



It Is Time to Change the Status Quo: Limiting Orthopedic Surgery Residency Applications

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THE CURRENT STATE OF AFFAIRS Applicants

Orthopedic surgery remains one of the most competitive residencies to which medical students apply. In 2016, although there were 1058 applicants, 717 orthopedic surgery postgraduate year-1 positions were filled, for a match rate of only 67%.¹ Similarly, in 2015, although there were 1062 applicants, a total of 703 postgraduate year-1 positions were filled, for a match rate of 66%.²

Previous studies have analyzed factors involved in distinguishing between matched and unmatched orthopedic surgery residency applicants. Recently, Schrock et al,³ using the annual reports of the National Resident Matching Program from 2006 to 2014, found that the mean number of contiguous ranks (ie, the number of distinct orthopedic surgery programs ranked by an applicant) among US senior medical students was 11.5 for those who matched into orthopedic surgery and 5.5 for those who did not match. In 2016, a total of 155 US senior medical students ranked 16 or more programs, including 8 students who did not match.⁴

Given the large number of programs ranked by most applicants to orthopedic surgery residencies, studies have sought to determine the financial impact of traveling for interviews among

these applicants. Fogel et al⁵ surveyed 43 applicants during the 2015 match year and found that the mean cost estimate for a single interview was \$450 (range, \$200-\$800), with a total cost estimate of \$7119 (range, \$2500-\$15,000). Among these applicants, 72% stated that they borrowed money to finance interview costs and 28% canceled at least 1 interview for financial reasons. Similarly, following the 2015 match year, Camp et al⁶ surveyed 408 applicants to orthopedic surgery residencies. The mean cost of the application itself was \$1664 (range, \$100-\$5000). The mean cost of interviews (including travel, food, and so forth) was \$3656 (range, \$15-\$20,000). Total expenditures ranged from \$450 to \$25,000 (mean, \$5415). More than 8% of applicants who matched spent more than \$10,000.⁶

Due to the known competitiveness of matching into an orthopedic surgery residency program, most applicants have adopted a “shotgun” approach whereby they apply to many programs around the country in hopes of receiving a significant number of interview offers. Fogel et al⁵ found that applicants applied to a median of 65 orthopedic surgery residency programs (range, 21-88) and targeted a median of 15 interviews (range, 12-25). In a larger survey, Camp et al⁶ found that applicants applied to a mean of 71 programs (range, 20-140), received a mean of 16 interview offers (range, 1-53), and attended a mean of 11 interviews (range, 0-12).

Programs

Due to the large number of applications submitted by each applicant, most orthopedic surgery residency programs receive several hundred applications annually. Because it is not feasible for these programs to thoroughly review every application, most pro-

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grams screen applications based on applicants' US Medical Licensing Examination Step 1 and/or Step 2 scores.⁷ By using "cut-offs" for these scores, programs can reduce the number of applications reviewed for further consideration, even though many residency program directors do not believe that Step 1 scores correlate with future competency as an orthopedic surgeon.⁷

Although no prior studies have examined the number of applicants interviewed by each orthopedic surgery residency program annually, from the author's experience, this number typically ranges from 50 to 80 for a postgraduate year-1 class size of 2 to 12 residents.

SOLUTION: LIMITING RESIDENCY APPLICATIONS

It is clear that a significant financial burden exists for applicants to orthopedic surgery residencies. Also, because of the known competitiveness of matching into this specialty, applicants have adopted a shotgun approach to increase their chances of matching. A potential solution to this dilemma is to limit the number of programs to which an applicant can apply. By doing so, applicants would therefore need to strategize the application process. Rather than continuing to use the shotgun approach, applicants would need to decide to which programs to apply based on location, connections, and program attributes. This would also limit the average number of interviews an applicant would be offered and would attend, thereby potentially saving applicants several hundreds if not thousands of dollars. However, by using this approach, applicants would have a high chance of matching with fewer interviews than they currently receive.

Limiting the number of applications submitted would not just benefit the applicants. Programs would receive significantly fewer applications on average, thereby enabling most to review every application submitted rather than screen submissions using Step 1 and Step 2 scores. This would place less emphasis on these scores, a consideration that has been suggested previously,⁸ and allow for a more comprehensive evaluation of applicants. Furthermore, rather than interviewing 50 to 80 applicants, programs could interview approximately 30 to 40 applicants and still feel comfortable that they would match all of their postgraduate year-1 positions. This

could reduce the number of interview days held by most programs, thereby allowing faculty members involved in the interview process to see patients an additional day rather than interview more applicants. Thus, adopting such a policy could financially benefit programs in addition to applicants.

Although no system is perfect, the author believes that, by limiting the number of orthopedic surgery residency programs to which applicants may apply, the financial burden of interviews would be significantly reduced, programs could more comprehensively evaluate applicants, and the number of applicants that each program would need to interview annually would be reduced. This policy could also be adopted by other competitive specialties.

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