

Trends in Gender Authorship of Abstract Presentations at Plastic Surgery the Meeting: A Decade Long Analysis

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Objectives

Although female representation at national plastic surgery meetings in speaking roles is an important measure of gender equity, current literature fails to examine the gender of authors presenting abstracts at these meetings. Therefore, the main purpose of the study was to compare female-to-male abstract presentation rates at Plastic Surgery The Meeting (PSTM) annual meetings between 2010-2020. Specifically, the authors sought to examine female-to-male differences in: 1) overall authorship; 2) first authorship; 3) last authorship; 4) subspecialty representation; and 5) awards granted.

Methods

- Study Design: longitudinal, retrospective cohort study
- Data Source: PSTM conference brochures between 2010-2020
- Gender of presenters was determined using an automated gender assignment tool (<https://gender-api.com/>) within 95% confidence
- Primary predictor variable: gender (male versus female)
- Primary outcome variable: authorship (first, second, or last author)
- Additional variables collected: year of presentation, presentation type (oral versus poster), awards received, and specialty representation
- Statistical analysis
 - Descriptive statistics calculated for study variables
 - Cochran Armitage trend tests used to examine longitudinal trends between male and female authorship
 - Chi-square tests of independence to evaluate the association between author gender and presentation type/receiving an award
 - Chi-square tests of homogeneity were conducted to examine the association between author gender and author subspecialty
- All statistical analyses were performed using IBM SPSS Statistics Software Package (SPSS Statistics, IL. Chicago, USA)
- Statistical significance: P-Value < 0.05.

Results

- Between 2010-2020, 3,653 abstracts (3,035 oral, 83.1%; 618 poster, 16.9%) were presented with 19,328 (5,175 females, 26.8%) authors at PSTM
- The proportion of female presenters increased significantly between 2010 (n=153, 20.4%) and 2020 (n=1,065, 34.8%), demonstrating a positive linear trend ($z=10.81$, $p<0.001$) (**Figure 1**)
 - The total number and proportion of female first, second, and last authors also increased significantly over the same time period ($p<0.001$) (**Figure 2**)
- There was no statistically significant association between first, second, and last author's gender and presentation type/probability of receiving an award ($p>0.05$)
- Female representation lags behind their male counterparts in all subspecialties of plastic surgery included in the study
 - The most common specialty represented by female first and last authors were practice management and global partnership, respectively
 - The least common specialty represented by female first and last authors were aesthetics and general reconstruction, respectively

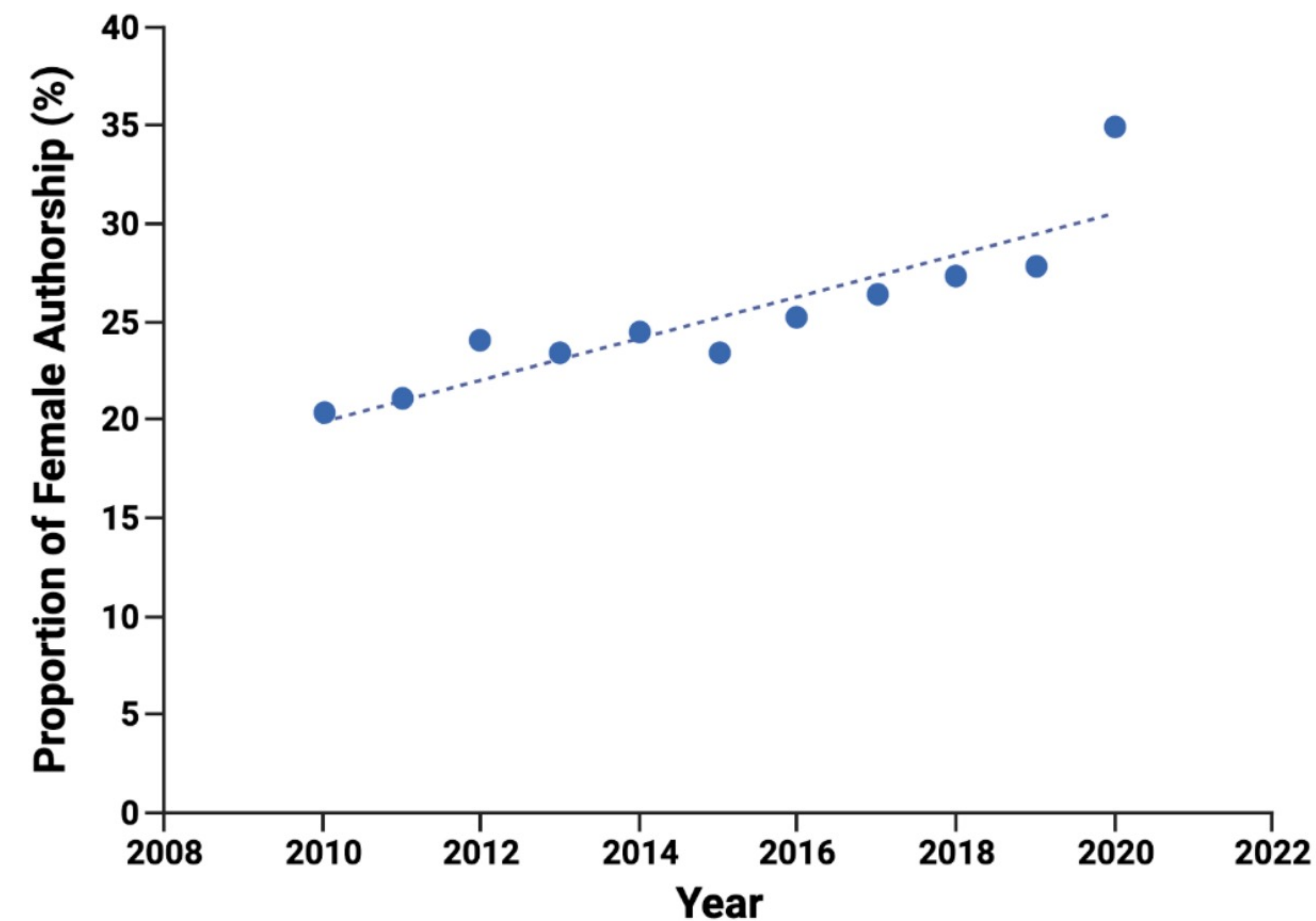


Figure 1. Total Proportion of Female Abstract Presenters at Plastic Surgery the Meeting Between 2010-2020

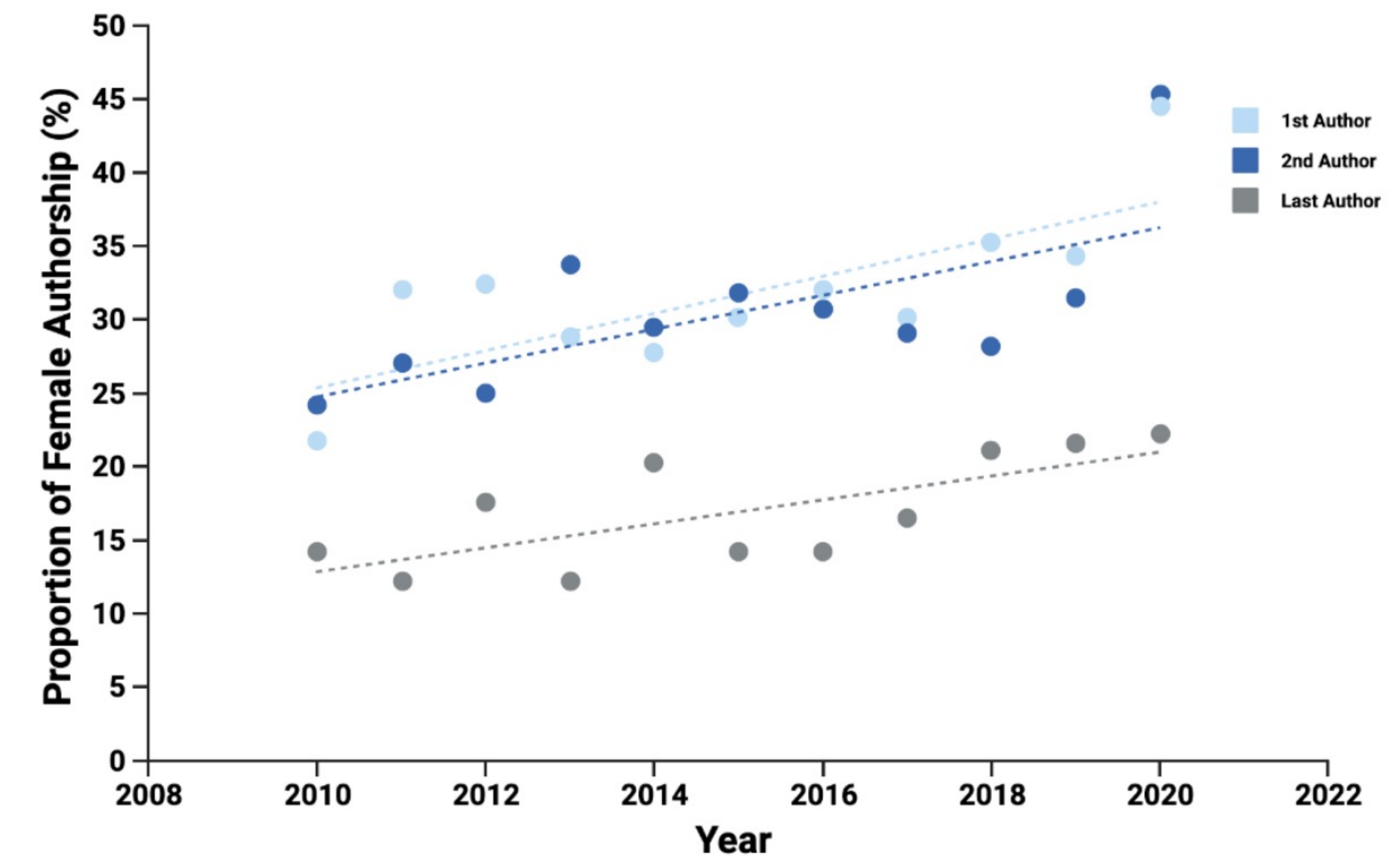


Figure 2. Total Proportion of Female Abstract Presenters as First, Second, and Last Authors at Plastic Surgery the Meeting Between 2010-2020

Conclusions

Although female authorship at national plastic surgery meetings, such as Plastic Surgery the Meeting, has demonstrated substantial growth over the last decade, a considerable gender imbalance remains, especially in last authorship. Nonetheless, as more females continue to enter medical school and plastic surgery, female authorship is likely to increase in step. Future efforts should aim to enhance female representation at national plastic surgery meetings through active mentorship, outreach, and networking to address factors that may discourage female participation.