

# **How Many Citations to Women is “Enough”?**

## **Estimates of Gender Representation in Political Science<sup>1</sup>**

**Michelle L. Dion**  
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Abstract: Recent studies have identified gendered citation gaps in political science journal articles, with male scholars being less likely to cite work by female scholars in comparison to their female peers. While journal editors, editorial boards, and political scientists are becoming more aware of implicit biases and adopting strategies to remedy them, we know less about the proper baselines for citations in subfields and research areas of political science. Without information about how many women should be cited in a research field, it is difficult to know whether the distribution is biased. Using the gender distribution of membership in professional political science organizations and of article authors in 38 political science journals, we provide scholars with baselines for gender representation in citations. We also show that women represent a larger share of organization members than the authors in sponsoring organizations' journals.

Keywords: political science, sociology of science, gender

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Final accepted version for *PS: Political Science and Politics*, June 2019.

# **How Many Citations to Women is “Enough”?**

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“I don’t want to read all this stuff, so would appreciate if someone could answer this question for me: for those who argue too few women are cited, what is the normative standard for the amount women should be cited? Is there some proportion they say is right, or is the standard more nuanced than that?” – Natille’s [anonymous] response to "Gender bias in citations" thread on poliscijobrumors.com (Natille [anonymous] 2018).

Recent political science studies have identified gendered citation gaps in journal articles (Dion, Sumner and Mitchell 2018; Maliniak, Powers, and Walter 2013; Mitchell, Lange, and Brus 2013), with male scholars being less likely than their female peers to cite work by female scholars. These findings may explain the underrepresentation of female authors in syllabi (Colgan, 2017; Hardt et al 2017), edited volumes (Matthews and Andersen 2001), and textbooks (Cassesse et al 2012). While many in the discipline are becoming more aware of implicit biases and adopting strategies to remedy them, many political scientists, including the anonymous author of the quote that opens this article responding to an online discussion about evidence of gendered biases in citations (Dion, Sumner, and Mitchell 2018), want to know how many citations to work by women is “enough.” This is particularly important if journals begin adopting policies to promote gender balance in citations (e.g., *International Studies Review* 2018), and we recognize that some research areas within political science are more gender balanced than others. For

example, if an article on international security has 40% of its citations to female authors, is the author sufficiently recognizing research contributions by women? While 40% of citations to women might be reasonable in international security, 40% of citations to women in an article on gender and politics would be biased, given much greater women's representation in that area. Without information about women's representation in a specific research area, it is difficult to know whether the distribution of cited authors is biased, even when calculating the gender and racial breakdown of references (e.g., Sumner 2018).

Our study provides political scientists with estimates of women's representation across a wide range of research fields using the gender distribution in professional association membership and authors in 38 political science journals. While other studies have discussed gender across APSA member sections (Reid and Curry 2019) or authors in a much smaller subset of journals (Dion, Sumner, and Mitchell 2018; Teele and Thelen 2017), we also compare the gender distribution of authors to those of journal sponsor organizations, illustrating the size of the gendered publication gap across a large number of research fields within political science. In only one of 26 journals for which we also have membership data from the sponsoring section or organization did the journal publish significantly more female authors than its membership. In all other cases, women were equally or underrepresented among journal authors, suggesting that membership may be a more useful baseline for publication and citation rates of work by female scholars. We argue that scholars should consider gender representation in their research areas if they want to minimize implicit biases in their citation practices.

## Background Literature

Professional associations and the National Science Foundation (NSF) collect demographic information (including gender) about awarded degrees and scholars in political science. Mitchell and Hesli (2013) use NSF data to show declining percentages of women in the discipline as ranks increase, noting that women constitute 40% of doctoral degrees in the field, but only 28% of APSA members in 2009; a decade later it was still only 33.6% of members (APSA 2018). These data accord with other estimates of women's participation in professional associations (Breuning and Sanders 2007). Similarly, Teele and Thelen (2017) note that women make up 27% of faculty in the largest 20 PhD granting departments, 31% of APSA members, and 40% of PhDs in political science. Hancock, Baum and Breuning (2013: 6) report that among ISA members, 20% of women are full professors, compared with 34% of men. These types of aggregate disciplinary snapshots identify the population of female scholars in our profession, but they do not identify nuanced differences across disciplinary subfields or narrow substantive areas of interest, which often have significant variations in gender distributions.

A second approach for determining how many female scholars work in a research area involves coding the sex of journal article or book authors in a discipline (Evans and Moulder 2011; Williams et al 2015). Breuning and Sanders (2007) find that women were only 21% of article authors in eight political science journals (1999-2004), even though their representation in APSA and ISA then exceeded 30%. Østby et al (2013) find that women authored or coauthored 23% of 947 articles in the *Journal of Peace Research* between 1983 and 2008. Teele and Thelen (2017) note that around 35% of articles are authored or coauthored by women in ten political science journals from 2000-2015 (N > 8,000 articles). Like aggregate membership data, these snapshots of eight to ten political science journals are usually weighted toward general journals

that publish research from all subfields of political science, rather than narrower research topics which may significantly deviate from aggregate, discipline-wide distributions.

Comparisons of organizational membership and published authors also reveals potential gendered publication gaps if women's representation as article authors is significantly less than their presence in a field. Breuning and Sanders (2007) find that women are much less represented in ISA journals than in ISA sections, while Teele and Thelen (2017) show that most political science journals fail to publish a percentage of female authors similar to their APSA representation (31%). Several processes could produce publication gaps, including: 1) the leaky pipeline, or fewer women at senior ranks; 2) lower article submission rates of women compared to men (Djupe, Smith, and Sokhey 2019; Hesli and Lee 2011); 3) the rise of co-authorship, which benefits primarily male authors (Teale and Thelen 2017); and 4) gender biases in editorial decision-making processes. A recent special section in *PS: Political Science & Politics* suggests that there are no significant gender biases in editors' decisions for five journals (Brown and Samuels 2018), but the persistent gendered publication gap points to more pernicious sources, like leaky pipelines and gendered co-authorship or submission rates. For example, Djupe, Smith, and Sokhey (2019, figs. 2–3) find that men overall have authored more peer-reviewed articles than women (Hesli and Lee 2011), but this difference is driven by significant differences between men and women at associate professor rank. Nonetheless, existing studies fail to provide insights into variations in publication gaps across topical research areas, which are also indicative of potential biases in pipelines, co-authorship, or submission rates.

### **How Many Citations to Women is “Enough”?**

The previous section suggests that we can think about gender balance in our bibliographies, textbooks, syllabi, and speaker invitations by examining the representation of women in professional organizations and their sections. The citation literature shows, though, that there are implicit biases in citation decision-making. Men’s research can be viewed as more central or important in a field (“Matthew” effect), while women’s work can be ignored or worse, attributed to men in a field (“Matilda” effect) (Rossiter 1993). Even in fields like women in politics where female scholars are a majority of all authors, male authors in *Politics & Gender* are still 14% less likely than female authors to cite the work of women (Dion, Sumner and Mitchell 2018). While recruitment and retention of more women can reduce citation gaps, we must raise awareness of implicit biases in citation decisions. Put differently, gendered publication or citation gaps between membership and authorship in related academic journals provide insights into research areas where potential biases in pipelines, co-authorship, or submission rates remain significantly large. In this regard, our data provide more nuanced information about relevant gendered baselines for scholars who wonder whether they are missing research by women in their articles, books, and syllabi as well as those who want to identify research areas in which gendered biases in publication and citations may be most significant.

#### *Gender Distribution of Faculty by Field and Organized Sections in APSA*

We use APSA field and section membership to establish minimum baselines for the proportion of references that should include female authors, similar to Reid and Curry’s (2019) use of membership data to estimate progress toward descriptive representation across political science research areas. If publications are an outcome potentially influenced by gendered practices,

professional association memberships may be less biased baselines because membership involves fewer resources and gatekeepers. Nevertheless, membership figures can be gender-biased to the extent that women are more concentrated in non-R1 institutions with lower levels of research support or less likely to have research funding.<sup>2</sup> In 2018, of APSA members with self-reported genders, 35.8% identified as female, 64.1% as male, and 0.1% as other genders (see Table 1). If research productivity and publication processes are gender neutral, then journals that publish work in all research areas, such as *American Political Science Review* or *Perspectives on Politics*, should have one third of article authors and bibliography entries be female. Of course, if women submit to journals at lower rates than men (Djupe, Smith, and Sokhey 2019) and if men cite research by other men at higher rates (Dion, Sumner, and Mitchell 2018), then these selection effects may result in gendered publication and citation gaps.

Membership in more specialized organizations, like APSA's organized sections or affiliated groups (e.g., Society for Political Methodology) represent a wide range of research areas and the smallest relevant research communities for our analysis. Indeed, female APSA members join organized sections at a significantly higher rate than male APSA members; 68.3% of women belong to at least one section, while 64.1% of men do (Table 1, column 2:  $\chi^2 = 18.277$ ,  $p = 0.000$ ). Female APSA members also belong to a significantly higher average number of sections than men (Table 1, column 3: ANOVA,  $F = 21.73$ ,  $p = 0.000$ ). This is consistent with women in political science being more oriented towards community building (Mitchell and Hesli 2013) as well as women having less specialized research trajectories and more interdisciplinary research (Leahey 2006, 2007).

Table 2 presents the proportion of APSA members who self-identify as female by: a) self-identified primary field of study, b) membership in organized sections, and c) in APSA overall. We exclude those with no gender identity provided but include those who identified as other genders. In 2018, significantly more women identified their primary research or teaching field as public policy (41.4%) or comparative politics (39.3%) than the overall female representation in APSA (35.8%) in 2018.<sup>3</sup> In contrast, women are significantly underrepresented among members who claim political philosophy and theory (31.6% female) or political methodology (19.4% female). Other large fields, including international politics, American politics, public administration, and public law/courts, have similar (e.g. not significantly lower) female representation rates to overall APSA levels.

Organized section membership provides an even more detailed breakdown than primary field of research areas because organized sections organize research panels at annual meetings, sponsor specialized research conferences or journals, and recognize research contributions with professional awards. The data are broadly consistent with prior research, which has noted, for example, that women are more likely to study human rights (Maliniak, Powers, and Walter 2013) and less likely to study methodology (Dion, Sumner, and Mitchell 2018; Shames and Wise 2017). Several research areas have female membership that significantly exceeds overall representation in APSA, and in these areas (e.g. Race, Ethnicity, and Politics), a representative bibliography would cite more than 35.8 % of works written by women. In a handful of areas (e.g. legislative studies), women are significantly less represented than in APSA overall, and a representative bibliography might have fewer works by women than female membership in APSA. When political scientists compose course syllabi, graduate reading lists, or research



bibliographies, these membership data provide some guidance about the minimum representation of scholarship by women that should be included to be representative by gender.

### *Gender Distribution of Authors by Journal*

Using a methodology similar to previous studies (Dion, Sumner, and Mitchell 2018; Sumner 2018; Teele and Thelen 2017), we code the gender of the first five authors for a large sample of 38 political science journals, including all articles published between 2007 and 2016 by journals sponsored by APSA organized sections and those of regional and international political science associations.<sup>4</sup> Figure 1 plots the female proportion of authors (with 95% confidence intervals) in this sample alongside the female proportion of the journal's sponsoring APSA section or organization membership in 2017 or 2018, when available.<sup>5</sup> The proportion of all authors who are likely female vary from a high of 0.829 female authors in *Politics & Gender* to a low of 0.141 female authors in *Political Analysis*. Similar to the findings of Teele and Thelen (2017), who found that women were underrepresented in high impact journals compared to the profession, this figure illustrates the gap between recent membership and authorship across a much larger number of research areas. In at least 13 journals, female authors are significantly underrepresented compared to their membership in the sponsoring organization, and in no instances are women “over” represented among authors, suggesting underlying gendered practices at play. Indeed, these gendered publication gaps are often greatest in the highest status journals that publish all subfields and research areas of political science (e.g., *APSR*, *AJPS*, or *JOP*). These data cannot tell us why women are less represented as authors than as organization members across such a wide range of general and narrow research areas. As explained earlier, women might be less likely to submit their work or more likely to exit the discipline or

experience bias during the publication process. Therefore, as a measure of the supply of female authors available to be cited, the proportion of authors that are female is a conservative estimate.

Previous research has also considered article author team composition ( Dion, Sumner, and Mitchell 2018; Teele and Thelen 2017) , recognizing homophily effects in collaborations and that collaboration is more common in some research areas. Therefore, we also coded the first five authors of each article published in our sample as solo female, solo male, female team, male team, or mixed gender team (see Appendix).<sup>6</sup> Only in *Politics & Gender* and *Journal of Race, Ethnicity, and Politics* do the percentage of solo female authored articles exceed that of solo male authored articles *and* the percentage of female team authored articles exceed that of male team authored articles. Both of these areas have high rates of female participation in the journal's sponsoring organization. If we consider journals in which the modal author team is collaborative (not solo), the modal collaborative team is either all male or mixed gender, never all female. Four journals (*Journal of Race, Ethnicity, and Politics*, *Journal of Experimental Political Science*, *Public Opinion Quarterly*, and *Political Communication*) have more mixed gender author teams than other types of author configurations. Five journals (*AJPS*, *PA*, *JCR*, *BJPS*, and *JOP*) have mostly male only collaborative author teams. This reflects tendencies both for women to engage in fewer collaborative publications and to work in fields (like comparative politics) where collaboration is less common.

### **Conclusion and Recommendations**

Recent studies document gender gaps in citations in political science, yet we lack benchmarks for how many female-authored works are enough for a representative bibliography across a wide range of research areas. We remedy this gap by explicitly providing estimates of gender diversity

based on organization membership and journal article authorship that are conservative estimates for evaluating gender representation. Instructors, researchers, and editors who want to ensure references are representative can reference these as floors (rather than ceilings) for minimally representative citations. However, our study does not evaluate scholars' decisions to join professional association sections or examine whether variance in gender representation among sections reflects personal preferences, perceived section biases, or both. Our dataset simply provides a benchmark, while recognizing that these unobserved factors influence scholarly engagement with APSA and other associations.

Political scientists should reflect upon their own citation practices to ensure that their references are consistent with gendered distribution of research in their area. Likewise, journal editors can explicitly ask peer reviewers to consider whether article bibliographies are representative, including the distribution of author genders. Some journals have gone further, explicitly evaluating the gender balance of article bibliographies and encouraging authors to remedy gendered citation gaps by providing additional space to do so (*International Studies Review* 2018). APSA sections that sponsor journals should evaluate whether the publications provide ample descriptive representation of section members. In addition, those that select journal editorial teams should pay attention not only to the diversity of the editorial team, but also their plans for addressing potential citation biases. Luckily, tools like the GBAT (Sumner 2018) help political scientists quickly and easily evaluate gender balance in their bibliographies.

Over time, as the discipline becomes more gender balanced across research areas, these estimates will need to be updated and adjusted. Finally, while we have focused here on gender diversity (and particularly cis-gender identities), future research and recommendations should

consider racial or ethnic diversity as well as intersectional identities to ensure that research by underrepresented groups is referenced adequately in political science teaching and research.

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Table 1: Mean number of section memberships by gender (2018)

(1)				(2)			(3)	
Gender identity	APSA Members			Members w/section membership(s)			Sections /member	
	N	% of total	% of valid	N	% of gender	% of valid	Mean	Std dev.
Female	3565	33.6%	35.8%	2436	68.3%	37.3%	1.88	2.26
Male	6376	60.2%	64.1%	4086	64.1%	62.6%	1.67	2.07
Other	7	0.1%	0.1%	5	71.4%	0.1%	2.43	1.81
No answer	650	6.1%		184	28.3%		0.57	1.20
Total	10598	100.0%	100.0%	6711		100.0%	1.67	2.11

Source: Authors' calculations based on APSA (2018).

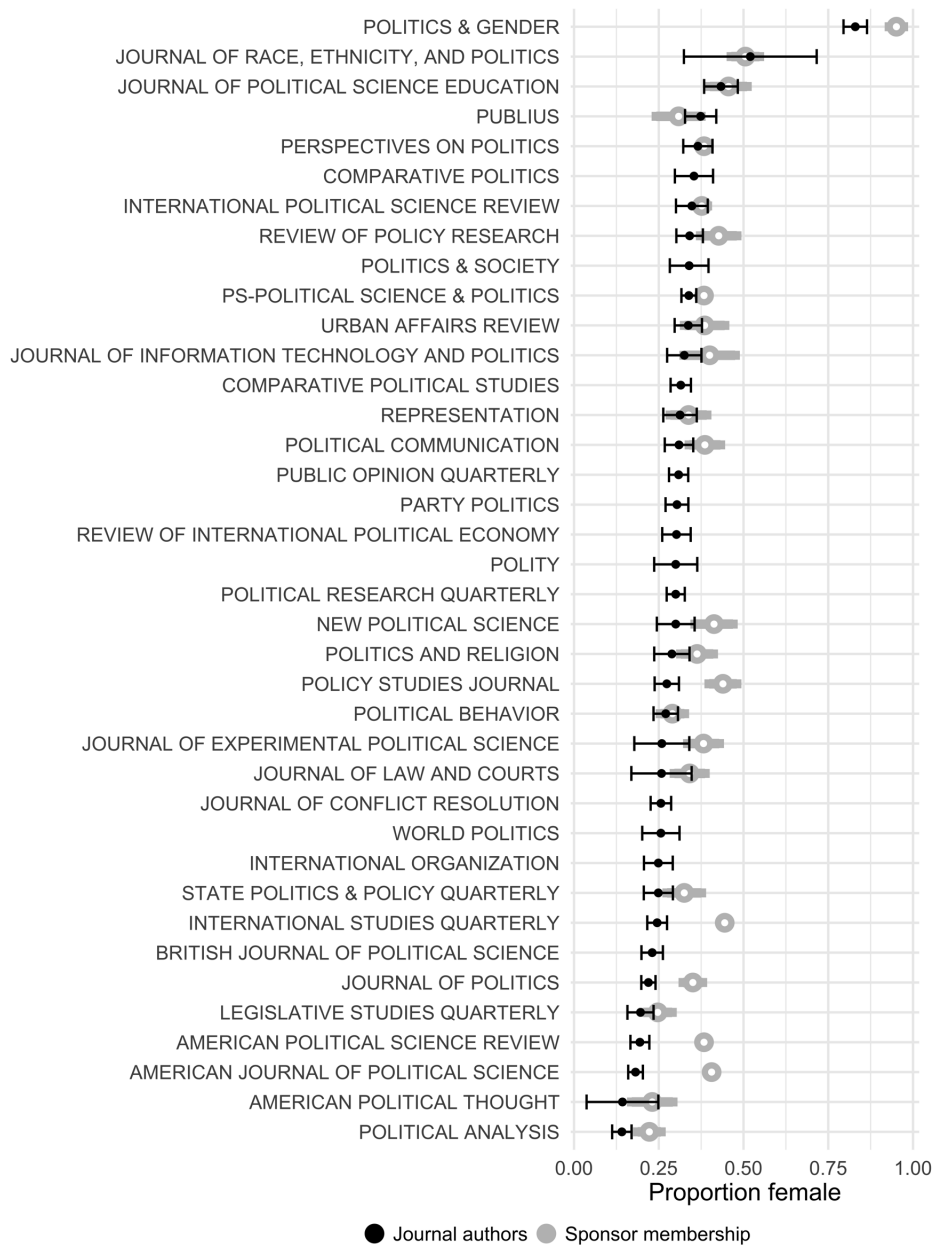
Table 2: Proportion female members of APSA by section and primary field (2018)

Field/Section	Female	Male	Other	No answer	Members	Prop. Female
16. Women & Politics	388	36	0	16	440	0.92
36. Human Rights	202	155	1	10	368	0.56
43. Migration & Citizenship	179	140	0	10	329	0.56
39. Health Politics & Policy	117	110	0	4	231	0.52
38. Sexuality & Politics	78	74	2	3	157	0.51
33. Race, Ethnicity & Politics	279	283	0	10	572	0.50
44. African Politics Conference	127	137	0	39	303	0.48
29. Political Science Education	144	177	0	5	326	0.45
37. Qual & Multi-Method Rs.	308	390	1	17	716	0.44
04. Public Policy	246	330	0	16	592	0.43
20. Comparative Politics	490	666	3	24	1183	0.42
15. Sci., Tech. & Env. Pol.	140	192	0	4	336	0.42
45. Class & Inequality	102	141	0	3	246	0.42
Field: Public Policy	239	338	0	8	585	0.41
27. New Political Science	121	177	1	6	305	0.40
06. Public Administration	118	179	0	8	305	0.40
35. Comparative Democratization	217	328	3	11	559	0.40
<b>Field: Comparative Politics</b>	<b>1091</b>	<b>1683</b>	<b>2</b>	<b>49</b>	<b>2825</b>	<b>0.39</b>
18. Info. Tech. & Politics	64	99	0	3	166	0.39
07. Conflict Processes	173	271	0	5	449	0.39
21. European Politics & Society	124	199	1	3	327	0.38
23. Political Communication	166	269	0	5	440	0.38
13. Urban & Local Politics	99	162	0	4	265	0.38
42. Experimental Research	157	263	1	10	431	0.37
41. Political Networks	145	245	0	10	400	0.37
28. Political Psychology	178	306	0	1	485	0.37
30. Politics, Literature, & Film	114	196	0	8	318	0.37
17. Foundations of Pol. Th.	226	401	0	15	642	0.36
<b>Field: International Politics</b>	<b>772</b>	<b>1375</b>	<b>3</b>	<b>39</b>	<b>2189</b>	<b>0.36</b>
<b>APSA members</b>	<b>3565</b>	<b>6376</b>	<b>7</b>	<b>650</b>	<b>10598</b>	<b>0.36</b>
46. Ideas, Knowledge & Politics	93	171	0	5	269	0.35
<b>Field: American Politics</b>	<b>751</b>	<b>1397</b>	<b>0</b>	<b>20</b>	<b>2168</b>	<b>0.35</b>
11. Religion & Politics	135	254	0	17	406	0.35
<b>Field: Public Administration</b>	<b>81</b>	<b>154</b>	<b>0</b>	<b>5</b>	<b>240</b>	<b>0.34</b>
02. Law & Courts	145	280	0	0	425	0.34
08. Rep. & Electoral Systems	100	200	0	4	304	0.33
24. Politics & History	161	326	0	7	494	0.33
22. State Politics & Policy	106	225	0	5	336	0.32

<b>Field: Public Law &amp; Courts</b>	<b>117</b>	<b>248</b>	<b>1</b>	<b>7</b>	<b>373</b>	<b>0.32</b>
<b>Field: Political Philosophy &amp; Theory</b>	<b>409</b>	<b>885</b>	<b>0</b>	<b>27</b>	<b>1321</b>	<b>0.32</b>
25. Political Economy	179	396	1	12	588	0.31
34. International History & Politics	105	236	0	13	354	0.31
01. Fed'm & Intergovernmental Rel.	58	132	0	2	192	0.31
31. Foreign Policy	118	269	1	8	396	0.30
19. International Security	120	283	0	11	414	0.30
40. Canadian Politics	51	124	0	5	180	0.29
32. Elections, Pub. Op, & Voting	184	454	0	4	642	0.29
05. Political Orgs. & Parties	92	242	0	5	339	0.28
09. Presidents & Executive Politics	87	248	0	8	343	0.26
03. Legislative Studies	98	304	0	5	407	0.24
47. American Political Thought	42	144	0	4	190	0.23
10. Political Methodology	124	440	2	8	574	0.22
<b>Field: Methodology</b>	<b>38</b>	<b>157</b>	<b>1</b>	<b>5</b>	<b>201</b>	<b>0.19</b>

Source: Authors' calculations based on APSA (2018). Proportions of members with declared gender (excluding "no answers"), sorted in descending order by proportion female.

Figure 1: Proportion female authors of journals and the membership of sponsoring section or association, with 95% confidence intervals



Note: APSA and Organized Section membership as of 2018 (APSA 2018), other organization membership as of 2017 (see fn. 7), and journal authors for 2007-2016 for available years. APSA membership used for APSA flagship journals: *APSR* and *Perspectives on Politics*. Point estimates with 95% confidence intervals. See Appendix for complete list of journal publication years included in sample.

## Notes

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<sup>1</sup> We are grateful to Yanna Krupnikov for comments on an earlier version of this project.

<sup>2</sup> In the 2004 National Study of Postsecondary Faculty (N=26,100), women constituted 42.5% of all respondents but only 36.5% of public doctoral and 34.6% of private doctoral degree granting institutions, showing that women are less represented in R1 institutions (National Center for Education Statistics 2019). This suggests that the data we analyze may underestimate women's representation in the discipline if such institutions provide fewer resources on average for joining professional associations.

<sup>3</sup> Here we consider differences significant if the 95% confidence interval for the female proportion of a field's members does not include the overall proportion of female APSA members.

<sup>4</sup> We used the Genderize.io API, which generates a predicted probability that a first name is used by someone who identifies as male or female based on millions of social media profiles. We code names as male or female if the predicted probability is equal to or greater than 0.8. Teele and Thelen (2017) found that Genderize.io has a 2% error rate. Years vary because some journals were founded since 2007; see Appendix for years included in sample by journal.

<sup>5</sup> The overall female proportion of APSA is plotted for its three flagship journals, *APSR*, *Perspectives on Politics*, and *PS: Political Science and Politics*. Membership data as of 2017 for the International Political Science Association (sponsor of *IPSR*) from Abu-Laban, Sawyer, and St-Laurent (2017), for the Midwest Political Science Association (sponsor of *AJPS*) from Morgan (2018), for the Southern Political Science Association (sponsor of *JOP*) from Howard (2018). The Western Political Science Association (sponsor of *PRQ*) does not track members'

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genders. Membership information was also requested from the leadership of the Northeastern Political Science Association (sponsor of *Polity*), International Studies Association (sponsor of *ISQ*), the American Association for Public Opinion Research (sponsor of *POQ*), and Peace Science Society (sponsor of *JCR*).

<sup>6</sup> Articles with at least one male and one female author are coded as mixed, even if authors' genders are incomplete. Male and female only require that all authors' genders be coded. Missing cases occur when some gender authors are missing and coded authors are all the same gender.

# How Many Citations to Women is “Enough”?

## Estimates of Gender Representation in Political Science

Michelle L. Dion and Sara McLaughlin Mitchell

### Supplemental Appendix

#### Recommended citation:

Michelle L. Dion and Sara McLaughlin Mitchell. 2019. “Gendered Citation Patterns across Political Science and Social Science Methodology Fields.” *PS: Political Science & Politics*. Supplemental Appendix, 1-5.

#### Journal sample statistics

Journal name	First year in sample	N of Authors	N coded	Proportion coded	Female authors	Female proportion
AJPS	2007	1289	1218	0.94	221	0.18
APSR	2007	827	772	0.93	150	0.19
AMERICAN POLITICAL THOUGHT	2015	44	42	0.95	6	0.14
BJPS	2007	729	681	0.93	157	0.23
CPS	2007	999	921	0.92	290	0.31
CP	2007	318	277	0.87	98	0.35
IO	2007	431	398	0.92	99	0.25
IPSR	2007	457	397	0.87	138	0.35
ISQ	2007	910	836	0.92	205	0.25
JCR	2007	874	800	0.92	205	0.26
J OF EXPERIMENTAL POLI SCI	2014	123	112	0.91	29	0.26
J OF INFO TECH AND POLITICS	2007	378	329	0.87	107	0.33
J OF LAW AND COURTS	2013	96	93	0.97	24	0.26
J OF POLI SCI EDUCATION	2007	421	383	0.91	166	0.43
JOP	2007	1576	1495	0.95	328	0.22
J OF RACE, ETHNICITY, AND POLITICS	2016	30	25	0.83	13	0.52
LSQ	2007	427	408	0.96	80	0.20
NEW POLITICAL SCIENCE	2007	282	260	0.92	78	0.30
PARTY POLITICS	2007	774	718	0.93	218	0.30
PERSPECTIVES ON POLITICS	2008	508	479	0.94	175	0.37
POLICY STUDIES JOURNAL	2007	658	592	0.90	162	0.27
POLITICAL ANALYSIS	2007	611	567	0.93	80	0.14
POLITICAL BEHAVIOR	2007	622	584	0.94	158	0.27
POLITICAL COMMUNICATION	2007	513	465	0.91	144	0.31
PRQ	2007	1211	1130	0.93	339	0.30
POLITICS & GENDER	2008	489	452	0.92	375	0.83
POLITICS & SOCIETY	2007	292	265	0.91	90	0.34
POLITICS AND RELIGION	2008	330	291	0.88	84	0.29
POLITY	2007	218	200	0.92	60	0.30
PS-POLITICAL SCIENCE & POLITICS	2007	1920	1795	0.93	608	0.34
PUBLIC OPINION QUARTERLY	2007	1082	1021	0.94	315	0.31
PUBLIUS	2007	470	423	0.90	158	0.37
REPRESENTATION	2007	374	339	0.91	106	0.31
RIPE	2007	512	460	0.90	139	0.30
REVIEW OF POLICY RESEARCH	2007	653	563	0.86	192	0.34
SPPQ	2007	412	390	0.95	97	0.25
URBAN AFFAIRS REVIEW	2007	593	528	0.89	178	0.34
WORLD POLITICS	2007	262	242	0.92	62	0.26

Authors’ coding of authors’ probable gender using genderize.io API with jsonlite ver. 1.5 (Ooms, Lang, and Hilaiel 2017) in R (ver. 3.3.2). Source data from Web of Science or ProQuest.

# Gender composition of author teams, 2007-2016

	Female team	Male team	Mixed gender team	Solo female	Solo male	N coded
AMERICAN JOURNAL OF POLITICAL SCIENCE	2.4%	40.7%	22.7%	7.7%	26.4%	572
AMERICAN POLITICAL SCIENCE REVIEW	2.9%	32.8%	15.8%	11.2%	37.3%	418
AMERICAN POLITICAL THOUGHT	0.0%	0.0%	0.0%	14.3%	85.7%	42
BRITISH JOURNAL OF POLITICAL SCIENCE	3.2%	33.0%	26.3%	8.6%	28.9%	339
COMPARATIVE POLITICAL STUDIES	4.2%	24.6%	23.2%	17.5%	30.5%	521
COMPARATIVE POLITICS	3.7%	13.9%	14.4%	25.7%	42.2%	187
INTERNATIONAL ORGANIZATION	1.3%	24.0%	23.1%	15.3%	36.2%	229
INTERNATIONAL POLITICAL SCIENCE REVIEW	6.5%	13.8%	17.8%	17.0%	44.9%	247
INTERNATIONAL STUDIES QUARTERLY	4.0%	25.6%	19.1%	10.8%	40.5%	481
JOURNAL OF CONFLICT RESOLUTION	2.8%	33.3%	28.2%	11.3%	24.4%	390
JOURNAL OF EXPERIMENTAL POLITICAL SCIENCE	2.4%	31.0%	40.5%	11.9%	14.3%	42
JOURNAL OF INFORMATION TECHNOLOGY AND POLITICS	5.0%	17.0%	34.0%	11.9%	32.1%	159
JOURNAL OF LAW AND COURTS	3.8%	25.0%	19.2%	13.5%	38.5%	52
JOURNAL OF POLITICAL SCIENCE EDUCATION	11.2%	13.0%	22.8%	20.0%	33.0%	215
JOURNAL OF POLITICS	3.0%	32.8%	23.7%	8.9%	31.6%	756
JOURNAL OF RACE, ETHNICITY, AND POLITICS	11.1%	0.0%	77.8%	11.1%	0.0%	9
LEGISLATIVE STUDIES QUARTERLY	1.8%	34.4%	18.3%	10.1%	35.3%	218
NEW POLITICAL SCIENCE	2.0%	8.0%	7.5%	24.5%	58.0%	200
PARTY POLITICS	3.6%	24.4%	19.8%	19.1%	33.1%	414
PERSPECTIVES ON POLITICS	3.7%	16.4%	12.3%	28.7%	38.9%	324
POLICY STUDIES JOURNAL	5.5%	26.7%	25.0%	12.0%	30.8%	292
POLITICAL ANALYSIS	1.2%	40.8%	23.8%	1.9%	32.3%	260
POLITICAL BEHAVIOR	4.2%	26.8%	25.8%	11.1%	32.1%	287
POLITICAL COMMUNICATION	4.1%	22.9%	33.9%	11.5%	27.5%	218
POLITICAL RESEARCH QUARTERLY	6.3%	26.0%	22.4%	12.9%	32.4%	599
POLITICS & GENDER	16.0%	1.3%	12.7%	63.8%	6.2%	307
POLITICS & SOCIETY	3.9%	15.6%	13.9%	24.4%	42.2%	180
POLITICS AND RELIGION	3.3%	17.7%	15.5%	19.3%	44.2%	181



POLITY	1.2%	5.3%	5.3%	26.3%	62.0%	171
PS-POLITICAL SCIENCE & POLITICS	5.2%	16.4%	18.5%	19.4%	40.5%	1074
PUBLIC OPINION QUARTERLY	4.9%	25.5%	40.3%	6.3%	23.0%	427
PUBLIUS	10.2%	16.1%	25.4%	12.7%	35.6%	236
REPRESENTATION	4.5%	11.4%	9.8%	19.6%	54.7%	245
REVIEW OF INTERNATIONAL POLITICAL ECONOMY	2.5%	13.2%	13.2%	20.7%	50.5%	319
REVIEW OF POLICY RESEARCH	4.6%	13.3%	19.4%	17.7%	44.9%	345
STATE POLITICS & POLICY QUARTERLY	2.6%	29.5%	26.4%	10.4%	31.1%	193
URBAN AFFAIRS REVIEW	3.8%	18.2%	32.6%	15.2%	30.3%	264
WORLD POLITICS	2.0%	23.0%	16.4%	18.4%	40.1%	152

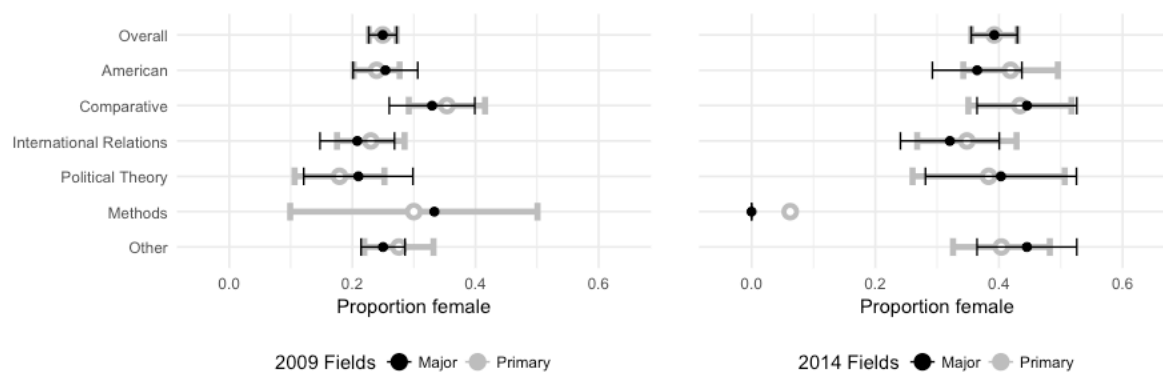
NOTE: Journal author teams for 2007-2016 for available years.

## Estimating Women's Representation with APSA Survey Data

In addition to estimating the distribution of women in research fields using APSA section membership, we can also calculate gender representation using two recent APSA membership surveys. The first wave of the APSA survey included a sample of 1,399 APSA members from the population of 5,179 APSA members, stratified by department size and surveyed in early fall 2009 (Mitchell and Hesli 2013; Hesli, Lee, and Mitchell 2012; Hesli and Lee 2011). The second wave drew a new 1,051 APSA member sample from the 2009 population file, and respondents answered surveys during late fall 2014 and early winter 2015 (Claypool et al. 2017). The proportion of women answering the survey increased from 24.9% of respondents in 2009 to 39.2% in 2014-15.<sup>1</sup> Figure A1 illustrates the gender distribution of APSA members in the surveys overall and according to members' major field of PhD study and primary field of research and teaching in 2009 and in 2014. Major PhD field has a fixed list of responses, including American Politics, Comparative Politics, International Relations, Theory, Methods, and Other. The surveys also use an open-ended question to ask about a respondent's primary research and teaching field, which is re-coded to mirror the PhD major field response options (e.g., general political science, political behavior, political economy were recoded to "other").

Across the major and primary fields, women's representation increased between the two waves. In 2014-15, among respondents who identified Comparative Politics, Political Theory, or other fields as the major field in their PhD program, more than 40% are female respondents. Among respondents who identified American Politics or International Relations as their major field, 36.5% and 32.1% are female. In both waves of the survey, only three respondents reported Methods as their major PhD field, and one of these identified as female in the first wave, none in the second. When asked their primary field of teaching and research, more than 40% of respondents in American and Comparative Politics identified as female in 2014-15. In contrast, women are only 34.8% and 38.3% of those working primarily in IR or Political Theory, respectively. Of the 16 respondents who identify Methods as their primary teaching and research field in 2014-15, only one is female (6.3%). While the proportion of female APSA survey respondents vary by major and primary fields, the 95% confidence intervals for all major and primary fields except Methods overlap with the overall proportion of women in the survey (39.2%).

### PhD major field & primary teaching/research field in APSA surveys



Source:

Authors' elaboration based on Claypool et al (2017) and Hesli, Lee, and Mitchell (2012).

<sup>1</sup> Gender responses included male, female, and transgender, but only a handful of survey respondents selected transgender, thus we compare males and females in our analyses.

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