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# The Unkindest Cut of All: Are International Medical School Graduates Subjected to Discrimination by General Surgery Residency Programs?

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**PURPOSE:** International medical school graduates (IMGs) have been part of the United States residency applicant pool for several years. There has been increasing discussion of an overproduction of doctors in the United States, and mention of limiting IMG quotas. The purpose of this study was to find out if measurable discrimination existed real or perceived, against IMGs.

**METHODS:** A survey was performed to assess whether program directors of surgery residencies perceive the performance, dedication, and abilities of IMGs as being equal to United States medical school graduates (USMGs), and whether program directors believe that a preference toward USMGs exists. Surveys with 30 tailored questions were mailed to all members of the Association of Program Directors in Surgery. One hundred twenty-five surveys were returned out of 283 mailed, and 112 were included in the data analysis. Besides those relating to demographics, questions on the survey included two series of queries. One set was designed to assess whether the respondent reported that IMGs possessed similar skills and abilities as USMGs, whereas the other addressed whether respondents perceived a tendency in their programs to focus recruitment toward USMGs. Still others were inserted to confirm results of these series, and to assess whether program directors perceived discrimination toward IMGs in general.

**RESULTS:** Survey results indicate the perception that IMGs are similar in skill and ability to USMGs, regardless of program size. However, a perception existed among program directors

that USMGs were favored in the recruitment process, with more than 70% of respondents indicating that they believed IMGs were discriminated against. Furthermore, nearly 20% reported that they had been pressured to rank a less-qualified USMG higher than a more qualified IMG, and 22% reported that they had ranked a USMG higher than an IMG to avoid a reduced compliment of USMGs.

**CONCLUSIONS:** There is a significant belief and perception that IMGs are indeed discriminated against, despite program directors seeing no clear differences in surgical skills between IMGs and USMGs. (Curr Surg 59:228-236. © 2002 by the Association of Program Directors in Surgery.)

**KEY WORDS:** international medical school graduates, (IMGs), foreign medical school graduates, residency review committee, surgical residency, discrimination

## INTRODUCTION

Discrimination comes in many forms, and some are exceptionally subtle. Pressure to engage in subconscious or mild forms of discrimination can be hard to recognize, and it may lead ethical individuals into less than ethical behavior. These pressures may be direct, indirect, or result from perceived pressures to conform to unwritten standards.

International medical school graduates (IMGs)\* have been part of the United States residency applicant pool for several years. There has been increasing discussion of an overproduction of doctors in the United States and mention of limiting IMG residency quotas.<sup>1</sup> In the past, it has been suggested that IMGs could provide care to populations under served by the medical system.<sup>2</sup> These areas were primarily inner cities and rural locales. Accreditation Council for Graduate Medical Education (ACGME) programs in internal medicine and family practice traditionally had positions open for IMGs to address the needs of the under served areas. Surgery, on the other hand, traditionally had fewer slots available for IMGs. This is primar-

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\* International medical school graduates for the purposes of this research are limited to non-United States citizens that graduated from foreign medical schools. Other publications have also referred to IMGs as foreign medical school graduates and non-United States graduates of foreign medical schools. United States medical school graduates include United States citizens or foreign citizens that graduated from a United States medical school. United States citizens graduating from foreign medical schools are not included in this study.

**TABLE 1.** Responses Indexed for SKILABIL, a Variable Designed to Assess Program Directors' Perception of the Surgical Skills and Educational Abilities of IMGs Relative to USMGs.

Question	Factor loading	If agree or strongly agree	If disagree or strongly disagree
Compared with USMGs, IMGs:			
5. Perform as well on standardized examinations	0.573	+1	-1
6. Show equal or better surgical skill level	0.648	+1	-1
7. Demonstrate equal or better commitment to their surgical education	0.733	+1	-1
8. Interact as well with patients	0.494	+1	-1
9. Show equal or better attendance at basic science lectures and similar educational activities	0.609	+1	-1
10. Show equal or better participation in educational activities	0.720	+1	-1

SKILABIL was set at 0 and 1 point added or subtracted, depending on response. A detailed description of how SKILABIL was derived is given in the Methods Section. Factor loadings are based on a 2-factor, varimax-rotated factor analysis. Actual question number from the survey precedes each statement. The complete statements are available in Appendix 1.

USMGs = United States medical school graduates; IMGs = international medical school graduates.

ily because of the high match rate, approximately 98%, for United States medical school graduates (USMGs).<sup>3</sup>

Some question exists as to whether the Residency Review Committees (RRCs) of the various ACGME specialties, especially surgery, exert pressure to recruit and retain only USMGs as an unofficial indicator of the quality of a residency program. Such pressure, whether real or perceived, could lead to discrimination against recruitment of IMGs in order to keep a program in the best light possible.

This study aimed to assess whether program directors of surgery residencies perceive the performance, dedication, and abilities of IMGs as being equal to USMGs, and program directors believe a preference exists toward USMGs. In addition, program directors were asked whether possible discrimination against IMGs was an attempt to avoid the perception of program weakness and possible retribution by the RRC. Differences in perceptions of skills, abilities, and program preference for USMGs will be assessed for size of program, and for university-based programs versus community hospital-based programs.

## METHODS

Surveys were mailed to all members of the Association of Program Directors in Surgery (APDS). The mailing list was obtained from the APDS main office, located in Arlington, Virginia, in May 2000. A total of 283 individuals were on the mailing list. According to the 1999-2000 Graduate Medical Education Directory, 261 general surgery residency programs are active in the United States and Puerto Rico. It is likely the extra 22 represent program directors in transition, or former directors that are still APDS members. Only active program directors were included in the data analysis.

Surveys were mailed on October 25, 2000. A combination reminder/thank you postcard was mailed on November 10, 2000. No further follow-up mailings were completed. The sur-

vey, cover letter, and postcard design were based on methods described by Dillman.<sup>4</sup>

The survey included questions delineating demographics, such as respondent sex, age, and number of years as program director. Information regarding the program, including whether it is based at a university or community hospital, and the number of residents recruited each year, was also requested. One series of queries was designed to assess whether the respondent reported that IMGs possessed similar skills and abilities as USMGs. Another succession of questions addressed whether respondents perceived a tendency in their programs to focus recruitment toward USMGs. Still others were inserted to confirm results of these series, and to assess whether program directors perceived discrimination toward IMGs in general. Also, 2 additional questions were included to determine the extent to which program directors believed that discrimination toward IMGs resulted from fear of the RRC perceiving their program as weak as a result of the inability to recruit USMGs. A complete survey is included in Appendix 1.

Two variables were created by indexing questions found relevant to each of the 2 constructs. Indexing was done following a factor analysis, through which the questions forming the 2 constructs were defined. The first construct included questions geared toward program directors' assessment of IMG surgical skills, dedication, and intellectual abilities relative to USMGs (SKILABIL, Table 1). The second involved perceived recruitment bias favoring USMGs by the general surgery residency program (PROGPREF, Table 2).

Six questions showed factor loadings (absolute values) greater than or equal to 0.3 for each construct. No absolute rule exists for assigning minimum factor loadings, which are based on eigenvalues of multivariate statistical analyses;<sup>5</sup> however, 0.3 is generally considered acceptable.<sup>6</sup> Each variable was formed by adding 1 point for responses favoring the construct and subtracting a point for responses opposing the construct. For example, a response of agree or strongly agree to question 5 (see

**TABLE 2.** Responses Indexed for PROGPREF, a Variable Designed to Assess Program Directors' Perception of the Degree to Which They or Their Program Preferred USMGs Over IMGs

Question	Factor loading	If agree or strongly agree	If disagree or strongly disagree
Our program:			
11. Looks first at whether an applicant is a USMG	0.672	+1	-1
12. Considers IMGs only if we cannot find a qualified USMG	0.576	+1	-1
13. Purposely avoids matching with IMGs	0.796	+1	-1
In my opinion:			
14. Programs should recruit the "best and the brightest regardless of where the candidates completed their MDs	-0.465	+1	-1
15. In reality, all things being equal, our program would rather offer positions to USMGs than to IMGs	0.725	+1	-1
17. Surgical residencies should recruit more IMGs for categorical positions	-0.283	+1	-1

PROGPREF was set at 0 and 1 point added or subtracted, depending on response. A detailed description of how PROGPREF was derived is given in the Methods section. Factor loadings are based on a 2-factor, varimax-rotated factor analysis. Actual question number from the survey precedes each statement. The complete statements are available in Appendix 1.

USMGs = United States medical school graduates; IMGs = international medical school graduates.

Appendix 1 and Table 1) would increase the SKILABIL variable by 1 point, whereas a disagree or strongly disagree would reduce SKILABIL by 1 point. In this manner, the possible range of responses was  $\pm 6$  for each construct for each respondent. A positive score on SKILABIL would indicate that IMGs were perceived as equal or better than USMGs in their surgical skills, dedication, and intellectual capabilities. A negative score would be a negative perception toward the skill and abilities of IMGs, and a score of 0 would be a neutral opinion. A positive score on PROGPREF would indicate the perception that the program showed a preference for USMGs. A negative score would indicate no perceived preference for USMGs, and 0 would indicate no opinion on that issue. Mean values were calculated for each construct across respondents, and means compared for independent variables program size and program type, as described below. It should be noted that some respondents likely did not have direct knowledge of the skills and abilities of IMGs. Therefore, the results reported represent perceived skills and abilities and are not an attempt to quantify actual or observed skills and abilities of IMGs or USMGs.

Programs were divided into program type—university, community, or other, which included military-based programs. For analyses involving the indexed variables, only university and community were considered because too few of the "others" existed to warrant inclusion. Additionally, programs were divided into 2 size categories. Small programs were identified as those with 3 or fewer categorical residents admitted each year, whereas large programs were those in which the number of categorical residents admitted annually was 4 or more.

Data analysis consisted of a descriptive analysis of the survey results. Where applicable, categorical data were compared with Pearson's chi-square. Means for SKILABIL and PROGPREF were tested using a 2-way analysis of variance (ANOVA) model

with program type and program size as fixed factors.<sup>7</sup> Comparisons were considered statistically significant at P is less than or equal to 0.05. All means are reported with the standard deviation in parentheses unless otherwise noted. All data analyses were done using SPSS version 10.0 (SPSS Inc., Chicago, Illinois).

## RESULTS

A total of 125 surveys were returned. An additional 10 were returned as undeliverable, and these were excluded from response rate calculations. A total of 112 were included in the data analysis. Nine surveys were returned blank, and four were returned by non-active APDS members. Total response rate was 46% (125 of 273); response rate for usable surveys was 41% (112 of 273).

### Demographics

Most program directors were male (95%). Average age was 52 years (minimum 37 and maximum 71 years of age). The mean number of years served as program director was 9 years (range, 1 year to 27 years), with 54% having served 7 years or more. Eight percent of respondents were IMGs, 90% were USMGs and 2% did not respond to this question.

Approximately 53% of respondents were from programs admitting 3 or fewer categorical residents per year, and 47% admitted 4 or more. About 13% of respondents were from programs admitting 8 or more categorical residents per year. Similarly, 60% of respondents were from programs admitting 4 or fewer preliminary residents per year; 40% admitting 5 or more, and 14% from programs that admit 12 or more preliminary residents per year.

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**TABLE 3.** Percentage of Respondents in Each Response Category for Questions Regarding Bias in Recruitment Favoring United States Medical School Graduates

Question	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
11. One of the first items we look at is whether an applicant to our program is a USMG	53.6	32.7	5.5	7.3	0.9
13. Our program purposefully avoids matching with IMGs	22.0	30.3	19.3	19.3	9.2
		Yes	No		
20. All objective qualifications being equal, have you ever ranked a USMG higher on your categorical rank list than an IMG to avoid a reduced complement of USMGs		22.3	77.7		
21. Have you ever felt external pressure to not rank a better qualified IMG over a USMG		7.9	82.1		
22. Regardless of what goes on in your program, do you believe IMGs are discriminated against		71.4	28.6		

USMGs = United States medical school graduates; IMGs = international medical school graduate.

Seventy percent of respondents reported that 3 or fewer IMGs were currently in their program; 21% reported 4 to 8 IMGs; and 9% of respondents currently had 9 or more IMGs as residents in their program. Regarding these IMGs, 77% of directors reported that 3 or fewer were categorical.

Fifty percent of respondents were based in university residency programs. Forty-seven percent were from community hospital programs, and the remaining 3% were from military hospital programs. Thirty-nine percent reported that they had 1 to 100 IMGs apply to their program each year. A total of 31% of respondents indicated that 101 to 250 IMGs applied each year; 23% indicated that 251 to 1000 IMGs applied each year, and 2% had more than 1000 IMGs applying each year. Most respondents, about 66%, indicated that at least half of these IMGs applied for categorical positions.

### Perception of IMG Skills and Abilities

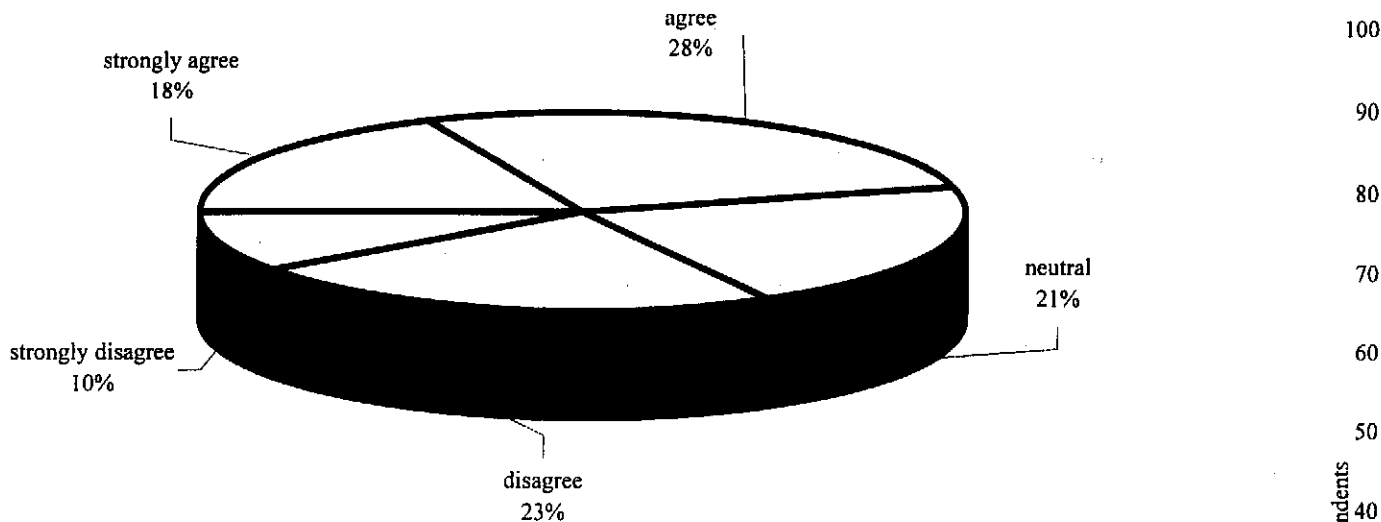
Program directors surveyed indicated that perceived surgical skill and intellectual ability of IMGs was no worse than that of USMGs. Mean SKILABIL was 0.213 (SD = 2.88) out of a possible  $\pm 6$ . This score is neither an indictment nor an endorsement of IMGs relative to USMGs, but it indicates a perception that IMGs are similar in skill and ability to USMGs. It was hypothesized that perceptions of IMGs skill and ability would differ between university- and community-based programs or would differ based on the size of the program. These hypotheses were not supported by the data. Two-way ANOVA results showed that SKILABIL did not significantly differ based on program type ( $F = 2.86, p = 0.094$ ) or size ( $f = 0.4, p = 0.528$ ), with no significant interaction between the two independent variables ( $f = 0.34, p = 0.561$ ). Mean SKILABIL was

-0.53 (SD = 2.80) for university programs and 0.98 (SD = 2.78) for community programs. Small programs, those admitting 3 or fewer categorical residents per year, had a mean SKILABIL of 0.77 (SD = 2.83) versus a mean SKILABIL of -0.41 (SD = 2.84) for large programs.

In spite of a perception of nearly equal skill and ability, a perception existed among program directors surveyed that USMGs were favored in the recruitment process. Nearly 87% of respondents agreed or strongly agreed that 1 of the first items they looked at was whether an applicant was a USMG (Table 3). More than half reported that they purposefully avoided matching with IMGs, and more than 70% indicated that they believed IMGs were discriminated against (Table 3). Nearly 20% reported that they had been pressured to rank a less-qualified USMG higher than a more qualified IMG, and 22% reported that they had ranked a USMG higher than an IMG to avoid a reduced compliment of USMGs (Table 3).

Overall, mean PROGPREF was 2.29 (SD = 2.58) out of a possible  $\pm 6$ , and this was significantly greater than 0, ( $p < 0.001$ , based on a z-test for a single sample mean).<sup>7</sup> The index was geared such that a positive score indicated program preference for USMGs and a negative score indicating no preference for USMGs. Two-way ANOVA did not show any significant differences in PROGPREF resulting from program type ( $f = 0.014, p = 0.906$ ) or size ( $f = 0.207, p = 0.650$ ), with no significant interaction noted between the two independent variables ( $f = 1.01, p = 0.318$ ). Mean program preference for USMGs was 2.25 (SD = 2.41) for university and 2.32 (SD = 2.77) for community programs. For program size, mean PROGPREF was 2.42 (SD = 2.67) for small programs and 2.14 (SD = 2.48) for large programs.

One possible reason for perceived favoritism toward USMGs



**FIGURE 1.** Percentage of respondents in each response category for the following survey question (16): Our program prefers United States medical school graduates over international medical school graduates because we believe the Residency Review Committee will perceive our program as weak, based on the assumption that we cannot recruit United States medical school graduates.

may be the fear that the RRC will perceive as weak programs that cannot recruit United States graduates. This fear could result in programs turning away highly qualified IMGs in favor of less qualified USMGs to avoid filling too many spots with IMGs.

Approximately 46% of respondents agreed or strongly agreed that they preferred USMGs because of fear that the RRC would perceive their program as weak because they could not recruit United States graduates (Fig. 1). In addition, 25% reported that they would recruit more IMGs in it not for fear of RRC retribution (Fig. 2). Other reasons for not recruiting more IMGs included concern over ability to pass ABS exams (46%, Fig. 2); ability to currently fill all slots with USMGs (54%, Fig. 2); and perception that IMGs skill and ability were substandard (54%, Fig. 2). The above data reflect the percentage out of 112 that answered yes to a series of statements and were not mutually exclusive. That is, respondents could answer yes to more than one statement.

Concern over RRC perception tended to manifest itself more with smaller and community hospital programs than with large or university programs. Responses to a question regarding this issue were categorized as agree (included agree or strongly agree), no opinion, and disagree (included disagree and strongly disagree). A significantly larger percentage of respondents from community programs were concerned about RRC perception if they recruited too large a proportion of IMGs (Table 4). Sixty percent of community program directors agreed that RRC perception influenced their preference for USMGs versus 33% of university-based program directors (Pearson chi-square = 8.573, DF = 2, p = 0.014). Similarly, 63% of small programs agreed that RRC perception influenced their recruitment practices versus 28% of program directors from large programs (Pearson chi-square = 13.803, DF = 2, p < 0.001) (Table 4).

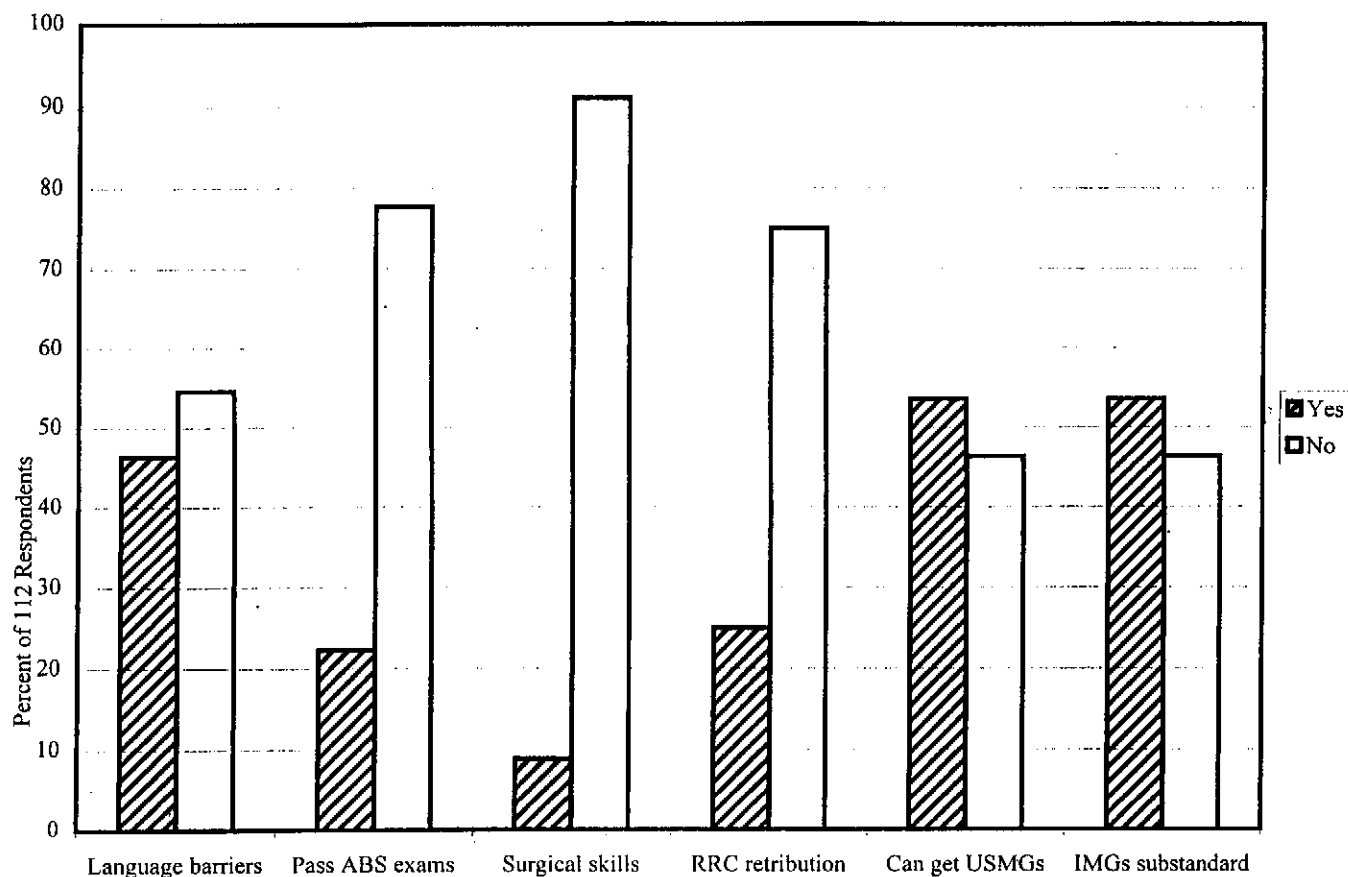
## DISCUSSION

Discrimination is defined by Webster's Dictionary as "the process by which two stimuli differing in some aspect are responded to differently."<sup>8</sup> Discrimination, therefore, is not always a bad thing. Discrimination becomes negative when, in the case of Graduate Medical Education, qualified applicants are summarily eliminated from possible selection into Surgical Education Programs. In the past, General Surgery residency programs matched USMGs at a very high rate and did not need to address qualified IMGs as potential trainees. For General Surgery, the poor match results of 2001 may be the harbinger of a need to reappraise the quality of the international medical school applicant pool.

Most of the articles available for review on the subject of perceived discrimination in United States GME are found in the medical literature.<sup>9-12</sup> In aggregate, the articles point to potential biases for USMGs. One article, entitled "The IMG in US Academic Surgery,"<sup>13</sup> and a series of responses<sup>14,15</sup> to it were published in the *Archives of Surgery*. Although scientific, the responses nevertheless demonstrated the emotional content of the issue regarding discrimination against IMGs in surgery.

In this study, we attempted to quantitatively address this issue. It should be noted that as with any survey study, interpretation of the data must be tempered by consideration of the sample size, or response rate. Although it provided a reasonable sample, our response rate of 41% does limit the scope of the study. Based on equations from Dillman,<sup>4</sup> sampling error for 5 response questions was  $\pm 5.7\%$  and for 2 response questions was  $\pm 7.2\%$ . We only compared statistically percentages in responses with 1 question. However, the sampling error should be considered when interpreting our data.

Another limitation is that our results represent perceptions. No attempt was made to quantify actual observed skills and



**FIGURE 2.** Percentage out of 112 respondents that answered yes to a series of statements regarding barriers to accepting more international medical school graduates. The full question is listed in Appendix 1, question 19 A-F.

abilities of IMGs relative to USMGs, nor did we attempt to quantify actual instances of discrimination against IMGs. A third issue to consider is possible reverse discrimination by the small (8%) group of program directors that were IMGs, especially regarding perceived skills and abilities. Not surprisingly, IMG program directors rated IMG skills and abilities at a mean of +2.87 out of a possible  $\pm 6$ , versus the overall mean of 0.213. Assessing the actual or observed skills and abilities of

IMGs and USMGs, rather than perceived, is fertile ground for future studies, but it was beyond the scope of this research. However, perception is often as important as reality, and we believe the results show that issues regarding IMGs need to be addressed.

Given the above limitations, our study demonstrates that program directors in surgery do not perceive clear differences between IMGs and USMGs with regard to surgical skills. Yet, a

**TABLE 4.** The Effect of Program Type (University Versus Community) and Program Size (Small Versus Large) on Whether Perceived Program Weakness by the Residency Review Committee Influences Recruitment of International Medical School Graduates

Program size*	Percentage in category		
	Agree <sup>+</sup>	No opinion	Disagree <sup>+</sup>
Small	63.2	14.0	22.8
Large	27.5	27.5	45.1

Program type**	Percentage in category		
	Agree <sup>+</sup>	No opinion	Disagree <sup>+</sup>
University	32.7	27.3	40.0
Community	60.4	13.2	26.4

\*  $p = 0.001$ , Pearson chi-square = 13.803, DF = 2;

\*\*  $p = 0.014$ , Pearson Chi-Square = 8.573, DF = 2.

<sup>+</sup> Agree includes both agree and strongly agree responses; Disagree includes both disagree and strongly disagree responses.

NOTE: The full question is graphically displayed (Fig. 1) and is available in Appendix 1, question 16.

preference for recruiting USMGs across program size (large or small) and designation (university or community) was clearly demonstrated. Because of cultural and language differences, it may not be too surprising that program directors prefer USMGs. Clinical experience and performance on standardized examination were positive predictors of success in the performance of first-year IMGs in a study of an internal medicine program residency,<sup>16</sup> and performance on standardized examinations could be affected by a resident's native language. Our study, however, did not show that language barriers were an overwhelming obstacle to IMG recruitment, although it was cited as a reason for not recruiting more IMGs by 46% of respondents. Language issues are difficult to interpret, though, without knowledge regarding the location of the individual program. For example, a program director located in an area with a large Hispanic or Asian population may not perceive native language as a barrier, and in fact may seek those who can speak a second language. In contrast, a program director located in an area without such diversity may see language as more of a barrier.

Of greater concern is the number of program directors in surgery indicating a belief that IMGs are subject to discrimination. The prevalence and degree to which discrimination exists was not directly identified in this study. As with skills and abilities, direct assessment of discrimination should be addressed in future studies. Our results do show that at least some of the discrimination is driven by a fear of RRC retribution against a program that has "too many" IMGs. Second-guessing the RRC for surgery is not healthy for either program directors or the IMG applicant. A clear policy statement by the RRC for surgery or a defined compliment of IMG surgical educators as members of the RRC may help eliminate the anxiety that leads to second-guessing. No clear evidence exists that the RRC tends to cite residencies with a large compliment of IMGs more than those with a large contingent of USMGs. However, the perception that the RRC may come down on a program that cannot recruit USMGs may drive programs, especially smaller, community hospital-based programs, to seek USMGs over IMGs. Future research should attempt to assess the prevalence of this perception among surgical residency programs.

As discussed earlier, our study was limited by a less-than-expected response rate from the surgical educators polled. Thus, a larger sample size might have resulted in significant differences between program sizes and between delineation as university or community. Other discriminators such as board scores, letters of recommendation, language skills, clinical skills, and performance at interview should also be studied as they could further clarify the preference for USMGs.

In conclusion, platforms for the discussion of discrimination of any type are scarce and especially rare in surgical education. Discrimination is often subtle and even unrecognized by many who feel they are fair in their actions. International Medical School graduates are part of USGME and likely to become a significant part of surgical GME. The ACGME and the various RRCs may need to define the role of IMGs so that program

directors in turn can ensure an equal opportunity for all applicants to their programs.

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## APPENDIX 1

Copy of survey with full text of all questions and percentage of respondents in each response category. In the interest of space, results for questions with a range of possible numeric responses were summarized rather than reporting the percentage for each response.

1. How many categorical residents are admitted to your program each year?  
53% admit 3 or fewer; 31% 4 to 6; 16% 7 or more
2. How many preliminary residents does your program accept each year?  
60% accept 4 or fewer; 24% 5 to 10; 16% 11 or more
3. How many International medical school graduates (IMGs) does your program currently have? An IMG is any non-United States citizen that received a medical degree from an institution outside of the United States. Do not include international students graduating from United States medical schools.  
73% have 4 or fewer; 22% 5 to 9; 5% 10 or more
4. Of these, how many IMGs are:  
Categorical—88% have 3 or fewer categorical IMGs; 43% have no categorical; 12% 4 or more  
Preliminary—90% have 4 or fewer IMGs; 41% have no IMG preliminary; 10% 5 or more

Please indicate your level of agreement with the following statements by circling the appropriate response according to the following scale.

- SA = Strongly agree  
A = agree  
N = neither agree nor disagree  
D = disagree  
SD = strongly disagree

5. On standardized examinations, such as the ABSITE or the ABS examination IMGs school perform as well as US medical school graduates.  
SA—10% A—27% N—32% D—26% SD—5%
6. Surgical skill level, as measured by performance in the operating room, is equal or better for IMGs compared to United States medical school graduates. (USMGs)  
SA—6% A—24% N—49% D—18% SD—4%
7. In my opinion, IMGs demonstrate equal or better

commitment to their surgical education as USMGs.  
SA—10% A—26% N—46% D—17% SD—2%

8. IMGs interact with patients as well as USMGs.  
SA—1% A—19% N—21% D—45% SD—14%
9. Attendance at basic science lectures, morbidity and mortality conferences, and similar educational activities is equal or better for IMGs compared with USMGs.  
SA—6% A—39% N—44% D—11% SD—0%
10. Participation, as defined by willingness to express an opinion and volunteering information without instructor prodding, in the above educational activities is equal or better for IMGs compared with USMGs.  
SA—4% A—23% N—40% D—27% SD—6%
11. One of the first items we look at is whether an applicant to our program is a graduate of a United States medical school.  
SA—54% A—33% N—6% D—7% SD—1%
12. Our program only considers IMGs if we cannot find a qualified USMG.  
SA—24% A—28% N—12% D—26% SD—11%
13. Our program purposefully avoids matching with IMGs.  
SA—22% A—30% N—19% D—19% SD—9%
14. All programs should recruit the "best and the brightest" regardless of where the candidates completed their medical degrees.  
SA—28% A—33% N—16% D—16% SD—7%
15. In reality, all things being equal, our program would rather offer positions to USMGs than to IMGs.  
SA—47% A—40% N—10% D—3% SD—0%
16. Our program prefers USMGs over IMGs because we believe the Residency Review Committee will perceive our program as weak, based on the assumption we cannot recruit USMGs.  
SA—18% A—28% N—21% D—23% SD—10%
17. In my opinion, surgical residencies should recruit more IMGs to fill categorical positions.  
SA—1% A—5% N—24% D—41% SD—29%
18. Our program offers preliminary positions to IMGs to provide coverage of surgical services, but avoids offering categorical positions to IMGs.  
SA—1% A—15% N—21% D—27% SD—36%
19. We would accept more IMGs if it were not for:

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a.  
b.  
c.

A. Language barriers

yes—46% no—54%

B. Ability to pass ABS exams

yes—22% no—78%

C. Ability to learn surgical skills

yes—9% no—91%

D. Fear of retribution from the Residency Review Committee

yes—25% no—75%

E. Our ability to fill all slots with United States graduates

yes—54% no—46%

F. The perception that overall quality and abilities of IMGs are substandard, relative to USMGs

yes—54% no—46%

20. All objective qualifications being equal, have you ever ranked a USMG higher on your categorical rank list than an IMG solely to avoid a reduced compliment of USMGs?

yes—22% no—78%

If yes, how many times over the past 3 years has this occurred?

91% of those answering yes reported this occurring 3 times or less

21. Have you ever felt external pressure to not rank a better qualified IMG over a USMG?

yes—18% no—82%

If yes, what was the source of that pressure?

A. Selection committee—8%

B. GME administration—4%

C. Perceived RRC outlook on your program—9%

D. Institutional administration—4%

E. Other (specify) \_\_\_\_\_

22. Regardless of what goes on in your program, do you believe IMGs are discriminated against?

yes—71% no—29%

23. Do you believe subjects relating to IMGs are germane to graduate education in surgery?

yes—51% no—49%

24. Are you an IMG?

yes—8% no—92%

25. Is your program University hospital or Community hospital based?

University—49% Community—47%  
(remainder Military or other)

26. What year were you born?

Mean age—52.4 years, range 37 to 71 years of age

27. For how many years have you served as program director?

Mean—8.9 years, range 1 to 27 years

28. What is your sex?

male—95% female—5%

29. Approximately how many IMGs apply to your program each year?

—0 6%

—1-100 39%

—101-250 31%

—251-500 16%

—500-1000 6%

—More than 1000 2%

30. About what percentage of these apply for categorical positions?

—0-10 9%

—11-25 6%

—26-50 19%

—51-75 28%

—76-100 39%