95% confidence intervals.

FIGURE 2A. MARGINAL EFFECT OF SEX ON RUNNING BY COMMUNAL QUALITY -- RESPONDENTS WHO PERCEIVE SEX BIAS

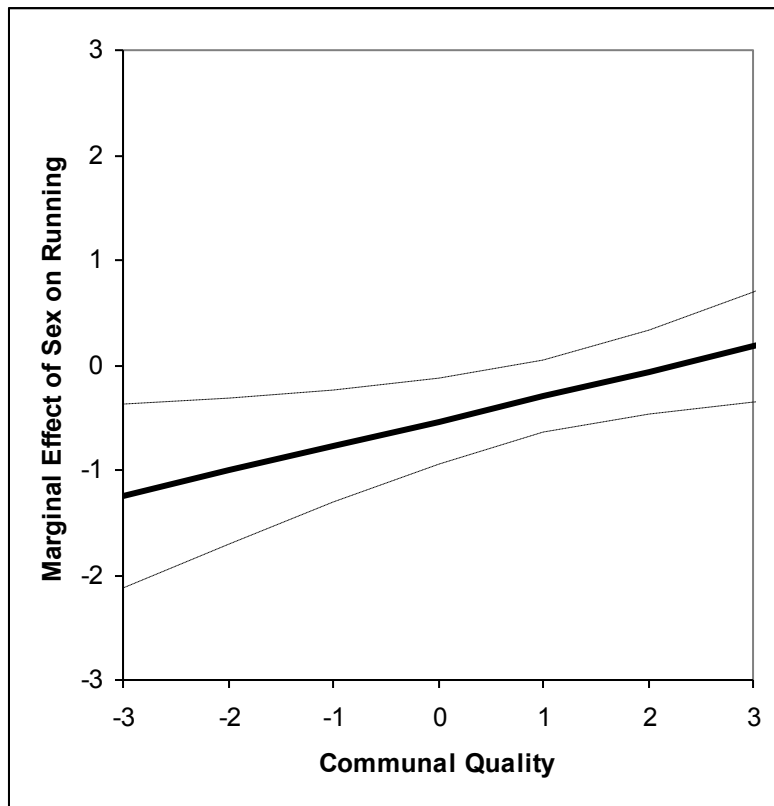


Figure 2a is constructed by calculating the marginal effect of sex from Appendix B. Dashed lines signify 95% confidence intervals.

FIGURE 2B. MARGINAL EFFECT OF SEX ON RUNNING BY COMMUNAL QUALITY -- RESPONDENTS WHO PERCEIVE NO SEX BIAS

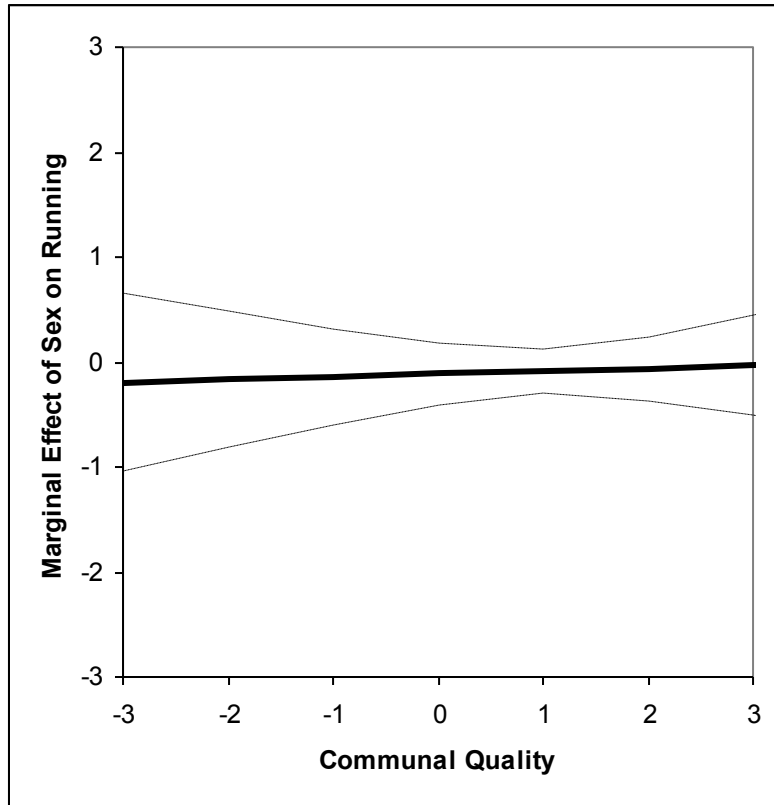


Figure 2b is constructed by calculating the marginal effect of sex from Appendix B. Dashed lines signify 95% confidence intervals.