

Socioeconomic and Academic Disparities within Orthopaedic Surgery: Comparison by Ethnicity Across Levels of Orthopaedic Training

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INTRODUCTION:

Ethnic disparities within orthopaedic surgery are recently receiving greater attention. Many opinion articles and surveys have been written about gender and racial disparities, and while thought-provoking in stimulating conversation, limited quantitative data exist regarding potential gender differences across all levels of medical training. The purposes of this project were to perform a comprehensive survey assessing various socioeconomic and academic factors among persons in the career path of orthopaedic surgery, and to describe differences between Caucasians and other minority groups.

METHODS:

An anonymous 28-question survey was administered to medical students, orthopaedic residents, fellows, practicing and retired orthopaedic surgeons at multiple institutions across the United States. Questions included financial, social, and academic demographic variables, research productivity prior to residency, and initial exposure to the field of orthopaedic surgery.

RESULTS:

Four-hundred-five participants completed the survey. Three-hundred-seven (75.8%) respondents were Caucasian. Minority groups included Asian (6.9%), Black (5.7%), South Asian/Indian (4.2%), Hispanic (4.0%), and Pacific Islander (0.7%). Of Caucasian respondents, 63.6% had net family incomes greater than \$200,000, compared to 30.0% of minority respondents ($p < 0.0001$). Twenty eight percent of Caucasians went to public school, compared to 50% of minority participants ($p < 0.001$). Regarding reliance on government assistance growing up (e.g., food stamps, Medicaid, etc.), 15.3% of minority patients relied on such assistance compared to 4.9% of Caucasians ($p = 0.0015$) (**Figure 1**). Fifty-nine percent of Caucasians were attending physicians (early practice, advanced practice, or retired), compared to 36.7% of minority physicians ($p = 0.0002$). In contrast, 63.6% of minority survey participants were medical students, residents, or fellows (**Figure 2**). Early exposure to orthopaedics through shadowing opportunities was similar between both groups (40.8% of minority participants versus 39.1% Caucasian participants).

DISCUSSION AND CONCLUSION:

There remains a significant socioeconomic disparity gap based on ethnicity for those in the field of orthopaedic surgery or pursuing an orthopaedic career. While there remains less ethnic representation in orthopaedic surgery compared to other specialties, a more diverse learning environment is developing with more minorities in early orthopaedic training compared to attending level. Approximately 1/3 of participants were attending physicians of minority representation versus two-thirds of minority participants being medical students, residents, or fellows; suggesting growth of diversity in our profession over time. Early exposure and mentorship are imperative to cultivate strong orthopaedic surgeons, and to promote diversification and equal representation in future orthopaedic patient care.

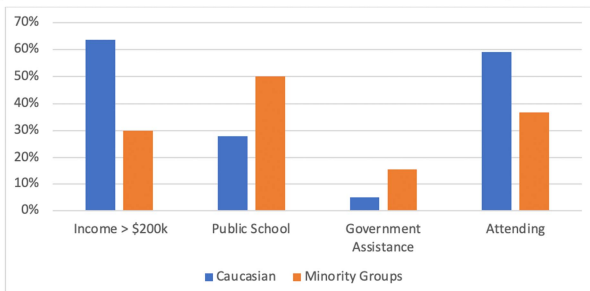


Figure 1. Differences between Caucasians and Minority groups

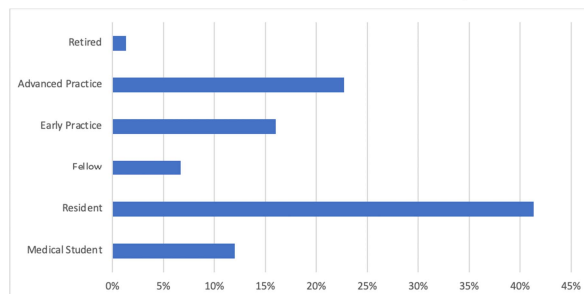


Figure 2. Breakdown of Training Level within Minority Group