

Networks and the Size of Gender Gaps in Politician Performance Across Job Duty Domains

We argue that men and women politicians face different barriers across job duty domains, which can result in performance gender gaps of different magnitudes across domains. To the extent that female politicians are excluded from networks within legislatures, duties requiring interaction with fellow politicians may exhibit larger gender gaps as compared to duties that can be undertaken independently. We test this argument by comparing reserved-seat-women (RS-women) and men politicians' performance across 50 subnational Ugandan legislatures (where 1/3 of seats are reserved for women). We find no gaps between RS-women and men in independently-performed duties — e.g., constituency services. By contrast, duties requiring more interaction with fellow politicians — legislative activities — show a performance gap favoring men. Using original network data, we find that RSWs are significantly more peripheral in *professional* (but not in *personal*) networks, and that such exclusion helps explain variability in performance gender gaps across domains.

Keywords: Politician Performance, Social Network, Gender, Affirmative Action, Subnational Government

The share of women holding office has increased dramatically in the past decade in both national and subnational legislative bodies (Waengnerud, 2009). This trend has been supported by the adoption of affirmative action policies, such as gender quotas and reserved seats (Dahlerup, 2006). In part because descriptive representation does not translate mechanically to improved substantive representation, a growing scholarship has been exploring the existence of gender gaps in politician job duty performance across societal and institutional contexts (Hughes et al., 2017). Job duty performance affects not only substantive, but also symbolic and future descriptive representation of women, who have been historically marginalized politically (Pitkin, 1967; Schwindt-Bayer and Mischler, 2005). This paper contributes to a better understanding of the conditions under which gender gaps in politicians' job duty performance exist.

What is understated in previous scholarship, is that different job duty domains can be associated with different incentives and barriers for female as compared to male politicians. This, in turn, we hypothesize, is likely to result in gender gaps of different directions and magnitudes across domains. Past work that focuses on a single job duty, typically legislative activity, may therefore overlook the fact that the relative performance of men and women politicians is domain-specific. In particular, we propose that gender gaps in performance may vary across the degree that the job duty is *performed independently versus interactively with fellow politicians*. For example, legislative activity—in particular, passing bills and motions—is a highly collaborative job duty, while providing constituency services is a relatively independent task. While all politician job duties may be affected by any gender disparities in background qualifications (e.g., education, experience) or political factors (e.g., constituency competitiveness), job duties requiring interaction with fellow politicians are further subjected to how women and men relate in a traditionally male-dominated working environment.

The dynamics of how men and women politicians relate, in particular in legislative duties, has been described in rich qualitative work that has informed our research design. Some work (e.g., Volden et al. (2013)) propose that men politicians' working style can stymie their ability to collaborate in legislative activity compared to female counterparts in the US, rendering women

higher performers. However, other work (e.g., Tamale (1999); Tripp (2000)) finds that (some) male politicians consciously and unconsciously exclude women politicians, thereby impeding their performance. Such marginalization often stems from the fact that legislatures are historically male spaces, characterized by informal masculinized norms of interaction that advantage those embodying traditional male working styles (Lovenduski, 2005). These dynamics may be especially important in lower-income countries with stronger traditional gender norms and affirmative action for women.

Gaining traction on these questions, we investigate gender gaps in politician performance across multiple job domains at the subnational (district) level in Uganda. At the district level, Uganda has a majoritarian electoral system in which 1/3 of seats are reserved for women. In this context, job duties are defined legally and consist of legislative actions, monitoring public service providers, lower local government participation, and constituent contact and service. We collect original data on 820 politicians across 50 (of 112) district governments. Since almost all open-gender seats are held by men, we effectively compare performance and gender disparities between reserved-seat female politicians (“RS-women”) and open-seat male politicians.¹ This distinction is important: electoral institutions, alongside societal gender norms for behavior and gender disparities in background characteristics, jointly affect the types of women and men who seek and win elected office, and ultimately their job performance (O’Brien and Rickne, 2016). We use the term “gender gap” for brevity.

To capture performance across all politician job duty domains, we rely on four data sources: (1) plenary session meeting minutes from 2011 to 2015 (49 district governments), capturing *legislative activity*; (2) a civil society organization’s annual politician performance scorecard from 2011 to 2015 (25 district governments), capturing legislative activities and additional job duty domains such as *participation in lower local governments*, *monitoring public service providers* and *contact with constituents*; (3) original data on *service to constituents* regarding the extent to which politicians facilitated schools in their constituency to apply for an improvement grant (20 district governments); and (4) an original in-person survey capturing supporting data, such as politicians’ *knowledge* of legislative procedures and *views on barriers* to RS-women (50 district governments).

We find that gender gaps in politician performance, at least in this context, are duty-specific. No gender gap is discernible in relatively independent job duties—facilitating school grant applications and contact with the electorate. Moderate gender gaps are found in duties requiring moderate interaction with fellow politicians: men politicians outperform RS-women in monitoring public services (0.31 standard deviations (sds)) and lower local government participation (0.22 sds). In legislative duties requiring the most extensive interaction with fellow politicians, the gender gap is most pronounced (0.59 sds).

To investigate whether network marginalization is a key driver of gender gaps in the interactive duties, alongside other prominent explanations, we leverage electoral data and original politician survey data (end of term survey 50 district governments, 94% response rate; start of term 20 district governments, 96% response rate). Male politicians are, on average, richer, more educated, and represent more competitive and smaller constituencies, but no discernible disparities exists with respect to age, political experience, partisanship, or career aspirations. To examine network centrality, we elicit both professional and personal network ties to fellow politicians.

We find that centrality in *professional* networks is a primary and consistent correlate of gender gaps in performance, especially in legislative activity. Interestingly, centrality in *personal*

¹In our sample, only 1% (19 of 535) of politicians elected to open-gender seats are women, preventing us from disentangling the effect of the reserved seat institution from gender.

networks, in which RS-women increase in their network centrality over time, is not related to performance. Consistent with past work, socioeconomic factors (education and wealth in particular) are also associated with gender gaps in politician performance.

This study expands comparative knowledge of gender gaps in politician job duty performance, which has focused mostly on legislative activity and shown mixed results.² The seemingly inconsistent findings are likely due to variation in societal gender norms, institutional features of legislatures, and electoral institutions (e.g., affirmative action), which renders it difficult to isolate the conditions under which gender gaps in performance exist (Hughes et al., 2017). The approach we take here is to examine multiple job duties within a single case, holding societal and institutional conditions constant. Doing so allows us to uncover a normatively troubling gender gap for women in interactive job duties, alongside a normatively positive result that women are performing on par with men in relatively independent duties. Moving forward, we argue that the magnitude of a gender gap likely depend on the job duty one studies; and different gender disparities may be relevant for different duties for important theoretical and contextual reasons, such as the degree of interaction required with fellow politicians and norms of mixed-gender work environments.

Our study is also unique in employing network data across a large number (50) of comparable governments, contributing to a growing literature on network position and politician performance (Cruz et al., 2017), and quantitatively corroborating important and rich qualitative studies that detail “old boy’s club” relational dynamics that marginalize women politicians (Tripp, 2000; Tamale, 1999)). The granularity of our data, however, allows our study to show that women can be more peripheral in professional networks, even as they are more central in personal networks, *within the same legislature*. Importantly, centrality in *professional*, but not *personal*, networks matter for politician performance in our context. Researchers should therefore be careful not to conflate women’s personal and professional network position when considering job duty performance.

EXISTING LITERATURE

In this study, we examine gender gaps in politician performance, defined here as actions taken towards the fulfillment of legally-defined job duties. Whether and why gender gaps in politician job duty performance exist across diverse societal and institutional contexts is important from a theoretical and a policy perspective. Such gaps likely affect other forms of women’s representation (Schwindt-Bayer and Mischler, 2005). Women’s substantive representation—the degree to which female politicians pursue women’s interests while in office—can be hampered if female politicians are unable to be effective (Devlin and Elgie, 2008). Female politicians’ symbolic representation—the ability to inspire women’s psychological and behavioral engagements in politics and leadership—is predicated on women serving as positive role models (Campbell and Wolbrecht, 2006). Women in high-profile positions can disempower women if perceived to be under-performers (Stout and Tate, 2013). Finally, poorly performing women politicians can reduce future descriptive representation via electoral accountability mechanisms or by reducing parties’ incentives to recruit and nominate women, especially after affirmative action measures are withdrawn (Bhavnani, 2009).

²Tamale (1999); Ahikire (2003); Bauer and Britton (2006); Tripp (2000); Volden et al. (2013); Anzia and Berry (2011); Jeydel and Taylor (2003); Bratton and Haynie (1999); Wang (2014); Weeks and Baldez (2015); Murray (2010); Kerevel and Atkeson (2013)

As Waengnerud (2009) and Hughes et al. (2017) review, while some studies find female politicians perform better than men (Volden et al., 2013; Anzia and Berry, 2011; Weeks and Baldez, 2015; Murray, 2010), others find they perform worse (Tamale, 1999; Ahikire, 2003) or no different than men (Jeydel and Taylor, 2003; Bratton and Haynie, 1999; Wang, 2014; Kerevel and Atkeson, 2013). Likewise, much qualitative work has documented female politicians' successes and failures in pushing forward legislation (e.g., Ahikire (2003); Bauer and Britton (2006)).

Past research points to several reasons why systematic gender gaps in job duty performance may exist. First, differential background qualifications (e.g., education, wealth, experience) by gender, on average, could translate to gender gaps in politician performance (Iversen and Rosenbluth, 2010; Bauer, 2012). A growing scholarship examines gender gaps in politician qualifications, finding mixed evidence: women are found to be more, less or equitably qualified as male politicians depending on the study's context (Hughes et al., 2017).

Gender differences in qualifications may occur for two main reasons. For one, qualification gaps may reflect broader societal gender disparities (Baltrunaite et al., 2014). For two, the electoral process may also contribute to gender gaps in politician qualifications. Without affirmative action, women may need to be overqualified to "compensate" for voter and party bias against female candidates (Anzia and Berry, 2011; Beer and Camp, 2016). Critics of affirmative action commonly argue that by placing limitations on the supply of candidates, less qualified individuals attain office. In particular, in contexts in which female politicians are nominated to reserved seats by parties, party elites may choose compliant women to "rubber stamp" the party's agenda over high-capacity women (Tripp, 2006; Tamale, 1999). However, other cases show that affirmative action in legislatures increases the average level of politician qualification because more qualified women attain positions instead of "mediocre men" (Hughes et al., 2017; Besley et al., 2017). More generally, voters and parties may use different criteria to define desirable male and female politicians—with or without affirmative action (O'Brien and Rickne, 2016). Incumbents may then cater to such divergent accountability criteria for reelection, yielding performance disparities (Rosenwasser and Seale, 1988).

Second, gender-based differences in political factors such as partisanship and constituency competitiveness may affect relative performance. In many low-income countries women politicians are disproportionately concentrated among the ranks of dominant ruling parties, which are advantaged in resources to groom women in a party women's wing (Hogg, 2009). On one hand, affiliating with a well-resourced dominant party might enable effectiveness given the party's control of the legislative agenda. On the other hand, such parties often require strong party discipline to follow the executive's policy agenda and weed out "noisy women" (Clayton et al., 2014). Further, ruling party politicians may have weaker incentives to exert effort, since they represent, on average, safer seats (Goetz and Hassim, 2003), and safe seats are associated with lower performance (Grossman and Michelitch, 2018).

Third, once in office, women may be marginalized due to explicit or implicit gender bias or due to stigmatization or "tokenism," especially if elected via affirmative action (Bauer, 2012; Tamale, 1999; Ahikire, 2003). Because politicians must typically work collaboratively to design and pass legislation, position in networks in the legislature matter immensely for one's ability to advance an agenda successfully. One possible way to alleviate tokenism and discrimination in an "old boys club" is electing a sufficient number of women (a "critical mass"), who render the legislature's environment more inclusive of women (Bauer, 2012; Tripp, 2006). However, "outsider" status may nonetheless hold women politicians back, even if a critical mass exists (Tamale, 1999).

That the political sphere is historically a male space likely contributes to the marginalization of women politicians. Politics is often characterized by informal masculinized norms of

interaction that advantage men for embodying traditional working styles (e.g., "aggressive," "interruptive," "competitive"), while disadvantaging women for embodying either traditional female or male working styles (Lovenduski, 2005; Kerevel and Atkeson, 2013). (Male) politicians often consciously and unconsciously marginalize women politicians (Clayton et al., 2014), even in relatively gender equitable societies in which women have been present for decades in large numbers in the legislature (e.g., Erikson and Josefsson (2018)'s study of the Swedish parliament). In many cases, such exclusion represents a major barrier to women's performance (e.g., Tamale (1999); Tripp (2000)). Contrarily, however, Volden et al. (2013) suggest "collaborative" women's styles can facilitate women's better performance when men become too unwilling to cooperate in contentious political environments.

Existing empirical work has tested whether the above factors broadly contribute to gender gaps in politician performance, using a single (usually legislative) activity (Hughes et al., 2017). However, in practice, most politicians are responsible for performing multiple job duties, which vary cross-nationally and by government tier.

We argue that women and men face different incentives and barriers across different job duty domains, and that different gender disparities may play a large role for some job duties and a small or no role for others. Indeed, detecting a gender gap in only one job duty might bely an overall picture of performance revealing men and women excelling at different tasks.

Building on the literature, we propose that gender gaps in politician performance may vary across the degree that a job-duty is performed *independently* versus *interactively with fellow politicians*. For example, legislative activity is a highly interactive and collaborative, while providing constituency service is typically an independent task. We reason that most types of duties may be affected by any gender disparities in politician background qualifications (e.g., education, wealth) or political factors (e.g., constituency competitiveness). However, duties requiring interaction with fellow politicians are subject to the additional dynamic of how women and men relate in a mixed-gender working environment. Given that women are often marginalized in such environments, especially in low-income countries with stronger traditional gender norms, we test whether gender gaps favoring men will be larger in more interactive job duties, and smaller in independently-performed duties.

STUDY CONTEXT

This study examines the job duty performance of female politicians, elected via reserved seats, as compared to male counterparts elected from open seats, in subnational (district) governments in Uganda. Below the central government, Uganda has three subnational government tiers: district (LC5), subcounty (LC3), and village (LC1). District governments are comprised of a technocratic arm and a legislative body (the district council). District politicians (councilors) are elected via a majoritarian, first-past-the-post system. District politicians and civil servants are jointly responsible to develop annual budgets and work-plans for public service delivery. District councils are further vested with the power to make laws, regulate and monitor public service delivery, formulate comprehensive development plans based on local priorities, and supervise the district bureaucracy. Plenary sessions typically occur 6 times per year, including one budgetary session.

Uganda is a low-income, electoral authoritarian regime with affirmative action for women in political office—the modal setting in the developing world (Clayton and Zetterberg, 2018). The National Resistance Movement (NRM) controls the national legislature: 72% of parliament members are NRM affiliates. After coming to power in 1986, the NRM began promoting policies

to increase the share women in both national and subnational legislatures. Indeed, Uganda was one of the first African countries to introduce women's affirmative action in 1989 (Bauer, 2012). While such policies emboldened women to work towards greater gender equality at the grass-roots, powerful entrenched interests continue to limit the advancements of women's priorities (Tripp, 2000; Ahikire, 2003). Furthermore, during much of the 1990s, female legislators were criticized for serving as a rubber stamp for the NRM agenda, at the expense of advancing meaningful legislation, arguably because they owed their positions to the ruling party (Tripp, 2006).

In 2006, Uganda implemented a wholesale electoral reform. In addition to introducing multi-party elections, Uganda reserved seats for women at the district level. Prior to the reform, each subcounty was represented by a single representative. The reform mandated that at least one-third of district council politicians are female. To achieve this goal, so-called "special woman constituencies," in which only female candidates can compete, were overlaid on top of "regular" subcounty constituencies. Special woman constituencies encompass between one and three subcounties, depending on population size. Thus, Ugandans are currently represented at the district council by two politicians: an (almost always male) "regular councilor" and a (female) "special woman councilor."

District politicians, regardless of mandate (elected in open-gender or women's seats), have four key job duties, as stipulated in the Local Government Act (1997): *legislative* (e.g., passing motions in plenary, committee work), *lower local government participation* (e.g., attending LC3 meetings), *monitoring public service provision* (e.g., visiting schools and clinics to ensure service delivery standards are met), and *service to the electorate* (e.g., meeting with constituents and community-based organizations and providing constituency services).

Our study area consists of 50 (of 112) district local governments in Uganda. In 25 districts, a leading non-partisan civil society organization (CSO)—Advocates Coalition for Development and the Environment (ACODE)—produces an annual performance scorecard for each politician. The remaining 25 districts were selected by matching non-ACODE districts with districts in which ACODE operates. District governments in our sample have, on average, 23 politicians.³ See Supplemental Information (SI) A.1 for a map of the study area and explanation of sample sizes of the datasets culled from across these districts. See SI A.2 on the matching details.

In Uganda, as in most low-income countries, compared to men, women tend to participate less in politics (Gottlieb et al., 2018). Scholars have further demonstrated using careful qualitative work that women tend to be marginalized in elite level political forums, with most focus on the national legislature (e.g., Tamale (1999); Ahikire (2003); Tripp (2000)). Because of the patriarchal notion that only men should be active in the public sphere, Tamale (1999, p118) notes that "the biggest obstacle [for women's legislative performance] lies in the men's club character of parliament, which often treats women as intruders." Similarly Ahikire (2003, p228) emphasizes that men's contributions are perceived as inherently legitimate, while women's contributions are perceived as fallible. These scholars relate how broader gender norms for social interaction are reproduced during legislative activities, reducing women's effectiveness as legislators: House speakers are less likely to call on women legislators; male politicians disproportionately interrupt or act inattentive when women speak, and they become argumentative when women have "behavior unbecoming of a woman" by speaking up. Relatedly, many female politicians report that they have been sexually harassed and verbally abused.

Also at the national level, scholars have quantitatively investigated differences in status, background qualifications, and performance in legislative activity between women and male

³By comparison, the Ugandan parliament that is more hierarchical and formalized than district councils has 426 members, of which 289 are Constituency Representatives, 112 Women Representatives and 25 Special Representatives.

members of parliament. Dovetailing the qualitative work on treatment within the legislature, Clayton et al. (2014) measure status as the number of times a member of parliament's (MP's) name is mentioned by other MPs, finding women elected via affirmative action are conferred less status than male counterparts (and women elected without affirmative action). However, RS-women's background qualifications are equivalent to women and men elected to open seats, and on some indicators they are "more meritocratic" (O'Brien, 2012). Wang (2014) measures legislative performance by talking time on the parliament floor, and finds no difference based on gender or affirmative action (instead, leadership hierarchies are more important). In sum, the evidence at hand suggest that at the national level, background qualifications and performance is relatively equal, even while the status of RS-women is lower.

Expanding on this work, we compare RS-women and male politicians at the subnational level. We use a broader set of job duties (including but broadening beyond legislative activity) and test for possible determinants of observed gaps, in particular, the role of politician networks. The subnational level differs in many ways from the national level, especially in terms of the size of the legislature (426 members of parliament versus 23 councilors, on average) and thus the degree of formal hierarchies and legislative procedures, as well as the stakes, the jurisdiction of government, and the formal job duties. Due to these institutional differences, it is difficult to directly compare study results. However, we speak to past work in Uganda at the national level on legislative activity where possible.

DATA AND ESTIMATION

We use the following data sources to assess gender gap in performance between men and RS-women politicians across different job duty domains at the subnational level in Uganda:

Plenary Meeting Minutes. We use plenary session meeting minutes as one measure of performance in legislative activities. Since subnational governments do not make meeting minutes available online, local research assistants traveled to all district headquarters to scan hardcopy transcripts over the 2011-2015 period. On average, we obtained 20 meeting minutes per district for the 2011-2015 cycle (with range of 2–41), for a total of 1,009 plenary session meetings in 49 districts.⁴ Local enumerators coded, for each politician: (a) the average number of *motions* proposed by policy domain per meeting; (b) the average number of *bills* sponsored by policy domain per meeting; (c) the average number of *presentations* made per meeting; and (d) the average number of *remarks* made during a plenary session.⁵ We further calculate (e) a summary measure of legislative performance *total actions* per meeting, which averages the legislative actions (a)-(d). See SI A.3 for more detail and descriptive statistics.

Performance Scorecard. We leverage ACODE's annual scorecard to examine politicians' performance in all four (legally-defined) job duties. One advantage of the scorecard is that it captures performance in three domains other than legislative duties: *lower local government participation*, *monitoring public service points*, and *contact with the electorate*. ACODE's scorecard is based on administrative data and does not rely on citizen's attitudes or opinions, and is constructed using local researchers who collect the underlying data in reference to the previous fiscal year (June-July). The first scorecard of the 2011-2016 term covered July 2011

⁴One district (Nebbi) refused to share the minutes with the research team, since its bylaws indicate explicitly that meeting minutes are not shareable with the general public. Further, not all districts were able to locate all meeting minutes in the study period.

⁵Normalizing actions by meetings accounts for the variability in the number of meeting minutes per district in our data.

to June 2012, and the last scorecard covered July 2014 to June 2015.⁶ Wide variation exists in scores which range between 0 and 100. See SI A.4 for more detail on the scorecard methodology and descriptive statistics.

Facilitating School Improvement Grants. To measure politician performance in improving service delivery in one’s constituency — a form of common constituency service, we designed a unique behavioral task in collaboration with 20 District Education Offices. The task sought to mimic a common practice in which politicians help to secure development funds to their constituency in collaboration with the district bureaucracy. Specifically, district council politicians were given an opportunity to help primary schools in their constituency to apply for a grant to support school improvements. The grant’s value, which was advertised after the politician survey in 20 study area districts, was about 100 USD. The application process involved mobilizing the school principal and parents and teachers association (PTA) representatives who had to sign the application and accompanied budget to deem an application valid. Politicians could only submit one application per school in their constituency.⁷ Only valid applications entered a public lottery carried out at the district headquarters. The number of grants per district was proportional to the population and ranged between two and five, to ensure equal probability of winning across politicians. We received a total of 1,662 out of 4,585 possible applications and 61 grants were allocated. Our outcome of interest here is the share of school grant applications out of the total number of schools in a politician’s constituency. See SI A.5 for more detail and descriptive statistics.

Job Duty Knowledge. Although it is not a job duty, as supportive evidence we examine politicians’ knowledge of rules and procedures that relate to legislative job duties. Here, we draw on an original in-person survey in which we asked politicians 15 vignette-style questions. These vignettes are classified into three ‘blocks’: *Public Service Delivery* (e.g., maximum number of pupils in a class), *Procedures and Rules in the District Council* (e.g., how often committees should meet) and *Passing Bills and Motions* (e.g., where bills are sent for approval after being passed). In addition, politicians were given a sheet with budget information and asked to interpret four key aspects. Each vignette question is coded as correct or incorrect, such that the *total knowledge* summary variable measure is simply the total number of correct responses. See question wording and descriptive statistics in SI A.6.

Estimation. To test for gender gaps in politician performance, we estimate the following regression model:

$$Y_{ij} = \beta_0 + \beta_1 RSWoman_i + \kappa\theta_j + \epsilon_i$$

where Y_{ij} is the performance outcome of interest, $RSWoman_i$ is an indicator equal to 1 when the politician is an RS-woman, and θ_j indicates district fixed effects. Standard errors are clustered at the politician level. Outcome variables have been standardized to allow comparability of coefficient magnitude. Importantly, in this initial analysis, we are interested in the relationship between gender and politicians’ performance brought about through any mechanism and therefore do not control for any other characteristics which could result from, rather than proceed, gender.⁸ We examine, not only whether gender gaps exist across job duty domains, but also whether they are significantly different from one another. In particular, we are interested in whether β_1 is smaller (meaning, RS-women performing less well relative to men) in more interactive duties.

⁶One exception is Agago district where ACODE began operating only in 2012. No 2015-2016 scorecard exists since ACODE does not produce a scorecard in election years. SI A.4 details the scorecard components, methodology, and quality control.

⁷Schools could apply twice, given the overlap in the regular and special woman constituencies.

⁸For a similar approach, see Gottlieb et al. (2018).

GENDER GAPS IN PERFORMANCE ACROSS JOB DUTY DOMAINS

Do gender gaps exist in Uganda and if so – do they differ across job duties? Table 1 reports, for all outcomes across all performance domains (rows), the coefficient on the RS-woman indicator (column 3). We begin with legislative activities as captured in meeting minutes (Panel A), followed by the ACODE’s scorecard’s four subcomponents (Panel B); the knowledge questions broken down by ‘block’ (Panel C); and the results for the school grant application activity (Panel D).

TABLE 1: Politician Performance

	Constant	SE	RS-Women coefficient	SE	Observations
Panel A: Plenary Session Minutes					
Total Actions	-0.219***	(0.081)	-0.490***	(0.054)	820
Motions	0.008	(0.126)	-0.247***	(0.055)	820
Bills	-0.180***	(0.032)	-0.141**	(0.065)	820
Presentations	-0.255***	(0.077)	-0.225***	(0.061)	820
Remarks	-0.323***	(0.067)	-0.569***	(0.055)	820
Share meeting attended	0.049	(0.125)	-0.067*	(0.039)	820
Panel B: ACODE scorecard					
Total Score	-0.371***	(0.085)	-0.399***	(0.068)	1496
Legislative	0.401***	(0.062)	-0.499***	(0.058)	1496
Meeting Electorate	-0.503***	(0.123)	-0.048	(0.062)	1496
Monitoring	-0.462***	(0.071)	-0.311***	(0.064)	1496
Lower Local Government	-0.104	(0.099)	-0.222***	(0.059)	1496
Panel C: Knowledge Questions					
Public Service Delivery	0.487	(0.441)	-0.187***	(0.070)	820
Procedures/Rules District Council	0.238	(0.279)	-0.281***	(0.070)	820
Passing Bills/Motions	0.037	(0.231)	-0.208***	(0.072)	820
Knowledge Budget	0.088	(0.340)	-0.350***	(0.072)	820
Knowledge Total	0.435	(0.302)	-0.453***	(0.068)	820
Panel D: School grant applications					
Relative apps/numb schools	0.200	(0.232)	0.077	(0.135)	284
Number of total applications	-0.370**	(0.179)	0.092	(0.120)	284
At least one app	0.240	(0.199)	0.035	(0.115)	284

Note: OLS regression analyses with District and year Fixed Effects and cluster standard errors at councilor level. Standardized outcome variables. Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Session minutes are weighted by the share of meetings politician attended

The data reveal consistency with the argument that gender gaps are likely to vary across job duty domains and gaps favoring men will be larger in domains that require interaction with fellow politicians. First, across four legislative activities—sponsoring bills and motions, making presentations and remarking during plenary sessions—RS-women politicians perform worse than

their male counterparts (Panel A).⁹ That RS-women politicians are less influential in legislative activities is also supported by the scorecard data. Indeed, the difference between male and female politicians on the legislative scorecard component is large: 0.4 standard deviations (top Panel B). The supportive evidence from the knowledge vignettes regarding legislative procedure is also consistent with these findings. Male politicians are more knowledgeable about rules governing district plenary and committee meetings (0.28 sd gap); procedures for passing bills and motions (.21 sd gap); and budget procedures (.35 sd gap). The rules and procedures are quite complicated to learn in initial trainings at the start of term and the degree of knowledge and application of these legislative procedures are likely mutually reinforcing.¹⁰

Turning to examine other job duties captured by the different scorecard components (Table 1, Panel B), we find interesting variation. While RS-women politicians are less likely to engage in public service monitoring (.31 sd gap) and somewhat less likely to participate in lower local government (.22 sd gap), they are not less likely to have contact with electorate. Similarly, no gender gap exists in constituency service as measured by the share of schools in the constituency that politicians in the study area assisted in applying for a grant (Panel D). In fact, RS-female politicians facilitate on average one application more than their male counterparts (although, this difference is not statistically significant). Using pairwise coefficient tests, the differences in the size of these gaps across job duty domains are by and large statistically significant.¹¹

Overall, our findings present a mixed picture of gender gaps in performance across different job duty domains. The largest gender disparities are in legislative duties, with smaller performance gaps in lower local government participation and monitoring public services. Notably, these are domains requiring high and moderate level of interaction with fellow politicians, respectively. By contrast, we find no gender gap in contact with the electorate nor in facilitating school grant applications; job duties that are generally conducted independently. Taken together, our results suggest that different incentives and barriers likely exist across RS-women and men in different job duties. Had we considered only a single job duty, typically legislative activity, the study could have reached a misleading conclusion.¹²

WHICH GENDER DISPARITIES DRIVE PERFORMANCE GAPS?

Drawing on the literature and knowledge of the study context, we investigate the relative contribution of various (possible) disparities between (RS)-women and men politicians to performance gaps across job-duty domains. Our key testable hypothesis is that RS-women's peripherality in legislatures' networks likely plays a key role in driving the gender gap in job duties requiring interaction with fellow politicians. By contrast, differences in background qualifications (e.g., education, wealth, political experience) and political factors (e.g., constituency competitiveness, partisanship) likely are consequential for performance in *any and all* job duty domains. In the next section, we first examine whether gender disparities exist in background

⁹SI B.1 reveals almost identical results when we restrict the sample to the 19 district sample for which we have the scorecard data, as well as for not weighting the data by the share of meetings the politician attended.

¹⁰That is to say, the less one practices skills, the more one may forget the skills, and the more one forgets the skills, the less one tends to apply the skills.

¹¹We cannot reject the null that legislative and monitoring gaps are different sized, nor that the lower local government gap is different from the (non) gap in contact with the electorate. We note this is likely due to limited statistical power in the reduced sample of the scorecard area.

¹²While we attempt to gather comprehensive data on all legally-defined job duties, we recognize that some aspects are not captured in our data. For example, RS-women may be relatively more productive in committees. Unfortunately, no systematic records exist regarding committee performance in this context.

qualifications, political factors and networks. After identifying particular gender disparities, we examine which disparities are associated with performance gaps.

Which Gender Disparities Exist in Background Qualifications, Political Factors, and Networks?

To collect data on politicians' characteristics, we carried out an original survey in 2016 with 820 politicians in all 50 district local governments, and cull data made publicly available by Uganda's Electoral Commission. In terms of background characteristics, we collect information on education and wealth, which provide cognitive and material resources that may facilitate better performance. *Education* is a three-category variable capturing below secondary, secondary and post-secondary education. We measure *wealth* with two context-appropriate binary indicators: household car and motorcycle ownership. *Age* may also affect legislators' performance, given seniority rules and that often deference is accorded to elders in this context. The *number of terms* the politician has previously served at the district-level captures prior political experience increasing familiarity with job duties. *Desire leave politics* is a binary variable indicating a politician no longer aspires to run for reelection, since individuals without aspirations to continue office holding may have little incentive to perform well. See SI A.7 for descriptive statistics.

As for political factors, we examine possible disparities in partisanship, constituency characteristics. For partisanship, the variable *NRM*, indicates whether a politician caucuses with Uganda's ruling party. For constituency competitiveness, we construct a measure *margin of victory*: the difference in vote share between the winner and the runner up in the previous (2011) elections. Given RS-women's constituencies are larger than men's, on average, we construct the variable *constituency size*, measured as the number of registered voters in a politician's constituency. See SI A.7 for descriptive statistics.

In addition, we measure the centrality of politicians' professional and personal network position in their respective legislature. Network centrality measures capture the informal relationships that can help politicians wield influence and power and be more effective. Unlike the above covariates that precede the electoral term, networks might change over time. We thus collected network data two points in time: at the electoral term start (20 district legislatures) and at the term's end (all 50 district legislatures).

At term start, district politicians were read the names of all fellow politicians in their legislature, and asked to indicate for each one if they consulted them to undertake professional tasks (*professional network*) and if they had personal friendship ties (*personal network*). We collect both of these measures, consistent with early work on networks in legislatures in American politics that differentiates between professional and personal ties (Ringe et al., 2017).¹³ When we repeated this process in the middle of the term, politicians indicated almost everyone in their legislature as friends such that there was little, if any, variation.¹⁴ Thus, at end of term, we construct networks by using a name generator technique (Knoke and Yang, 2008) whereby politicians were asked to name up to five co-politicians for each type of relationship.

For each politician we then calculate in-degree and eigenvector centrality for each of the two networks (professional and personal). *Indegree* centrality measures the number of links a politician "receives" from other politicians. Eigenvector centrality is a measure of the influence of a politician in a network. Specifically, connections to high-scoring nodes contribute more to the score of a node than equal connections to low-scoring nodes. Figure 1 illustrates the

¹³Ringe et al. (2017) note that given limited access to politicians, studies in recent years employ indirect measures such as bill cosponsorship [e.g., Fowler (2006)].

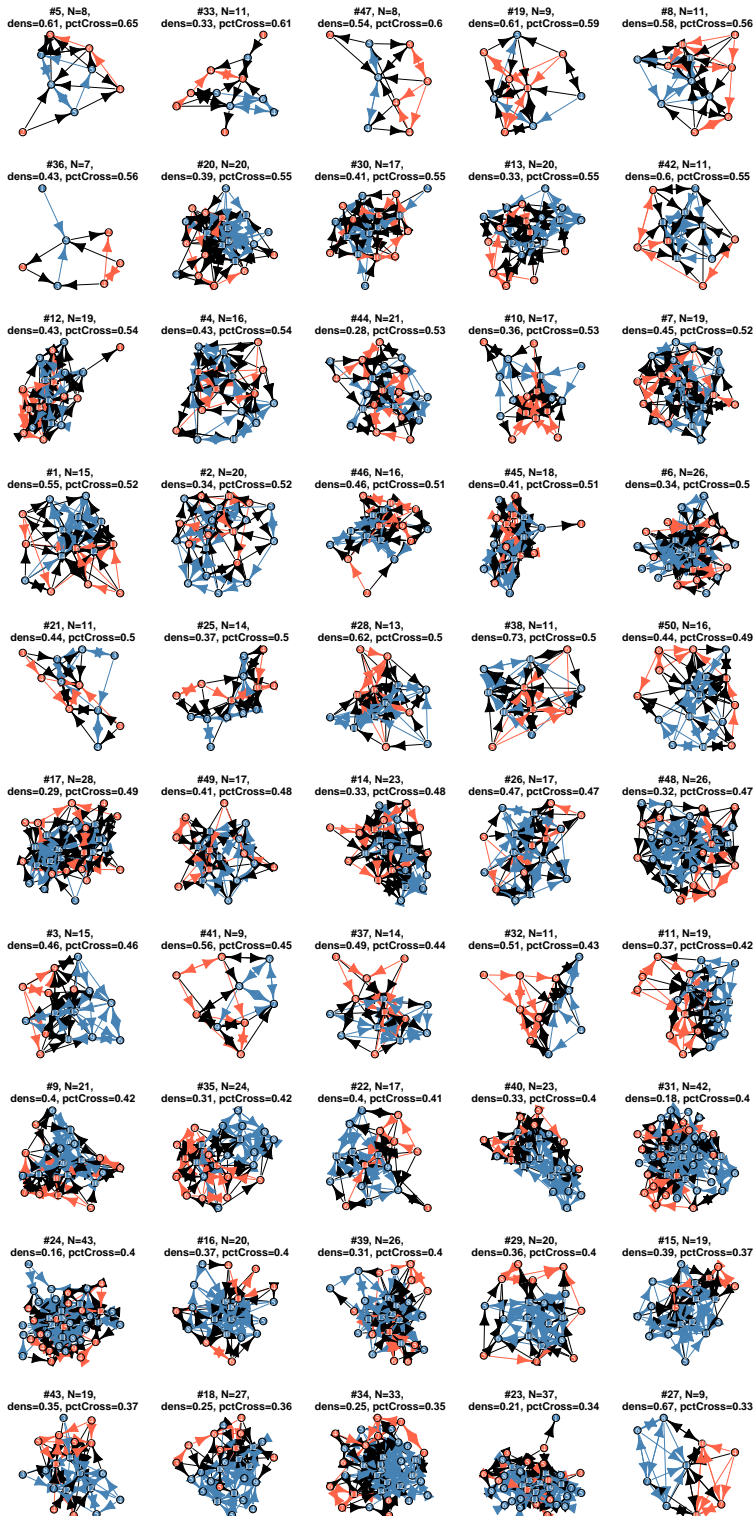
¹⁴Ringe et al. (2017) point out this difficulty in studying legislative networks longitudinally.

TABLE 2: Gender Gaps in Politician Characteristics

	Constant	SE	RS-Women Coefficient	SE	Observations
Background Characteristics					
Education level	2.681***	(0.207)	-0.572***	(0.058)	820
Below Sec	-0.424*	(0.252)	0.619***	(0.072)	820
Secondary	0.198	(0.339)	0.143*	(0.078)	820
Post Secondary	0.552**	(0.263)	-0.613***	(0.066)	820
Age	-0.513*	(0.268)	0.029	(0.075)	820
Wealth	-0.236	(0.193)	-0.385***	(0.070)	820
Number of terms	0.121	(0.232)	0.105	(0.077)	820
Desire leave politics	0.464	(0.516)	-0.062	(0.124)	279
Political Factors					
NRM	0.119	(0.233)	0.067	(0.073)	820
Margin of Victory 2011	-0.428***	(0.144)	0.152**	(0.067)	820
Constituency size (N. Votes)	-0.776***	(0.090)	0.619***	(0.070)	571
Run Unopposed	-0.451***	(0.042)	0.229***	(0.072)	820
Network Characteristics at TERM START					
In-degree					
Professional	1.232**	(0.560)	-0.419***	(0.092)	274
Personal	2.698***	(0.322)	-0.257***	(0.079)	274
Eigenvector					
Professional	0.815***	(0.298)	-0.406***	(0.120)	274
Personal	1.050***	(0.284)	-0.317***	(0.110)	274
Network Characteristics at TERM END					
In-degree					
Professional	1.129***	(0.318)	-0.555***	(0.071)	820
Personal	0.943*	(0.534)	0.230***	(0.072)	820
Eigenvector					
Professional	0.911***	(0.241)	-0.432***	(0.067)	820
Personal	0.083	(0.249)	0.243***	(0.074)	820

Note: We report the information for each regression by row and not column. Regressions include district fixed effects as well as standardized variables to facilitate comparison. Standard errors are clustered at the politician level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Figure 1: Depiction of Professional Networks at Term End



Note: Depiction of professional networks in 50 legislatures at term end, including information on the number of nodes (n), density ($dens$) and share of all existing cross-gender ties ($pctCross$).

in-degree professional network's structure at term's end. Interested readers may consult the SI A.8 for additional information regarding the procedures for collecting and coding the network data, as well as descriptive statistics and robustness checks for alternative centrality measures — betweenness, and closeness. As mentioned, centrality measures are calculated separately for the start and end of term.

To test whether significant differences in these factors exist across RS-female and male politicians, we regress the above variables on a female indicator and district fixed effects. Table 2 reports our findings.¹⁵ We find disparities between RS-women and men politicians in some but not all individual covariates and political factors. RS-women are less educated (60% less likely to attain post-secondary education) and less wealthy (44% less likely to own a motor vehicle). RS-women also represent less competitive and geographically larger constituencies. By contrast, we find no discernible differences by politician gender with respect to age, political experience and partisanship.¹⁶

Moving to network position, we find important gender-based disparities in politicians' centrality. RS-women are more peripheral (i.e., less central) in networks defined by *professional ties* at both the start and the end of the electoral term. Figure 1 depicts such networks below at end of term. And while they are somewhat more peripheral in networks defined by *personal ties* at the start of the term, this is not the case at the end of term. Consistent with the idea that network ties are sticky (Carrington et al., 2005), we find a relatively high correlation from start to end in professional networks in the 20 legislatures for which we have data in both periods.¹⁷

Which Gender Disparities are Associated with Performance Gaps?

To better understand what factors are contributing to gender gaps in politician job duty performance, we regress the performance variables for which we find significant gender gaps (legislative activities - both measurements, monitoring services, and lower local government participation) on a RS-female indicator. We then add each covariate one at a time in turn for which a gender disparity exists: education, wealth, constituency competitiveness, constituency size, professional network centrality, and personal network centrality. We separately include indegree and eigenvector centrality, at the start and end of term. Network measures computed for the term start are available for only 20 legislatures, but have the advantage that they are measured prior in time to performance outcome. Network measures computed for the term end have the advantage that they were collected for all 50 legislatures. Of course, networks and performance could mutually reinforce over time, endogenously (Ringe et al., 2017). While we note a high correlation of network centrality from term start to end, we nonetheless treat the term end measures with a grain of salt.

We examine both whether an included covariate is significantly correlated with the performance outcome, and more importantly — whether by including the covariate, the coefficient on the

¹⁵Almost identical findings exist when restricting the sample to the 19 districts for which we have the scorecard data — see SI B.2.

¹⁶These background characteristics and political factors are not very correlated in the sample data — see SI A.7.

¹⁷As mentioned above, network data was collected using different elicitation methods at the start and end of the term. At the start, when being read a list of names at the term's start, politicians could name more ties and are likely to name both stronger and weaker ties. Because everyone named everyone else in the middle of term data collection, we switched strategies at the end of the term, where politicians were limited to naming no more than 5 colleagues — and are thus more likely to name only strong ties. Thus, to compare politicians' network position across time, we transform the centrality measures into a within-legislature ranking at start and at end, respectively. In SI A.8, we provide scatterplots of the professional and personal in-degree centrality ranking with lowess regression plots.

RS-female indicator reduces significantly.¹⁸ Such a result would suggest the included covariate is a likely mechanism through which the gender gap in performance, at least in part, is operating. However, while this study is rich in data, we recognize that these covariates are not randomly assigned. Therefore readers should view the results of this section as informative even if not causal.

In Tables 3 and 4 we report the results of these regressions by row, indicating the name of the included covariate in the first column.¹⁹ Table 3 reports results from the scorecard performance measures in the 19 districts. Table 4 reports results from the meeting minutes for both the sample of legislatures using network measures at term start in the top panel and term end in the bottom panel (19 and 49 legislatures, respectively).

In both tables, the in first row, we report the estimate of the RS-women coefficient without any covariate, along with the constant and the number of observations. In each subsequent row, we report these estimates alongside the estimate of the additionally included covariate coefficient and standard error, as well as the percentage change in the RS-woman coefficient (next to last column) and absolute change in RS-woman coefficient (last column) as a result of the inclusion of the said covariate. The last row in each panel shows results from including all covariates in the model, reporting just the RS-woman coefficient for brevity.

We find that, across interactive job duties, professional networks (as measured by indegree or eigenvector) are likely an important contributor to the gender gap in politician performance, while personal networks are not. Professional networks—whether measured at term start or term end—are significantly associated with performance and a substantively large drop in the RS-woman coefficient. For example, in Table 3 on the scorecard measures, including the end of term professional indegree network measure as a covariate reduces the RS-woman coefficient in legislative activities by 25%, the lower local government performance by 46%, and the monitoring public services component by 51% (measured at term start - by 12%, 9%, 15% respectively). In Table 4, including the end of term professional indegree network measure as a covariate reduces the RS-woman coefficient in the legislative activities according to the meeting minutes by 43% in the reduced sample and 33% in the full sample (measured at term start - by 18% in the reduced sample). We note that the magnitude of the reduction is typically larger for the measure of professional networks at the end of the term than the start. Recalling that professional networks at start and end were highly correlated and fairly stable, this comes as no surprise. While we do not want to put too much weight into the evidence, the larger magnitude at term end is consistent with the idea that some mutual reinforcement of networks and performance takes place over the term.

By contrast, adding personal network centrality does not reduce the RS-woman coefficient, and is clearly not a factor contributing to politician performance gender gap. Not only can men and RS-women in the same group of legislators be occupy varying centrality position in professional and personal dimensions, but that only professional, not personal network centrality, matters for politician performance, at least in our setting.

This finding shown systematically in our data, that RS-women are more peripheral in professional networks and that such peripherality is associated with performance gaps, is consistent with rich qualitative studies (e.g., Bauer and Britton (2006)), including studies of Uganda — Tamale (1999) and Ahikire (2003). Additional survey evidence bolsters this

¹⁸We follow Lin et al. (2016), and set missing covariate values to the mean values of the covariate within males and females respectively, and include an indicator variable if an observation has an imputed value. The results are similar when letting the missing covariate render the entire data point missing from the analysis. All regressions include district fixed effects.

¹⁹For consistency, we drop the one district missing meeting minutes data from all analyses here, results for the other data sources including that district are almost identical and available on request.

TABLE 3: Legislative Activities from Scorecard (top panel), Lower Local Government Participation (middle panel) and Monitoring Public Services (bottom panel) - Sample 19 districts.

	Constant	SE	RS-Women coefficient	SE	Covariate coefficient	SE	Observations	% Change	Absolute Change
Legislative activities (scorecard component)									
None	0.477***	(0.065)	-0.482***	(0.066)			1036		
Education	0.414***	(0.068)	-0.421***	(0.069)	0.099***	(0.032)	1036	-12.7%	-0.06
Wealth	0.490***	(0.067)	-0.444***	(0.069)	0.074**	(0.034)	1036	-7.9%	-0.04
Margin of Victory	0.474***	(0.067)	-0.488***	(0.066)	-0.016	(0.033)	1036	+1.2%	+0.01
Size Constituency	0.599***	(0.103)	-0.517***	(0.087)	0.040	(0.077)	744	+7.3%	+0.03
Start Professional InD	0.555***	(0.067)	-0.423***	(0.067)	0.165***	(0.043)	1036	-12.3%	0.06
Start Personal InD	0.508***	(0.065)	-0.437***	(0.067)	0.189***	(0.049)	1036	-9.3%	-0.04
Start Professional EV	0.484***	(0.062)	-0.453***	(0.068)	0.068*	(0.039)	1036	-6.0%	-0.03
Start Personal EV	0.518***	(0.068)	-0.448***	(0.066)	0.113***	(0.038)	1036	-7.2%	-0.03
End Professional InD	0.463***	(0.065)	-0.361***	(0.067)	0.185***	(0.033)	1036	-25.1%	-0.12
End Personal InD	0.476***	(0.064)	-0.491***	(0.066)	0.043	(0.033)	1036	+1.7%	+0.01
End Professional EV	0.423***	(0.070)	-0.422***	(0.066)	0.144***	(0.033)	1036	-12.5%	-0.06
End Personal EV	0.475***	(0.066)	-0.484***	(0.065)	0.004	(0.030)	1036	+0.4%	+0.00
All	0.744***	(0.128)	-0.219***	(0.082)			744	-54.5%	-0.26
Lower Local Government participation (scorecard component)									
None	-0.174*	(0.101)	-0.189***	(0.072)			1036		
Education	-0.162	(0.102)	-0.200***	(0.074)	-0.019	(0.037)	1036	+6.1%	+0.01
Wealth	-0.162*	(0.097)	-0.155**	(0.071)	0.067	(0.042)	1036	-18.1%	-0.03
Margin of Victory	-0.175*	(0.102)	-0.190***	(0.072)	-0.002	(0.044)	1036	+0.4%	0.00
Size Constituency	-0.223*	(0.117)	-0.186**	(0.087)	-0.076*	(0.043)	744	-1.4%	0.00
Start Professional InD	-0.153	(0.107)	-0.173**	(0.074)	0.045	(0.057)	1036	-8.6%	-0.02
Start Personal InD	-0.172*	(0.102)	-0.185**	(0.072)	0.015	(0.059)	1036	-1.9%	0.00
Start Professional EV	-0.170	(0.105)	-0.173**	(0.071)	0.036	(0.040)	1036	-8.1%	-0.02
Start Personal EV	-0.164	(0.104)	-0.180**	(0.071)	0.028	(0.044)	1036	-4.5%	-0.01
End Professional InD	-0.184*	(0.103)	-0.101	(0.073)	0.134***	(0.040)	1036	-46.4%	-0.09
End Personal InD	-0.176*	(0.102)	-0.199***	(0.071)	0.055	(0.037)	1036	+5.6%	+0.01
End Professional EV	-0.242	(0.099)	-0.112	(0.070)	0.183***	(0.037)	1036	-40.8%	-0.08
End Personal EV	-0.206	(0.100)	-0.232***	(0.073)	0.089***	(0.032)	1036	+23.1%	+0.04
All	-0.188	(0.143)	-0.079	(0.090)			744	-58.2%	-0.11
Monitoring public services (scorecard component)									
None	-0.443***	(0.077)	-0.276***	(0.079)			1036		
Education	-0.501***	(0.082)	-0.219**	(0.086)	0.092**	(0.043)	1036	-20.6%	-0.06
Wealth	-0.416***	(0.079)	-0.199**	(0.079)	0.149***	(0.044)	1036	-27.8%	-0.08
Margin of Victory	-0.452***	(0.077)	-0.276***	(0.080)	-0.030	(0.043)	1036	+0.3%	0.00
Size Constituency	-0.701***	(0.109)	-0.203*	(0.111)	-0.073	(0.094)	744	-26.4%	-0.07
Start Professional InD	-0.387***	(0.083)	-0.233***	(0.082)	0.118**	(0.056)	1036	-15.4%	-0.04
Start Personal InD	-0.422***	(0.079)	-0.246***	(0.079)	0.124**	(0.063)	1036	-10.6%	-0.03
Start Professional EV	-0.428***	(0.080)	-0.218***	(0.081)	0.136***	(0.039)	1036	-20.8%	-0.06
Start Personal EV	-0.417***	(0.079)	-0.254***	(0.081)	0.071	(0.050)	1036	-7.8%	-0.02
End Professional InD	-0.459***	(0.081)	-0.135**	(0.079)	0.216***	(0.042)	1036	-51.1%	-0.14
End Personal InD	-0.445***	(0.079)	-0.293***	(0.078)	0.089***	(0.044)	1036	+6.3%	+0.02
End Professional EV	-0.528***	(0.084)	-0.179**	(0.076)	0.229***	(0.042)	1036	-34.9%	-0.10
End Personal EV	-0.481***	(0.076)	-0.328***	(0.080)	0.107***	(0.037)	1036	+19.1%	+0.05
All	-0.734***	(0.131)	0.024	(0.110)			744	-108.6%	-0.30

Note: Table reports the information for each regression by row and not by column. Regression includes district and year fixed effects and clustered standard errors at the politician level. All the variables are standardized. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

TABLE 4: Legislative Activities Index from Meeting Minutes in 19 districts (top panel) and same in 49 districts (bottom panel).

	Constant	SE	RS-Women coefficient	SE	Covariate coefficient	SE	Observations	% Change	Absolute Change
Legislative activities index (meeting minutes) - 19 districts									
None	0.139	(0.126)	-0.569***	(0.110)			274		
Education	0.061	(0.129)	-0.494***	(0.111)	0.122**	(0.057)	274	-13.1%	-0.07
Wealth	0.151	(0.125)	-0.542***	(0.105)	0.053	(0.051)	274	-4.7%	-0.03
Margin of Victory	0.122	(0.126)	-0.571***	(0.111)	-0.063	(0.055)	274	+0.4%	0.00
Size Constituency	0.259	(0.217)	-0.629***	(0.168)	0.126	(0.096)	197	+10.6%	+0.06
Start Professional InD	0.256**	(0.113)	-0.465***	(0.107)	0.247***	(0.083)	274	-18.2%	-0.10
Start Personal InD	0.181	(0.112)	-0.505***	(0.110)	0.248***	(0.090)	274	-11.2%	-0.06
Start Professional EV	0.163	(0.122)	-0.496***	(0.108)	0.180***	(0.067)	274	-12.8%	-0.07
Start Personal EV	0.167	(0.126)	-0.543***	(0.111)	0.079	(0.062)	274	-4.4%	-0.03
End Professional InD	0.105	(0.103)	-0.325***	(0.093)	0.352***	(0.072)	274	-42.8%	-0.24
End Personal InD	0.140	(0.125)	-0.580***	(0.114)	0.056	(0.058)	274	+2.1%	+0.01
End Professional EV	0.019	(0.119)	-0.446***	(0.102)	0.252***	(0.056)	274	-21.6%	-0.12
End Personal EV	0.145	(0.125)	-0.561***	(0.120)	-0.016	(0.052)	274	-1.4%	-0.01
All	0.328**	(0.175)	-0.025	(0.146)			197	-95.6%	-0.54
Legislative activities index (meeting minutes) - 49 districts									
None	-0.266***	(0.084)	-0.517***	(0.055)			820		
Education	-0.316***	(0.083)	-0.432***	(0.056)	0.121***	(0.026)	820	-16.3%	-0.08
Wealth	-0.253***	(0.090)	-0.495***	(0.054)	0.055**	(0.027)	820	-4.2%	-0.02
Margin of Victory	-0.266***	(0.085)	-0.516***	(0.055)	0.000	(0.031)	820	-0.1%	0.00
Size of Constituency	-0.307***	(0.103)	-0.470***	(0.078)	0.014	(0.041)	571	-9.1%	-0.05
End Professional InD	-0.613***	(0.132)	-0.346***	(0.048)	0.307***	(0.031)	820	-32.9%	-0.17
End Personal InD	-0.361***	(0.111)	-0.540***	(0.055)	0.101***	(0.030)	820	+4.5%	+0.02
End Professional EV	-0.489***	(0.111)	-0.410***	(0.053)	0.245***	(0.029)	820	-20.5%	-0.11
End Personal EV	-0.269***	(0.085)	-0.527***	(0.056)	0.043	(0.030)	820	+2.1%	+0.01
All	-0.731***	(0.153)	-0.193***	(0.069)			571	-62.6%	-0.32

Note: Table reports the information for each regression by row and not by column. Regression includes district and year fixed effects and clustered standard errors at the politician level. All the variables are standardized. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

interpretation (see SI C for survey question wording and analysis). When asked what two barriers RS-women face to better perform, RS-women were significantly more likely to mention active discrimination/harassment by male colleagues (21% RS-women, 6% men). By contrast, male politicians are significantly more likely to argue that traditional societal/family gender roles (37% RS-women, 47% men) and low self esteem (26% RS-women, 45% men) are what holding RS-women politicians back. Thus, a skew exists in perceptions by gender regarding RS-women's barriers to performance: perhaps, what RS-women may tend to view as active discrimination, men may tend to view as traditional societal/family gender roles or character flaws.²⁰

Finally, we find suggestive evidence that socioeconomic status (SES) disparities play a role in the performance gap. Education seems to matter for legislative activities (scorecard and in plenary meeting minutes), monitoring public services, and knowledge of job duties. Wealth seems to matter for lower local government participation and monitoring public services, perhaps reflecting the idea that resources are required to travel to perform these activities. These factors are important but typically much lower in substantive magnitude than professional networks.

The finding that there is a gap between RS-women and male counterparts in SES contrasts with other studies that find no such gaps or that (RS-)women are more qualified (e.g., O'Brien (2012); Besley et al. (2017); Baltrunaite et al. (2014); Murray (2010)). While more work at the subnational level is needed to be conclusive, we suspect that politicians at subnational tiers in low-income countries may be more likely to exhibit gender disparities in SES — ultimately contributing to a performance gap. Indeed, at the national level in Uganda, an SES gap and a performance gap does not exist between RS-women and men politicians (O'Brien, 2012; Wang, 2014).

This study is not without limitations. We may be missing some important drivers of the performance gap. For example, disparities in personality traits or working “styles” may be relevant (Volden et al., 2013). Further, we do not have data on every possible aspect of performance — for example, no systematic data exists for performance in committee work.

CONCLUSION

In this study, we examine whether gaps in job duty performance exist across reserved-seat-women (RS-women) and male politicians from 50 subnational governments in Uganda over a full electoral term (2011-2016). While past work generally focuses on a single domain (often legislative activity), we cast a wider net, testing whether different job duties present different barriers for female politicians. We find significant variation in performance gender gaps across politicians' job duties. Job duties requiring high levels of interaction with fellow politicians — legislative activities, show the largest performance gender gaps. Moderate performance gender gaps exist in duties requiring moderate interaction with fellow politicians—monitoring public services and lower local government participation. Finally, we find no performance gaps for activities, such as constituency services, that politicians undertake relatively independently.

To explain the variation in the size of the gender gap we assemble unique social network data, capturing both professional and personal ties within all 50 subnational legislative bodies.

²⁰As for other reasons, RS-women and men were equally likely to cite lower qualifications (42% RS-women, 43% men mention). RS-women were more likely to mention a structural barrier — constituency size (52% RS-women versus 38% men). In our data, constituency size was not found to be a significant driver of performance, however, suggesting that there may be ways that constituency size may affect performance in ways that we did not pick up. Further, RS-women politicians are three times more likely to perceive favoritism towards men by the chairperson (only 8% of men but 22% of RS-women report that men are favored).

Network data allow us to measure the position (centrality) of all politicians in our sample in their respective legislature. We find that RS-women politicians are significantly more peripheral in professional networks within (what are clearly male-dominant) legislatures. Such peripherality, we empirically show, can help explain variation in gender gaps across politician job duty domains. Peripherality in professional networks minimizes RS-women's influence and ability to wield power within legislatures, which is consequential for one's effectiveness in interactive job duties. By contrast, peripherality and exclusion are largely inconsequential when politicians undertake independent duties.

We are obviously not the first to suggest that (RS-)women are marginalized in the legislature, and that this marginalization is consequential (Lovenduski, 2005). However, our study is unique in being able to demonstrate marginalization systematically and on a large scale using unique network data. By so doing, we expand the study of networks in legislatures outside the United States and to the issue of gender in what, to our knowledge, is the largest scale collection of network data on politicians to date (Ringe et al., 2017).

One question is how to view these results on normative grounds. Legislative activities are undoubtedly a core job duty for legislators. It is thus not surprising that most of the scholarship on possible gender gaps among politicians focuses on legislative duties. From this perspective, large gender gaps in legislative activities are problematic. However, the empirical political accountability literature [e.g., Dunning et al. (2019)] has documented that legislative performance, at least in developing countries, is not particularly salient to citizens. Politicians often feel little accountability pressure to citizens for passing bills and motions or showing up to plenary sessions (Lindberg, 2010).

Constituency service duties — contact with the electorate and exerting effort to improve development (e.g., here in the school grant program, or elsewhere in distributing constituency development funds) — are job duties more visible and salient to citizens (Ofosu, 2018; Lindberg, 2010). Especially where elections and multiparty competition are relatively new, these latter functions by local government politicians are important in legitimizing the system as a whole.

Thus, one interpretation of our findings is that RS-women are performing on par in exactly those domains that are most important and are performing somewhat worse in domain that are “less important” from the citizens' perspective. However, as subnational legislative institutions strengthen in early stages of democratization, RS-women's ability to perform in legislative activity may become a greater concern. In particular, it is hoped that legislators' activity will strengthen overall in providing oversight and collaboration with the bureaucracy (Raffler, 2018) and visavis the central government.

Given our study's findings, future research should especially explore what forces might improve inclusivity in professional political networks. Many social “team building” or networking events (e.g., shared meals) focusing on *social* inclusion may not be effective, since our study shows that RS-women can be more central in personal networks, and simultaneously marginalized professionally. Interventions strengthening gender-sensitive collaborative professional task-working skills may be more effective. In particular, our supplemental survey data reveal that barriers to RS-women's performance are seen very differently by men and RS-women. In particular, interventions could attempt to address a dynamic where behaviors reported as active discrimination/harassment by RS-women, seem to be reported as RS-women's low self-esteem and traditional gender roles by male counterparts. Further, given RS-women's perceptions of bias from the leadership, leadership in particular may benefit from training on implicit bias that could lead to more inclusion of RS-women's participation in a mixed-gender legislature.

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