Original Research

The Important Factors Applicants Consider When Choosing a Residency: A Survey Study

Amber Quave, MD[1]; Napatkamon Ayutyanont, PhD[3]; Hossein Akhondi, MD[2]

Author affiliations are listed at the end of this article.

Correspondence to:
Amber Quave, MD
MountainView Hospital
GME Consortium
3100 N Tenaya Way
Las Vegas, NV 89128
(Amber.quave@
hcahealthcare.com)

Abstract

Background

While medical school graduates compete to get matched into the best residency programs, programs also compete to attract the best applicants. The applicant's decision to rank their programs of interest is determined by several factors, many of which are not always apparent.

Method

This study aimed to evaluate significant factors involved in an applicant's residency program selection. A 12-question survey was sent between June 2020 and September 2020 to all first-year internal medicine residents in the United States (US) through an online national database of residencies using the Survey Monkey platform. We asked them to rank the most significant factors that enticed or deterred them from choosing a specific program. We also compared domestic with international medical graduate (IMG) average ranked responses wherein differences were evaluated using an independent two mean samples t-test. The association between outcomes and predictors was analyzed using Pearson's correlation and chi-square analysis.

Results

Out of 9,127 residents, 102 responded to the survey, which equaled a 1.11% response rate. The findings showed that the location, culture, and organization of a program are high-value factors for applicants. Salary, the number of cases seen, and friends near the residency location were not.

There are statistically significant differences between graduates of US medical schools and IMG applicants, with the former placing higher importance on the quality of life during residency. Male and female residents also have different priorities with the latter emphasizing program culture and work environment improvement.

Residents who chose programs based on academic competitiveness also placed significance on the prestige of the program (r = 0.418, P < .001), program organization/structure (r = 0.3, P = .006), fellowship match rate (r = 0.307, P = .006) and word of mouth (r = 0.520, P < .001). Residents who chose programs based on program culture also put an emphasis on the perceived happiness of the residents (r = 0.450, P = 0.001), and work-life balance (r = 0.359, P = .004).

Conclusion

Programs can attract stronger applicants if they emphasize modifiable factors that are important to potential residents.

Keywords

education, medical, graduate; program selection; internal medicine residency; choosing a residency; promoting a residency; internship and residency; career choice; surveys and questionnaires

Introduction

Previous research has focused on how potential residents can make themselves stand out and seem more attractive to programs.[1] Rinard et al. researched what makes a resident attractive to surgical programs. They found that membership in the Alpha Omega Alpha honor society, good United States Medical Licensing Examination Step 1 and Step 2 scores, research experience, and graduation from a top 40 National Institute of Health-funded medical school were factors that significantly impacted a resident's chance of successfully matching into a good program. In contrast, additional graduate degrees did not affect matching into surgical specialties (range 0.64 to 1.2).[1]

Although applicants are competing to get in, programs are also fighting to attract the best applicants. This juxtaposition has created interest in how programs can make themselves more attractive to potential residents, which in turn may indirectly increase resident satisfaction by making the program a more cohesive, fluid, and high-functioning group. Prior studies have looked into this potential effect for programs such as plastic surgery.[2] Vasconez analyzed residents' rankings and wellbeing via an anonymous online cross-sectional survey.[2] In this study, the perception of resident happiness was the most positive factor influencing program ranking, followed by high operative volume, faculty mentorship, and strong research infrastructure.[2] Perception of a program as "malignant" was the most negative attribute influencing program ranking.[2] This suggests that residents place significant importance on their own mental wellbeing while in training.

In a different study, Laskey et al. found that emergency medicine residents sampled from 1996-1998 and 2001-2004 by the American Board of Emergency Medicine in a longitudinal study, considered the program reputation, hospital facilities, program director reputation, and spousal influence essential variables when choosing a residency.[3] Lastly, a Yousuf et al. survey concluded that the 3 essential factors affecting ranking by residents were resident-faculty relationships, clinical and surgical volume, and training diversity.[4]

The present study sought to determine what makes an applicant rank a particular internal medicine (IM) program over others during the matching process. Therefore, a nationwide qualitative survey was done among IM residents to evaluate their reasons for ranking and ultimately choosing their residency program. The study's primary objective was to analyze residents' priorities and motivations for selecting specific residencies over others. The findings may help IM programs attract more prospective residents.

Materials and Methods

Selection of Participants and Study Design

This study includes matriculated residents from United States (US) IM residency programs; this included graduates of United States medical schools and international medical graduates (IMGs). Medical students, fellows, and physicians searching or interviewing for residency were excluded. The primary investigators did all of the eligibility assessments. The Graduate Medical Education (GME) Institutional Review Board (IRB) reviewed the study and determined that it was exempt.

Residency program contact information was obtained from FREIDA online, a national residency database.[5] The voluntary survey was distributed electronically nationwide to all the residents via their residency program coordinators using FREIDA's database. The email contained an anonymous survey link that took the resident to the Survey Monkey platform. The survey included baseline demographics and 4 sets of ranking questions that allowed the subjects to rank their preferences for residency programs from the available choices (**Appendix 1**). There was an option for 50 characters of free text for each question. Each respondent completed the survey one time, and double-entry was prohibited. The study was conducted from June 2020 to September 2020.

Data Analysis

Descriptive statistics were used to examine the distribution of outcomes and predictors. We compared domestic with international medical graduate (IMG) average ranked responses wherein differences were evaluated using an independent sample t-test. The association between outcomes and predictors was analyzed using Pearson's correlation and chi-square

analysis. A *P*-value of .05 was used as a threshold to determine statistical significance in all analyses. Statistical analyses were conducted using SPSS 26.[6]

Results

Out of 9,127 residents, only 102 responded to the survey study email (1.11%) despite 3 overall attempts. The subjects' ages ranged from 25 to 49 with the mean (± SD) age being 31 (± 4.5). There were 45 (44.1%) female responders and 54 (54.54%) male responders. Data were separated into groups based on the sex of the residents and the location of the medical school. For each of the 4 questions, the participants were asked to rank their answers from whatever the highest number is (8 or 16 depending on the question), being the least important, to 1, being the most important. The participants were required to rank all options.

The survey results showed that location was the most important factor for a resident in determining which program to choose followed by the program culture and its organization. The least important factors were the number of cases/procedures, friends in the location of the residency program, and salary.

The most important factors preventing residents from choosing a residency were location, academic competitiveness of the program, and program organization. The least important were salary, the number of patients and different pathologies, and the number of cases and procedures.

The top 3 most important reasons why residents did not apply to some programs were the location, discouragement from someone they knew, or a perceived lack of program prestige. The least important reason why residents did not apply to some programs was the perceived lack of program rigor.

Residents ranked improving resident benefits as the most important initiative for programs to promote themselves followed by higher gross salaries and student loan relief benefits. Residents cited better access to current medical journals and literature as the least important feature programs can improve on to attract residents (**Table 1**).

Domestic versus International Comparison

Out of 102 residents, 62.7% of responses were from IMGs versus 37.3% for US medical school graduates. For US medical graduates, program prestige ranked, on average, lower as a factor for choosing a particular residency compared with IMGs (*P* = .006). In contrast, friends ranked as a higher priority for US medical graduates (*P* = .039). For US medical graduates, the fellowship match rate was not as crucial in preventing them from choosing a residency as it was for IMGs (*P* = .028). In contrast, the program's culture and the perceived happiness of the residents were more important for US medical graduates when choosing a specific program (*P* = .015 and .001, respectively).

There was no statistically significant difference between US medical graduates and IMGs on reasons for not applying to programs. US medical graduates cited more streamlined daily workflows as more important when improving residency programs (*P* = .048) (**Table 2**).

Sex Comparison

Out of 99 residents who provided their sex, 54.54% of responses were from males, and 44.1% were from females. Females ranked residents' perceived happiness (*P* < .001), the number of patients and different pathologies (*P* = .001), and the number of cases/procedures (*P* = .022) as more important factors leading them to choose their current residency program compared to males.

There was no statistically significant difference between sexes regarding reasons that would have prevented them from choosing a particular program. Females ranked the program's location as a more critical reason as to why they did not apply to programs than men (*P* = .009). Males rated word of mouth as essential to promoting specific programs compared to females (*P* = .026). In contrast, females ranked improving the residency website (*P* = .006) and having a healthy program culture and work environment as more critical to promoting programs (*P* = .016) (**Table 3**).

Correlations

We evaluated the ranking that caused residents to choose their current residency program and

Table 1. Averages for All Questions From All Respondents (Listed by Their Ranking Results).

1. What drew you to choose your current residency program? Ranked from most (1) to least (16) important.	Mean (n)	2. What would have prevented you from choosing a particular residency? Ranked from most (1) to least (16) important.	Mean (n)	3. Why did you not apply to some programs? Ranked from most (1) to least (8) critical.	Mean (n)	4. What can be done to promote specific residency programs across the country? Ranked from most (1) to least (16) important.	Mean (n)
Location	4.3 (99)	Location	3.6 (79)	Location of the program	2.8 (86)	Better resident benefits	4 (86)
Culture of the program	6 (89)	Academic competitiveness of the program	5.2 (58)	Discouraged by social contact	3.2 (78)	Higher gross salaries	4.6 (80)
Program organization/structure	6.1 (90)	Program organization/structure	5.2 (68)	Perceived lack of prestige of the program	4.3 (74)	Student loan relief benefits	4.86 (79)
Work-life balance	6.1 (88)	Culture of the program	5.56 (76)	Organization of the program	4.4 (72)	Have a healthy program culture/ work environment	5 (90)
Perceived happiness of the residents	6.2 (92)	Fellowship match rate	6.8 (57)	Perceived lack of academic research opportunities	4.46 (74)	More modern and more superior facilities	5.5 (77)
Academic competitiveness of the program	7.5 (84)	Program/company benefits	6.85 (55)	Program staff and/or attending	4.5 (75)	Having an EMR or a better EMR	6.5 (78)
Family	7.7 (85)	The prestige of the program	6.9 (60)	Lack of fellowship opportunities	4.96 (77)	Word of mouth	7.1 (66)
Fellowship match rate	8.7 (81)	Perceived happiness of the residents	7 (73)	Perceived lack of challenge of the program	5 (70)	More streamlined workflow	8.6 (70)
The prestige of the program	8.9 (80)	Work-life balance	7.3 (66)			Less dealing with non-medical responsibilities	9.2 (70)
Weather	8.9 (84)	Family	7.75 (61)			The active social life of the residents	9.2 (71)
Number of patients and different pathologies	9 (89)	Weather	9 (58)			Emphasis on community service	9.5 (62)
Program/company benefits	9 (82)	Serving the community	9.15 (58)			Alternative media promotion	10.1 (64)
Serving the community	9.2 (81)	Friends	10.4 (54)			Regular adherence to the 80-hr work week restriction	10.15 (72)
Number of cases and/or procedures	10.4 (85)	Salary	11.2 (59)			Mass advertisement in medical schools	10.3 (63)
Friends	10.8 (76)	Number of patients and different pathologies	11.5 (57)			Improving the website of the residency/organization	10.45 (68)
Salary	11.1 (80)	Number of Cases and/or procedures	12.8 (56)			Better access to current medical journals and literature	12.2 (72)

Table 2. Averages for All Questions From US Medical School Graduates (USMGs) and International Medical Graduates (IMGs).

1. Average Rank of what drew USMGs versus IMGs to choose their current residency programs (1=most, 16=least)	USMGs (n)	IMGs (n)	2. Average ranked factors that would have prevented the USMGs versus IMGs from choosing a certain residency. (1=most, 16=least)	USMGs (n)	IMGs (n)	3. Average Ranked reasons USMGs versus IMGs did not apply to programs (1=most, 8=least)	USMGs (n)	IMGs (n)	4. What can be done to promote specific residency programs across the country according to USMGs versus IMGs? (1=most, 16=least)	USMGs (n)	IMGs (n)
Academic competitiveness of the program	8 (26)	7 (56)	Academic competitiveness of the program	5.6 (19)	5.1 (38)	Discouraged by a social contact	3.0 (24)	3.3 (54)	Student loan relief benefits	4.5 (28)	5 (51)
Prestige of the program	11 (25) *	8 (53) *	Prestige of the program	6.9 (18)	7 (41)	Perceived lack of prestige of the program	3.9 (25)	4.5 (49)	Higher gross salaries	4 (30)	4.9 (50)
Program organization/Structure	6.3 (30)	5.9 (58)	Program organization/Structure	5.3 (23)	5.2 (44)	Perceived lack of academic research opportunities	4.2 (28)	4.6 (46)	Better resident benefits	4.1 (32)	3.9 (54)
Program/Company benefits	9.8 (26)	8.7 (54)	Program/Company benefits	7.2 (16)	6.8 (38)	Perceived lack of challenge of the program	4.96 (24)	5.15 (46)	More modern and nicer facilities	5.2 (26)	5.6 (51)
Fellowship match rate	9.1 (27)	8.6 (52)	Fellowship match rate	8.1 (17) *	6.4 (39) *	Organization of the program	4.7 (24)	4.2 (48)	Word of mouth	7.4 (18)	6.97 (48)
Location	3.5 (36)	4.7 (61)	Location	3.3 (26)	3.7 (52)	Location of the program	2.5 (31)	3 (55)	Mass advertisement in medical schools	10.1 (17)	10.3 (46)
Serving the community	9.6 (23)	8.9 (56)	Serving the community	9.3 (16)	9.1 (41)	Program staff and attending	3.8 (23)	4.8 (52)	Alternative media promotion (apps, social media, etc.)	10.47 (17)	10 (47)
Family	7.7 (26)	7.6 (57)	Family	7.4 (18)	7.9 (42)	Lack of fellowship opportunities	4.9 (26)	4.98 (51)	Emphasis on community service	9.9 (17)	9.4 (45)
Friends	9.5 (24) *	11.5 (50) *	Friends	10.4 (16)	10.5 (37)				More streamlined daily workflow	7.5 (22) *	9.1 (48)*
Culture of the program	5.1 (31)	6.4 (56)	Culture of the program	4.0 (27) *	6.3 (48) *				Having an EMR or a better EMR	5.7 (27)	7 (51)
Weather	7.8 (27)	9.3 (55)	Weather	10 (16)	8.6 (41)				Less dealing with non-medical responsibilities	9.1 (21)	9.2 (49)
Salary	9.8 (26)	11.8 (52)	Salary	10.8 (17)	11.3 (41)				Improving the website of the residency/ organization	9.9 (20)	10.7 (48)
Work-Life balance	5.5 (30)	6.5 (56)	Work-Life balance	6.5 (24)	7.7 (42)				The active social life of the residents	8.6 (23)	9.5 (48)
Perceived happiness of the residents	5.2 (33)	6.7 (57)	Perceived happiness of the residents	4.4 (28) *	8.6 (44) *				Regular adherence to the 80-hour workweek	9.7 (23)	10.4 (49)
Number of patients and different pathologies	8.1 (30)	9.2 (57)	Number of patients and different pathologies	12.2 (17)	11.2 (39)				Having a healthy program culture/work-environment	4.45 (33)	5.4 (57)
Number of cases and/or procedures	10.1 (26)	10.3 (57)	Number of cases and/or procedures	13.2 (18)	12.5 (37)				Better access to current medical journals and literature	13.14 (21)	11.8 (51)

*P-value < .05

Table 3. Averages for All Questions From Males Compared With Females.

1. Average rank of what drew males versus females to choose their current residency programs (1=most, 16=least)	Males (n)	Females (n)	2. Average ranked factors that would have prevented males versus females from choosing a certain residency. (16=least, 1=most)	Males (n)	Females (n)	3. Average ranked reasons males versus females did not apply to programs (8=least, 1=most)	Males (n)	Females (n)	4. What can be done to promote specific residency programs across the country according to males versus females? (16=least, 1=most)	Males (n)	Females (n)
Academic competitiveness of the program	7.3 (49)	7.6 (30)	Academic competitiveness of the program	5.2 (36)	5.5 (18)	Discouraged by a social contact	3 (45)	3.3 (30)	Student loan relief benefits	5 (47)	4.8 (29)
Prestige of the program	9 (47)	8.86 (28)	Prestige of the program	6.9 (36)	7.4 (20)	Perceived lack of prestige of the program	4 (46)	4.8 (25)	Higher gross salaries	4.3 (49)	4.9 (28)
Program organization/Structure	6.1 (51)	5.8 (34)	Program organization/Structure	5.8 (38)	4.3 (26)	Perceived lack of academic research opportunities	4.4 (45)	4.6 (26)	Better resident benefits	3.9 (48)	4 (35)
Program/Company benefits	8.4 (49)	10 (28)	Program/Company benefits	6.9 (34)	7.1 (17)	Perceived lack of challenge of the program	5.1 (43)	4.9 (24)	More modern and nicer facilities	5.2 (46)	5.9 (28)
Fellowship match rate	8.6 (48)	8.9 (28)	Fellowship match rate	6.9 (36)	7 (17)	Organization of the program	4.5 (45)	4.2 (24)	Word of mouth	6.2 (39) *	8.5 (24) *
Location	4.3 (53)	4.5 (41)	Location	3.7 (45)	3 (30)	Location of the program	3.3 (48) *	2 (35) *	Mass advertisement in medical schools	9.7 (40)	11.3 (20)
Serving the community	9 (46)	9.2 (30)	Serving the community	9.35 (37)	9.35 (17)	Program staff and attending	4.8 (46)	4.2 (26)	Alternative media promotion (apps, social media, etc.)	9.9 (40)	10.2 (21)
Family	7.5 (48)	8.3 (32)	Family	7.3 (38)	8.7 (19)	Lack of fellowship opportunities	5.1 (47)	4.3 (27)	Emphasis on community service	9.4 (37)	9.8 (22)
Friends	10.6 (44)	11.9 (27)	Friends	10.5 (34)	10.75 (16)				More streamlined daily workflow	8.55 (40)	8.6 (27)
Culture of the program	6.6 (50)	5 (34)	Culture of the program	6 (43)	4.4 (29)				Having an EMR or a better EMR	6.6 (44)	6.4 (31)
Weather	9 (48)	8.8 (31)	Weather	9.5 (36)	8 (19)				Less dealing with non-medical responsibilities	9.8 (43)	8 (24)
Salary	11 (46)	11.75 (29)	Salary	10.9 (38)	11.7 (18)				Improving the website of the residency/organization	11.5 (40) *	8.3 (25) *
Work-Life balance	6.7 (49)	5.5 (34)	Work-Life balance	7.6 (40)	6.6 (23)				The active social life of the residents	9.85 (42)	8.3 (26)
Perceived happiness of the residents	7.3 (50) *	4.3 (37) *	Perceived happiness of the residents	7.4 (41)	6 (28)				Regular adherence to the 80-hour workweek	10.9 (44)	8.9 (25)
Number of patients and different pathologies	10.1 (49) *	6.9 (35) *	Number of patients and different pathologies	11.9 (34)	10.3 (19)				Having a healthy program culture/work-environment	6 (49) *	3.6 (38) *
Number of cases and/or procedures	11.3 (47) *	8.5 (33) *	Number of cases and/or procedures	12.8 (33)	12.15 (19)				Better access to current medical journals and literature	12.9 (42)	11 (27)

*P-value < .05

the ranking that deterred them from selecting one in questions 1 and 2. We found the program's academic competitiveness, program prestige, and fellowship match rate were all positively correlated with each other when comparing residents who answered questions 1 and 2. In addition, residents who chose programs based on academic competitiveness also placed significance on prestige of the program (r = 0.418, *P* < .001), program organization/structure (r = 0.3, *P* = .006), fellowship match rate (r = 0.307, *P* = .006), and (in question 4) positive word of mouth (r = 0.520, *P* < .001). Residents who chose programs based on location also ranked family (r = 0.296, *P* = 0.006), weather (r = 0.284, *P* = .009), and having a healthy program culture/work environment (r = 0.292, *P* = 0.006) higher. Residents who chose programs based on serving the community positively correlated with residents who did not apply to programs based on the perceived lack of academic research opportunities (r = 0.317, *P* = .009).

Residents who chose programs based on program culture in questions 1 and 2 also emphasized (in question 4) perceived happiness of the residents (r = 0.45, *P* < .001), work-life balance (r = 0.359, *P* = .004), and programs that promote regular adherence to the 80-hour workweek restriction (r = 0.453, *P* < .001). In addition, residents who chose programs based on the number of patients and different pathologies in questions 1 and 2 also looked for a positive perception of staff/attendings in question 3 (r = 0.343, *P* = .004), and looked for programs that promote regular adherence to the 80-hour workweek restriction (r = 0.378, *P* = .001) and programs with a healthy program culture/work environment in question 4 (r = 0.324, *P* = .004).

In contrast, the same residents who chose programs based on academic competitiveness in questions 1 and 2 put less emphasis on work-life balance (r = -0.368, *P* = .001) and the residents' perceived happiness (r = -0.355, *P* = .001). Residents who chose programs based on program/company benefits and family in questions 1 and 2 focused less on the residents' perceived satisfaction (r = -0.319, *P* = .004 for benefits and r = -0.312, *P* = .004 for family) and the number of patients with different pathologies (r = -0.359, *P* = .001 for benefits and r = -0.291, *P* = .009 for family) when ranking residencies.

Residents who thought the best way to improve program reputation was through mass advertisement and alternative media promotion tended to rank promoting the active social life of residents (r = -0.522, *P* < .001 and r = -0.470, *P* < .001) and a regular adherence to the 80-hour workweek restriction (r = -0.529, *P* < .001 and r = -0.383, *P* = .002), or having a healthy program culture/work environment (r = -0.49, *P* = -.451) and better access to medical journals/literature (r = -0.498, *P* = .0 and r = -0.449, *P* < .001) as not important.

Discussion

There is no doubt that many factors are involved when an applicant chooses a residency. A program that wishes to attract more desirable applicants has inherent and non-modifiable factors such as location, weather, community, etc. Although some other factors are modifiable, they are only partially so. Examples are salary (regulated by ACGME for the most part), cases encountered in the hospital, and pathology frequency. However, some factors are modifiable, which need to be the focus of a program that wishes to attract better applicants. Organization of a program, work-life balance, and perceived happiness are modifiable factors that a program can change with thoughtful planning and execution. Based on this study's findings, programs can look into the highly regarded factors and modify them as much as possible. Through careful planning, the program director can immensely enhance the applicant pool and future residents for the program.

One of our study's limitations is that the respondents are limited to the IM residents who successfully matched. Another limitation is that the sample size is small compared with the entire population despite emailing programs multiple times. Completing the survey was voluntary, and residents were not required by their programs to fill out the survey. Therefore, there may be participation bias due to a low response rate. Since the study was blinded to location, we do not know which region or programs the responses came from or in what percentages. It is also unclear which locations were more desirable for the applicants, if they will eventually practice in the same area as they did residency, or if the location was their goal when choosing the program.

Future research should include increased sample size and information on resident response rate and type based on location. Such research may also expand to include other specialties and study resident wellness. Such a follow-up study might benefit programs and residents alike and guide the best possible match.

Conclusion

Attracting stronger applicants is possible for programs by emphasizing modifiable factors important for the applicants. Based on what successfully matched internal medicine residents are searching for, our results show that programs should focus on the modifiable factors of program organization, program reputation, higher gross salaries with robust student loan relief benefits, improved resident benefits, work-life balance, and perceived happiness to attract stronger applicants.

Contribution Statement

AQ developed the concept, made the questionnaire, conducted the survey, wrote the manuscript, and made the tables.
HA developed the concept, edited the manuscript, submitted it to the journal, and is responsible for the overall content as guarantor.
NA facilitated data gathering, performed the statistical analysis, and edited the manuscript.

Conflicts of Interest

The authors declare they have no conflicts of interest.

Dr Quave is an employee of MountainView Hospital, a hospital affiliated with the journal's publisher.

Dr Akhondi is an employee of West Florida Hospital, a hospital affiliated with the journal's publisher.

Dr Ayutyanont is an employee of HCA Healthcare Graduate Medical Education, an organization affiliated with the journal's publisher.

This research was supported (in whole or in part) by HCA Healthcare and/or an HCA Healthcare affiliated entity. The views expressed in this publication represent those of the author(s) and do not necessarily represent the official views of HCA Healthcare or any of its affiliated entities.

Author Affiliations

1. MountainView Hospital-GME Consortium Las Vegas, NV
2. West Florida Hospital, Pensacola, FL
3. HCA Healthcare Graduate Medical Education, Far West Division, Las Vegas, NV

References

1. Rinard JR, Garol BD, Shenoy AB, Mahabir RC. Successfully matching into surgical specialties: an analysis of national resident matching program data. J *Grad Med Educ*. 2010;2(3):316–321. doi:10.4300/JGME-D-09-00020.1
2. Vyas KS, Vasconez HC. What makes a plastic surgery residency program attractive? An applicant's perspective. *Plast Reconstr Surg Glob Open*. 2016;4(6):e771. Published online June 29, 2016. doi:10.1097/GOX.0000000000000785
3. Laskey S, Cydulka RK. Applicant considerations associated with selection of an emergency medicine residency program. *Acad Emerg Med*. 2009;16(4):355-359. doi:10.1111/j.1553-2712.2009.00361.x
4. Yousuf SJ, Kwagyan J, Jones LS. Applicants' choice of an ophthalmology residency program. *Ophthalmology*. 2013;120(2):423-427. doi:10.1016/j.ophtha.2012.07.084.
5. FREIDA. American Medical Association. Accessed June 1, 2020. https://freida.ama-assn.org/
6. IBM SPSS software. IBM. Accessed February 21, 2022. https://www.ibm.com/analytics/spss-statistics-software

Appendix 1. Survey.

Age=   Sex=   Specialty=IM   US graduate=   International graduate=
Home town=   Med School town=   Residency town=

1. **What drew you to choose your current residency program? Choose as many as you want but number them based on importance (16=least, 1=most)**
    a.   Academic competitiveness of the program
    b.   Prestige of the program
    c.   Program organization/structure
    d.   Program/company benefits
    e.   Fellowship match rate
    f.   Location
    g.   Serving the community
    h.   Family
    i.   Friends
    j.   Culture of the program
    k.   Weather
    l.   Salary
    m.   Work-life balance
    n.   Perceived happiness of the residents
    o.   Number of patients and different pathologies
    p.   Number of cases and procedures
    q.   Other (please specify)

2. **What would have prevented you from choosing a certain residency? Choose as many as you want but number them based on importance (16=least, 1=most)**
    a.   Academic competitiveness of the program
    b.   Prestige of the program
    c.   Program organization/structure
    d.   Program/company benefits
    e.   Fellowship match rate
    f.   Location
    g.   Serving the community
    h.   Family
    i.   Friends
    j.   Culture of the program
    k.   Weather
    l.   Salary
    m.   Work-life balance
    n.   Perceived happiness of the residents
    o.   Number of patients and different pathologies
    p.   Number of cases and procedures
    q.   Other (please specify)

3. **Why did you not apply to some programs? (8=least, 1=most)**
    a.   Discouraged by a social contact (friends, family)
    b.   Perceived lack of prestige of the program
    c.   Perceived lack of academic research opportunities
    d.   Perceived lack of challenge of the program
    e.   Organization of the program
    f.   Location of the program
    g.   Program staff and attending
    h.   Lack of fellowship opportunities

4. What can be done to promote specific residency programs across the country? Number accordingly from 1-16. (1=least, 16=most)

    a.   Student loan relief benefits
    b.   Higher gross salaries
    c.   Better resident benefits (lunch money, educational stipends, perks, daycare, etc.)
    d.   More modern and nicer facilities
    e.   Word of mouth (you'd rather hear about programs through social contacts)
    f.   Mass advertisement (online, billboards, etc.) in medical schools
    g.   Alternative media promotion (apps, social media, etc.) in medical schools
    h.   Emphasis on community service
    i.   More streamlined daily workflow
    j.   Having an EMR or a better EMR
    k.   Less dealing with non-medical responsibilities (social work, etc.)
    l.   Improving the website of the residency/organization
    m.   Active social life of the residents
    n.   Regular adherence to the 80-hour work week restriction
    o.   Having a healthy program culture/work-environment
    p.   Better access to current medical journals and literature
    q.   Other (please specify)