

Another Day, Another 82 Cents: A National Survey Assessing Gender-based Wage Differences in Board-certified Plastic Surgeons

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Background: Of 7461 actively practicing United States American Board of Plastic Surgery certified plastic surgeons, only 17% are women. In relation to this small number, gender inequities within the field have been the source of national discussions. Our study assessed the status of the gender-based wage-gap in plastic surgery and sought to identify possible causes.

Methods: An anonymous 43-question survey was distributed to 2981 members of the American Society of Plastic Surgeons in 2021. Male and female responses were compared; an analysis also considering board-certification year was performed. Chi-square and Fisher exact tests were used for bivariate analysis. Continuous variables were compared with two-sample *t* tests and Wilcoxon rank sum tests.

Results: Ten percent of contacted American Society of Plastic Surgeons members responded to our survey. Of the 288 respondents, 111 (38.5%) were women, and 177 (61.5%) were men. Men were more likely to have salaries over \$400K USD per year ($P < 0.0001$). Earlier certification year was associated with pay greater than \$400K per year ($P = 0.0235$) but was insignificant once stratified by gender (women: $P = 0.2392$, men: $P = 0.7268$). Earlier certification year was associated with production-based and self-determined wages ($P = 0.0097$), whereas later board-certification year was associated with nonnegotiable salaries ($P < 0.0001$).

Conclusions: Women are significantly less likely to make salaries comparable to those of male plastic surgeons, related to shorter careers on average. An increase in female representation and career duration within the field is needed to improve the current wage-gap. (*Plast Reconstr Surg Glob Open* 2023; 11:e5196; doi: 10.1097/GOX.0000000000005196; Published online 15 August 2023.)

INTRODUCTION

Gender inequity within the medical field has been recognized by the American College of Physicians and highlighted in the academic literature.¹⁻⁵ Female physicians currently make up 36% of all practicing physicians in the United States, and even fewer can be found in surgical specialties.^{1,6} Currently only 17% of the total 7461 actively

practicing American Board of Plastic Surgery–certified plastic surgeons are women.⁷

The imbalance of female representation in plastic surgery has multifaceted effects on areas including academic achievement, leadership, research, mentorship, and wages.⁸⁻¹⁴ Despite efforts to increase equality in the field, there remains a significant gender-based wage-gap.¹⁵⁻¹⁹ Base salary, earning potential, and incentive structure have been shown to strongly influence job changes for practicing plastic surgeons and impact career satisfaction.²⁰ The current status of the gender-based wage-gap and possible causes must be identified to improve female recruitment and retention within plastic surgery.

The role of graduate medical educators in supporting female trainees during their pursuit of a plastic surgery career is essential to achieve progress, whether it

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be through mentorship, policy changes, or advocacy. Research that identifies possible causes of the wage-gap gives educators insight into specific needs of female plastic surgery trainees. We developed a survey to assess the gender differences within the field of plastic surgery, particularly focusing on differences in salary amongst practicing plastic surgeons and possible causes for this.

METHODS

An electronic survey was developed to assess differences in salary, subspecialty choice, practice type, leadership roles, research output, and career goals based on gender. The survey was distributed via individual email in 2021 to a subgroup of 2981 members of the American Society of Plastic Surgeons (ASPS) using SurveyMonkey (SurveyMonkey, Inc. Palo Alto, Calif.) in 2021. This subgroup is one-third of the active membership and was sent out by ASPS itself as per their survey protocol, which is designed to poll a representative demographically balanced sample of the membership so as not to create survey fatigue among all members. The survey was anonymous, no identifiable information was collected, and participants were allowed to skip questions. The survey was open for 1 month, and email prompts were sent four times. Skip-logic was used to determine the next question, based on the previous answer choice. The survey contained 43 possible questions. (See **table 1, Supplemental Digital Content 1**, which shows survey questions. <http://links.lww.com/PRSGO/C723>.) The questions were tested with a volunteer cohort. Data were exported from SurveyMonkey to Excel for storage and analyzed in SAS.

Responses were individually assessed. Free text responses were grouped into specific or separate response categories when appropriate for statistical analysis.

Data Analysis

We collected salary information for respondents (**Supplemental Digital Content 1**, <http://links.lww.com/PRSGO/C723>) and compiled responses for analysis, comparing those who made less than \$400K USD per year with those who made more, based on the average plastic surgery salary (~\$366,141/year).^{17,21–23}

Descriptive statistics of categorical variables were summarized using frequency counts and percentages, whereas continuous variables were summarized using means, SDs, medians, interquartile ranges, and ranges. Bivariate analyses comparing men versus women among categorical variables utilized chi-square tests (or Fisher exact tests when appropriate). Two-sample *t* tests or Wilcoxon rank sum tests were used when comparing the distributions of continuous variables between men and women.

Shapiro-Wilk test was used to test for normality. Also, skewness was assessed with various graphs (eg, histograms, Q-Q plots). For continuous variables that were normally distributed (minimum to no skewness was detected), parametric testing such as two-sample *t* test was used, and appropriate statistics such as means and SDs were reported. Otherwise, for continuous variables that violated normality and were skewed, nonparametric testing such as Wilcoxon rank sum test was used, and appropriate statistics such as medians and interquartile ranges were reported.

Takeaways

Question: We assessed the gender-based wage-gap in plastic surgery and possible causes.

Findings: Our survey study showed that men were more likely to have salaries over \$400K USD per year ($P < 0.0001$). Earlier certification year was associated with pay greater than \$400K per year ($P = 0.0235$). Earlier certification year was also associated with production-based and self-determined wages ($P = 0.0097$), whereas later board-certification year was associated with nonnegotiable salaries ($P < 0.0001$).

Meaning: Women are significantly less likely to make salaries comparable to male plastic surgeons, related to shorter careers on average. Increasing female representation and career duration should improve inequity.

Responses regarding the current salary, salary range, and highest academic titles achieved were assessed with the respondent's year of board certification in plastic surgery. Year was treated as a continuous variable. These relationships were evaluated for the group and then stratified by gender. Mean, SD, and range were determined, and results compared using two-sample *t* tests. Statistical analysis was conducted using SAS v9.4 (SAS Institute, Cary, N.C.; www.sas.com). Statistical significance was defined as two-sided α less than 0.05.

Institutional Review Board

The institutional review board deemed our study exempt, and the survey was approved by the ASPS Diversity Committee.

RESULTS

Demographic Data

There were 303 individuals who opened the survey, of whom 301 individuals read the study information and agreed to participate, yielding an overall response rate of 10.1% (301 of 2981 participants). Among these respondents, 111 (36.9%) identified as women, 177 (58.8%) as men, three (1.0%) as other; 10 (3.3%) had a missing response. The final cohort consisted of 288 individuals: 177 men (61.5%) and 111 women (38.5%), an effective response rate of 9.7%. Nonresponder analysis was performed. (See **table 2, Supplemental Digital Content 2**, which shows nonresponder analysis. <http://links.lww.com/PRSGO/C724>.) Those who identified as an underrepresented minority in medicine included 20.9% of men and 24.3% of women ($P = 0.5461$; **Table 1**).

Personal Life

Men were significantly more likely to be married than women ($n = 159$, 89.8% versus $n = 89$, 80.2%, $P = 0.0212$) (**Supplemental Digital Content 3A**). (See **table 3, Supplemental Digital Content 3**, which shows analysis of cohort's family-related responses. <http://links.lww.com/PRSGO/C725>.) Men were also more likely to have children than women ($n = 157$, 88.7% versus $n = 88$, 79.3%, $P = 0.0290$). Of the 245 respondents who were parents, men were

Table 1. Cohort Characteristics of Individuals Who Answered Questions about Minority Status, Education Year, and Training Type (N = 288)

Characteristic	Men (n = 177)	Women (n = 111)	P
Are you an URIM?			0.5461
Yes	37 (20.90%)	27 (24.32%)	
No	137 (77.40%)	84 (75.68%)	
Year of board certification (n = 268)			<0.0001
Mean (SD)	2000 (11)	2008 (10)	
Range	1976–2020	1982–2021	
Training type (n = 284)			<0.0001
Independent	126 (71.19%)	54 (48.65%)	
Integrated	47 (26.55%)	57 (51.35%)	

URIM, underrepresented minority in medicine.

more likely to have had children during training (n = 95, 60.5% versus n = 41, 46.6%, $P = 0.0354$), whereas women were more likely to have had children after training (n = 65, 73.9% versus n = 92, 58.6%, $P = 0.0169$) (Supplemental Digital Content 3B, <http://links.lww.com/PRSGO/C725>). Among the cohort of 288 respondents, women were more likely to agree that family or household responsibilities had negatively affected their professional advancement (n = 41, 36.9% versus n = 30, 17.0%, $P = 0.0002$).

Training Pathway and Year of Completion

Male respondents became board certified at earlier years than women, but their average age at training completion when separated by integrated and independent pathways was not significantly different. For integrated, the mean year of training completion was 2005 ± 11 for men and 2011 ± 8 for women ($P = 0.006$), and for independent trainees, the mean was 1996 ± 11 for men and 2003 ± 12 for women ($P < 0.001$) (Supplemental Digital Content 4A). Women were more likely to have graduated from an integrated plastic surgery pathway than men (n = 57, 51.4% versus n = 47, 26.6%, $P < 0.0001$) (Table 1). (See table 4, Supplemental Digital Content 4, which shows analysis of training year completion based on pathway, subspecialty training, and rationale for pursuing subspecialty training. <http://links.lww.com/PRSGO/C726>.)

Fellowship Training

Overall, women completed additional fellowship training later than men [mean (SD), women: 2010 ± 10 years versus men: 2000 ± 12 years, $P < 0.0001$] [Supplemental Digital Content 4B (<http://links.lww.com/PRSGO/C726>) and Supplemental Digital Content 5]. (See figure 1, Supplemental Digital Content 5, which shows depiction of the types of fellowships completed between male and female respondents (n = 142). <http://links.lww.com/PRSGO/C727>.) There was no significant difference in fellowship specialty choice or decision to complete a fellowship between genders (Supplemental Digital Content 4C, <http://links.lww.com/PRSGO/C726>).

Practice Setting

Participants were asked to select all US geographic regions in which they practiced, including West,

Midwest, South, and Northeast, as well as internationally (Supplemental Digital Content 6A and Supplemental Digital Content 7). Geographic regions were not significantly different between genders. Respondents were asked to select all settings in which they practiced, including urban, suburban, and rural, based on the US census map (Supplemental Digital Content 8).²⁴ Women were more likely to practice in an urban setting than men (n = 68, 61.3% versus n = 84, 47.5%, $P = 0.0224$). (See table 5, Supplemental Digital Content 6, which shows analysis of cohort's practice location and reason for choosing or not choosing an academic career. <http://links.lww.com/PRSGO/C728>.) (See figure 2, Supplemental Digital Content 7, which shows a depiction of the geographic distribution of respondents' practice locations comparing men to women (N = 288). <http://links.lww.com/PRSGO/C729>.) (See figure 3, Supplemental Digital Content 8, which shows practice locations of men and women (n = 288), showing more women practice in urban settings than men (61.3% versus 47.5%, $P = 0.0224$). <http://links.lww.com/PRSGO/C730>.)

Type of Practice

Practice type was not significantly different between genders [Supplemental Digital Content 6A (<http://links.lww.com/PRSGO/C728>) and Supplemental Digital Content 9]. (See figure 4, Supplemental Digital Content 9, which shows depiction of male and female practice structure. <http://links.lww.com/PRSGO/C731>.) Men and women who chose nonacademic careers differed significantly in their reasoning ($P = 0.0047$, Supplemental Digital Content 6B, <http://links.lww.com/PRSGO/C728>.) More men expressed a desire for autonomy (n = 83, 46.9% versus n = 40, 36.0%) and increased earning potential (n = 23, 13.0% versus n = 4, 3.6%), whereas more women expressed a desire for schedule flexibility (n = 9, 8.1% versus n = 3, 1.7%). Of these women, a few suggested that the desire for flexibility was related to family choice, as demonstrated by the following free responses: “[I chose] private practice over academics for more control of my time/autonomy to be with my children, “[I] left academics because [I] could not be a good mother and do both. Primary parent/household responsibility fell on me and [I] couldn't do both,” “I knew I needed to keep a narrow scope of practice and minimize nights/weekends because of children,” and “Family and surgeon are incongruent for me.”

Leadership

Men and women showed no significant difference in their leadership positions or desire to hold leadership positions (Supplemental Digital Content 10A and 10B). (See table 6, Supplemental Digital Content 10, which shows an analysis of cohort's responses regarding desire for academic career, leadership roles, academic titles, mentorship, and impact of gender on career. <http://links.lww.com/PRSGO/C732>.) Full professors were board certified in earlier years compared with nonfull professors ($P = 0.0397$), but no significant difference was found based on gender. Participants' h-index was not significantly different (men: 0–129 versus women: 0–54, $P = 0.1959$).

Mentorship

Women were more likely to have a female mentor than men (n = 53, 47.8% versus n = 39 22.0%, $P < 0.0001$), but there was no significant difference in the likelihood of having a racial or ethnic minority, long-distance, or increased

Table 2. Comparison of Salary-related Responses for Men and Women

Comparison of All Responses				
Salary	Total Respondents	Men (n = 177)	Women (n = 111)	P
				0.0002
Less than \$100k	1 (0.35%)	0 (0.00%)	1 (0.90%)	
\$100k–\$200k	16 (5.56%)	6 (3.39%)	10 (9.01%)	
\$200k–\$300k	40 (13.89%)	20 (11.30%)	20 (18.02%)	
\$300k–\$400k	57 (19.79%)	25 (14.12%)	32 (28.83%)	
Over \$400k	151 (52.43%)	107 (60.45%)	44 (39.64%)	
Missing response	23 (7.99%)	19 (10.73%)	4 (3.60%)	
Comparison of Those Who Fell Above the National Average with Those Who Fell Below				
Salary (n = 265)	Men (n = 177)	Women (n = 111)	P	
			<0.0001	
≤\$400,000	51 (28.81%)	63 (56.76%)		
Over \$400,000	107 (60.45%)	44 (39.64%)		

quantity of mentors (**Supplemental Digital Content 10C**, <http://links.lww.com/PRSGO/C732>).

Salary

More than half of male respondents (n = 107, 60.5%) reported an income over \$400K compared with only 39.6% (n = 44) of women ($P < 0.0001$, **Table 2**). To assess the difference in reported income, we further analyzed our results with consideration of board-certification year (**Fig. 1**). Overall, respondents who made more than \$400K were more likely to have earlier certification years compared with those who made \$400K or less (2002 ± 11 years versus 2005 ± 12 years, $P = 0.0235$, **Table 3**). When men and women were separately assessed, there was no

Table 3. Comparison of Salary-related Responses for Men and Women with Consideration of Board-certification Year

Salary range	Board-certified Year Mean: Full Sample (N = 288)*	Board-certified Year Mean: Men (n = 177)	Board-certified Year Mean: Women (n = 111)
Over \$400k	2002	2000	2006
≤\$400k	2005	2001	2009

*Statistically significant relationship between average board-certification year and binary salary range, $P = 0.0235$ [these relationships were not statistically significant when reviewed separately amongst men ($P = 0.7268$), and separately among women ($P = 0.2392$)].

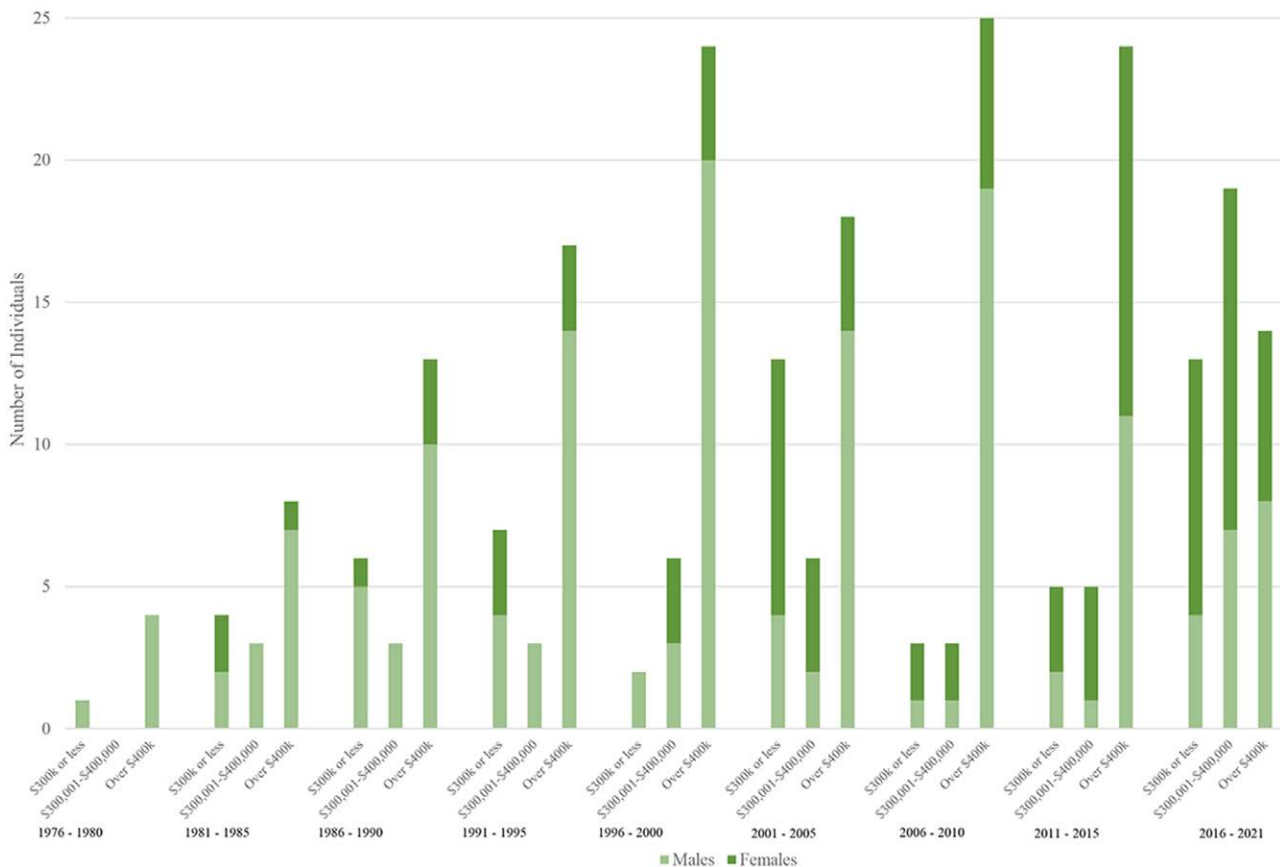


Fig. 1. Number of individuals board certified in each 5-year interval with salary either \$300K USD per year or less, between \$300,001 and \$400,000, or over \$400K USD per year.

Table 4. Comparison of Plastic Surgeon Salaries

Difference in Salary of Plastic Surgeons with Children Compared with Those without			
Salary	Children (Yes) (n = 245)	Children (No) (n = 43)	<i>P</i> = 0.1022
Over \$400,000	135 (55.10%)	16 (37.21%)	
\$400,000 or less	94 (38.37%)	20 (46.51%)	
Difference in Salary of Academic Only Practicing Plastic Surgeons with Children Compared with Those without			
Salary	Children (Yes) (n = 49)	Children (No) (n = 11)	<i>P</i> = 0.3334*
Over \$400,000	26 (53.06%)	4 (36.36%)	
\$400,000 or less	22 (44.90%)	7 (63.64%)	
Difference between the Number of Nonacademic Private Practice Male Plastic Surgeons with Children Compared with Those of the Female Surgeons			
Children	Men (n = 120)	Women (n = 70)	<i>P</i> = 0.0195
Yes	110 (91.67%)	56 (80.00%)	
No	10 (8.33%)	14 (20.00%)	
Differences in Salary for Nonacademic Private Practice Plastic Surgeons with Children Compared with Those without			
Salary	Overall Cohort Children (Yes) (n = 166)	Overall Cohort Children (No) (n = 24)	<i>P</i> = 0.1485
Over \$400,000	100 (60.24%)	11 (45.83%)	
\$400,000 or less	63 (37.95%)	13 (54.17%)	
Salary	Male Children (Yes) (n = 110)	Male Children (No) (n = 10)	<i>P</i> = 0.0706*
Over \$400,000	76 (69.09%)	4 (40.00%)	
\$400,000 or less	31 (28.18%)	6 (60.00%)	
Salary	Female Children (Yes) (n = 56)	Female Children (No) (n = 14)	<i>P</i> = 0.6303
Over \$400,000	24 (42.86%)	7 (50.00%)	
\$400,000 or less	32 (57.14%)	7 (50.00%)	

*Fisher exact test used.

significant association with board-certification year and salary over \$400K versus \$400K or less (men: 2000 ± 10 years versus 2001 ± 13 years, *P* = 0.7268; women: 2006 ± 10 years versus 2009 ± 10 years, *P* = 0.2392, Table 3). Having children was not associated with any difference in salary when the overall cohort was compared or when men and women were compared separately (Table 4). Even after separating the cohort based on practice (purely nonacademic respondents, and purely academic respondents), no difference was found. We did find that nonacademic male plastic surgeons were more likely to have children than women (92% versus 80%, *P* = 0.0195).

Negotiation/Pay Structure

Overall, we found no significant difference between men and women’s report of accepting their initial salary offer (Fig. 2, Table 5). When results were further analyzed based on board-certification year, we found that women who accepted the initial salary offered had significantly later certification years compared with women who did not (*P* = 0.0375), whereas certification year was not significantly related to acceptance of initial offer for men (*P* =

0.3972). There was no significant difference between genders in those who reported setting their own salary. When compared by certification year, respondents with earlier board-certification years were more likely to set their own salary (*P* = 0.0097). This was significant for women following gender-based comparison (*P* = 0.0059), but not for men (*P* = 0.2533). More women than men reported a nonnegotiable salary (n = 23, 20.7% versus n = 16, 9.0%, *P* = 0.0048). Those who claimed their salary was nonnegotiable were more likely to be certified in more recent years overall (*P* < 0.0001), which remained statistically significant for men (*P* = 0.0200) and women (*P* = 0.0191).

Satisfaction and Effect on Career

Women were equally as likely as men to endorse career satisfaction (n = 92, 82.9% versus n = 144, 81.4%). However, women were more likely than men to claim that their gender, race, or ethnicity had significantly impacted their career goals and accomplishments (n = 48, 43.2% versus n = 12, 6.8%, *P* < 0.0001) (Supplemental Digital Content 10D, <http://links.lww.com/PRSGO/C732>).

DISCUSSION

Despite a large and growing body of literature pertaining specifically to gender disparities in plastic surgery, few studies have addressed the gender-based wage-gap and its causes.¹⁵⁻¹⁹ The wage-gap may have detrimental effects on the female plastic surgeon workforce, as wages are associated with career satisfaction and surgeon retainment.²⁰ Our study showed that male plastic surgeons are more likely to make over \$400K USD per year than women, which could be related to the fewer number of years women on average have been practicing compared with men. Earlier board-certification year was associated with setting one’s own salary, which suggests that surgeons gain autonomy to negotiate their wages with increased years in practice, an advantage that few female plastic surgeons have. An effort to improve this gap should be made to improve female plastic surgeons’ opportunities for career advancement.

Male plastic surgeons were more likely than women to have high incomes (>\$400K USD), supported by findings from previous studies. Halperin et al surveyed ASPS members, showing that men were more than twice as likely to make \$400K.¹⁷ Capek et al also showed that even after controlling for age, more than half of women reported an income less than \$200K, compared with only 19% of men.¹⁵ Our study controlled for board-certification year and showed similar results. The median starting compensation in plastic surgery is reported to be around \$219K, whereas the mean compensation is reported to increase on average to approximately \$366,141 per year for both academic and private practice settings.²¹⁻²³ This supports our findings that the higher number of women in their early careers contribute to the wage-gap. Subspecialty, practice type, and academic rank were not significantly different between male and female respondents despite the gap, which is supported by findings in larger cross-specialty studies.^{25,26} Women were more likely to practice in an urban setting than men, a phenomenon also seen in other specialties, which suggests the

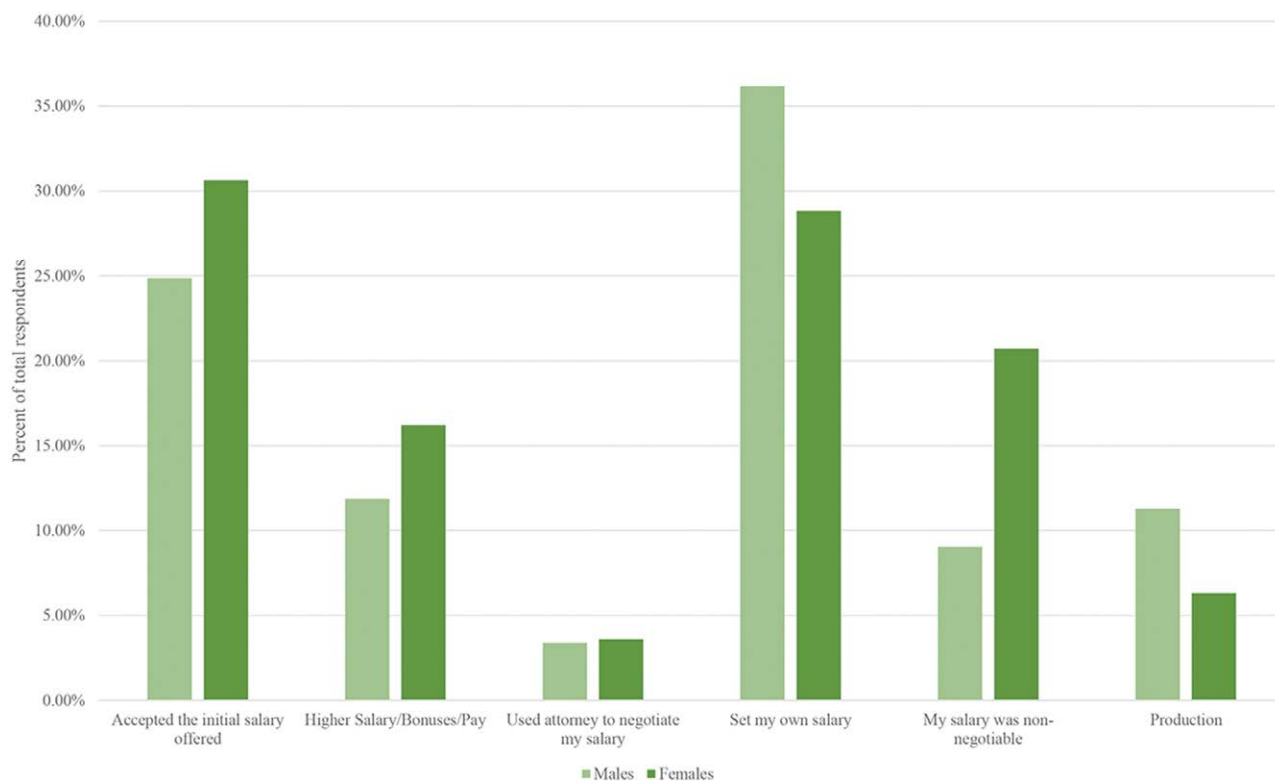


Fig. 2. Current salary determining factors and use of negotiation tactics with comparison of men to women.

Table 5. Comparison of Salary Negotiation and Contract-related Responses Based on Gender and Board-certification Year

	Total No. Men (n = 177)	Total No. Women (n = 111)	P	Board-certification Year Mean (SD): Full Sample (N = 288)	P	Board-certification Year Mean (SD): Men (n = 177)	P	Board-certification Year Mean (SD): Women (n = 111)	P
I accepted the initial salary offered									
Yes	44 (24.86%)	34 (30.63%)	0.2834	2005 (12)	0.0533	2001 (13)	0.3972	2011 (9)	0.0375
No	133 (75.14%)	77 (69.37%)		2002 (11)		2000 (11)		2007 (10)	
Higher salary/bonuses/pay									
Yes	21 (11.86%)	18 (16.22%)	0.2935	2005 (11)	0.2837	2003 (12)	0.3334	2009 (10)	0.7631
No	156 (88.14%)	93 (83.78%)		2003 (12)		2000 (11)		2008 (10)	
Used attorney to negotiate salary									
Yes	6 (3.39%)	4 (3.60%)	1.0000	2010 (10)	0.0777	2008 (11)	0.1084	2014 (7)	0.2915
No	171 (96.61%)	107 (96.40%)		2003 (12)		2000 (11)		2008 (10)	
Set my own salary									
Yes	64 (36.16%)	32 (28.83%)	0.1991	2001 (10)	0.0097	1999 (10)	0.2533	2004 (11)	0.0059
No	113 (63.84%)	79 (71.17%)		2004 (12)		2001 (12)		2010 (9)	
Salary was nonnegotiable									
Yes	16 (9.04%)	23 (20.72%)	0.0048	2010 (9)	<0.0001	2007 (11)	0.0020	2013 (8)	0.0191
No	161 (90.96%)	88 (79.28%)		2002 (12)		1999 (11)		2007 (10)	
Salary based on production									
Yes	20 (11.30%)	7 (6.31%)	0.1571	1999 (12)	0.0657	1995 (10)	0.0518	2009 (9)	0.6804
No	157 (88.70%)	104 (93.69%)		2003 (12)		2001 (12)		2008 (10)	

wage-gap may affect urban female plastic surgeons more severely when considering the cost of living.²⁷

We found that women earlier in their career were more likely to accept their initial salary offer and that respondents overall who were more senior in their careers were more likely to endorse autonomous/production-based wages. Although some studies have shown women are less

comfortable negotiating wages, suspected to be linked to a higher social cost, our findings suggest this could be related to a relationship between career duration and negotiation leverage.^{16,28-39}

Female plastic surgeons were more likely to agree that family responsibilities negatively affected their career trajectory, the downstream effects of which are

numerous.^{17,40–42} Domestic demands on female plastic surgeons have been linked to higher rates of burnout and perceived work-life imbalance.^{39,43,44} Understandably, we found that women were less likely to be married and more likely to delay or forego childbearing, similar to other studies.¹⁷ Interestingly, private practice was often chosen by our female respondents for greater schedule flexibility in relation to family responsibilities. Women were also more likely to have female mentors. Female–female mentorship has been emphasized as a key component to increasing female representation and success in the field, as it can address unique female challenges, including those that are family related.^{45,46} Efforts to increase female plastic surgeon mentorship through long-distance methods may improve female opportunities within the field.^{47–49}

Overall, these findings suggest that many factors play a role in the current gender-based wage-gap in plastic surgery. Most women in the field are early in their careers and have not achieved the salary that is correlated with more years in practice. In later career stages, plastic surgeons tend to have more autonomy over their wages and utilize more negotiation strategies to achieve more profitable contracts. Women who chose private practice often contributed this choice to their desire to have schedule flexibility and to fulfill family obligations such as raising children. This suggests that women may be more inclined to choose careers that can offer them autonomy and a higher return for shorter hours worked. Although the wage-gap may decrease on its own as the average career duration for women increases, efforts to expedite its resolution should focus on offering flexible schedule options in settings such as academics to allow time for family obligations. Although women in our study were more likely to perceive a significant effect of their gender on their career advancement, these efforts may greatly improve their opportunities and subsequently improve the wage-gap.

Our study's weaknesses include a low survey response rate as well as the survey structure itself, as we were unable to further qualify respondents' answers. The effective response rate was 9.7%, likely a result of survey fatigue. Our female respondent percentage was greater than the overall percentage of board-certified plastic surgeons and may result from selection bias, though this gender difference is consistent with trends reflected in the statistical literature.^{15,17} A nonresponder analysis was performed, as previously mentioned, which showed that women made up 37% of responders but only 20% of those to whom the survey was distributed, and that those in academic careers made up 23% of responders and only 14% of the survey population. Respondents may have been more dissatisfied with gender differences in plastic surgery and thus more eager to respond, explaining the higher female response rate. Additionally, the higher response of those in academics may have skewed responses related to salary structure and contract negotiation. Multivariable regression analysis was not possible due to the size of our study, although there were differences between our male and female cohort, which could have created bias. Although tested before distribution, our survey was nonvalidated and may have been subject to variations in individual interpretation. In the future,

multi-institutional comparison and cohort studies would greatly contribute to the current understanding of gender-based wage differences in plastic surgery. Additionally, our survey did not ask further questions to qualify respondents' salary breakdown such as their full-time equivalents, relative value unit compensations, or case numbers. Thus, our data do not reflect whether the inequity can be owed to women working less hours or collecting less relative value unit compensations. We did not ask respondents to quantify the number of hours that nonwork-related responsibilities, such as household demands, took away from their work hours, although this may have contributed to the salary discrepancy between genders.

CONCLUSIONS

Male plastic surgeons are significantly more likely to make more than \$400K per year compared with women. Although not significantly associated with career type or pay structure, this does show relation to career duration. An increase in female representation within the field is needed to improve the current wage-gap. Importantly, support of female trainees and early professionals is needed to resolve the leaky pipeline in plastic surgery and ensure that women have equal opportunities to progress in their careers.

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DISCLOSURES

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