

# Authorship trends in the *Campbell-Walsh-Wein Urology* textbook

## A sign of the times

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## ABSTRACT

**INTRODUCTION:** We aimed to examine temporal trends in author demographics of the *Campbell-Walsh-Wein Urology* textbook.

**METHODS:** Name, institution, specialty, and faculty rank were extracted for all authors (9<sup>th</sup>–12<sup>th</sup> editions). A survey was emailed to determine gender. When self-reported data were unavailable, demographics and urologic subspecialty were determined based on name and online biographies. Demographics of academic and practicing urologists were taken from the American Urological Association census. Chi-squared tests were used for statistical analyses.

**RESULTS:** Across the 9<sup>th</sup>–12<sup>th</sup> editions, there were 1119 total authors; 597/627 (95.2%) unique authors were emailed (18 deceased; 12 missing emails), and 161 (27.0%) responded. The final cohort included 536 unique contributors after excluding authors who were not attending urologists. The percentage of women authors increased over time, from 3.4% in the 9<sup>th</sup> edition to 12.6% in the 12<sup>th</sup> edition. The gender distribution of authors in the 11<sup>th</sup> and 12<sup>th</sup> editions was comparable to the gender distribution of both academic and practicing urologists for the respective years ( $p > 0.05$ ). A greater proportion of men had attained the rank of professor at the time of authorship (50.2% of men vs. 13.5% of women), and female gender was significantly associated with lower academic rank ( $p < 0.001$ ).

**CONCLUSIONS:** Women urologists represent a smaller but increasing presence as authors of *Campbell-Walsh-Wein Urology*, mirroring the demographics of academic and practicing urologists. Women authors tended to hold lower academic ranks than their male counterparts. These findings suggest that efforts to promote diversity in authorship have been successful, but there is still room for growth in academic advancement.

## INTRODUCTION

Although women in the urology workforce remain a minority, gender parity has been improving. The 2024 American Urological Association (AUA) census reported that 12.1% of practicing urologists are women, and more women are entering urology residency.<sup>1,2</sup> Despite these rising numbers, studies show that women continue to be underrepresented in academic leadership roles and are promoted at a slower rate.<sup>3,4</sup> Women face other inequalities as well, including lower compensation, lack of mentorship, higher burdens of non-academic administrative duties, and increased rates of burnout.<sup>5-8</sup>

Diversity in the urologic workforce is important for many reasons. For example, greater patient-provider concordance may be associated with increased patient trust and better health outcomes.<sup>9,10</sup> It follows that more efforts are needed to promote diversity and equity in this traditionally male-dominated specialty to best serve the population.

Studies have shown that gender equity at higher levels of leadership in surgical residency programs correlate with increased gender diversity among trainees.<sup>11,12</sup> A survey among medical students found that women were more likely to rank same-sex role models as a positive influence, which can be an important driving force in choosing a career in surgery.<sup>13</sup>

On the other hand, one of the biggest deterrents to medical students choosing urology as a specialty is the perception that it is a male-dominated field.<sup>14</sup> While efforts have been made towards gender equity, this imbalance still manifests as gen-

## KEY MESSAGES

- Female authorship in *Campbell-Walsh-Wein Urology* has grown from 3.4% in the 9<sup>th</sup> edition (2007) to 12.6% in the 12<sup>th</sup> edition (2020), aligning with trends in female representation in both the academic and practicing urology workforce.
- Despite progress, women authors held lower academic ranks at the time of authorship compared to men.
- Authorship in a leading textbook like *Campbell-Walsh-Wein* positions individuals as thought leaders, so encouraging diversity in authorship is important for fostering equity, representation, and career advancement for women in urology.

der-based mistreatment, discrimination, and microaggressions, which have been associated with increased burnout among female residents and faculty.<sup>15-18</sup>

Scholarly productivity is an important criteria for academic advancement in urology.<sup>5</sup> To date, there have been studies examining diversity in publications, presentations, and other measures of academic achievement, but no studies analyzing textbook authorship in surgical specialties. Textbook authorship is a prestigious, invited opportunity that considers an individual's expertise, leadership, and communication skills. *Campbell-Walsh-Wein Urology* is a foundational textbook that is widely read and covers a large breadth of urologic knowledge. The recognition garnered through establishing oneself as a topic expert through textbook authorship may lead to subsequent academic opportunities and be instrumental in career advancement.

In this study, we describe the temporal trends in gender distribution of authors in the *Campbell-Walsh-Wein Urology* textbook. We aimed to analyze author demographics over time, in comparison to academic urologists nationally, and in relation to professorship rank at the time of authorship.

## METHODS

All contributing authors from the 9<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup> editions of *Campbell-Walsh-Wein Urology* (Elsevier) were collected. Name, institution, specialty, degrees, and faculty rank (e.g., Assistant Professor) for all authors

were extracted from the "Contributors" section of the textbook. A survey was emailed to all authors with available contact information to determine gender.

When self-reported data were unavailable, gender was determined by publicly available biographies on affiliated institution websites and use of gender pronouns (he/his/him for men, she/her/hers for women, they/their/them for non-binary). Authors from medical specialties other than urology (e.g., radiology, pathology, medicine, pediatrics) were excluded from analyses. Practitioners without a medical degree (MD or DO) and urology residents were also excluded from analyses.

Primary urologic subspecialty was also determined from online biographies. Subspecialty categories were derived from the AUA census (general without subspecialty, oncology, pediatrics, minimally invasive/endourology, female pelvic medicine and reconstruction (FPMRS)/neurourology, male reconstruction/trauma, andrology/infertility/sexual medicine, and renal transplantation). When authors had more than one subspecialty area, the primary subspecialty was determined by chapter subject. These data were collected between September 1 and November 1, 2023.

Demographics of academic and practicing urologists were taken from the 2015 and 2019 AUA census to draw comparisons to the author demographics of the 11<sup>th</sup> (published October 2015) and 12<sup>th</sup> editions (published January 2020), respectively. The AUA census represents 17.2% of practicing U.S. urologists in 2015 and 17.0% of practicing U.S. urologists in 2019. Data were described using descriptive statistics, categorical variables were compared using Chi-squared tests, and the change in proportion of female authors across years was evaluated using Chi-squared test for trend (Cochran-Armitage test) with p-values less than 0.05 considered statistically significant.

## RESULTS

Across the four editions analyzed, there were 1119 total authors (9<sup>th</sup> edition: 238; 10<sup>th</sup> edition: 251; 11<sup>th</sup> edition: 300; 12<sup>th</sup> edition: 330) and 627 unique authors, as some authors were represented in multiple editions; 597/627 (95.2%) unique authors were emailed (18 deceased; 12 missing emails) and 161 (27.0%) responded. All authors were categorized as man or woman; no authors self-identified or were categorized as non-binary. Authors from non-urology specialties made up 13.1% of unique authors (82/627). Practitioners without a medical degree (MD or DO) and urology residents made up 1.4% of unique authors

(9/627). These authors were excluded from analysis, leaving a cohort of 536 attending urologist authors. Of note, a greater proportion of female authors were from non-urology specialties (22.8%, 18/79) compared to male authors (11.7%, 64/548).

### Change in gender representation over time

Across all editions, 89.2% (478/536) of urologist authors were men. Figure 1 shows the change in gender distribution across the four editions. From the 9<sup>th</sup> edition in 2007 to the 12<sup>th</sup> edition in 2020, the percentage of female authors increased significantly from 3.4% to 12.6% ( $p < 0.001$ ).

Overall, 55.1% of the authors in the 12<sup>th</sup> edition had also authored previous editions of the textbook, as authors often are invited back to update the chapters they had previously written. Just over half of the male authors (58.0%, 149/257) were returning authors, while only 13 of the 37 women authors (35.1%) were returning authors. While the 11<sup>th</sup> and 12<sup>th</sup> editions both recruited a similar percentage of new authors (44.9% in both editions), a greater percentage of new authors were female in the 12<sup>th</sup> edition (18.2%) compared to the 11<sup>th</sup> edition (13.4%).

### Author gender compared to the AUA census

Comparisons between the gender of authors and of practicing and academic urologists are shown for the years 2015 and 2019 (Table 1). In 2015, there was a greater representation of women in academic urology compared to all practicing urologists (12.1% vs. 7.7%). In 2019, the representation of women in academic urology continued to grow, with women representing 14.2% of academic urologists compared to 9.9% of all practicing urologists. In the 11<sup>th</sup> edition (2015), 9.1% of the authors were women, and in the 12<sup>th</sup> edition (2020), 12.6% of authors were women, which did not show a statistically significant difference when compared to AUA census benchmarks for both academic and practicing U.S. urologists ( $p > 0.05$ ). Overall, women were well represented as authors of this textbook, and the gender diversity of this textbook mirrored the gender diversity of academic and practicing urologists at the time of publication.

### Academic rank and urologic subspecialization

We analyzed the authors in the 12<sup>th</sup> edition for academic rank and urologic subspecialization. The majority of authors had attained the rank of Professor at the

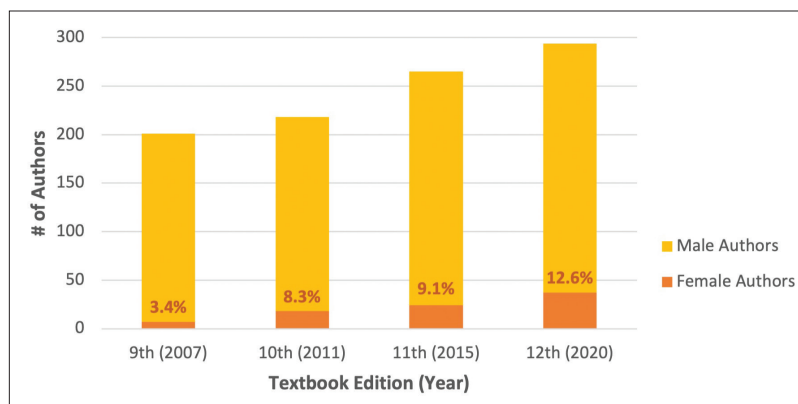


Figure 1. Demographics of the Campbell-Walsh-Wein Urology textbook authors over time.

Table 1. Demographics of the Campbell-Walsh-Wein Urology textbook authors compared to the AUA census

Edition (year)	% women authors	AUA census	
		% women academic	% women all practicing
11th (2015)	9.1%	12.1% $p=0.13$	7.7% $p=0.41$
12th (2019)	12.6%	14.2% $p=0.43$	9.9% $p=0.12$

time of authorship (45.6% Professor, 14.6% Associate Professor, 21.8% Assistant Professor, and 18.0% other or unknown). A higher proportion of male authors had attained the rank of Professor (50.2%; 129/257) compared to women (13.5%; 5/37) (Figure 2). Most women authors published at the rank of Assistant Professor (46.0%, 17/37), and female gender was significantly associated with lower academic rank ( $p < 0.001$ ).

The gender distribution of authors in each of the major urologic subspecialties is shown in Figure 3. The largest representation of women is found in FPMRS/neurourology (32.6%, 14/43). No women authors had a primary subspecialty of male reconstruction/trauma (0/14) or renal transplantation (0/3).

### DISCUSSION

Women accounted for 12.6% of urologist authors in the 12<sup>th</sup> edition of *Campbell-Walsh-Wein Urology*. The proportion of female authors increased by 9.2% from 2007 to 2020, growing in parallel with the number of women in the academic and general urology workforce, with no significant differences between the gender distribution of authors and AUA census benchmarks.

Ten years ago, women made up only 7.7% of the practicing urologists in the U.S., but according to the most recent estimates by the 2024 AUA census, this

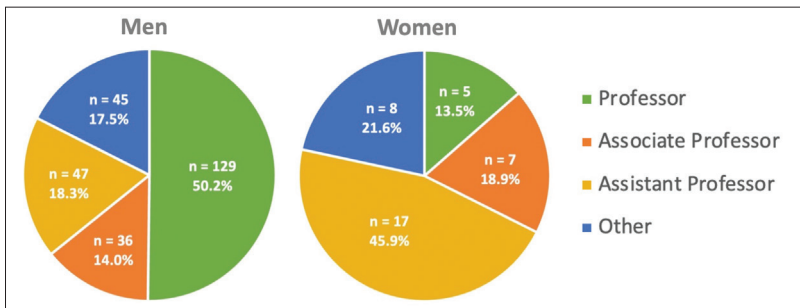


Figure 2. Professorship rank of Campbell-Walsh-Wein Urology textbook authors in the 12th edition.

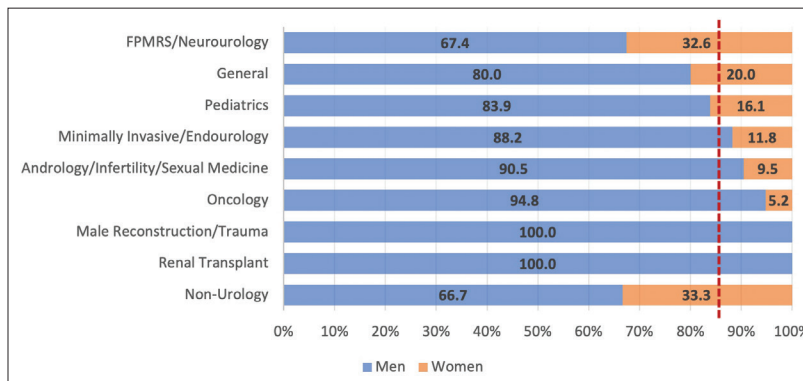


Figure 3. Percentage of male and female authors by urologic subspecialty in the 12th edition. The dotted line represents the benchmark percentage of men (left of line) and women (right of line) academic urologists as reported by the 2019 AUA census.

number has grown to 12.1%.<sup>1</sup> The proportion of female urologists will likely continue to increase. Workforce projections estimate that women will represent 38% of urologists by 2062.<sup>2</sup> Interestingly, this growth has been most pronounced in academic urology.

There is a relatively higher concentration of women in academic urology compared to the general urology workforce (14.2% vs. 9.9% in 2019). There are many potential reasons for this difference. Early-career women may be more likely to desire affiliation with larger academic practices, with more colleagues to share call with and to provide support. It is also possible that women prefer subspecialties such as pediatric urology and urogynecology and reconstructive pelvic surgery, which are often based in academic settings. Nevertheless, the increasing presence of women in academic urology is reflected in the findings of this study.

Despite these advances, women continue to lag behind in other diversity metrics, such as academic promotions and appointment to leadership roles.<sup>3,4</sup> This is exemplified by the fact that only five women (13.5%) published as full Professors in the 12<sup>th</sup> edition of this textbook, compared with 129 men (50.2%). This may represent a time delay, as currently, about 33.3% of urology residents are women.<sup>2</sup> Academic promo-

tions take time, and this discrepancy may equilibrate as women become more senior; however, some studies have argued that women in urology are promoted at a slower rate than men, and this concerning trend is not unique to our field.<sup>4,19</sup>

A 35-year study of 559 098 U.S. medical graduates across all disciplines showed that women were less likely to be promoted to upper faculty ranks compared to their male counterparts.<sup>20</sup> The underlying drivers of this disparity are likely multifactorial, as academic promotion is based on multiple data points, including publications, podium presentations, international recognition, and more. Regardless, at this moment, there is a scarcity of women at the top levels of academic urology.<sup>3</sup>

*Campbell-Walsh-Wein Urology* is the guiding syllabus in urology. Authors are seen as leaders in their field and hence role models. It follows that better representation in the textbook can inspire trainees to enter the field and can influence junior faculty to aspire to achieve greater academic goals. Textbook authorship has been studied in the field of pathology, which found that the overall gender distribution of textbook authors was similar to the U.S. pathology workforce, but there were significant disparities in certain pathology subspecialties.<sup>21</sup> To the best of our knowledge, this is the first study to look at urology textbook authorship.

Other studies have attempted to quantify the proportion of female authorship in urology journals with mixed results. One study analyzed authorship in five high-impact urology journals and found that the proportion of female senior-authored papers was significantly higher than the proportion of female urologists in practice at the time.<sup>22</sup>

Another study looking at 18 urology journals across all urologic subspecialties found a positive trend in the proportion of female authorship from 2015–2020, with 21% of first authors and 15% of senior authors being women; however, when analyzing the impact factor of the journals, they found that women had a significantly lower presence in higher-impact urology journals.<sup>23</sup> Others noted that journals specializing in urogynecology and reconstructive pelvic surgery had higher proportions of female authors, while journals focused on oncology, endourology, and reconstruction had lower representations of women. In multivariable analyses, after controlling for journal and subspecialty, there were no significant increases in female senior authorship during the study period (2012–2017).<sup>24</sup>

Publications matter because they lead to positions on editorial boards, academic promotions, and leadership

roles, which are all areas in which female representation is still lacking.<sup>25-27</sup> Overall, our findings contribute to the growing body of research that shows women are publishing in textbooks and journals, but this has not yet translated to increased representation in leadership roles.

Textbook authorship is an invited opportunity that largely depends on the established authors and editorial board. Authors of previous editions are often invited back to update previously written chapters, which is the nature of many texts; however, in the 12<sup>th</sup> edition of this textbook, women had a large representation among the first-time authors: 18.2% of new invited authors were women, compared to the 11<sup>th</sup> edition, where 13.4% of new authors were women, both of which are greater than the percentage of female academic urologists at the time. While most authors remain those who have authored previous editions, each new edition can also be seen as a tool to intentionally invite new expertise and promote gender diversity.

When broken down by urologic subspecialty, certain fields had an overrepresentation of women (FPMRS/neurourology, general, pediatrics), while the others had an underrepresentation of women, with no women authors with a primary subspecialty focus of male reconstruction/trauma or renal transplant. There may be larger barriers to entry for women in smaller subspecialties or ones with more implicit gender biases. It is known that more women urologists are pursuing fellowship training, but further subspecialty analysis was limited by the small sample size of authors.<sup>28</sup>

## Limitations

This study has several limitations. Survey responses were only available for 27% of authors, so we had to rely on publicly available information via departmental and professional websites. While there was a small risk of misclassification of author genders, previously published studies have used similar methods.<sup>21,29</sup>

Gender categorizations in this analysis were limited to man-woman, as no survey participants self-categorized as non-binary, and our methods did not identify any professional biographies using pronouns other than “he/him” and “she/her.”

There were some incomplete data regarding professorship rank as well, which was categorized as “other.”

*Campbell-Walsh-Wein Urology* is just one of many important textbooks in urology and is not representative of all textbooks in circulation.

Finally, this study relied on the AUA census, which is a sample of urologists in the U.S. and subject to bias due to sampling errors.

In summary, we present the first analysis of gender representation in a urology textbook. This study shows that while there is an increasing female authorship presence in *Campbell-Walsh-Wein Urology*, there are still advances needed to bridge the disparity in academic advancement for women. Other intentional actions are needed to promote women urologists in academic medicine, including increasing opportunities for women to contribute as topic experts and facilitating mentorship with role models who share similar ethnic, cultural, and/or gender identity. We hope that our data encourage the broader urologic community to make academic publishing a representative, equitable, and inclusive environment for all urologists, irrespective of gender. Future work needs to be done to understand how diversity in textbook authorship affects career progression, with the ultimate goal of increasing female representation in academic leadership roles.

## CONCLUSIONS

Female urologists represent a smaller but increasing presence as authors of *Campbell-Walsh-Wein Urology*. The gender diversity of the textbook mirrors that of the practicing and academic urology workforce. Female authors held a lower academic rank than male counterparts. Although advancements have been made in female representation, there is still a disparity in academic rank between male and female authors. More work is needed to bridge this gap in rank and title.

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