

Has the Increase of Women in Surgical Training Programs Led to a Concomitant Increase in Female Leadership Positions? a 10-Year Analysis

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BACKGROUND

Women represent over half of incoming medical students in the United States and are becoming increasingly well represented in surgical fields(1). However, parity at the trainee level has yet to be accomplished, and surgical leadership positions have remained disproportionately biased toward men(2,3). Furthermore, to date, there have been no comparisons on the progress within plastic surgery and other surgical specialties. This study aims to investigate the gender disparity in resident and leadership representation over the past ten years within several surgical specialties and how these disparities compare to those within plastic surgery.

METHODS

Counts of female and male residents and surgical society leaders were collected from 2008 to 2018. Surgical fields included plastic, vascular, urologic, neurologic, orthopaedic, cardiothoracic, and general surgery. Leadership positions were defined as board seats on executive committees of major surgical societies or board associations. Data was acquired from publicly available sources or provided directly from the organizations. Resident data was obtained from the annual ACGME Residents' Report. Individuals holding more than one leadership position within a year were counted only once.

RESULTS

In our aggregated analysis, the proportion of women in surgical leadership still lags behind women in surgical residency training across all specialties (13.2% vs 27.3%, $p<0.01$). General surgery had the highest proportion of female residents and leaders (35% and 18.8%, $p<0.01$), followed by plastic (32.2% and 17.3%, $p<0.01$), vascular (28.2% and 11.3%, $p<0.01$), urologic (24.3% and 5.1%), and cardiothoracic surgery (20.5% and 7.8%, $p<0.01$). Women in surgical leadership, however, increased at a faster rate over the study period than women in surgical training (11% vs 7%, $p<0.05$). Plastic surgery showed the greatest rate of increase in both residents and leaders (17% and 19%, $p<0.05$) followed by cardiothoracic surgery (16% and 9%,

p<0.05) and general surgery (8% and 14%, p<0.05). Neither the difference in proportions between female residents and leaders nor the yearly growth of these groups for neurologic and orthopaedic surgery were significant.

CONCLUSION

Between 2008 and 2018, women in plastic surgery training and leadership positions have shown the most significant growth compared to other surgical subspecialties, demonstrating a strong concerted effort toward gender equality among surgical professions.

1. Association of American Medical Colleges. 2019 FACTS: Applicants and Matriculants Data. U.S. Medical School Applications and Matriculants by School, State of Legal Residence, and Sex, 2019-2020. https://www.aamc.org/system/files/2019-11/2019_FACTS_Table_A-1.pdf. Published 2019. Accessed September 28, 2020.
2. Accreditation Council for Graduate Medical Education. GME Data Resource Book 2019-2020. Active Residents by Sex and Ethnicity. https://www.acgme.org/Portals/0/PFAssets/PublicationsBooks/2019-2020_ACGME_DATABOOK_DOCUMENT.pdf. Published 2020. Accessed September 28, 2020.
3. Chen W, Baron M, Bourne DA, Kim JS, Washington KM, De La Cruz C. A Report on the Representation of Women in Academic Plastic Surgery Leadership. *Plast Reconstr Surg*. 2020;145(3):844-852. doi:10.1097/PRS.0000000000006562