



Financial and Time Burdens for Medical Students Interviewing for Residency

Paul Callaway, MD; Trisha Melhado, MPH; Anne Walling, MB ChB; Jordan Groskurth

BACKGROUND AND OBJECTIVES: Interviewing for residency positions is increasingly stressful for students and challenging for programs. Little information is available about the costs and time invested by students in interviewing or about the key factors in decisions to accept interview offers. Our objective was to assess the time and financial costs of residency interviewing for an entire class at a regional campus and explore factors influencing student decisions to accept interviews.

METHODS: We used a 14-item survey administered electronically immediately following National Resident Matching Program results.

RESULTS: The response rate was 75% (49 of 65 students). About half interviewed in primary care specialties. Thirty students (63%) applied to 20 or more programs, and 91% were offered multiple interviews out of state. Seventy percent limited interviews by time and cost. Other important factors included personal “fit,” program reputation, and the quality of residents. About 50% of the students spent more than 20 days and \$1,000–\$5,000 interviewing; 29% reported spending over \$5,000. Students used multiple funding sources, predominantly loans and savings. Primary care applicants applied to fewer out-of-state programs, reported fewer interview days and lower expenses, but received more financial support from programs.

CONCLUSIONS: Students invested considerable time and resources in interviewing, and these factors significantly influenced their decisions about accepting interviews. The other major factors in interview decisions concerned personal comfort with the program, especially the residents. The costs and time reported in this study could be greater than other schools due to the regional campus location or lower due to the high proportion of students interviewing in primary care.

(Fam Med 2017;49(2):pp-pp.)

In 2015, 34,904 applicants to the National Resident Matching Program (NRMP) vied for 27,293 first-year positions in 4,012 programs.¹ Successful US seniors applied to a median of 30 programs, received 16 interview offers, and completed 12 interviews.² The match rate for the 18,025 US allopathic graduates remained around 94%, despite increasing competition.

Interviewing is the most important factor in the Match,²⁻⁴ but little is known about its burden on students. The few heterogeneous studies estimate average expenditures of \$4,000–\$6,000 (range <\$100 to >\$20,000), but response rates were 20%–47%.⁵⁻⁹ Lower costs are reported for primary care specialties. This study assessed the time and costs of residency interviewing for regional

campus students and explored factors influencing decisions to accept interviews.

Methods

Study Population

We studied all fourth-year students at a regional campus of a large state medical school.

Design

We used a 14-item survey based on literature review and input from students, faculty, and administrators, distributed electronically immediately following NRMP results. Class leaders sent social media reminders for 3 weeks. Donations to the graduation celebration were offered proportional to response.

Measures

Survey questions covered number and location of programs where students applied and interviewed; factors influencing interview decisions; time, costs, source(s) of funding for interviewing; and costs covered by programs.

Analysis

Descriptive: Chi square for primary care verses other time and expense comparisons.

From the Department of Family and Community Medicine, University of Kansas School of Medicine-Wichita.

Approval

Approval was granted by the University of Kansas Institutional Review Board.

Results

Forty-nine (75%) of the 65 students completed surveys: 22 (45%) women; 42 (86%) white; mean age 28 years. Thirty (63%) students applied to more than 20 programs; 23 (77%) in non-primary care and seven (23%) in primary care ($P<.001$).

Ninety-one percent of students were offered five or more interviews out of state and completed an average of eight (range 1–15). Sixteen percent interviewed in more than one specialty mainly due to concern about not matching in the desired specialty. Almost 70% of students limited the number of interviews

because of time and/or cost. The most important additional factor was personal “fit” with the program. Residents were highly influential in interviewing decisions (Table 1). Forty-seven percent of students spent 20 or more days interviewing (Figure 1). Half spent \$1,000–\$5,000 and 29% spent over \$5,000 (Figure 2), using multiple funding sources (Table 2). About 20% of programs covered lodging, approximately 30% paid for meals, and 24% offered travel assistance. Applicants in primary care spent comparable time but incurred significantly less expense and received significantly more financial support from programs (Tables 3 and 4).

Students matched to 25 different programs in 18 states; 47% matched

in primary care and 30% to local programs.

Discussion

The high response rate conveys the experience of one class of US seniors. The small sample, regional campus, and primary care culture limit applicability to other schools. The study indicates the need for further research into the topic.

Study respondents reported similar numbers of applications submitted, interview offers, and interviews completed to the medians for all matched US allopathic graduates.² The “magic number” of interviews for success in any specialty is unknown but on a 94% Match rate was related to five interviews in plastic surgery.^{2,7,10} In all specialties, the number of applications and interviews is excessive but understandable in this high-stakes process.

Location and overall quality of the program were crucial in selecting programs. Notably, residents were more influential than input from faculty, other students, or information provided by the program or medical school.

The interview costs appear similar to figures previously reported, but comparisons are complicated by our high proportion of primary care applicants.⁶ Costs of under \$5,000 have been reported by 94% for family medicine applicants, 81% for internal medicine, and 88% for pediatrics.⁶ Our students could be expected to incur additional travel costs as the closest residency programs outside of the Sponsoring Institution are approximately 200 miles away. Narrative comments validated that cost was significantly more important than time in deciding on the number and location of interviews. Students interviewed nationwide, often using borrowed funds. Residencies showed great variation in financial assistance, with primary care programs providing significantly more support.

No study has reported time spent interviewing. Students may under-report interviewing time due to

Table 1: “Very Important” Factors in Accepting Invitations to Interview

Factor	Percentage of Students Reporting
Personal “fit” with the program	82
Program reputation	65
Program location	63
Advice from and/or experience with residents	47
Program literature/website	41
Recommendations from medical school/faculty	37
Recommendations from other students	31

Factors are not mutually exclusive

Figure 1: Time Commitment Associated With Interviewing

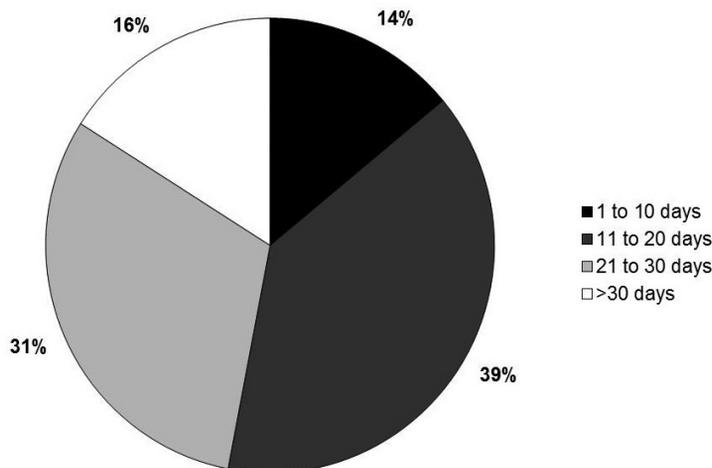
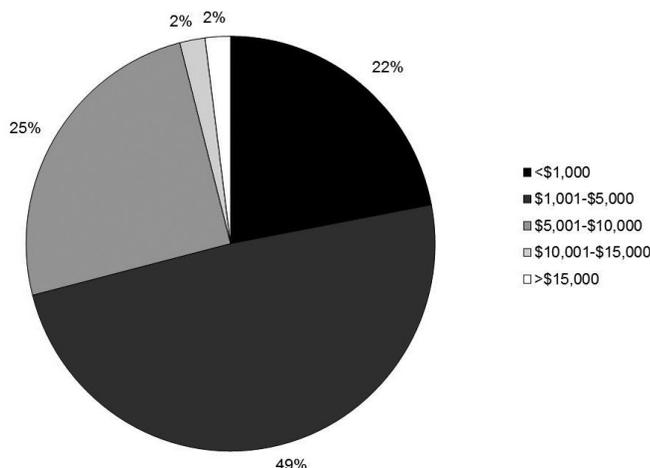


Table 2: Financial Support for Interviewing

Principal Source	Percent of Students Reporting
Loans	23
Savings	16
Credit cards	5
Family gifts	4

More than one source reported by 52% of students

Figure 2: Expenditures Associated With Interviewing

regulations about excused absences. The time demands of interviewing are crucial in designing fourth-year curricula.¹¹ Students prioritize matching for residency over other fourth year goals.¹²

ACKNOWLEDGMENTS: This study received \$500 from the Dean's Level I Grant Award.

Poster presentation: Walling A, Callaway P, Melhado T, Groskurth J. A necessary burden? Medical student expenses in the residency interviewing process. Presented at the 2016 Society of Teachers of Family Medicine Conference on Medical Student Education, Phoenix, AZ.

CORRESPONDING AUTHOR: Address correspondence to Dr Walling, University of Kansas School of Medicine-Wichita, Department of Family and Community Medicine, 101 N. Kansas, Wichita, KS 67214. 316-293-2607. Fax: 316-293-2636. awalling@kumc.edu.

References

1. National Resident Matching Program: results and data: 2015 main residency match. Washington, DC: National Resident Matching Program, 2015. http://www.nrmp.org/wp-content/uploads/2015/05/Main-Match-Results-and-Data-2015_final.pdf. Accessed May 2016.

2. National Resident Matching Program. Data Release and Research Committee: results of the 2015 NRMP applicant survey by preferred specialty and applicant type. Washington, DC: National Resident Matching Program, 2015. <http://www.nrmp.org/match-data/main-residency-match-data/>. Accessed May 2016.
3. Makdisi G, Takeuchi T, Rodriguez J, Rucinski J, Wise L. How we select our residents—a survey of selection criteria in general surgery residents. *J Surg Educ* 2011;68:67-72.
4. Swanson WS, Harris MC, Master C, Gallagher PR, Mauro AE, Ludwig S. The impact of the interview in pediatric residency selection. *Amb Ped* 2005;5:216-20.
5. Guidry J, Greenberg S, Michael L. Costs of the residency match for fourth-year medical students. *Texas Med* 2014;110(6):e1. <http://www.texmed.org/June14Journal/>. Accessed December 2015.
6. Benson NM, Stickle TR, Raszka WV. Going “fourth” from medical school: fourth-year medical students’ perspectives on the fourth year of medical school. *Acad Med* 2015;90:1386-93.
7. Claiborne JR, Crantford JC, Swett KR, David LR. The plastic surgery match: predicting success and improving the process. *Ann Plast Surg* 2013 Jun;70(6):698-703
8. Rogers CR, Gutowski KA, Munoz-Del Rio A, et al. Integrated plastic surgery residency applicant survey: characteristics of successful applicants and feedback about the interview process. *Plast Reconstr Surg* 2009;123:1607-17.
9. Kerfoot BP, Asher KP, McCullough DL. Financial and educational costs of the residency interview process for urology applicants. *Urology* 2008;71:990-4.
10. Malafa MM, Nagarkar PA, Janis JE. Insights from the San Francisco Match rank list data: how many interviews does it take to match? *Ann Plast Surg* 2014 May;72(5):584-8.
11. Walling A, Merando A. The fourth year of medical education: a literature review. *Acad Med* 2010;85:1698-704.
12. Wolfe SJ, Lockspeiser TM, Gong J, Guiton G. Students’ perspectives on the fourth year of medical school. A mixed-methods analysis. *Acad Med* 2014;89:602-7.

Table 3: Interview Time and Cost Primary Care and Other Specialties

	Primary Care n=23	NonPrimary Care n=25	P Value
More than 20 days interviewing	10 (44%)	12 (48%)	NS (P=.94)
Total expenses <\$1,000	10 (44%)	1 (4%)	.005
\$1001–\$5,000	9 (39%)	15 (60%)	
> \$5,000	4 (17%)	9 (36%)	

NS—not significant

Table 4: Financial Support From Programs by Category

	Primary Care N=23	Non-Primary Care N=25
Travel Expenses (p=.002)		
No programs paid any expenses	11 (48%)	25 (100%)
Some programs paid partial expenses	5 (22%)	0 (0%)
Some or all programs paid all expenses	5 (22%)	0 (0%)
Lodging (p<.001)		
No programs paid any expenses	0 (0%)	3 (12%)
Some programs paid partial expenses	0 (0%)	11 (44%)
Some or all programs paid all expenses	22 (96%)	10 (40%)
Meals (p=.033)		
No programs paid any expenses	0 (0%)	1 (4%)
All programs paid partial expenses	5 (22%)	6 (24%)
Some programs paid partial expenses	3 (13%)	9 (36%)
Some or all programs paid all expenses	14 (61%)	9 (36%)

Note: percentages may not add up due to missing data