

Explaining Gender in the Journals:
How Submission Practices Affect Publication Patterns in Political Science¹

By Paul A. Djupe, Amy Erica Smith, and Anand Edward Sokhey

The final citation is:

Djupe, Paul A., Amy Erica Smith, and Anand E. Sokhey. 2019. "Explaining Gender in the Journals: How Submission Practices Affect Publication Patterns in Political Science." *PS: Political Science and Politics*. 52(1): 71-77. DOI: 10.1017/S104909651800104X

Paul A. Djupe (djupe@denison.edu) is an Associate Professor of Political Science at Denison University.

Amy Erica Smith (aesmith2@iastate.edu) is an Associate Professor of Political Science at Iowa State University.

Anand Edward Sokhey (anand.sokhey@colorado.edu) is an Associate Professor of Political Science at the University of Colorado, Boulder.

Abstract:

In recent work, Teele and Thelen (2017) document the underrepresentation of female-authored scholarship in a broad selection of political science journals. To better understand these patterns, we present the results of an original, individual-level survey of political scientists conducted in the spring of 2017. Confirming Teele and Thelen's speculation, our evidence indicates that differences in submission rates underlie the gender gap in publication – a pattern particularly pronounced for the discipline's "Top Three" journals. Leveraging original survey items, we pursue explanations of the submission gap, finding that both methodological specialization and attitudes towards publication strategies play roles. Importantly, we also conclude that men and women get differential returns on their investments in co-authorship: while male and female respondents report identical propensities to coauthor, co-authorship boosts submission and publication rates much more strongly for men than women. We discuss the implications of our findings for ongoing conversations about inequality in political science.

Keywords: professionalization; publication; gender; political science

Introduction and Background

Teele and Thelen's (2017) recent study on the gender gap in publication joins a vibrant and growing discussion over gender-based inequalities in political science and academe more generally. Looking at 15 years of publication data for 10 major journals in the discipline, they find that women are underrepresented relative to their numbers in the discipline, that women are not benefitting equally from trends towards co-authorship, and that women may be disadvantaged by the dominance of quantitative work.

Teele and Thelen pose two potential explanations for the documented gaps: rejection rates might be higher for women than for men, or women might submit work at lower rates than men (2017: 442). They note that they cannot adjudicate between these possibilities with their data. However, citing published analyses of submission data (e.g., Breuning and Sanders 2007; Østby et al. 2013²), they speculate that the gap cannot be explained by higher rejection rates for women (2017: 442-43).

A recent special report in this journal (May, 2018) has further advanced this conversation: audits of submissions and editorial decisions at five leading journals—the *American Political Science Review*, *World Politics*, *Comparative Political Studies*, *International Studies Quarterly*, and *Political Behavior*—would seem to largely corroborate Teele and Thelen's suspicions. As the organizers note, "the results across journals were remarkably similar. Even though the journals differ in terms of substantive focus, management/ownership, as well editorial structure and process, none found evidence of systematic gender bias in editorial decisions" (Brown and Samuels 2018: 2). In sum, it appears that work by female scholars is underrepresented at the submission stage, but that conditional on submission, male and female scholars have similar acceptance rates (König and Ropers 2018; Nedal and Nexon 2018; Peterson 2018; Samuels 2018; Tudor and Yashar 2018).

In this note, we pick up where these important analyses have left off. We draw on data from an original, individual-level survey of political scientists conducted in the spring of 2017 to understand what drives gender differences in submission practices. Like the previous studies, our survey data reveal gender differences in submission rates at the journals Teele and Thelen (2017) studied; the pattern is particularly pronounced for the "Top Three" journals in the discipline (i.e., the *APSR*, *APJS*, and *JOP*). What explains these results? Our analysis points to methodological specialization (namely, quantitative-statistical scholarship) and to different publication strategies as explanations for the gender gap in submissions.

Critically, we also find that men and women get differential returns on their investments in co-authorship: male and female respondents report similar numbers of collaborators, but co-authorship appears to boost submission much more strongly for men than women. This is potentially an important source of gender disparities, since the aforementioned journal audits show that co-authored work has a higher success rate than single-authored work in several—though not all—journals studied (König and Ropers 2018; Nedal and Nexon 2018; Peterson 2018; Samuels 2018). The differential impact of collaboration on the number of submissions also speaks to a pattern Heather Sarsons documents in the field of economics: co-authorship (as opposed to single-authorship) hurts female – but not male – economists' prospects of tenure (Sarsons 2017). Our data indicate that female political scientists get fewer submissions and publications per collaborator;

Sarsons' research indicates that even when female economists do have co-authored publications, they get less benefit from that work than do their male counterparts.

In the sections that follow, we briefly describe the parameters of the original study. Turning to the data, we then begin by contextualizing Teele and Thelen's (2017) analysis of articles – we consider a variety of submission types/activities, including books and grants. Upon finding that gender gaps in submission practices appear to be largely concentrated in articles, we focus on submissions to the journals highlighted by Teele and Thelen (2017), looking for distinctions by gender and rank. In the penultimate section we leverage our original survey items to evaluate potential explanations for gendered submission dynamics – these include methodological differences, strategy/orientations towards risk, and co-authorship. We close by discussing the implications of our findings for ongoing conversations about inequality in political science, and the steps, policies, and practices for addressing these problems.

Data: The PASS Study

Our data come from the Professional Activity in the Social Sciences (PASS) study, a survey conducted by the authors in March, 2017. In early 2017 we sampled half of APSA member departments (N=308),³ and then generated a list of faculty in these departments (N=5,084).⁴ A solicitation with a survey link was sent by email to all faculty in these sampled departments; after 3 reminders, 900 political scientists completed the internet survey for a final response rate of just under 18%.

Demographic comparisons between the PASS study, two recent surveys of political scientists, and numbers reported by the American Political Science Association appear in Table A1 of the appendix. It is worth noting that the sample is about 10 percent more female than the other data sets (e.g., Mitchell and Hesli's 2013 study), but is otherwise comparable in terms of rank, race, subfields, and percentages from PhD granting institutions.

In the survey we asked respondents a variety of questions about their professional behavior over the past year. In addition to collecting self-reported information on submissions and publications, we also asked about advice networks, work-life balance, reviewing behavior, and attitudes toward the publication process more generally.

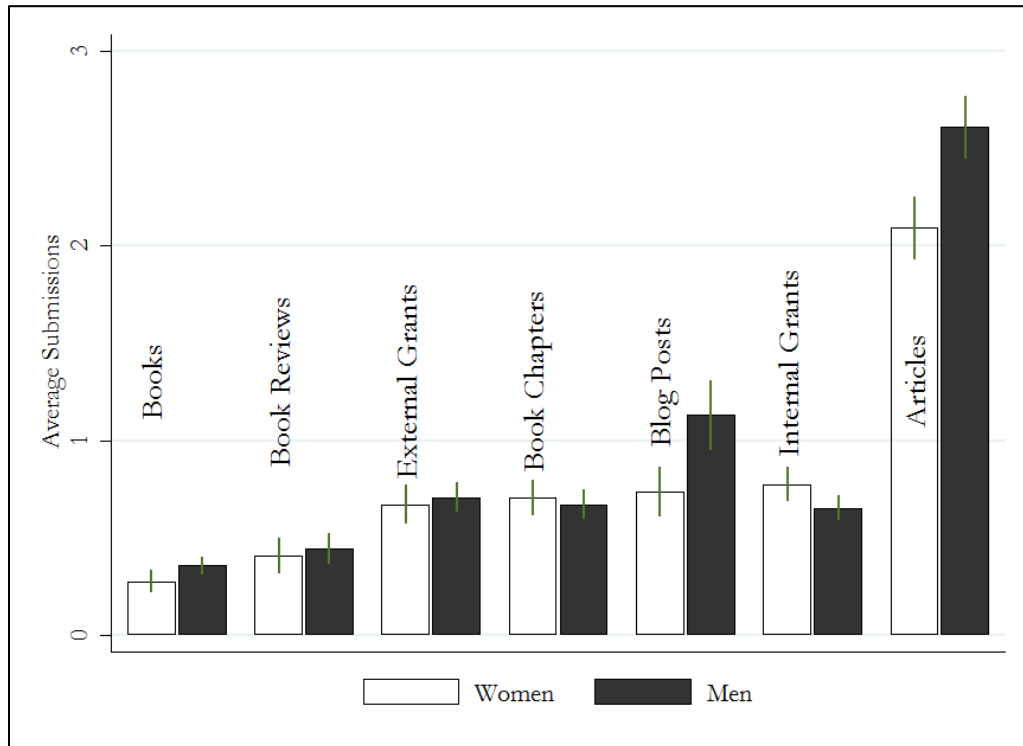
Gender, Submissions, and Publications: A First Look

Our PASS survey queried respondents for submission and publication information on not just articles; we also asked about activity related to books, book reviews, internal and external grants, and blogging. In Figure 1, we present respondents' reports on the number of submissions in the past year broken out by gender and type of work. As we might expect, book manuscripts have the lowest number of submissions and articles the highest, with other types of works falling somewhere in-between. While we see a slightly higher mean number of submissions for men when we sum responses across the categories, the gender differences only emerge as statistically significant for

blog posts and articles. The latter gender gap in journal article submissions is, of course, especially important for our purposes.

Figure 2 shifts the focus to publication rates, considering whether there is once more something unique about journal activity relative to other kinds of professional output. A quick glance at the figure suggests that there is: while male respondents again record higher numbers across several publication types, differences between men and women are only statistically significant in the case of journals. Indeed, while we see hints of a broad gendered pattern of publication, the gap in submissions and publications appears to be concentrated in what is arguably the dominant currency of the discipline: journal articles.

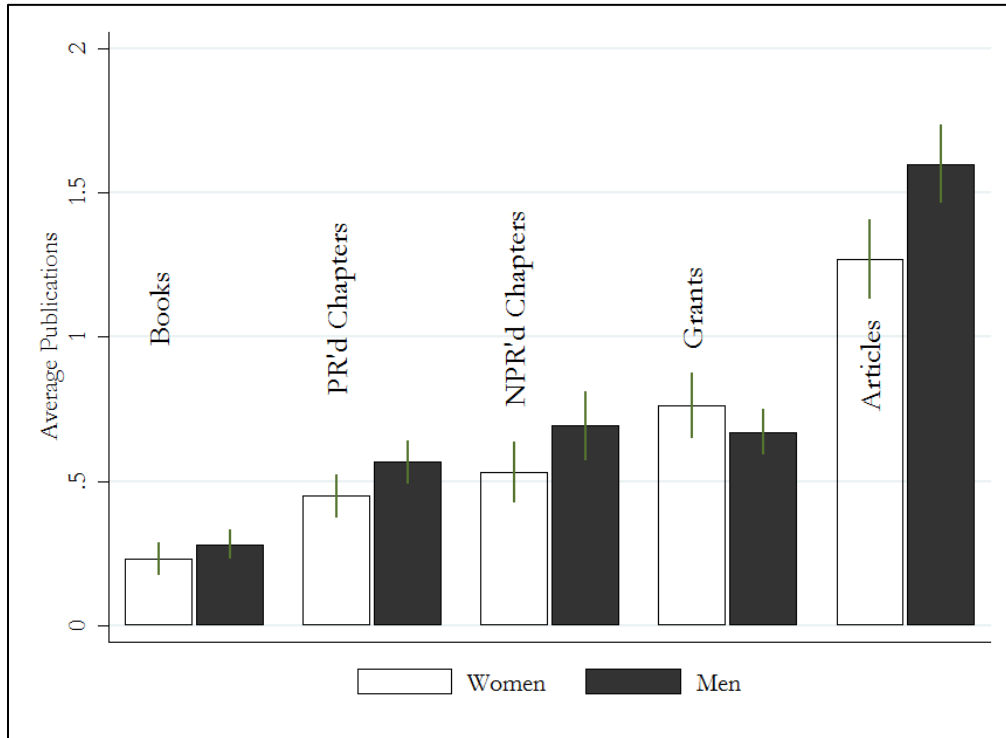
Figure 1: Submissions in the Past Year, by Gender



Source: Professional Activity in the Social Sciences (PASS) Survey.

Note: Comparing confidence intervals shown is the equivalent of a 90% (two-tailed) difference-of-means test.

Figure 2: Average Publications in the Past Year, by Gender



Source: Professional Activity in the Social Sciences (PASS) Survey

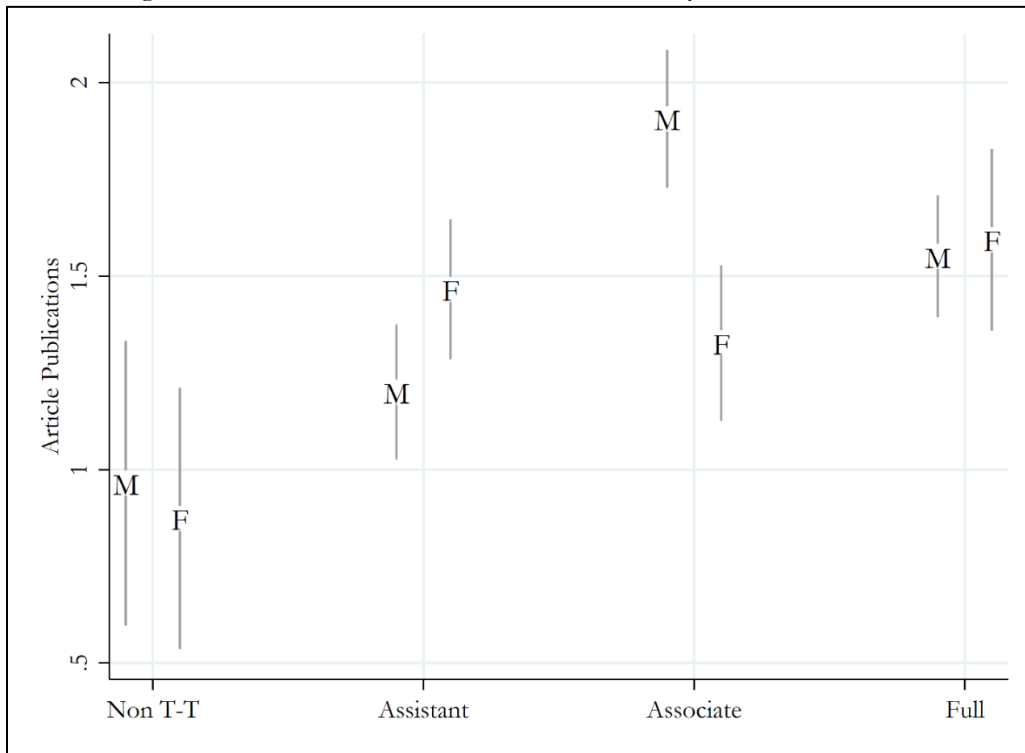
Note: Comparing confidence intervals shown is the equivalent of a 90% (two-tailed) difference-of-means test.

In Figure 3 we preview analyses to come by breaking out differences in journal articles by rank and gender. We immediately see that rank should be taken into consideration in any subsequent examination of gendered publication dynamics, as the gap in article production in our data appears to be driven by male Associate professors (1.9 articles a year compared to 1.3 for women in this rank). We now turn our attention to the ways in which gender and rank are linked to journal submission practices.

Submissions to Journals Included in Teele and Thelen's (2017) Analysis

A first cut at our data confirms previous accounts of gender gaps, while also providing additional perspective that narrows our focus: journal articles seem uniquely affected. Teele and Thelen (2017) identify publication disparities in an analysis of 10 major journals over a 15 year period.⁵ For six journals – including all “Top-Three” outlets (i.e., *APSR*, *AJPS*, *JOP*) – women are underrepresented relative to their numbers in top 20 Ph.D. departments or their share of APSA membership (see their Figure 3, pg. 436). Do we see similar disparities in *submission* practices for these same journals?

Figure 3: Articles Published in the Last Year by Gender and Rank



Source: Professional Activity in the Social Sciences (PASS) Survey

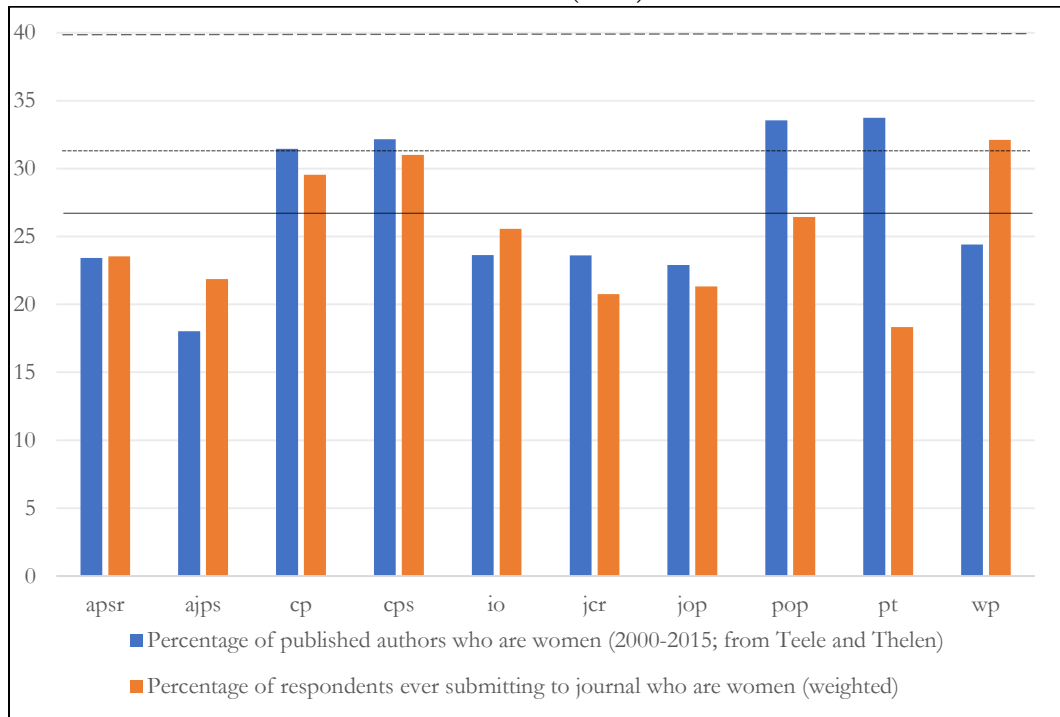
Note: Comparing confidence intervals shown is the equivalent of a 90% (two-tailed) difference-of-means test.

In Figure 4 we graph the percentage female among respondents reporting having submitted to the same 10 journals analyzed by Teele and Thelen (2017). For the sake of comparison, we report Teele and Thelen’s percentages of published authors who are women (blue bars) next to our numbers. We also place markers for the share of women in the discipline (horizontal lines; see figure notes).

A glance at the bars reveals that within each journal, women scholars’ submission and publication rates correspond closely. In a few cases, the percentage reporting submitting to a journal outpaces the percentage of published authors who are female (e.g., *World Politics*), and in a few cases this pattern is reversed (e.g., *Political Theory*; *Perspectives on Politics*). However, for the most part the two bars track closely together. This suggests that when women submit journal articles, they publish at rates comparable to those of men. That is, there is no evidence that women’s work is rejected more frequently than is men’s work.⁶

In most cases the percentage of those reporting ever submitting to each journal who are female falls below the share of women in the discipline (regardless of the measure of that percentage). All three of the discipline’s top “general interest” journals fall in the bottom half of the ranking of these 10 journals using our numbers on submission: less than 25% of our respondents who report submitting to the *APSR*, *AJPS* or *JOP* are female. On its face, this would seem to add confirmation to Teele and Thelen’s (2017) speculation that the publication gap is driven by a submission gap.

Figure 4: The Percentage of Submissions and Publications by Women in Journals Analyzed by Teele and Thelen (2017)*



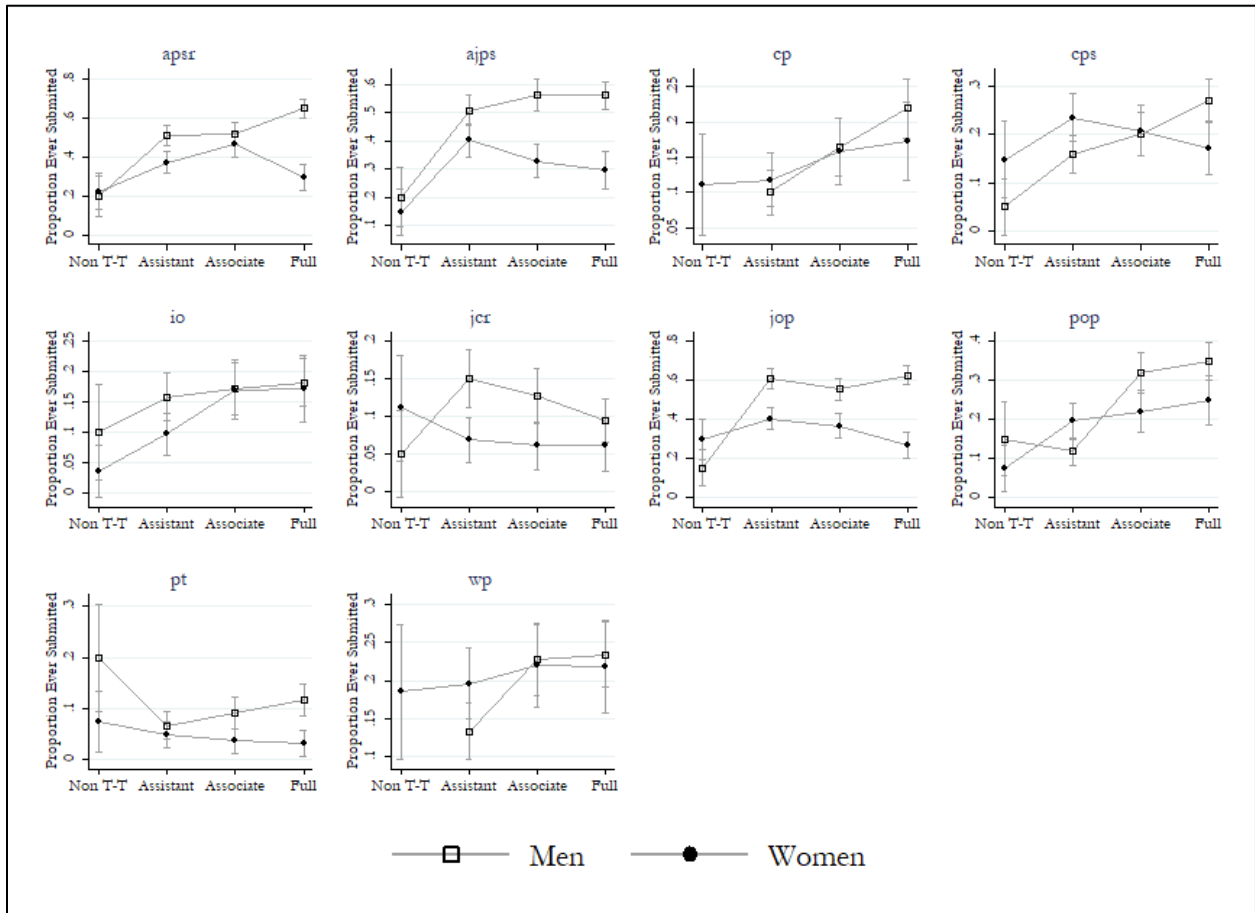
Source: Professional Activity in the Social Sciences (PASS) Survey

Note: The horizontal lines mark the share of women in the discipline, as reported by Teele and Thelen (2017: 436). The solid line marks the share of women in tenure-track positions in the top 20 Ph.D. granting departments (27%); the short-dashed line is the portion of women among APSA members (31%); the long-dashed line is the share of women among new Ph.D.s (40%), per NSF’s survey of earned doctorates.

Figure 5 further scrutinizes submission patterns for these journals, plotting the proportion of respondents reporting ever submitting by gender and rank. Looking across the tiles, several noteworthy patterns emerge. First – as we might expect – submission rates are generally lower for non tenure-track faculty than tenure-track faculty. Second, for most of these journals, the rates of submission are higher, across most ranks, for men (squares) than women (circles). To be clear, these differences are not always statistically significant, but men’s reported rates generally track above women’s. Third, for the discipline’s consensus top-tier journals (i.e., the *APSR*, *AJPS* and *JOP*), this gendered pattern both obtains and is statistically significant across most ranks.

Are women aiming for lower-tiered journals as a strategy, expecting a greater chance of success at such journals? We asked respondents a Likert-style battery of questions about their approaches to the publication process. Two statements – “I try to send my work to the journal that is most likely to accept it,” and “I submit my work to the discipline’s top journals first” – capture two sides of the same coin. Women express significantly higher agreement than men that they send their work to journals most likely to accept it (3.6 vs. 3.3 on a 1-5 scale). Conversely, women are significantly *less* likely than men to report sending their work to the top-tier journals first (3.3 vs. 3.5 on the 1-5 scale).

Figure 5: Percent Male & Female Political Scientists Having Submitted to the Journals Analyzed in Teele & Thelen (2017) by Rank

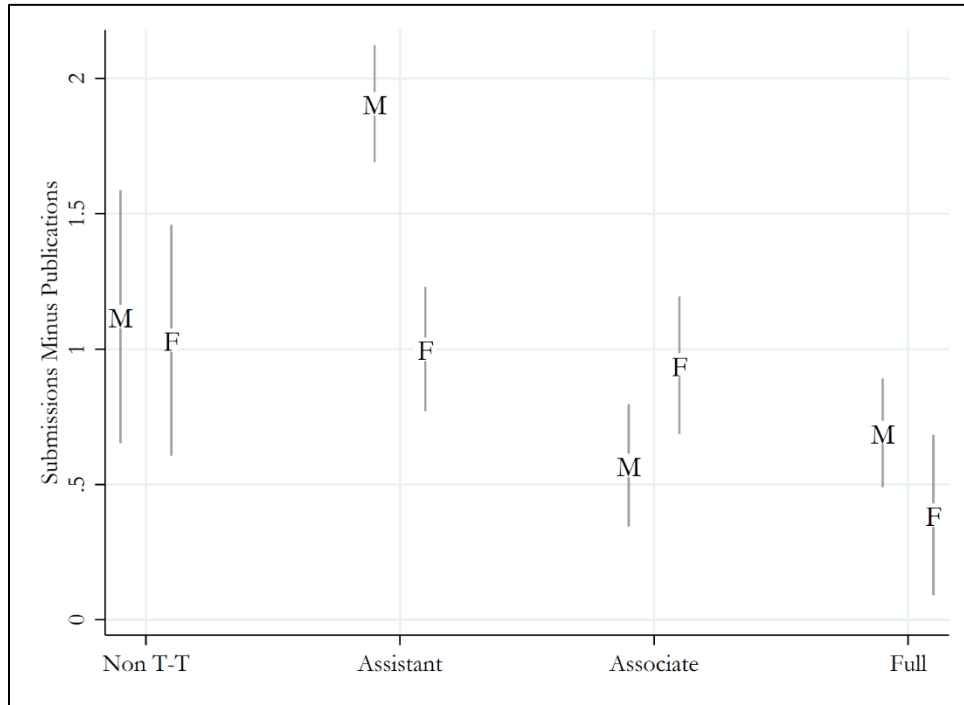


Source: Professional Activity in the Social Sciences (PASS) Survey

Note: Comparing confidence intervals shown is the equivalent of a 90% (two-tailed) difference-of-means test.

What picture emerges when we reconcile these gendered submission patterns with the pattern of publication rates? In Figure 6 we graph the difference between submissions and publications by rank and gender; higher positive numbers signal more submissions per publication – i.e., a higher rejection rate. The plot unambiguously shows male assistant professors “flooding” the review process with submissions and receiving higher numbers of rejections relative to their female counterparts. Note, too, that the rejection rate declines across rank, though that rate is much more stable across rank among women.

Figure 6: Journal Submissions Minus Acceptances (the rejection rate) by Gender and Rank



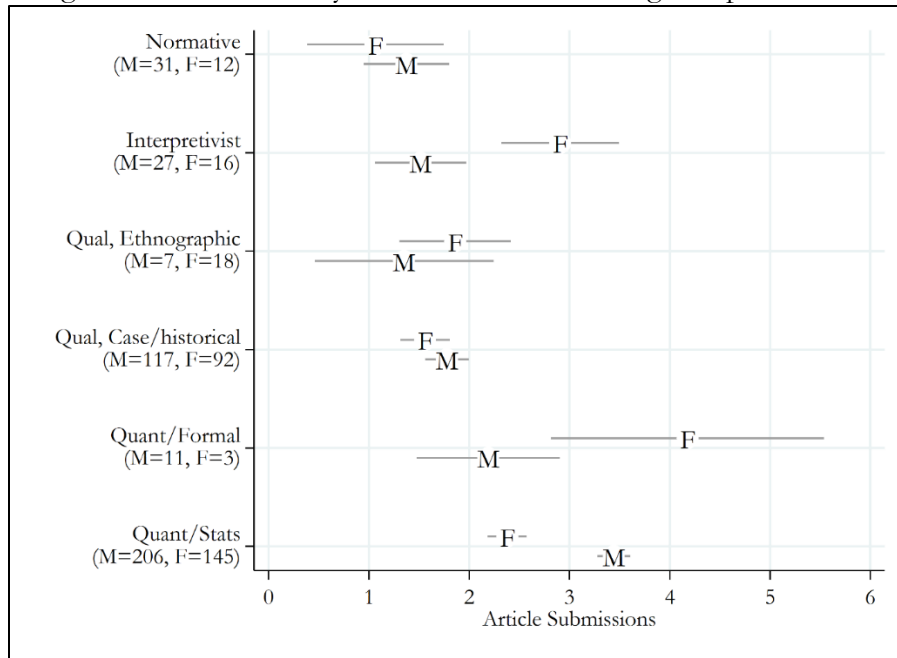
Source: Professional Activity in the Social Sciences (PASS) Survey

Note: Comparing confidence intervals shown is the equivalent of a 90% difference-of-means test.

Are Methods Driving these Patterns?

Can gender differences in submissions and publications be traced to the types of work women and men do, as Teele and Thelen (2017) suggest? Figure 7, which plots submission rates by respondents' self-described methodological specializations, suggests that methods are certainly part of the story. Men's and women's article submission rates are comparable in most methodological camps: between 1 and 2 articles a year. Only a couple of significant gender differences emerge within categories. Most critically, among scholars reporting that they primarily do quantitative/statistical work, the difference is about 1 submission per year. While we see significant gender gaps in the other direction among interpretivists (and a near significant difference for formal modelers), the size of the quantitative/statistical category – which contains the plurality (40%) of respondents – dwarfs all other specializations (respondent numbers are reported under the labels in the table).

Figure 7: Submissions by Gender and Methodological Specialization



Source: Professional Activity in the Social Sciences (PASS) Survey

Note: Comparing confidence intervals shown is the equivalent of a 90% (two-tailed) difference-of-means test.

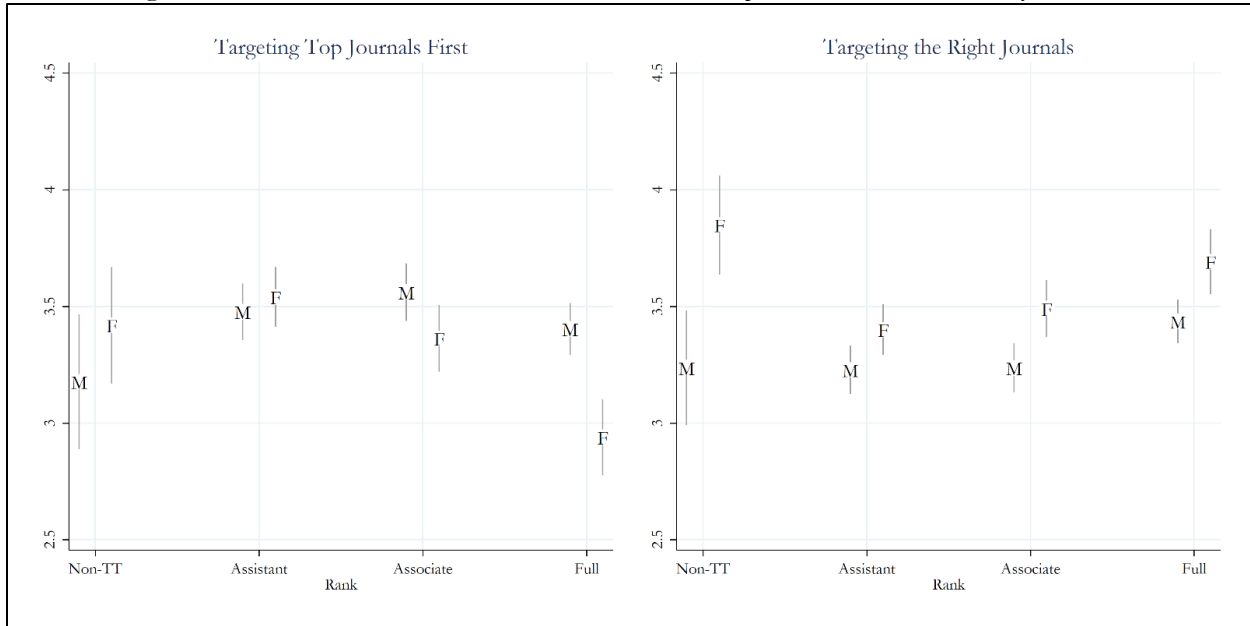
Does Co-authorship Help?

We also consider the effects of co-authorship. As the discipline of political science has become more accepting of collaborative work, do we see differences by gender? Do female political scientists report co-authoring at similar rates to men, and do such projects help them produce additional submissions and publications that might close gaps?

Figure 8 presents the percentage of respondents reporting varying number of co-authors on their most recent journal article submission; gray shaded bars represent male respondents and unshaded bars represent female respondents. Two things emerge as noteworthy: first, co-authorship is common in our sample, in-line with other reports of disciplinary trends. Second, the close overlap in the bars suggests that men and women co-author at rates that are indistinguishable (57% of men and 56% of women coauthored their most recent paper, $p=.80$).

If men and women co-author at similar rates, do they benefit equally? In Figure 9, we visualize the results of regression models predicting submissions (Panel A) and publications (Panel B) as a function of gender and the propensity to co-author. Propensity to coauthor is created by combining answers to Likert items on collaboration and information respondents reported on their professional networks (details are available in the appendix, along with the full model estimates).

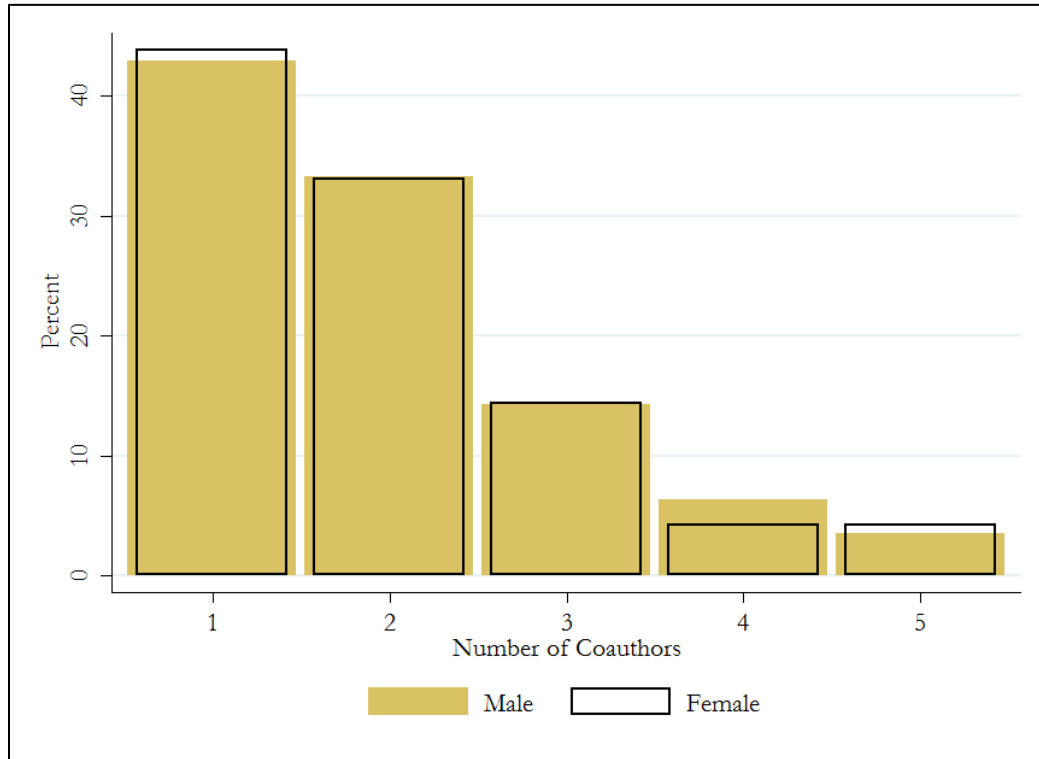
Figure 8: Number of Co-Authors on Most Recent Journal Submission, by Gender



Source: Professional Activity in the Social Sciences (PASS) Survey

While co-authorship boosts submissions and publications for all respondents, men benefit considerably more than do women from working with others. Across the range of the co-authorship item, the predicted number of submissions remains stagnant for women; it slopes slightly upwards for publications. For men, the increase in submissions and publications is dramatic: male political scientists most predisposed to co-author are predicted to acquire roughly 2 more submissions and 2 more publications versus those least likely to do so. In follow-up analyses, we discover that the effect of co-authorship is particularly strong for men at the assistant professor level. Among untenured men, across the range of co-authorship, the number of submissions rises from about 2 to nearly 7; among tenured men, co-authorship doubles the number of submissions from 2 to 4. By contrast, the impact of co-authorship on publications is similar for men at all ranks: it raises the annual number of publications from about 1 to about 3.

Figure 9: The Effects of Gender and Co-authorship on Submissions and Publications



Source: Professional Activity in the Social Sciences (PASS) Survey

Discussion and Conclusion

Teele and Thelen’s (2017) analysis of publication gaps in journals represents an important piece of self-study for political scientists. We build on their effort in several ways. First, we not only confirm the patterns they find in assembling journal publication data, but provide context for those differences, noting that they appear to be largely limited to journal article submissions vs. other types of work in the discipline (e.g., books). Second, we address the call to examine what might be driving such publication differences, finding considerable evidence pointing towards a submission gap. Third, we evaluate a number of factors that may be driving these submission patterns, finding that quant/qual. differences likely play a role, along with risk-orientations towards the review process. Importantly, co-authorship appears to amplify rather than mitigate gender differences.

What are we to make of this constellation of results? Fully understanding the findings we have outlined requires further examination of the work processes of women and men. For instance, how do women and men decide when a solo-authored publication is ready for submission? How do women and men choose co-authors? How is labor distributed within mixed gender collaborative arrangements? In further examining these arrangements, care must be taken not to assume that female political scientists should simply imitate the behavior of male political scientists.

Nonetheless, tentative recommendations are in order. If the publication gap really is a function of submission differences (and not the peer-review process), then closing it should be as “easy” as

facilitating more journal submissions by women. Of course – and as our analyses have demonstrated – there are a number of impediments blocking such a course of action. To the extent men and women who do quantitative-statistical work submit that work at different rates, hope would seem to lie in the continuing efforts to bring more women into methodological conversations in the discipline (e.g., *Visions in Methodology*). To the extent women seem to be “aiming low” with their work, encouraging them to submit their manuscripts to top journals – particularly following tenure – would seem to make sense. Such encouragement to “give it a shot” should also be paired with (continued) editorial efforts to produce faster review cycles, thereby making submission to top journals a less costly decision. Finally, to the extent that women do not receive the same return on their investments in co-authorship, it would seem that in addition to working to ensure that women are rewarded equally for shared work, that providing guidance on effective collaborative strategies might be a useful investment for graduate programs and other professional development initiatives.

Table A1 – A Comparison of Sample Statistics from Three Recent Surveys of Political Scientists

	PASS	Mitchell & Hesli (2009/2014)	Djupe (2015)	APSA Reported*
Women	41.7	32.0	31.7	33
Assistants	32.8	30.1	25.4	
Associates	28.7	27.3	32.7	19
Full	30.3	34.6	37.7	26
White	88.0	87.0	82.4	65
PhD year	2003	1991	1997	—
PhD granting	37.2	34.4	46.5	43.3
BA granting	35.0	40.7	30.4	
American	33.1	37.8	—	
Comparative	22.3	17.3	—	
Articles, past/per year	1.4	.71 [^]	.97 [^]	—

*These figures are reported in Djupe (2015: 346).

[^] The Mitchell and Hesli data came from a list generated in 2009; the articles were averaged from a career total with a denominator of 2009 minus the year they received the PhD. The Djupe 2015 statistic comes from a three-year prior total divided by three.

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¹ We thank Sara Mitchell for sharing data, and panelists and colleagues at the 2017 meetings of the Midwest Political Science Association and American Political Science Association as well as the 2018 meeting of Visions in Methodology for helpful conversations and feedback.

² Breuning and Sanders (2007) examine *CPS*, *ISQ* and *World Politics*; Østby et al. (2013) the *Journal of Peace Research*.

³ In June, 2017 we conducted a companion study of sociology departments (at the same sampled universities). We discuss those results [elsewhere](#).

⁴ We had coders collect email addresses from the web-pages for these departments. 44 email addresses were not usable.

⁵ Teele and Thelen's ten journals: *APSR*, *AJPS*, *Comparative Politics*, *Comparative Political Studies*, *International Organization*, *Journal of Conflict Resolution*, *JOP*, *Perspectives on Politics*, *Political Theory*, *World Politics*.

⁶ This does not address the possibility of gender bias in the evaluation of women's and men's work, since women and men are known to produce different kinds of work (e.g., they tend to use different methods and address different research questions), and there could be unmeasured heterogeneity in the quality of women's and men's work (e.g., women might submit higher quality work but face equal acceptance rates as men). Evaluating whether bias occurs in the review process would require experimental studies holding constant the content of (hypothetical) submitted work, while varying the gender identity of the author.