

Gender-Based Disparities in Academic Orthopaedic Surgery Physician Compensation in 2023

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Introduction & Objectives

- Orthopaedic surgery remains one of the least diverse specialties in medicine.¹
- Despite increased recruitment efforts, in 2022, 5.9% of practicing orthopaedic surgeons were women.¹
- For context, women represented 12% of academic neurosurgeons and 27.9% of general surgery faculty as of 2017 and 2019, respectively.^{2,3}
- Although representation of women in orthopaedic surgery is increasing, it is projected to take 217 years to reach gender parity.⁴
- Addressing gender-based disparities and biases in the field—including salary inequity—are crucial to attracting and retaining women in the field.
- Losing women as academic faculty has longer term repercussions for the diversity of the field, as these women often serve as role models and mentors for the next generations of women orthopaedic surgeons.
- Aim:** The primary purpose of this study is to assess intersectional gender- and race-based discrepancies in total salary compensation by academic rank for full-time orthopaedic surgery faculty for fiscal year 2023. Our secondary objective is to compare these differences in total compensation with those in other surgical specialties.
- While gender differences in compensation have been reported, few studies have focused on academic orthopaedic surgeons or included academic ranks in their analyses for comparison.

Materials & Methods

- Aggregate demographic and faculty compensation data were obtained from a special data request from the AAMC Faculty Salary Report for FY 2023.⁵
- Data collected by the AAMC also included race (Table 1). For reports broken out by gender, compensation data are only displayed when there are at least five faculty members and five institutions represented for both the men and women groups.
- Mean compensation for orthopaedic surgery faculty at all academic ranks was compared by gender and race in a cross-sectional fashion.
- Compensation figures were a sum of fixed/contractual salary, medical practice supplement, and bonus/incentive pay for the 12-month FY 2023 period.
- Two-sample t-tests were used to compare the salary between men and women within their respective ranks.
- For our secondary objective, mean compensation was compared for faculty in all surgical specialties at all academic ranks by gender and race and compared to that of orthopaedic surgery.
- This total surgery category included: general surgery, neurosurgery, orthopaedic surgery, pediatric surgery, plastic surgery, surgical oncology, thoracic and cardiovascular surgery, transplant surgery, trauma/critical care surgery, urology, vascular surgery, and “other” surgery.
- An alpha value was set at 0.05 for all statistical tests of significance.

Figures

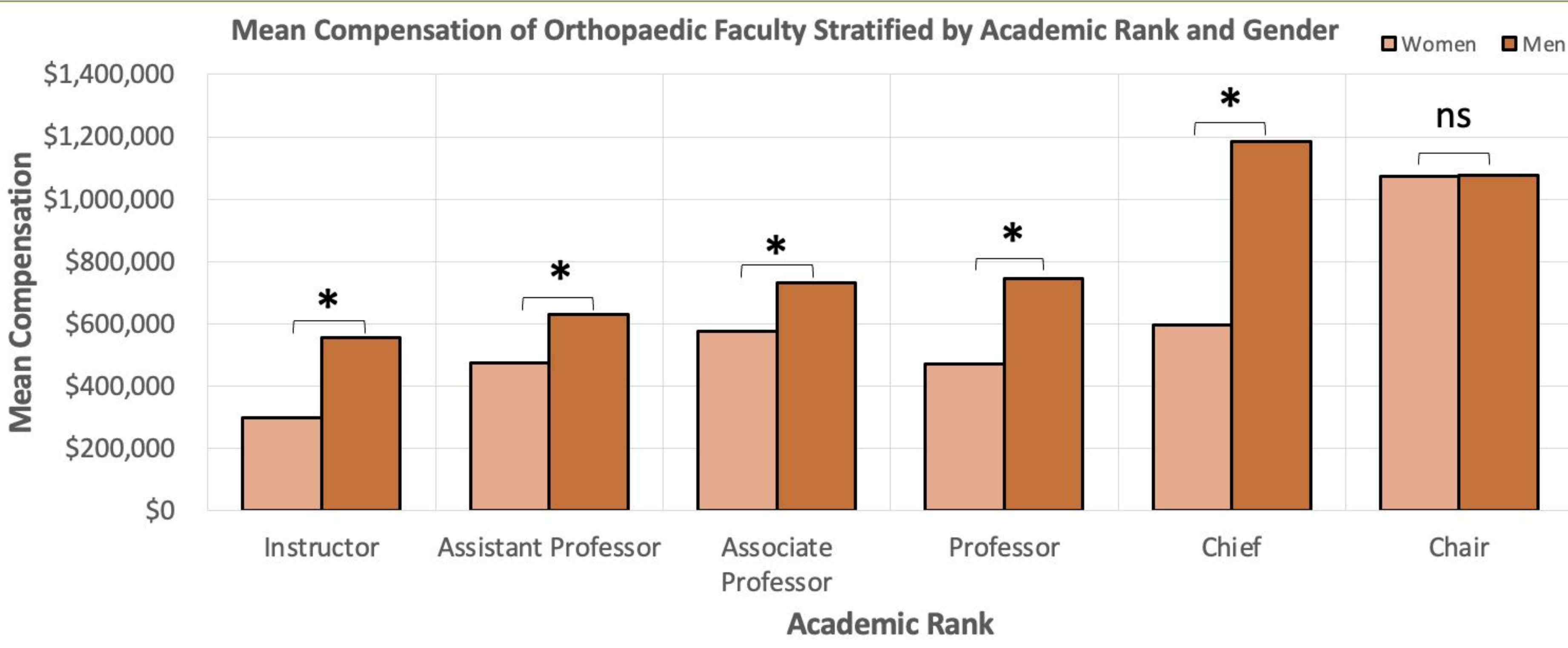


Figure 1. Mean compensation of Orthopaedic Surgery Faculty Stratified by Academic Rank and Gender for the Racial Categories included in our analysis.

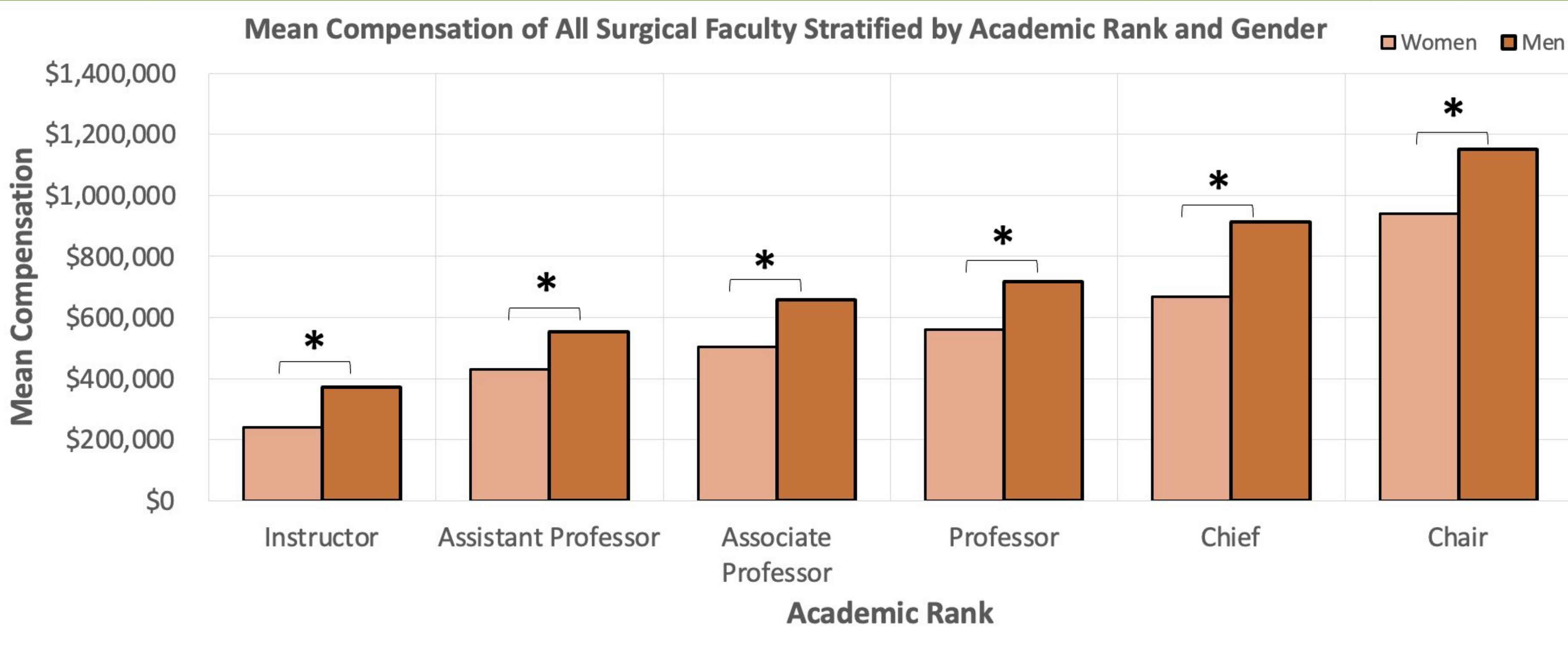


Figure 2. Mean compensation of All Surgical Faculty Stratified by Academic Rank and Gender for the Racial Categories included in our analysis.

Races included based on representation for Orthopaedic Surgery			
Rank	Races	Men (n)	Women (n)
Instructor	White	40	8
Assistant Professor	Asian	126	25
	Black	27	14
Associate Professor	White	583	136
	Asian	90	13
Professor	White	355	75
	Asian	50	5
Chief	White	291	37
	White	66	11
Chair	White	59	7

Table 1: Races included in the analysis for Orthopaedic Surgery based on academic rank and gender.

Results

- Our study identified significant compensation disparities for women in orthopaedic surgery at every academic rank except chair when compared to men in equivalent academic positions for FY 2023 for the racial categories included in the analysis (Fig.1).
- At the instructor level, men earned an average annual income of \$554,245, while women received \$229,204, resulting in a significant pay gap ($p = 0.0019$).
- At the assistant professor, associate professor, and professor levels, there existed significant pay disparities ($p < 0.0001$ for all three academic levels, respectively).
- At the chief position, men earned an average of \$1,185,873 annually, while women received \$596,270—creating a significant pay gap ($p = 0.0006$).
- This trend was mirrored at every academic level, except at the level of chair, for women in other surgical specialties (Fig. 2)

Conclusions

- Recruitment and retention of women in academic orthopaedic surgery is an ongoing issue, with compensation and career advancement being crucial determinants of faculty attrition across specialties.^{6,7}
- Gender parity in compensation is essential, as this, at least in part, reflects interest in and support for women's careers.
- Analysis of AAMC Faculty Salary Report for FY 2023 demonstrates a significant pay differential between men and women in academic orthopaedic surgery, with men earning more at all faculty ranks.
- Although there has been increasing awareness of gender-based disparities, including compensation, within surgical specialties, including orthopaedic surgery, disparities are clearly still persistent.^{8,9}
- Specific steps must be taken to address biases faced by women surgery faculty, including closing the pay gap.

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