

Publishing Trends by Gender and Career Stage, 1994–2022

Corinne Watts¹

Published online: 12 April 2024

© The Author(s), under exclusive licence to Springer Science+Business Media, LLC, part of Springer Nature 2024

Introduction

Journal of Archaeological Method and Theory presents itself on its Springer page as an outlet for innovations in method and theory and "significant explorations on the cutting edge of the discipline" of importance to a broad international audience. If archaeology's future innovation and relevance depend upon scholarly diversity in perspective, experience, and expertise, then by extension, journals should not only publish work by senior archaeologists. In this editorial note, we consider JAMT's record of publishing by career stage and senior author gender over the last 29 years, including the editorial tenure of Roux and Beck (2019–present).

Publication in the journal shows encouraging trends in the inclusion of early career researchers. The percentage of early-career first authors has risen steadily since 2009, reaching a high of 46% in the 2019–2022 period. It also shows that the majority of authors are men. Men have represented roughly 60% of first authors since 2009 (59% in the 2019–2022 period). Other intersectional identities may also affect publishing access and productivity, including race, ethnicity, country of origin, and disability status. JAMT plans to continue analyzing publishing trends, also incorporating variables such as research topics and home institutions, while remaining committed to an inclusive and transparent publication process (to better understand our role in shaping publication trends and the discipline as a whole).

Methods

During the 2022–2023 academic year, editorial assistant Corinne Watts (University of Iowa) coded all 679 published original research articles (1994–2022) in the *Journal of Archaeological Method and Theory*, using available data for the first author. For articles between 2009 and 2022, when submissions were uploaded to the Editorial Manager system, the year indicated is the year of acceptance by the journal for all articles; for articles between 1994 and 2008, the year is the year of publication.



[☐] Corinne Watts corinne-watts@uiowa.edu

University of Iowa, Iowa City, IA, USA

312 C. Watts

We assigned gender as female, male, genderqueer/nonbinary, or unknown, using standardized searches for the pronouns used by the first author with the following associations—she/her for female, he/him for male, they/them for genderqueer or nonbinary. We recognize that direct survey is the gold standard for determining author gender and other aspects of intersectional identity (Heath-Stout, 2020a) but opted not to pursue an author survey given time constraints.

We also determined the career stage for the first author at the year of acceptance (or publication, for articles between 1994 and 2008), based on when the author received their final graduate degree. Although the PhD is the most common degree, our data include authors with productive research careers after earning an MA or MS as their final degree at the time of our analysis. We consider Early Career Researchers (ECRs) to be authors in a graduate program or five or less years after graduation from their final degree (either PhD or MA/MS, depending upon the author).

Results

Table 1 summarizes the number of original research articles and the gender of the first author in 4-year increments between 1994 and 2022. The first period in which genderqueer, nonbinary, and gender nonconforming authors were identified is 2014–2018.

The percentage of first author identified as male varies between 44% and 62%. When the number of articles substantially increased in 2009, so did the percentage of male authors (up to 62% in the 2009–2013 period). In 2020, at the height of restrictions in the SARS-CoV-2 pandemic, 67% of the accepted articles (38 of 57) had a male first author (67%).

Table 2 summarizes publication by ECRs over time, and Table 3 summarizes the publishing patterns of male and female ECRs (excluding all first authors whose gender identity or career stage was unknown).

Ta	bl	e ´	1	Original	research	articles	by	gendei	· of	the	first author	•
----	----	-----	---	----------	----------	----------	----	--------	------	-----	--------------	---

Period	Articles	Male	Female	Nonbinary	Unknown
1994–1998	49	30 (61%)	14 (29%)	0	5 (10%)
1999-2003	51	25 (49%)	22 (43%)	0	4 (8%)
2004-2008	70	31 (44%)	34 (49%)	0	5 (7%)
2009-2013	133	83 (62%)	37 (28%)	0	13 (10%)
2014-2018	205	118 (58%)	69 (34%)	3 (1%)	15 (7%)
2019–2022	171	101 (59%)	58 (34%)	0	12 (7%)



Table 2	Identified ECRs as first
authors	

Period	ECR first author	Articles	Percent
1994–1998	18	49	37%
1999-2003	11	51	22%
2004-2008	17	70	24%
2009-2013	41	133	31%
2014–2018	81	205	40%
2019-2022	78	171	46%
Total	246	679	36%

Table 3 Male and female ECRs

Period	% Male authors	% Female authors
1994–1998	28%	50%
1999-2003	17%	19%
2004-2008	19%	27%
2009-2013	30%	44%
2014-2018	42%	49%
2019–2022	45%	51%

Discussion

Since 2008, fewer than 35% of first authors in JAMT have been women (see Table 1). Women are less likely to be published by top journals in most disciplines (Weisshaar, 2017, Willis et al., 2021, Lundine et al., 2019, among others) and this is the case in archaeology as well (Fulkerson & Tushingham, 2019; Lazar et al., 2014). In a study of 21 archaeological journals, male authorship was consistently higher with the exceptions of Archaeologies and Historical Archaeology (Heath-Stout, 2020b). This is true even though more women than men earn PhDs in archaeology in the United States, Canada, and Europe (Overholtzer & Jalbert, 2021; Aitchison, 2014). Possible reasons include discrimination, familial obligations, socialization, mentorship inequity, authorial choice, and institutional responsibilities or barriers (Fulkerson & Tushingham, 2019). It is important to note that first authorship by female ECRs has steadily increased since 2008, up to over 50% in the most recent time period. This pattern might signal a future increase in first authorship by women overall or suggest that these stressors disproportionately affect women in the later stages of their careers. We will continue to monitor authorship trends to understand them better.

Overall, women academics published at much lower rates than men during the height of pandemic restrictions (see Cui et al., 2022; Viglione, 2020, among others, and Table 1 here). Analyses of publications in archaeological journals, such as Hanscam and Witcher's (2023) work on the publications in *Antiquity* show that trends surrounding female authorship changed during the COVID-19 pandemic—with



314 C. Watts

solo female authorship decreasing and solo male authorship increasing. The main hypotheses related to these shifts are that women are more likely to shoulder care responsibilities and are more likely to have precarious employment.

Across the social sciences, ECRs often feel pressured to publish in exclusively high-impact journals and are less likely to publish books, monographs, or other forms of media related to their research (Nicholas et al., 2017; Savage & Olejniczak, 2021). Many ECRs spent time during the pandemic publishing or otherwise working to increase the visibility of their research (Jamali et al., 2023). Within archaeology, many ECRs struggled during the pandemic with reduced access to important resources, such as funding and employment opportunities, and approximately 75% believed that their career trajectory was negatively affected as a result (Brami et al., 2023). Publication obviously plays a vital role in ECRs' pursuit of employment and research funding, and we are heartened that this journal continues to help promote the career development of these scholars.

Conclusion

Archaeologists strive to effectively and conscientiously steward the past within changing academic, political, and social landscapes. At the *Journal of Archaeological Method and Theory*, our goal is to work proactively within these landscapes and to better understand how submissions and published articles represent current research in the international world.

References

- Aitchison, K. (2014). Discovering the archaeologists of the world. Archaeologies, 10, 207–210.
- Brami, M., Emra, S., Muller, A., Preda-Bălănică, B., Irvine, B., Milić, B., Malagó, A., Meheux, K., & Fernández-Götz, M. (2023). A precarious future: Reflections from a survey of early career researchers in archaeology. *European Journal of Archaeology*, 26(2), 226–250.
- Cui, R., Ding, H., & Zhu, F. (2022). Gender inequality in research productivity during the COVID-19 pandemic. Manufacturing & Service Operations Management, 24(2), 707–726.
- Fulkerson, T. J., & Tushingham, S. (2019). Who dominates the discourses of the past? Gender, occupational affiliation, and multivocality in North American archaeology publishing. *American Antiquity*, 84(3), 379–399.
- Hanscam, E., & Witcher, R. (2023). Women in antiquity: An analysis of gender and publishing in a global archaeology journal. *Journal of Field Archaeology*, 48(2), 87–101.
- Heath-Stout, L. E. (2020a). Who writes about archaeology? An intersectional study of authorship in archaeological journals. *American Antiquity*, 85(3), 407–426.
- Heath-Stout, L. E. (2020b). Guest editorial introduction: Gender, equity, and the peer review process at the Journal of Field Archaeology, *Journal of Field Archaeology*, 45(3), 135–139.
- Jamali, H. R., Nicholas, D., Sims, D., Watkinson, A., Herman, E., Boukacem-Zeghmouri, C., Rodríguez-Bravo, B., et al. (2023). The pandemic and changes in early career researchers' career prospects, research and publishing practices. *PLoS ONE*, 18(2), e0281058.
- Lazar, I., Kompare, T., van Londen, H., & Schenk, T. (2014). The archaeologist of the future is likely to be a woman: Age and gender patterns in European Archaeology. *Archaeologies*, 10, 257–280.
- Lundine, J., Bourgeault, I. L., Glonti, K., Hutchinson, E., & Balabanova, D. (2019). "I don't see gender": Conceptualizing a gendered system of academic publishing. Social Science & Medicine, 235, 112388.



- Nicholas, D., Watkinson, A., Boukacem-Zeghmouri, C., Rodríguez-Bravo, B., Jie, Xu., Abrizah, A., Świgoń, M., & Herman, E. (2017). Early career researchers: Scholarly behaviour and the prospect of change. *Learned Publishing*, 30(2), 157–166.
- Overholtzer, L., & Jalbert, C. L. (2021). A "leaky" pipeline and chilly climate in archaeology in Canada. American Antiquity, 86(2), 261–282.
- Roux, V., & Beck, M. (2019). Editorial. Journal of Archaeological Method and Theory, 26, 1-2.
- Savage, W. E., & Olejniczak, A. J. (2021). Do senior faculty members produce fewer research publications than their younger colleagues? Evidence from Ph. D. granting institutions in the United States. Scientometrics, 126(6), 4659–4686.
- Viglione, G. (2020). Are women publishing less during the pandemic? Here's what the data say. *Nature*, 581(7809), 365–366.
- Weisshaar, K. (2017). Publish and perish? An assessment of gender gaps in promotion to tenure in academia. Social Forces, 96(2), 529–560.
- Willis, M., Bridges, A. J., & Jozkowski, K. N. (2021). Gender and racial/ethnic disparities in rates of publishing and inclusion in scientific-review processes. *Translational Issues in Psychological Science*, 7(4), 451.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

