

# Networks and the Size of the Gender Gap in Politician Performance Across Job Duties\*

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February 22, 2020

Word Count: 11466

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\*For comments, we thank Amanda Clayton, Alice Evans, Sofia Amaral, Kuniaki Nemoto, the Vanderbilt Research on Individuals and Politics Group, Vanderbilt Comparative Politics Workshop, Columbia Comparative Politics Seminar, EPSA 2017, CSAE Conference 2018 and DENEb Discussion Round group. We thank Christine Goldrick, Austin Walker, Areum Han, and Maximilian Seunik for invaluable research assistance. This project would not have been possible without our ACODE team partners, especially Godber Tumushabe, Arthur Bainomugisha, Eugene Ssemakula, Lillian Tamale, Phoebe Atukunda, Naomi Kabarungi, and Naomi Asimo. We are grateful to the Democratic Governance Facility and the Carnegie Foundation for its generous funding. Ana gratefully acknowledges financial support by FCT - Fundação para a Ciência e Tecnologia - PD/BD/113885/2015

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## Abstract

The share of women in legislatures has increased dramatically in the past decade. Yet female politicians continue to face barriers that undermine their performance relative to men. We argue that those barriers have different implications across job duties, which can result in performance gender gaps of different magnitudes across duties. In particular, where female politicians are excluded in politician networks, duties requiring interaction with fellow politicians (e.g., legislative activities) may exhibit larger gender gaps as compared to duties (e.g., constituency services) that can be undertaken independently. We find support for this argument when comparing women and men politicians' performance across 50 subnational Ugandan legislatures (where 1/3 of seats are reserved for women). Using original network data, we find that women are significantly more peripheral in *professional* networks, and that this network peripherality drives gender gaps in duties requiring more interaction with fellow politicians, but not independently-performed duties.

Word Count: 11547

The share of women holding public office has increased dramatically in the past decade, supported by the adoption of affirmative action policies, such as gender quotas and reserved seats (Hughes *et al.* 2019). This positive trend has been followed by a growing literature that explores both whether and why gender gaps exist in the job duty performance of politicians. Such gender gaps can stem from gender-based disparities in qualifications (e.g., education) as well as from political factors, such as party affiliation (Anzia & Berry 2011). Further, indicative of entering a historically male arena, scholars emphasize that the performance of women politicians can be stymied due to *formal structural barriers*—exclusion from important leadership and committee positions (Barnes 2016).

In this study, we investigate how—in addition to the above factors—*informal exclusion* in politician networks relates to gender gaps in politician performance across multiple job duties. Qualitative research has described how women often face informal exclusion that adversely affect their legislative performance (Lovenduski 2005), especially in countries characterized by traditional gender norms (Bauer & Britton 2006; Tamale 1999; Tripp 2000). However, it is an open question whether such exclusion is equally contributing to gender gaps in politician performance across various job duties, and what type of networks are most consequential for politicians' performance.

In the context of developing countries with traditional gender norms, we hypothesize that *duties requiring more interaction with fellow politicians* (e.g., legislative duties) *exhibit larger gender gaps due to systematic informal exclusion in politician networks*. *Ceteris paribus*, informal exclusion of women should be less relevant the more the politician job duties are performed relatively independently (e.g., constituency services). Along the same lines of argumentation, we also examine whether gender gaps in job duties that require more intricate skills may be more affected by gender disparities in qualifications (Johnson *et al.* 2003). These expectations are drawn from our overarching argument that different factors contribute to the successful execution of different types of politician job duties. Hence, gender gaps in politicians' performance should vary based on gender disparities in those

factors pertaining to specific job duties.

To test this argument, we collect both unique network data and job duty performance data in 49 (of 112) subnational (district) Ugandan governments. Uganda's Local Government Act (1997, Section III) defines district-level politicians' job duties to include legislative activity as well as a range of constituency services — monitoring public service providers, and constituent contact and development. Section 10(e) also mandates that 1/3 of district council seats are reserved for women. 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.<sup>1</sup> While we elaborate further below, it is important to note that RS-women are elected by both men and women and have the same job duties. We use the term "gender gap" for brevity.

To capture performance across all job duties of Ugandan subnational politicians, we use four data sources: (1) plenary meeting minutes (2011-2015, 49 districts), capturing legislative activity; (2) a civil society organization's annual politician performance scorecard (2011-2015, 25 districts), capturing legislative activities, participation in lower local governments and constituency services such as, monitoring public service providers and contact with constituents; and (3) original data on constituency development (20 district governments), namely the extent to which politicians help schools in their constituency to apply for grants; and (4) two original in-person surveys (20-50 districts) capturing politicians' professional and personal network ties, background characteristics, job duty knowledge, and attitudes towards performance barriers.<sup>2</sup>

Consistent with our theoretical framework, gender gaps in performance vary across politicians' job duties in systematic ways. No gender gaps exist in helping schools to ap-

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<sup>1</sup>In the study area, 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.

<sup>2</sup>We survey politicians from 20 district governments (98% response rate) at the start-of-term (2011). The sample was expanded in 2015 to 50 district governments for the end-of-term survey (94% response rate), reflecting additional resources the research team was able to raise later in the term.

ply for grants or keeping in contact with the electorate. We find, however, moderate gaps favoring men in monitoring public services and lower local government participation, and relatively large gaps in legislative activities. We also find that men are, on average, more central (and RS-women more peripheral) in professional networks over the electoral term, and such (informal) exclusion is a primary and consistent correlate of gender gaps favoring men in job duties that requires more interaction with fellow politicians; namely, legislative duties.

Also consistent with our theoretical framework, we find that disparities in education contribute to performance gender gaps in duties requiring relatively intricate understanding of rules and procedures, namely monitoring public services and legislative duties. Survey data corroborates that RS-women are less knowledgeable of such rules. As for political factors, gender gaps exist in formal leadership position, and as expected, those drive part of the gender gaps we find in legislative duties. By contrast, while men hold more competitive constituencies, this factor is not associated with performance gender gaps. Finally, we find no evidence of differences between male and female politicians with respect to various other theoretically-relevant factors, such as political experience, age, or partisanship. These factors, thus, do not contribute to observed gaps in performance, in the study context.

This study contributes to the growing literature on barriers to gender equity in politician performance.<sup>3</sup> First, while previous scholarship tends to focus solely on legislative activities, we demonstrate that the magnitude, and the drivers, of a gender gap in politician performance depends on the job duty one studies. A comprehensive picture is important to build because politicians' fulfillment of job duties is a multi-tasking endeavor, and gender gaps in one area are not necessarily indicative of gender gaps in other areas

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<sup>3</sup>See, for example, Tamale (1999); Ahikire (2003); Bauer & Britton (2006); Tripp (2000); Volden *et al.* (2013); Anzia & Berry (2011); Jeydel & Taylor (2003); Bratton & Haynie (1999); Wang (2014); Weeks & Baldez (2015); Murray (2010); Kerevel & Atkeson (2013)

if politicians must target effort over multiple duties. In particular, constituency-services are important to include since they have been shown to be salient as accountability criteria (Lindberg 2010), while legislative activities are often not politically salient for voters (Adida *et al.* 2019). That we find no evidence of gender gaps in electorate contact and constituency development is therefore important for how we assess the relative performance of women politicians in developing countries. Further, that different gender disparities affect performance in different duties is policy-relevant since it elucidates where to target possible interventions to close gender gaps, where they exist.

Second, this paper contributes to our understanding of informal exclusion as a barrier for women politicians' performance. We quantitatively and systematically corroborate and expand on important and rich qualitative studies that detail "old boy's club" relational dynamics that marginalize women politicians (Tripp 2000; Tamale 1999)). The granularity of the study data allows us to show that women can be systematically more peripheral in professional networks, even as they are more central in personal networks, *within the same legislature*. Importantly, centrality and marginalization in *professional* ties, but not *personal* ties, matter for politician performance in this context. Researchers should therefore be careful not to conflate personal and professional ties.

Finally, we join scholars applying social network analysis to the study of politician behavior. Following past work, we demonstrate how network analysis can capture critical forms of informal relationships that drive behavior alongside formal institutions (Ringe *et al.* 2017, 2013; Cruz *et al.* 2017). We expand this scholarship to the study of gender gaps in politician performance in low-income setting.

# 1 Theoretical Framework

In this study, we examine gender gaps in politician performance in the context of a low-income country with traditional gender norms. We explicitly focus on performance in subnational politicians' fulfillment of *legally-defined job duties* that include both legislative and a range of constituency-service duties. Studying gender gaps in politician job duty performance is intrinsically important. However, it is extrinsically important since politician performance can affect substantive, symbolic, and future descriptive representation of women, who have been historically marginalized in the public sphere (Schwindt-Bayer & Mischler 2005).<sup>4</sup> While we examine issues of substantive representation of citizens in a companion paper, readers should not lose sight of the deep sense that politicians' job duty performance is intimately and ultimately impactful of their role as representatives.

A growing body of work examines the drivers of gender gaps in politician performance (Hughes *et al.* 2017; Waengnerud 2009). In this paper, we expand this scholarship by arguing that the magnitude of gender gaps in politicians' performance varies across different job duties, in part because successfully performing such job duties is governed by different factors. In other words, performance gender gaps of a particular job duty will be driven by gender disparities in factors that are job duty-specific. In this section, we build on existing literature to hypothesize how formal and informal exclusion, background qualifications, and political factors may contribute differently to gender gaps in performance across different types of job duties. In the next section, we apply the logic to the study context to derive more specific hypotheses.

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<sup>4</sup>Women's substantive representation—the degree to which female politicians pursue women's interests while in office—will be hampered if female politicians are ineffective (Devlin & Elgie 2008). Similarly, 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 & Wolbrecht 2006). Finally, poorly performing women politicians can reduce future descriptive representation via electoral accountability mechanisms or by reducing political parties' incentives to recruit and nominate women, especially after affirmative action measures are withdrawn (Bhavnani 2009).

## Exclusion

One strand of scholarship emphasizes women's exclusion from the political sphere, which has historically been a male-only arena. Women politicians are often marginalized due to explicit or implicit gender bias in a masculinized working environment (Bauer 2012; Tamale 1999; Ahikire 2003; Lovenduski 2005; Johnson *et al.* 2003).<sup>5</sup> Exclusion from formal appointments to leadership positions and powerful committees, as well as pigeon-holing women to work solely on "gender issues" has been shown to negatively affect women politician's performance (Barnes 2016; Wang 2014; Heath *et al.* 2005; Franceschet & Piscopo 2008). Such formal exclusion may be especially consequential for performance at the national-level, where legislatures are both relatively large and characterized by formal hierarchies, such as the seniority system (Wang 2014).

Further, politics is often characterized by informal masculinized norms of interaction. For example, traditional masculine working styles (e.g., "aggressive, "interruptive, "competitive") tend to advantage men over women (Lovenduski 2005). Male politicians too often (deliberately or unconsciously) marginalize women politicians, even in relatively gender equitable societies in which women have been serving in the legislature for quite some time (e.g., Erikson & Josefsson (2019)'s study of the Swedish parliament). In contexts where traditional gender norms are paramount, exclusion of women can range from explicit discrimination and harassment (e.g., Tamale (1999); Tripp (2000)) to lack of recognition, in part due to stigmatization that at times follows affirmative action institutions (Clayton *et al.* 2014). However, it is worth mentioning that scholars have also shown that—especially in high-income, long-time democracies—women politicians can often strategize to collaborate with other women (Barnes 2016), within parties and across the aisle (Volden *et al.* 2013), to outperform men.

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<sup>5</sup>One possible way to alleviate discrimination in "old boys clubs" is electing a sufficiently large number of women, who render the legislature's environment more inclusive of women (Bauer 2012). However, "outsider" status may nonetheless hold women politicians back, even if a 'critical mass' exists (Tamale 1999).



We therefore expect that in settings where informal exclusion of women is present, the job duties requiring more interaction with fellow politicians (e.g., legislative activities) the larger gender gaps favoring men would be. The flip side of this argument is that informal exclusion should be less relevant for more independently-performed duties (e.g., constituency services). Formal exclusion from leadership in the legislature, likewise, should be consequential for legislative activities, but not necessarily for other job duties.

## Background Qualifications

A second strand of research focuses instead on how gender disparities in background characteristics—for example, education attainment or political experience—often translate to gender gaps in politician performance (Bauer 2012). Gender differences in background characteristics may occur for two main reasons: societal norms and electoral institutions. First, qualification gaps may reflect broader societal gender disparities. The more patriarchal and traditional society is, the lower the investment that households make in girls' human capital (Iversen & Rosenbluth 2010). This ultimately contributes to limiting the pool of highly-qualified women in some contexts (Baltrunaite *et al.* 2014). Societal disparities that constrain the supply of qualified women may not be a major issue at elite circles from which national politicians hail (Murray 2010). They are, however, more relevant at the subnational level where politicians do not necessarily come from wealthy backgrounds (Johnson *et al.* 2003).

Second, electoral institutions may also contribute to gender gaps in politician qualifications. On one hand, in the absence of affirmative action women may need to be overqualified to “compensate” for voter and party bias against female candidates (Anzia & Berry 2011).<sup>6</sup> On the other hand, where female politicians are appointed by party lead-

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<sup>6</sup>Variation in social norms and in electoral institutions explain why different studies find that women are more, less or equally “qualified” as male politicians, depending on the study context (Hughes *et al.* 2017).

ers, they may choose compliant women to “rubber stamp” the party’s agenda over high-capacity women (Tripp 2006; Tamale 1999). In yet other cases, affirmative action policies such as gender quotas and seat reservation can increase the average level of politician qualification, because “mediocre men” no longer attain positions due to voter bias and privileged access to party elites (Murray 2010; Weeks & Baldez 2015).

Key to our theoretical framework is that some job duties are harder to learn than others. For example, legislative activities, the focus of most studies of politician performance, require knowledge of legislative procedure that is quite intricate. Further, politicians typically have to pass a budget as part of their duties. However, cooperating with the bureaucracy and understanding how to balance a budget that earmarks towards certain sectors requires a skill level that not all politicians necessarily have in low-income contexts. Background qualifications obtained through education or via prior political experience (in the same legislature or perhaps a lower tier of government) can lower the cost to learning how to best perform such (intricate) job duties. We hypothesize that gender gaps in job duties requiring more intricate skills would emerge following gender gaps in qualifications.

## **Political Factors**

A third strand of scholarship focuses on how political factors such as partisanship or constituency competitiveness may affect gender gaps in performance. In many low-income countries, women politicians disproportionately caucus with dominant ruling parties, which have more resources to groom women and fund their campaign (Hogg 2009). On one hand, caucusing with the ruling party might enable effectiveness given the party’s control of the legislative agenda. On the other hand, dominant parties often require strong discipline to support 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 & Hassim 2003).

Political factors generally affect willingness, rather than ability, to perform. Thus, any gender disparities in such political factors may apply equally across job duties. For example, being in a competitive constituency may propel increased performance across all types of duties, while being from a safe seat may lower incentives to perform across the board (Grossman & Michelitch 2018).

## **Summary of Argument**

In sum, we argue that women and men face different barriers across different job duties, and that different gender disparities may play a large role for some job duties and a small or no role for others. Formal and informal exclusion in the legislature should play more of a role in interactive duties, background qualifications should play more of a role in more intricate duties, and political factors are expected to affect the willingness to perform fairly evenly across job duties.

Existing empirical work has focused almost exclusively on legislative activities, exploring the role of gender disparities in exclusion, qualifications, and political factors as sources of said gaps. However, politicians elected to represent their constituency are generally responsible for performing multiple job duties that include both legislative and constituency-related services that vary by context and level of government. In such settings, it is important to gain a comprehensive picture of performance across duties: detecting a gender gap in only one job duty might bely an overall picture of performance revealing men and women excelling at different tasks. Finally, it is important for policy-makers to understand precisely where gender gaps exist and why in order to more carefully target policy interventions that can address specific gender gaps.

## **2 Study Context and Study-Specific Hypotheses**

We examine 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.

### **Women's Reserved Seats**

Uganda is a low-income, electoral authoritarian regime with affirmative action for women in political office—the modal setting in the developing world (Clayton & 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 adopted policies designed 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).

The Local Government Act (1997) adopted explicitly women's reserved seats in the district council (see Johnson *et al.* (2003) for a detailed discussion). According to the Local Government Act (Section 10(b)), each subcounty is represented by "one councillor directly elected to represent an electoral area of a district." Section 10(e) mandates 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, are overlaid on top of subcounty constituencies. Special woman constituencies thus encompass between one and three subcounties, depending on population size. Thus, each subcounty is represented at the district council by two politicians: an (almost always male) "regular councilor" and a (female) "special woman councilor." There are four additional politicians serving on the district council—two 'youth' and two 'people with disabilities' councilors, whom the law (Section 10(c and d)) mandates half should be women. Youth and PWD councilors are excluded from the analysis, since they do not represent geographical bounded constituencies and have different mandates.

## **Existing Study of Politician Behavior in Uganda**

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 in

the national legislature, reducing women's effectiveness: 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 investigated differences in status, background qualifications, and performance in legislative activity between women and male 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 in the national parliament 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.

## **Why study Subnational Politicians?**

Expanding on this work, we compare RS-women and male politicians at the subnational level. We focus on the subnational level for multiple reasons — no less that existing studies in low-income countries overwhelmingly focus on the national level (e.g., Clayton *et al.* (2014); Wang (2014)). Leveraging multiple subnational governments allows us to gain a larger sample of many governments, holding electoral institutions and other country-level factors constant (Barnes 2016), here, to examine systematic informal net-

work positions of men and women. Substantively, however, there is reason to believe that dynamics at the national level are quite different than subnational level. First, national level politicians tend to come from elite strata where one may not expect gender gaps in background qualifications and where traditional gender norms may be less stark. A focus on national politicians may therefore understate challenges women face in performing in other government tiers (Johnson *et al.* 2003). Second, national-level legislatures are much larger (375 MPs in the Ninth Parliament versus 23 councilors, on average, in district local governments) and thus involve more procedural legislative and party hierarchy that governs legislative activity (Wang 2014). Politicians' job duties are also different across levels of government; for example, constituency-related duties may be more salient in district governments given the goals of decentralization. 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.

## **Study Area and Job Duties**

The study area consists of 50 (of 112) district local governments from all of Uganda's four regions. 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 serving at the district council. The remaining 25 districts were selected by matching non-ACODE districts with districts in which ACODE operates. District councils in the sample have, on average, 23 politicians.<sup>7</sup> See Supplemental Information (SI) A.1 for a map of the study area and SI A.2 on the CSO's selection of districts and the matching details.<sup>8</sup>

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<sup>7</sup>By comparison, the Ninth Parliament (2011-2016) had 238 constituency MPs, 112 Women (district) MPs and 25 Indirect seats (e.g., youth, PWD and military).

<sup>8</sup>We do not find that results are different across ACODE and non-ACODE districts — results available upon request.

District politicians, whether elected in open-seat or women’s reserved seats, have four key job duties, as stipulated in the Local Government Act: *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 *contact with and service to the electorate* (e.g., meeting with constituents and community-based organizations and providing constituency services).

## Applying Theory to the Study Context

Applying the theory to the study context, we consider how effectively undertaking specific job duties may in (a) the level of interaction with fellow politicians they entail, and (b) the importance of background qualifications. Based on qualitative work with the Uganda Local Government Association and ACODE, we represent how job duties vary on these dimensions in Figure 1. This figure is stylized — we are agnostic as to the exact magnitude of the differences in skills intricacy and interaction with fellow politicians across these job duties.

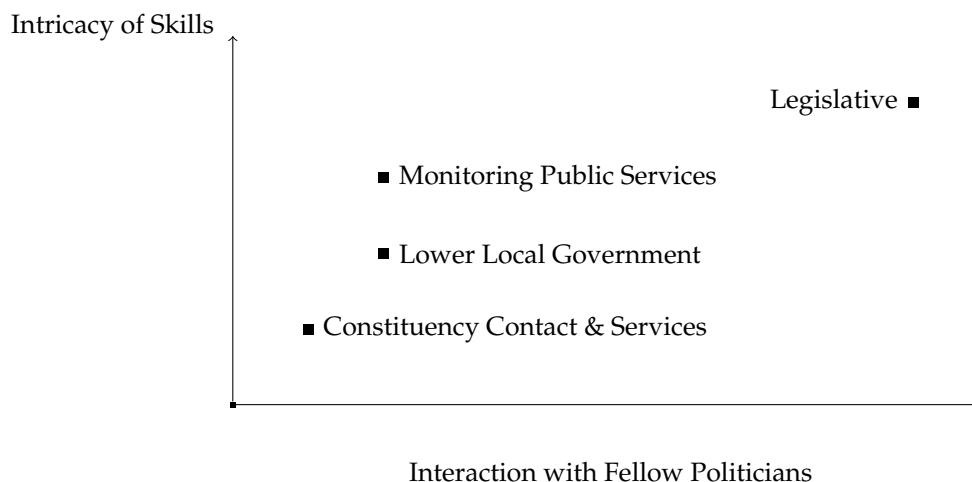


Figure 1: **Factors affecting job duties performance:** The figure describes for each job duty of (Ugandan) politicians (a) the level of interaction they entail with fellow politicians in order to undertake the activity successfully (x-axis), and (b) the intricacy of skills required to undertake the activity successfully (y-axis)



Among all job duties, legislative activities require the highest level of interaction with fellow politicians and the most intricate skills in order to be performed effectively. Politicians propose bills and motions, they remark on debated issues and prepare presentations on areas of expertise during plenary sessions according to rules of order. These rules are fairly intricate and performance in such tasks. We argue, following Johnson *et al.* (2003), that performance in more intricate duties is positively related to qualifications. In addition, politicians must work together to push forward legislation. Thus their performance is likely affected by formal leadership positions and informal exclusion.

Contact with the electorate and constituency development score lowest on interaction with fellow politicians and intricate skills. Politicians are expected to meet regularly with constituents to hear their demands and then represent constituents' interests vis-à-vis fellow politicians and the bureaucracy. Often times, NGOs or foreign aid provide opportunities for constituency development in improving public services, and politicians play a role in securing such funds in their constituency. Meeting with and advocating on constituents' behalf may be time consuming, but they do not necessarily require a high level of education nor collaboration with fellow politicians. Thus these job duties should be less affected by gender disparities in qualifications or by exclusion among fellow politicians.

Monitoring public service delivery and participating in lower local government meetings require an intermediary level of skills and a relatively small level of interaction with fellow politicians. Politicians are expected to report public service delivery violations by auditing service providers and ongoing development projects in their constituency. Thus, politicians must know what public service delivery standards are, be able to assess compliance, and report back to the bureaucracy — a series of activities likely aided by background qualifications. Exclusion might matter here because 'know-how' information shared between politicians can help make the task less intimidating and daunting. Lower local government participation does not require that politicians pass bills and motions or make presentations or remarks. Participation means being present - attending the

plenary sessions in order to be in tune with the deliberations taking place at the lower local government tiers within one's constituency. This does not require high levels of skills, given that one does not need to be involved in plenary procedure.

Thus, we hypothesize that gender disparities in informal (network) exclusion, formal leadership position, and background qualifications will drive gender gaps in legislative duties, while these factors will be the least consequential in contact with the electorate and constituency development, and consequential at an intermediary level regarding monitoring public service delivery and lower local government participation.

### 3 Research Design

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

**Plenary Meeting Minutes.** We use plenary session meeting minutes to construct performance measures of legislative activities. Since Ugandan districts governments do not make meeting minutes available online, we dispatched local research assistants 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.<sup>9</sup> We code for each politician-meeting dyad: (a) the number of *motions* proposed; (b) the number of *bills* sponsored; (c) the number of *presentations* made; and (d) the number of *remarks* made during the session. We then normalize actions by the number of meetings. Finally, we calculate (e) a summary measure of legislative performance *total actions* per meeting, which sums the legislative actions (a)-(d). See SI A.3 for more detail and descriptive statistics.

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<sup>9</sup>One district (Nebbi) refused to share the minutes with the research team, pointing to its bylaws that indicate that meeting minutes are not shareable with the general public.

**Performance Scorecard.** We leverage ACODE’s annual scorecard available in 25 districts for each politician over a 4-years period to examine politicians’ performance in all four (legally-defined) job duties. One advantage of ACODE’s scorecard is that in addition to legislative duties, it captures performance in three additional 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 to June 2012, and the last scorecard covered July 2014 to June 2015.<sup>10</sup> Wide variation exists in scores which range between 0 and 100. See SI A.4 for more detail on the scorecard methodology.

**Facilitating School Improvement Grants.** To measure politician performance in constituency development, we designed a unique behavioral task in collaboration with District Education Offices in the study area. The task mimics 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.<sup>11</sup> 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

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<sup>10</sup>One exception is Agago district where ACODE began operating only in 2012.

<sup>11</sup>Schools could apply twice, given the overlap in the regular and special woman constituencies.

of 4,585 possible applications and 61 grants were allocated. The outcome of interest here is the number of school grant applications facilitated out of the total number of schools in a politician’s constituency. See SI A.5 for more detail and descriptive statistics.<sup>12</sup>

**Original In-Person Politician Surveys.** To collect data on politicians’ background qualifications, political factors, and network characteristics, we carried out two original politician surveys, one at the start and one at the end of the term. At the start of term in 2012, we have a sample of 20 districts, while at the end of term in 2016, we have a sample with all 50 subnational governments. See SI A.6 for descriptive statistics.

## Measuring Informal Exclusion

Following our theoretical framework, we proxy informal exclusion using the network position of politicians within the legislature. Measures of network centrality (such as degree, betweenness and eigenvector) capture the set of ties that can help agents (in this case, politicians) wield influence and power and thus be more effective. Unlike covariates that precede the electoral term (e.g., education, experience), network ties can change over time. We thus collected network data both at the electoral term start (20 district councils) and at the term’s end (all 50 district councils in the study area). We collect information on two types of ties: professional and personal, consistent with early work on networks in legislatures in American politics (Ringe *et al.* 2017).<sup>13</sup>

At term start, district politicians were read the names of all fellow politicians in their legislature, and were asked to indicate for each one if they consulted them when undertaking their job duties (*professional network*) and if they consider them as friends (*personal network*). When we repeated this process in the middle of the term, politicians indicated

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<sup>12</sup>Results are similar using alternative operationalizations: total applications facilitated, and a binary variable for facilitating at least one application — see SI B.2.

<sup>13</sup>Note that given limited access to politicians, past studies generally impute network measures indirectly, for example using bill cosponsorship [e.g., Fowler (2006)].

almost everyone in their legislature such that there was little, if any, variation.<sup>14</sup> Thus, at end of term, we construct networks by using instead a standard name generator technique (Knoke & Yang 2008). Here, we asked politicians to name up to five co-politicians for each type of relationship.

For each politician, we then calculate core centrality measures, such as indegree and eigenvector, for each of the two network ties. *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 2 and Figure 3 illustrate the professional ties and personal ties at term’s end on the example of 4 of the 50 district councils. See SI A.7 for additional information regarding the procedures for collecting and coding the network data, as well as descriptive statistics, network figures, and robustness checks for alternative centrality measures — betweenness, and closeness.

As mentioned, centrality measures are calculated separately for the start and end of term. We measure both personal and professional ties because politicians are likely connected differently along these two types of relationships. Personal ties in legislatures, for example, have been noted as more salient in the US context (Ringe *et al.* 2017), but it is unclear ex-ante which type of relationship matters most for politician performance in this study context.

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<sup>14</sup>Ringe *et al.* (2017) point out this difficulty in studying legislative networks longitudinally.

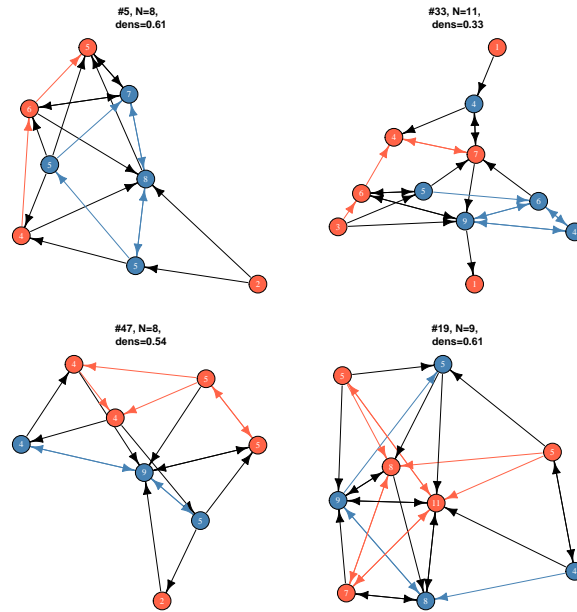


Figure 2: Professional Networks (Term End). Male politicians in blue, RS-women politicians in red. Blue arrows connect between male politicians, red arrows connect between female politicians, and back arrows connect politicians from opposite sex.

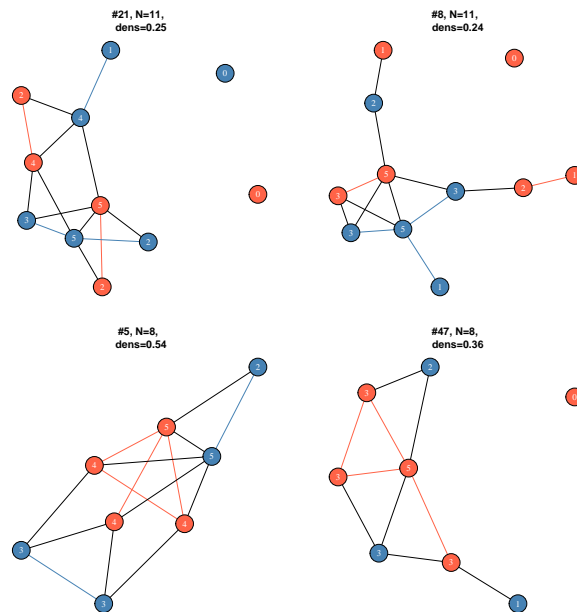


Figure 3: Personal Networks (Term End). Male politicians in blue, RS-women politicians in red. Blue arrows connect between male politicians, red arrows connect between female politicians, and back arrows connect politicians from opposite sex

## Measuring Qualifications and Political Factors

We proxy background qualifications using *education*, a three-category variable capturing below secondary, secondary and post-secondary education; and *number of terms*, a continuous variable of the number of terms a politician has previously served at the district-level, which captures political experience. We measure two other covariates that can affect politician performance: *wealth*, using two context-appropriate binary indicators (household car and motorcycle ownership); and a continuous measure of *age*, which can be consequential given that in this context, deference is accorded to elders.

As for political factors, we explore possible disparities in formal leadership position, partisanship and constituency characteristics. *Formal leadership* is a binary variable that is equal one for politicians that either serve as the LC5 Speaker or who chair one of the district council's standing committees. 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 incumbent 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. These last two variables were culled from Uganda's Electoral Commission.<sup>15</sup>

Finally, we use in-person surveys for information that could help illuminate the determinants of gender gaps in performance. We ask a slate of questions about the experiences of RS-women politicians, as well as politicians' knowledge of rules and procedures. These are measured via 15 vignettes on public service delivery standards, plenary rules, and budget comprehension. See question wording and descriptive statistics in SI A.8.

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<sup>15</sup>We also measure *desire leave politics*, a binary variable indicating a politician no longer aspires to run for reelection. We treat this measure with care since it is 'post-treatment' and not a covariate.

## Empirical Strategy

The analysis proceeds in three steps. First we examine whether gender gaps in politician performance exist and whether they differ across job duties. To answer those questions, we estimate the following regression model for each job duty performance measure:

$$Performance_{ij} = \beta_0 + \beta_1 RSWoman_{ij} + \theta_j + \epsilon_i \quad (1)$$

where  $Y_{ij}$  is a performance outcome,  $RSWoman_{ij}$  is an indicator equal to 1 for RS-woman politicians from district  $j$ , and  $\theta_j$  captures district fixed effects, which effectively allows us to compare female and male politicians from the same districts. We cluster standard errors at the politician level and standardized outcome variables to allow comparability of coefficient magnitude. We are initially interested in the relationship between gender and politicians' performance brought about through any mechanism and therefore do not control for any characteristics which could result from, rather than proceed, gender (see also, Gottlieb *et al.* (2018)). Further, we examine whether gender gaps in performance (captured by  $\beta_1$ ) are significantly different from one another across job duties.

The second step is testing for gender disparities in politician network centrality (i.e., informal inclusion and exclusion), background qualifications, and political factors. We use a similar model as above to estimate whether there are gaps in disparities across these factors.

$$Covariate_{ij} = \beta_0 + \beta_1 RSWoman_{ij} + \theta_j + \epsilon_i \quad (2)$$

The third step is to examine whether any gender gaps in the performance of certain job duties are explained by any gender disparities we may find in network centrality, background qualifications, and political factors. Of course, if there is no gender disparity



in a covariate, it cannot explain a gender gap in performance. Thus, for each covariate in which we detect a gender disparity, we will add in one-by-one to the base gender gap model. Formally:

$$Performance_{ij} = \beta_0 + \beta_1 RSWoman_{ij} + \beta_2 Covariate_{ij} + \theta_j + \epsilon_i \quad (3)$$

We will examine whether  $\beta_2$  is significant, which suggests that some variation in performance is explained by the included covariate, as well as the magnitude of change in  $\beta_1$  towards 0 (compared to the model without the covariate), indicating that the inclusion of the covariate “explains” a portion of the gender gap. Covariates that are both significant and reduce the gender gap substantially arguably have the most explanatory power. When discussing results, we refrain from using causal language given that both gender and the included covariates are not randomly assigned and may be correlated with unobservables.

## 4 Results

### Performance Gaps

We first report the results of the analyses on the gender gap in performance. For the analysis, we restrict the sample to those politicians for whom we have non-missing data in all measures of performance. The sample is then restricted to 820 politicians. In SI B.3, we present equivalent results for the unrestricted sample.<sup>16</sup>

Table 1 reports the coefficient on the RS-woman indicator (column 3) for all outcomes across all job duties (rows): legislative activities as captured in meeting minutes (Panel

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<sup>16</sup>While the unrestricted sample has larger number of observations per outcome (compared to the restricted sample), it is hard to compare across outcomes since the sample itself is not constant.

A); ACODE's scorecard (Panel B); and school grant application activity (Panel C).<sup>17</sup>

	Constant	SE	RS-Women coefficient	SE	Observations
<b>Panel A: Plenary Session Minutes</b>					
Total Actions (Summary Index)	-0.219***	(0.081)	-0.490***	(0.054)	820 (49 districts)
Motions	0.008	(0.126)	-0.247***	(0.055)	820 (49 districts)
Bills	-0.180***	(0.032)	-0.141**	(0.065)	820 (49 districts)
Presentations	-0.255***	(0.077)	-0.225***	(0.061)	820 (49 districts)
Remarks	-0.323***	(0.067)	-0.569***	(0.055)	820 (49 districts)
Share meeting attended	0.049	(0.125)	-0.067*	(0.039)	820 (49 districts)
<b>Panel B: ACODE scorecard</b>					
Total Score (Summary Index)	-0.371***	(0.085)	-0.399***	(0.068)	374 * 4 yrs (25 districts)
Legislative	0.401***	(0.062)	-0.499***	(0.058)	374 * 4 yrs (25 districts)
Meeting Electorate	-0.503***	(0.123)	-0.048	(0.062)	374 * 4 yrs (25 districts)
Monitoring	-0.462***	(0.071)	-0.311***	(0.064)	374 * 4 yrs (25 districts)
Lower Local Government	-0.104	(0.099)	-0.222***	(0.059)	374 * 4 yrs (25 districts)
<b>Panel C: School grant applications</b>					
Apps/# schools	0.200	(0.232)	0.077	(0.135)	284 (19 districts)

OLS regression analyses with District and year Fixed Effects and cluster standard errors at politician level. Standardized outcome variables. Standard errors in parentheses. \* $p < 0.10$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$ . In Panel A, Session minutes are weighted by the share of meetings politician attended. In Panel B, we use four annual scorecards; the number of unique councilors is 374.

Table 1: Politician Performance by Gender

We find support in Table 1 for the core hypothesis that gender gaps vary across politicians' job duties. First, we do not find evidence of gender gaps for constituency related duties — meeting the electorate (Panel B *meeting electorate*), and facilitating *school grant applications* (Panel C). Since voters place a high value on these job duties, this is an important finding. Second, we find evidence of moderate gender gaps favoring men in monitoring public services (Panel B *monitoring*, a .31 sd gap, or 29% lower than mean values for male politicians) and participating in lower local government (Panel B *lower local government*, a .22 sd gap, or 18.5% lower than mean male score). Third, we find relatively large gender gaps favoring men in legislative activities (Panel B *legislative duties* - a 0.4 sd gap, or reduction of 15.6% compared to male politicians' mean score; and in Panel A *meeting minutes* -

<sup>17</sup>Meeting minutes outcomes are weighted by the share of meetings politicians attended. SI B.2 shows similar results when we do not weight the data by the share of meetings the politician attended, as well as when we restrict the sample to the 19 districts we have both baseline network data and meeting minutes information (weighted and unweighted).

a 0.5 sd gap, or 79% lower than the mean male score).

Using pairwise coefficient tests, the differences in the size of these gaps across job duties are by and large statistically significant for the majority of pairs of job duties compared. However, we cannot reject the null that gender gaps for legislative and monitoring outcomes are of different magnitude, nor that the significant gender gap for lower local government participation is different from the small and insignificant coefficient on gender for contact with the electorate outcome. We note this is likely due to limited statistical power in the reduced sample of the scorecard (25 districts).

Overall, the findings present a mixed picture of gender gaps in performance across different job duties. Taken together, they 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 the study could have reached a misleading conclusion.<sup>18</sup>

## **Gender Disparities in Network Position, Background Qualifications, and Political Factors**

We turn to examine whether gender disparities exist in factors discussed above that may play a role in these gaps. Recall that to test whether significant differences in these factors exist across RS-female and male politicians, we regress the each covariate separately on a female indicator and district fixed effects, as described in Equation 2.

Table 2 reports the findings using the sample of 49 districts,<sup>19</sup> save for network measures at term start, where we have 19 districts (omitting the 1 district that did not produce meeting minutes). We find disparities between RS-women and men politicians in

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<sup>18</sup>While we attempt to gather comprehensive data on all legally-defined job duties, we recognize that some aspects are not captured in the data. For example, RS-women may be relatively more productive in committees. Unfortunately, no systematic records exist regarding committee performance in this context.

<sup>19</sup>Findings are similar when restricting the sample to the 19 districts we have both baseline network and meeting minutes information (SI B.1) and when using the expansive unrestricted sample (SI B.3).

some but not all individual covariates and political factors. RS-women have, on average, lower education levels (60% less likely to complete post-secondary education) and are less wealthy (44% less likely to own a motor vehicle). RS-women also represent less competitive and significantly larger constituencies. Conversely, we find no discernible differences by politician gender with respect to age, political experience and partisanship.

	Constant	SE	RS-Women Coefficient	SE	Observations
<b>Background Characteristics</b>					
Education level	2.681***	(0.207)	-0.572***	(0.058)	820 (49 districts)
Below Sec	-0.424*	(0.252)	0.619***	(0.072)	820 (49 districts)
Secondary	0.198	(0.339)	0.143*	(0.078)	820 (49 districts)
Post Secondary	0.552**	(0.263)	-0.613***	(0.066)	820 (49 districts)
Age	-0.513*	(0.268)	0.029	(0.075)	820 (49 districts)
Wealth	-0.236	(0.193)	-0.385***	(0.070)	820 (49 districts)
Number of terms	0.121	(0.232)	0.105	(0.077)	820 (49 districts)
<b>Political Factors</b>					
Formal leadership position	0.423***	(0.136)	-0.099***	(0.027)	820 (49 districts)
NRM	0.119	(0.233)	0.067	(0.073)	820 (49 districts)
Margin of Victory 2011	-0.428***	(0.144)	0.152**	(0.067)	820 (49 districts)
Constituency size (N. Voters)	-0.913***	(0.108)	0.797***	(0.057)	820 (49 districts)
Run Unopposed	-0.451***	(0.042)	0.229***	(0.072)	820 (49 districts)
<b>Network Characteristics at TERM START</b>					
In-degree					
Professional	1.232**	(0.560)	-0.419***	(0.092)	274 (19 districts)
Personal	2.698***	(0.322)	-0.257***	(0.079)	274 (19 districts)
Eigenvector					
Professional	0.815***	(0.298)	-0.406***	(0.120)	274 (19 districts)
Personal	1.050***	(0.284)	-0.317***	(0.110)	274 (19 districts)
<b>Network Characteristics at TERM END</b>					
In-degree					
Professional	1.129***	(0.318)	-0.555***	(0.071)	820 (49 districts)
Personal	0.943*	(0.534)	0.230***	(0.072)	820 (49 districts)
Eigenvector					
Professional	0.911***	(0.241)	-0.432***	(0.067)	820 (49 districts)
Personal	0.083	(0.249)	0.243***	(0.074)	820 (49 districts)

Regression results are reported by row and not column. Regressions include district fixed effects and variables are standardized to facilitate comparison. Standard errors are clustered at the politician level.

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

Table 2: Gender Gaps in Politician Characteristics

Moving to the measures of exclusion, we find that 12% of women politicians but 22% of male politicians hold some formal leadership position, and that this difference is sta-

tistically significant. As for informal exclusion—which recall we proxy using social network position—we find again significant gender-based disparities in politicians’ centrality scores. RS-women are less central (i.e., more marginal) in networks defined by *professional ties* at both the start and the end of the electoral term. And while they are somewhat more peripheral in *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 high correlation from start to end in professional networks in the 20 legislatures for which we have data in both periods.<sup>20</sup>

## Which Gender Disparities Drive Which Performance Gaps

As mentioned, to explore which disparities are contributing to which gender gap in politician job duty performance, we regress the performance outcome variables for which we find significant gender gaps—legislative activities, monitoring public services, and lower local government participation—on a RS-female indicator and covariates (one at a time) for which a gender disparity exists (equation 3).

We begin with our theoretically motivated factors: education (the proxy for qualifications), formal leadership (the proxy for formal exclusion) and network centrality (the proxy for informal exclusion). 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 (Ringe *et al.* 2017). While we note a high correlation

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<sup>20</sup>As mentioned above, network data was collected using different elicitation methods at the start and end of the term. Thus, to compare politicians’ network position across time, we further transform the centrality measures into a within-legislature ranking at start and at end, respectively. In SI A.7, we provide lowess scatterplots of the professional and personal in-degree centrality ranking.

of network centrality from term start to end, we nonetheless treat the term end measures with a grain of salt. Finally, we also test the explanatory power of other factors that can affect politician performance (and for which we find differences between male and female politicians as reported in Table 2): wealth, constituency competitiveness, and constituency size.

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. For consistency, here too we drop from all analyses the one district (Nebbi) for which we are missing meeting minutes data; results for the other data sources including that district are almost identical and available on request. Table 3 reports results from the scorecard performance measures in the 19 districts: legislative, lower local government participation, and monitoring public services. In Table 4, we report results from the meeting minutes, with the top panel reporting results for the same sample of 19 districts and the bottom panel reporting results for the full sample of 49 districts. In the former, we can additionally report the results of network measures from the term start.

In both tables, in 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 a saturated model that includes all covariates in the same regression, reporting just the RS-woman coefficient for brevity.

We find that, across interactive job duties, professional networks (as measured by in-degree or eigenvector) are likely an important contributor to the gender gap in politician performance, while personal networks are not. Professional networks—whether mea-

sured at term start or term end—are significantly associated with performance and contribute to 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 restricted 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 measures do not reduce the RS-woman coefficient, and are therefore not a factor contributing to politician performance gender gap.

	Constant	SE	RS-Women coefficient	SE	Covariate coefficient	SE	Observations	% Change	Absolute Change
<b>Legislative activities (scorecard component)</b>									
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	0.566***	(0.075)	-0.555***	(0.068)	0.089**	(0.043)	1036	+15.00%	+0.07
Leadership position	0.442***	(0.066)	-0.468***	(0.066)	0.074*	(0.033)	1036	-3.0%	-0.01
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	0.561***	(0.096)	-0.255***	(0.068)			1036	-47.0%	-0.23
<b>Lower Local Government participation (scorecard component)</b>									
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	-0.061	(0.106)	-0.281***	(0.079)	0.113**	(0.044)	1036	+48.7%	+0.09
Leadership position	-0.197	(0.108)	-0.179*	(0.072)	0.050	(0.035)	1036	-5.1%	-0.01
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	-0.170	(0.123)	-0.153*	(0.085)			1036	-19.2%	-0.04
<b>Monitoring public services (scorecard component)</b>									
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	-0.403***	(0.095)	-0.308***	(0.088)	0.040	(0.057)	1036	-11.8%	-0.03
Leadership position	-0.470***	(0.082)	-0.264***	(0.079)	0.057	(0.047)	1036	-4.0%	-0.01
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	-0.552***	(0.119)	0.006	(0.091)			1036	-102.2%	-0.28

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 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
<b>Legislative activities index (meeting minutes) - 19 districts</b>									
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	0.229	(0.146)	-0.638***	(0.138)	0.089	(0.059)	274	+12.1%	+0.07
Leadership position	0.075	(0.120)	-0.546***	(0.109)	0.160**	(0.051)	274	-4.1%	-0.02
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	0.223	(0.142)	-0.155***	(0.121)			274	-72.7%	-0.41
<b>Legislative activities index (meeting minutes) - 49 districts</b>									
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	-0.254***	(0.091)	-0.526***	(0.067)	0.013	(0.031)	820	+1.9%	+0.01
Leadership position	-0.335**	(0.111)	-0.488***	(0.055)	0.111***	(0.028)	820	-5.5%	-0.03
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	-0.650***	(0.143)	-0.234***	(0.059)			820	-54.7%	-0.28

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).

## Discussion

The finding that RS-women are more peripheral in professional networks and that such marginalization or exclusion are associated with performance gender gaps, is consistent with rich qualitative studies (e.g., Bauer & Britton (2006)), including studies of Uganda — Tamale (1999) and Ahikire (2003).<sup>21</sup> Additional survey evidence bolsters this interpretation (see SI C for survey question wording and analysis). When asked what barriers RS-women face to better perform, RS-women were significantly more likely to mention 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, men and women politicians have different perceptions with respect to the main barriers that RS-women's face.<sup>22</sup>

Formal leadership appears to play only a small role (noting that leadership is defined here as the district council speaker or the chairperson of a standing committee).<sup>23</sup> Formal leadership is only significantly associated with legislative activities (whether using the scorecard or the meeting minutes data) and it's inclusion reduces the gender gap in performance in legislative activity mildly (by 3% on the scorecard and 4-5.5% in the meeting minutes). Importantly, the results on informal exclusion is not simply capturing formal leadership effects – the network results are robust to dropping those politicians holding formal leadership positions (results available upon request).

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<sup>21</sup>The finding is also consistent with Clayton *et al.* (2014)'s study at the national level that women elected via affirmative action are conferred less status.

<sup>22</sup>As 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 the 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).

<sup>23</sup>This finding contrasts with the national level finding that leadership plays a large role (Wang 2014).

Consistent with our theoretical framework, we also find suggestive evidence that education disparities play a role in the performance gap. Education seems to matter more for job duties that require high levels of qualification such as legislative activities (scorecard and in plenary meeting minutes), and monitoring public services. 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.<sup>24</sup>

Is education really capturing qualifications and expertise needed to navigate the demanding legislative process? We test that using the knowledge vignettes regarding legislative procedure (see Table 5 using the 49 district sample). We find that 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). Further, we find that education has a statistically significant effect on knowledge (see SI D). 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.<sup>25</sup> These findings are consistent with Johnson *et al.* (2003)'s earlier field interviews with district and lower tier (subcounty, and village) politicians that RS-women politician's legislative activities were perceived to be hindered by lack of procedural knowledge, which was speculated to result from lower education background.

We wish to point out limitations of this study. 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 committee

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<sup>24</sup>These findings contrast with the national level, where O'Brien (2012) shows there is no qualification gaps between men and women.

<sup>25</sup>That 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.

	Constant	SE	RS-Women coefficient	SE	Observations
<b>Knowledge Questions</b>					
Public Service Delivery	0.487	(0.441)	-0.187***	(0.070)	820 (49 districts)
Procedures/Rules District Council	0.238	(0.279)	-0.281***	(0.070)	820 (49 districts)
Passing Bills/Motions	0.037	(0.231)	-0.208***	(0.072)	820 (49 districts)
Knowledge Budget	0.088	(0.340)	-0.350***	(0.072)	820 (49 districts)
Knowledge Total	0.435	(0.302)	-0.453***	(0.068)	820 (49 districts)

OLS regression analyses with District and year Fixed Effects and cluster standard errors at politician 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

Table 5: Politician Performance: knowledge questions

work. In addition, it could be that despite sharing formal (that is legally-defined) job duties, RS-women and men may view (or believe citizens value) their performance across different job duties differently. However, examining survey responses at term end, we find no differences between men and RS-women politicians regarding (a) beliefs about citizens' ability to monitor their performance, (b) ways citizens contact them, and (c) efficacy in performing job duties (results available on request). However, there could be other differences in perceptions of job duties for which we have no measures.

The scope conditions of our general theoretical framework are broad. That most (perhaps all) politicians have multiple duties, and that those job duties require different types of efforts and interactions to get performed effectively, is uncontroversial. Recognizing that men and women politicians may vary on certain characteristics that affect some job duties but not others, is also uncontroversial. Scholars can apply this logic to specific contexts cross-nationally, given large variation in job duties across political actors, disparities across genders and societal norms regarding gender, electoral institutions (especially affirmative action for women) and the length of time critical masses of women have obtained office.

We believe our argument and finding that disparities in qualifications are associated with performance gaps in more intricate duties should generally hold across contexts, and be relevant beyond the study of gender and politics. The relevance of this logic depends,

of course, on the direction, magnitude and mere existence of disparities in background qualifications. In some (mostly high-income) countries, for example, women politicians have on average higher qualifications than men, while in low-income countries — especially at local levels as in this study — women politicians have on average lower qualifications. Thus gender disparities in background qualifications may lead to gender gaps favoring women in intricate job duties in some contexts (e.g., Anzia & Berry (2011); Besley *et al.* (2017)), no gender gaps in other contexts (e.g., Wang (2014)), or gender gaps favoring men (e.g., Johnson *et al.* (2003)).

Similarly, the argument and finding that informal exclusion of a certain group in the legislature is more consequential for more interactive job duties (and less consequential for independently-performed duties) is rather general. Again, specific gender dynamics in mixed groups will vary across cultures, and we suspect also as a function of how long women have been in political office. The finding that network marginalization of RS-women is associated with a gender gap in legislative duties favoring men is more likely to hold where women newly entered the political arena (often via affirmative action). However, where a critical mass women have been in political office longer, they may find ways to improve their inclusion and subsequently their effectiveness (Volden *et al.* 2013; Barnes 2016). Future efforts to collect network data in different contexts, or over time within the same context, could shed light on how gender gaps in networks and performance evolve over successive terms.

## 5 Conclusion

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 job duty (often legislative activity), we cast a wider net, testing whether different job duties present dif-

ferent 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, namely legislative activities, show large 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 evidence of performance gaps for various types of constituency services, which politicians undertake relatively independently.

To explain variation in the size of the gender gap across job duties we assemble unique network data, capturing both professional and personal ties within 50 subnational legislative bodies. Network data allow us to measure the position (centrality) of all politicians in the sample in their respective legislature. We find that RS-women politicians are significantly more peripheral in professional networks within (what are clearly male-dominated) legislatures. Such peripherality, we empirically show, can help explain variation in gender gaps across different politician job duties. Peripherality in professional networks minimizes RS-women's influence and ability to wield power within legislatures, which is especially consequential for one's effectiveness in job duties that entail interaction with peer politicians. By contrast, peripherality is largely inconsequential when politicians undertake independent tasks.

We are not the first to suggest that marginalization of women politicians is consequential for job duty performance [e.g., (Lovenduski 2005)]. However, our study builds on past work by demonstrating marginalization systematically across a large number of comparable legislatures, and by employing original network data that separates between informal personal and professional ties. 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 the findings normatively. Legislative activities are undoubtedly a core job duty for legislators. It is thus not surprising that most of the scholarship on possible gender gaps in politician performance focuses on such duties. From this perspective, large gender gaps in legislative activities are problematic. However, the empirical political accountability literature [e.g., Dunning *et al.* (2018)] has documented that legislative activities, at least in developing countries, is not particularly salient to citizens. Politicians often do not experience strong accountability pressure—from citizens—for passing bills or attending plenary sessions. Constituency services—for example, maintaining contact with the electorate—are both more visible and salient to citizens (Ofosu 2019). Especially where multiparty competition are relatively new, these activities by local government politicians are important in legitimizing the system as a whole.

Thus, one interpretation of the findings is that RS-women are performing on par with male politicians in job duties that are more salient and are performing somewhat worse in job duties that are less salient from the perspective of voters. However, as subnational legislative institutions strengthen in early stages of democratization, RS-women's ability to perform in legislative activity becomes a greater concern, especially as a growing number of responsibilities devolved to lower government tiers.

Given the study's findings, future research should especially explore what forces might make professional political networks more inclusive. Many "team building" or social events focusing on *social* inclusion may not be effective, since this study shows that RS-women can be central in personal networks, and simultaneously excluded professionally. Interventions strengthening gender-sensitive collaborative professional task-working skills may be more effective. In particular, our 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 male politicians fail to recognize discrimination that RS-women experience, viewing the behavior of RS-women as stemming instead from low self-esteem. Further, given that RS-women perceive the legislature's leadership

to be biased against them, political leaders in particular may benefit from training on implicit bias that could lead to greater inclusion of RS-women in a mixed-gender legislature.

## References

- Adida, Claire, Gottlieb, Jessica, Kramon, Eric, & McClendon, Gwyneth. 2019. When Does Information Influence Voters? The Joint Importance of Salience and Coordination. *Comparative Political Studies*.
- Ahikire, Josephine. 2003. Gender Equity and Local Democracy in Contemporary Uganda: Addressing the Challenge of Women's Political Effectiveness in Local Government. *Chap. 8, pages 213–239 of: No Shortcuts to Power: African Women in Politics and Policy-making*. London, UK: Zed Books.
- Anzia, Sarah, & Berry, Christopher. 2011. The Jackie (and Jill) Robinson Effect: Why Do Congresswomen Outperform Congressmen? *American Journal of Political Science*, **55**(3), 478–93.
- Baltrunaite, Audinga, Bello, Piera, Casarico, Alessandra, & Profeta, Paola. 2014. Gender Quotas and the Quality of Politicians. *Journal of Public Economics*, **118**, 62–74.
- Barnes, Tiffany. 2016. *Gendering legislative behavior*. Cambridge University Press.
- Bauer, Gretchen. 2012. Let There be a Balance: Women in African Parliaments. *Political Studies Review*, **10**, 370–84.
- Bauer, Gretchen, & Britton, Hannah (eds). 2006. *Women in African Parliaments*. Boulder, Co: Lynne Rienner Publishers.
- Besley, Timothy, Folke, Olle, Persson, Torsten, & Rickne, Johanna. 2017. Gender quotas and the crisis of the mediocre man: Theory and evidence from Sweden. *American Economic Review*, **107**(8), 2204–42.



- Bhavnani, Rikhil. 2009. Do Electoral Quotas Work after They are Withdrawn? Evidence from a Natural Experiment in India. *American Political Science Review*, **103**, 23–35.
- Bratton, Kathleen, & Haynie, Kerry. 1999. Agenda Setting and Legislative Success in State Legislatures: The Effects of Gender and Race. *Journal of Politics*, **61**(3), 658–79.
- Campbell, David, & Wolbrecht, Christina. 2006. See Jane Run: Women Politicians as Role Models for Adolescents. *Journal of Politics*, **68**, 233–47.
- Carrington, Peter J, Scott, John, & Wasserman, Stanley. 2005. *Models and methods in social network analysis*. Vol. 28. Cambridge University Press.
- Clayton, Amanda, & Zetterberg, Pär. 2018. Quota Shocks: Electoral Gender Quotas and Government Spending Priorities Worldwide. *The Journal of Politics*, **80**(3), 916–932.
- Clayton, Amanda, Josefsson, Cecilia, & Wang, Vibeke. 2014. Present without Presence? A Gendered Analysis of MP Debate Recognition in the Ugandan Parliament. *Representation*, **50**(3), 379–392.
- Cruz, Cesi, Labonne, Julien, & Querubin, Pablo. 2017. Politician family networks and electoral outcomes: Evidence from the Philippines. *American Economic Review*, **107**(10), 3006–37.
- Devlin, Claire, & Elgie, R. 2008. The Effect of Increased Women’s Representation in Parliament: The Case of Rwanda. *Parliamentary Affairs*, **61**(2), 237–254.
- Dunning, Thad, Grossman, Guy, Humphreys, Macartan, Hyde, Susan, & McIntosh, Craig. 2018. *Metaketa I: The limits of electoral accountability*.
- Erikson, Josefina, & Josefsson, Cecilia. 2019. The legislature as a gendered workplace: Exploring members of parliament’s experiences of working in the Swedish parliament. *International Political Science Review*, **40**(2), 197–214.

- Fowler, James H. 2006. Legislative cosponsorship networks in the US House and Senate. *Social Networks*, **28**(4), 454–465.
- Franceschet, Susan, & Piscopo, Jennifer. 2008. Gender Quotas and Women's Substantive Representation: Lessons from Argentina. *Politics & Gender*, **4**(3), 393–425.
- Goetz, Anne Marie, & Hassim, Shireen (eds). 2003. *No Shortcuts to Power: African Women in Politics and Policy Making*. London, UK: Zed Books.
- Gottlieb, Jessica, Grossman, Guy, & Robinson, Amanda Lea. 2018. Do Men and Women Have Different Policy Preferences in Africa? Determinants and Implications of Gender Gaps in Policy Prioritization. *British Journal of Political Science*, **48**(3), 611–638.
- Grossman, Guy, & Michelitch, Kristin. 2018. Information Dissemination, Competitive Pressure, and Politician Performance between Elections: A Field Experiment in Uganda. *American Political Science Review*, **112**(2), 280–301.
- Heath, Michelle Roseanna, Schwindt-Bayer, Leslie A, & Taylor-Robinson, Michelle M. 2005. Women on the sidelines: Women's representation on committees in Latin American legislatures. *American Journal of Political Science*, **49**(2), 420–436.
- Hogg, Leigh. 2009. Women's Political Representation in Post-Conflict Rwanda: A Politics of Inclusion or Exclusion? *Journal of International Women's Studies*, **11**(3), 22–56.
- Hughes, Melanie M, Paxton, Pamela, & Krook, Mona Lena. 2017. Gender quotas for legislatures and corporate boards. *Annual Review of Sociology*, **43**, 331–352.
- Hughes, Melanie M, Paxton, Pamela, Clayton, Amanda B, & Zetterberg, Pär. 2019. Global gender quota adoption, implementation, and reform. *Comparative Politics*, **51**(2), 219–238.
- Iversen, Torben, & Rosenbluth, Frances. 2010. *Women, Work, and Politics: The Political Economy of Gender Inequality*. New Haven: Yale University Press.

- Jeydel, Alana, & Taylor, Andrew. 2003. Are Women Legislators Less Effective? Evidence from the US House in the 103rd-105th Congress. *Political Research Quarterly*, **56**(1), 19–27.
- Johnson, Deb, Kabuchu, Hope, & Kayonga, Santa Vusiya. 2003. Women in Ugandan local government: the impact of affirmative action. *Gender & Development*, **11**(3), 8–18.
- Kerevel, Yann P, & Atkeson, Lonna Rae. 2013. Explaining the marginalization of women in legislative institutions. *The Journal of Politics*, **75**(4), 980–992.
- Knoke, David, & Yang, Song. 2008. *Social Network Analysis*. Vol. 154. SAGE Publications.
- Lindberg, Staffan. 2010. What Accountability Pressures do MPs in Africa Face and How do They Respond? Evidence from Ghana. *Journal of Modern African Studies*, **48**(1), 117–142.
- Lovenduski, Joni. 2005. *Feminizing politics*. Polity.
- Murray, Rainbow. 2010. *Parties, gender quotas and candidate selection in France*. Springer.
- O'Brien, Diana. 2012. Quotas and Qualifications in Uganda. *Chap. 4, pages 57–71 of: Franceshet, Susan, Krook, Mona lena, Piscopo, Jennifer M, & Dahlerup, Drude (eds), The Impact of Gender Quotas*. New York:: Oxford University Press.
- Oforu, George. 2019. Do Fairer Elections Increase the Responsiveness of Politicians? *American Political Science Review*.
- Ringe, Nils, Victor, Jennifer Nicoll, & Gross, Justin H. 2013. Keeping your friends close and your enemies closer? Information networks in legislative politics. *British Journal of Political Science*, **43**(3), 601–628.
- Ringe, Nils, Victor, Jennifer Nicoll, & Cho, Wendy Tam. 2017. Legislative Networks. *Chap. 19, pages 471–489 of: Victor, Jennifer Nicoll, Montgomery, Alexander H., & Lubell, Mark (eds), The Oxford Handbook of Political Networks*. Oxford University Press.

- Schwindt-Bayer, Leslie, & Mischler, William. 2005. An Integrated Model of Women's Representation. *Journal of Politics*, **67**(2), 407–428.
- Tamale, Sylvia. 1999. *When Hens Begin to Crow: Gender and Parliamentary Politics in Uganda*. Boulder, CO: Lynne Rienner.
- Tripp, Aili Mari. 2000. *Women and Politics in Uganda*. Madison: University of Wisconsin Press.
- Tripp, Aili Mari. 2006. Uganda: Agents of Change for Women's Advancement? *Chap. 5, pages 111–132 of: Britton, Hannah H., & Bauer, Gretchen (eds), Women in African Parliaments*. Boulder, CO: Lynne Rienner.
- Volden, Craig, Wiseman, Alan E., & Wittmer, Dana E. 2013. When Are Women More Effective Lawmakers than Men? *American Journal of Political Science*, **57**(2), 326–41.
- Waengnerud, Lena. 2009. Women in Parliaments: Descriptive and Substantive Representation. *Annual Review of Political Science*, **12**, 51–69.
- Wang, Vibeke. 2014. Tracing Gender Differences in Parliamentary Debates: A Growth Curve Analysis of Ugandan MPs' Activity Levels in Plenary Sessions. *Representation*, **50**(3), 365–377.
- Weeks, Ana Catalano, & Baldez, Lisa. 2015. Quotas and qualifications: the impact of gender quota laws on the qualifications of legislators in the Italian parliament. *European Political Science Review*, **7**(1), 119–144.