

# Factors Affecting Medical Students' Selection of an Internal Medicine Residency Program

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**Objective:** To determine factors that influence medical student selection of internal medicine residency programs by ethnicity and gender.

**Design/Setting:** A cross-sectional mailed survey of graduating medical students applying to four residency programs in 1999.

**Measurements:** A five-point (5=most important) Likert scale was used to evaluate factors and included 14 items on location characteristics, 20 on program features, six on recruitment, three on future plans and three on advising.

**Results:** Of 2,820 surveys, 1,005 were completed (36%). The most important factors to applicants were house staff morale (mean  $\pm$  SD,  $4.5 \pm 0.7$ ), academic reputation ( $4.5 \pm 0.8$ ), and positive interview experience ( $4.1 \pm 1.0$ ). Women rated gender diversity of faculty (3.3 vs. 2.3,  $p=0.0001$ ) and house staff (3.3 vs. 2.5,  $p=0.0001$ ), location of residency program near spouse (4.2 vs. 3.9,  $p=0.0001$ ) or spouse's job (3.8 vs. 3.5,  $p=0.0002$ ) and emphasis on primary care (2.9 vs. 2.4,  $p=0.0001$ ) more highly than men. Minority applicants were more likely than whites to identify the following factors as more important: ethnic diversity of patients (3.8 vs. 3.4,  $p=0.008$ ), house staff (3.3 vs. 2.4,  $p<0.0001$ ) and faculty (3.1 vs. 2.3,  $p<0.0001$ ); service to the medically indigent (3.8 vs. 3.3,  $p=0.004$ ); feeling of being wanted (3.8 vs. 3.4,  $p=0.002$ ); and an academic environment supportive of ethnic minorities (3.5 vs. 2.3,  $p<0.0001$ ).

**Conclusions:** Location and program factors are most important in influencing decisions to choose a residency program. However, women and minority applicants also place significant importance on family and diversity factors. Programs need to consider differential factors in recruitment of diverse students.

**Key words:** ethnic minority ■ residency selection ■ medical education ■ medical students ■ women ■ internal medicine

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## INTRODUCTION

Selection and recruitment of qualified medical school graduates is a major concern of internal medicine residency directors and faculty at teaching institutions. The process of residency program selection is highly competitive, particularly with regard to top-ranked applicants.<sup>1,2</sup> Highly qualified underrepresented minority (URM) applicants represent an ever-smaller proportion of candidates for residency programs. This is true despite the fact that minority populations are the fastest-growing segment of the U.S. population.<sup>3</sup> According to the U.S. Census Bureau's projections, African Americans, Latinos, American Indians/Alaskan Natives and Asians, which made up nearly 30% of the U.S. population in 2000, will comprise 47.2% by the year 2050.<sup>4</sup> Despite the overall demographic changes in the United States, a decrease in URM applicants of 7.1% was noted from 1996 to 1997, such that minority applicants represented only 11% of the entire applicant pool to medical school.<sup>5,6</sup> Much of this decrease may be attributed to changes in political climate, including limits or elimination on affirmative action policy in key states.<sup>7</sup> On the other hand, the number of women enrolling in medical school has steadily increased over the last 25 years, with women enrollees making up 44.6% of all medical school enrollments in 2000.<sup>8</sup>

While it is clear that the most important aspect of recruitment involves increasing the number of qualified medical school applicants, it remains critical to internal medicine residency programs to be able to recruit excellent URM applicants and maintain an

increased proportion of women. Although studies have examined the effect of race and ethnicity on specialty choice,<sup>9</sup> to our knowledge, few studies have examined how or why medical students select a particular residency program,<sup>1,10-15</sup> and no studies have focused specifically on internal medicine residency programs. Furthermore, no studies have examined the residency program choices of URM applicants specifically or how the factors that determine applicant selection of a particular residency program differ between minority and majority candidates. The purpose of this study was to determine what factors most influence medical student selection of particular internal medicine residency programs. In addition, we sought to determine whether these factors differ by ethnicity and gender.

## METHODS

### Participants and Study Design

We performed a cross-sectional survey of fourth-year medical students applying during the 1999 National Residency Matching Plan (NRMP) in internal medicine. Potential participants were chosen from the lists of all medical students applying for placement in one or more of four internal medicine residency programs, including the University of California–San Francisco, University of California–Los Angeles, Massachusetts General Hospital, and New York Presbyterian Hospital. These four institutions were selected because of similar quality, and thus, would be expected to attract a similar pool of applicants.

Lists of applicants were provided by each institution and were cross-referenced for duplicate applications. One institution (UCLA) mailed their own surveys to assure complete anonymity of their applicant pool. NRMP numbers were provided by this institution to allow cross-references for duplicate applications. Only one survey was mailed to each student, and follow-up surveys were not sent to nonresponders in an attempt to limit response bias from students who did not match at their desired location. All applicants with mailing addresses outside of the United States and Canada were excluded from the study in an attempt to limit international medical graduates (IMG) from responding. We limited IMG for several reasons: 1) these applicants tend to be

less competitive in the NRMP at these four institutions,<sup>16</sup> 2) because of extremely low acceptance and interview rates of these students, we felt that their inclusion could result in significant response bias, and 3) they may have significantly different motivating factors that influence their residency choice. Because of the sampling procedure described above, the exact number of international medical graduates excluded is unknown. The remaining 2,908 students were mailed a questionnaire. Only one mailing was possible in the one month between receiving the students' addresses and the results of the match. This timeframe was adhered to in order to decrease possible bias introduced by the students' match results. The institutional review board of University of California–San Francisco approved this study.

### Questionnaire

The questionnaire obtained demographic information, including age, gender, ethnicity, relationships with significant others, medical school and class standing. Ethnicity was described as white/Caucasian, African-American, Latin American/Hispanic, Native American, Pacific Islander, Asian or other. URM were classified as African-American, Latin American/Hispanic, Native American and Pacific Islander. Class standing was determined by appli-

**Table 1. Characteristics of fourth year medical students applying to the 1999 NRMP in internal medicine who responded to the survey**

Characteristics	Men (%) (n=546)	Women (%) (n=451)
Age (years)	*27.9 ± 5.1	*28.1 ± 5.2
<i>Ethnicity</i>		
Caucasian/white	334 (61)	258 (57)
Latino/Hispanic	38 (7)	18 (4)
African American/black	10 (2)	13 (3)
American Indian/Native American	3 (<1)	1 (<1)
Pacific Islander	4 (1)	5 (1)
Asian/Asian American	135 (25)	131 (29)
Mixed	18 (3)	16 (4)
Unknown	4 (1)	9 (2)
<i>Marital Status</i>		
Married	170 (31)	127 (28)
Single with significant other	208 (38)	190 (42)
Single	168 (31)	133 (30)
<i>Perceived Class Rank</i>		
Top 25%	320 (59)	260 (58)
Middle 50%	189 (35)	152 (34)
Bottom 25%	18 (3)	17 (4)
Unknown	19 (3)	22 (5)

\* Mean ± standard deviation; eight respondents were excluded because gender was not reported

cant's self-ranking in the top quarter, middle half or bottom quarter of the class, and whether or not they anticipated nomination into their local chapter of Alpha Omega Alpha (AOA), if applicable.

Information on the importance of 46 factors in choosing a particular residency program was obtained. Items chosen for evaluation were derived from prior studies,<sup>2,11,12,14,15,17,18</sup> discussion with program directors in internal medicine and focus group discussions with current residents. Focus group discussions were used to generate evaluation items but did not address the cultural validity of the survey. The surveys were then pretested for completeness and clarity. Factors assessed included 14 on location characteristics, 20 on program features, six on recruitment strategies, three on future plans and three reflecting advice received. Location characteristics included questions on gender and ethnic diversity of residents, faculty, and patients and geographic aspects of area. Questions also addressed programmatic factors, such as academic reputation, program size, program description, benefits/financial incentives and emphasis on primary care as well as interview techniques and process opportunities for future training or jobs in the area and advice received from a role model, friend or dean. Data were gathered using a five-point Likert scale, with 1 indicating that the factor was not important and 5 indicating that the factor was very important in the applicant's selection of a particular residency program. A factor was described as important if it received a mean response of 3 or greater.

## Data Analysis

Data were analyzed using SAS version 8.2.<sup>19</sup> Descriptive statistics, including means, standard deviations and percents, were computed for each of the variables by gender and ethnicity (URM, Caucasian and Asian). Initial exploratory analyses for race and gender differences included Chi-squared tests for categorical variables and Student's *t* test for continuous variables. We further developed logistic regression models to explore the association of ethnicity (URM vs. non-URM) with the demographic measures and the factors in selecting a residency program. Our primary measures of outcomes were the factors in choosing a residency program. The major hypotheses were evaluated using analysis of covariance models (ANCOVA) to examine any gender or ethnic/racial group differences. For each outcome variable, we investigated the interactions among ethnicity, gender, age, marital status and class rank; we also compared Akaike's information criterion (AIC) and the residual log likelihood of the models with and without the interaction terms.<sup>20</sup> Since the main effects models tended to be more

parsimonious with smaller AIC values, we decided to base our results on the main effects models. Estimates of adjusted means and standard errors (SE) were obtained by gender and by race, controlling for ethnicity, age, marital status and class rank. A significance level of 0.05 was used for all statistical tests.

## RESULTS

Of the 2,908 students to whom a survey was sent, 88 surveys were returned for insufficient address, resulting in a total of 2,820 surveys presumably received by students. A total of 1,043 students returned completed questionnaires, for a response rate of 37%. Of these respondents, 38 were IMG and were excluded from all analyses. Another eight respondents did not indicate their gender and were not included in the analysis. The demographic characteristics of the respondents are presented in Table 1. No information was available on the demographic characteristics of nonrespondents due to the confidentiality of the NRMP list.

The factors described as important to all residency applicants in choosing a residency program are presented in Table 2. The factors felt to be most important were good house staff morale, the academic reputation of the program, a positive interview experience, the variety of clinical experiences and location near spouse or significant other.

Regression analysis demonstrated no significant interaction among gender, ethnicity, age and marital status. However, class ranking in the top third of the class was significantly negatively associated with URM status [OR 0.09 (95% CI 0.04–0.02)]. All variables were adjusted for in the ANCOVA results described below and in Tables 2 and 3. Results presented depict adjusted means, SE and corresponding *p* values.

The importance placed on factors determining residency choice differed by applicant gender (Table 2). The greatest differences in importance were seen regarding issues of gender diversity, where women rated the gender diversity of the faculty and house staff as important factors in their choice of residency, whereas men did not. Although having a same-gender interviewer was more important to women than men, such an experience was not particularly important to applicants of either gender. While both men and women felt that a positive interview experience was important, it was somewhat more important to women. Women placed more importance than men on familial issues, such as the location of the residency program being near their spouse/significant other (SO) or spouse's job, program support of applicants with children, and the presence of maternity and paternity leave policies. Men placed more importance on issues, such as the location of the res-

idency program being near their spouse's family and future fellowship opportunities.

Women placed a higher importance than men on issues of ethnic diversity in location and program characteristics when choosing a residency (Table 2). Women rated the following characteristics as more important than men: politics of the area being supportive of ethnic minorities; program academics supportive of ethnic minorities; serving the medically indigent; and the ethnic diversity of the city, patient population, house staff and faculty.

Several factors differed in importance among URM, Caucasian and Asian applicants (Table 3). Of the factors that differed among these groups, those that were most important to minority applicants were serving the medically underserved; amount of minority recruitment; feeling of being wanted; and ethnic diversity of the city, patients, house staff and faculty. An academic environment supportive of ethnic minorities and a political climate supportive of minorities were also noted as more important to URM applicants.

## DISCUSSION

Our study reveals that the most important factors in choosing a particular internal medicine residency program are similar for all applicants and reflect the program location and characteristics of the program, such as good house staff morale, academic reputation and variety of clinical experiences provided. Although location characteristics are fixed, our study suggests there are several factors that a program may improve or emphasize to make their residency more attractive to applicants. The most important of these appears to be creating a positive environment that reflects good house staff morale and a positive, rather than competitive, interview experience. In addition, applicants are looking for a program with a diversity of clinical experiences. Program directors should emphasize the variety of hospitals, clinics and specialty rotations available to their residency applicants and expand such opportunities if not already available. Although these findings may seem intuitive, there are no previously published empiric data from applicants that support these observations. An earlier survey of family medicine program directors also found high-quality residents and faculty as well as having residents with "good attitudes" to be markers of success.<sup>21</sup>

Several other modifiable factors were of particular importance to women applicants. For example, women place significant emphasis on issues of gender diversity among the faculty and house staff. Thus, increasing the number and visibility of women faculty and residents may improve recruitment of highly qualified female applicants. Women also place a high

value on family-friendly program characteristics and location characteristics that are favorable for their spouse/SO. Simple measures, such as clearly stating maternity and paternity leave policies and demonstrating support of residents with children, may also improve recruitment. A survey of matriculating and graduating medical students in 1993–1994 showed that compared to men, women rated specific curricular areas as having had inadequate instruction and that women were more likely to select a generalist specialty. However, data on factors influencing choice of program have not been reported.<sup>10</sup>

Both women and ethnic minorities place more importance on the ethnic diversity of the faculty and house staff. This suggests that increasing the number and visibility of faculty and house staff from diverse ethnic backgrounds is important for recruitment of these groups. Ethnic minorities also value a feeling of being wanted by the program, implying the importance of developing and implementing outreach efforts to such individuals.

Attracting minority physicians is of key importance to caring for all patients in the United States. Studies have demonstrated that minority physicians tend to serve members of their own racial or ethnic population group significantly more than they serve members of other groups, even after accounting for socioeconomic differences of area.<sup>22,23</sup> Minority physicians are also more likely to serve in a health workforce shortage area<sup>24</sup> and are more likely to care for patients with Medicaid and with no insurance.<sup>22</sup> In addition to providing a disproportionate amount of the care to ethnic minority groups and medically indigent patients, there is also evidence to suggest that language-concordant physicians provide better quality of care to monolingual Spanish-speaking Latino patients.<sup>23</sup> Furthermore, minority physicians can help to increase cultural awareness and reduce the language and cultural barriers that limit access to care for many minority patients.<sup>3</sup> Given these studies, recruitment of highly qualified minority applicants needs to be a priority among residency programs, particularly those serving ethnically diverse and medically underserved populations.

In our study, ethnic minorities placed significant importance on the ethnic diversity of patients and serving the medically indigent; this is consistent with data demonstrating the likelihood of minority physicians to care for medically underserved.<sup>22,24</sup> In addition, our data suggest that women may be more likely to have an interest in serving these populations as well. These results are supported by the other surveys of graduating medical students showing that women viewed caring for the medically indigent more positively than men.<sup>10,25</sup>

The most significant limitation to our study is the low response rate of 36% that introduces the possibility of bias. The challenge of distributing a survey

**Table 2. Importance of factors in choosing an Internal Medicine Residency Program as rated by 1,005 applicants to the 1999 NRMP in Internal Medicine and the difference in the importance placed on those factors by gender\***

Factor	Men Mean $\pm$ SE	Women Mean $\pm$ SE	P Value <sup>†</sup>
<i>Location Characteristics</i>			
Location near spouse/SO**	3.9 $\pm$ 0.11	4.3 $\pm$ 0.12	0.0001
Job opportunities for spouse/SO	3.4 $\pm$ 0.11	3.9 $\pm$ 0.13	0.0002
Cultural activities in area	3.4 $\pm$ 0.07	3.4 $\pm$ 0.08	0.4
Location near family	3.3 $\pm$ 0.09	3.5 $\pm$ 0.10	0.05
Ethnic diversity of city	3.3 $\pm$ 0.08	3.6 $\pm$ 0.09	0.001
Educational opportunities for spouse/SO	3.0 $\pm$ 0.13	3.2 $\pm$ 0.15	0.3
Location near friends	2.7 $\pm$ 0.09	2.7 $\pm$ 0.09	0.7
Common political values in area	2.1 $\pm$ 0.08	2.3 $\pm$ 0.09	0.02
Good environment for children	2.8 $\pm$ 0.11	2.8 $\pm$ 0.13	0.9
Recreational activities in area	3.2 $\pm$ 0.07	3.2 $\pm$ 0.08	0.4
Weather in area	2.9 $\pm$ 0.08	2.8 $\pm$ 0.09	0.04
Cost of living	2.6 $\pm$ 0.08	2.6 $\pm$ 0.09	1.0
Location near spouse's/SO's family	2.6 $\pm$ 0.10	2.3 $\pm$ 0.12	0.01
Politics supportive of minorities	2.3 $\pm$ 0.08	2.7 $\pm$ 0.09	0.0001
<i>Program Characteristics</i>			
Academic reputation of program	4.4 $\pm$ 0.05	4.4 $\pm$ 0.06	0.7
Good house staff morale	4.5 $\pm$ 0.05	4.6 $\pm$ 0.05	0.1
Variety of clinical experiences offered	4.0 $\pm$ 0.06	4.1 $\pm$ 0.07	0.07
Ethnic diversity of patients	3.4 $\pm$ 0.08	3.7 $\pm$ 0.09	0.0002
Good on-call schedule	3.3 $\pm$ 0.07	3.5 $\pm$ 0.08	0.04
Number of hospitals rotated through	3.0 $\pm$ 0.07	3.2 $\pm$ 0.08	0.07
Research opportunities	3.0 $\pm$ 0.09	2.8 $\pm$ 0.09	0.6
Gender diversity of house staff	2.3 $\pm$ 0.08	3.2 $\pm$ 0.09	0.0001
Gender diversity of faculty	2.2 $\pm$ 0.08	3.2 $\pm$ 0.09	0.0001
Number of residents in the program	2.7 $\pm$ 0.08	2.9 $\pm$ 0.08	0.04
Emphasis on primary care	2.5 $\pm$ 0.09	2.0 $\pm$ 0.10	0.001
Ethnic diversity of house staff	1.7 $\pm$ 0.08	2.1 $\pm$ 0.09	0.0001
Academics supportive of minorities	2.7 $\pm$ 0.09	2.1 $\pm$ 0.10	0.0001
Amount of vacation	2.6 $\pm$ 0.08	2.7 $\pm$ 0.08	0.5
Good salary	2.8 $\pm$ 0.07	2.7 $\pm$ 0.08	0.06
Supportive of applicants with children	2.3 $\pm$ 0.12	2.7 $\pm$ 0.13	0.0004
Ethnic diversity of faculty	2.5 $\pm$ 0.08	2.9 $\pm$ 0.09	0.0001
Maternity/paternity leave policy	2.0 $\pm$ 0.08	2.5 $\pm$ 0.09	0.0001
Other financial incentives	2.0 $\pm$ 0.07	1.8 $\pm$ 0.08	0.007
Serving medically indigent	3.3 $\pm$ 0.08	3.7 $\pm$ 0.09	0.0002
<i>Recruitment</i>			
Positive interview experience	4.1 $\pm$ 0.07	4.3 $\pm$ 0.07	0.009
Feeling of being wanted/recruited	3.5 $\pm$ 0.08	3.7 $\pm$ 0.09	0.1
Prior experience at the program	2.8 $\pm$ 0.11	2.8 $\pm$ 0.13	0.4
Amount of minority recruitment	2.2 $\pm$ 0.07	2.4 $\pm$ 0.08	0.02
Same gender of interviewer	1.2 $\pm$ 0.05	1.5 $\pm$ 0.05	0.0001
Same ethnicity interviewer	1.3 $\pm$ 0.04	1.4 $\pm$ 0.04	0.07
<i>Plans after Residency</i>			
Fellowship opportunities in area	3.6 $\pm$ 0.09	3.4 $\pm$ 0.10	0.02
Desired location to live after residency	3.4 $\pm$ 0.09	3.3 $\pm$ 0.10	0.04
Job opportunities in area	3.2 $\pm$ 0.09	3.2 $\pm$ 0.10	0.8
<i>Advising</i>			
Advice of a role model	3.2 $\pm$ 0.08	3.2 $\pm$ 0.09	0.8
Advice of dean	2.7 $\pm$ 0.08	2.7 $\pm$ 0.09	1.0
Advice of friend	2.7 $\pm$ 0.08	2.7 $\pm$ 0.08	0.6

\* Indicates adjusted mean response on a five-point Likert scale where 1=not important, 3=somewhat important, and 5=very important;  
<sup>†</sup> P value represents the result of the ANCOVA comparing responses by gender and controlling for ethnicity, marital status, age and class rank; \*\*SO: significant other

to students from across the country at a time when many may be traveling and with only one-month window of time to complete follow-up was daunting. It is unclear how this low response rate may bias the results, if at all. Because we could not obtain significant demographic information on nonresponders, it is difficult to assess how this may have influenced our results. Importantly, the gender and ethnicity characteristics of the respondents were similar to those applying to internal medicine residencies nationally,<sup>26</sup> indicating less likelihood of significant response bias based on those variables. Our study did have a greater proportion of Asian respondents and fewer African-American respondents in comparison to the national statistics, but this is likely secondary to the geography of the institutions surveyed. Furthermore, although response rate was low, we were able to survey more than 1,000 students, a large sample size for such a study. We were also able to survey applicants applying to multiple institutions, and representing a broad geographic range. It is important to note that the institutions studied represented the east and west coasts, and not the mid-west and south, and therefore may not be generalizable to applicants primarily interested in those geographic areas of the country.

Another limitation is that the class standing of our applicants represents the top of the applicant pool. Although this information is limited by self-report, it is likely correct, as the four institutions participating in

the study tend to be among the most competitive internal medicine programs nationally. Our study was specifically designed to obtain information from these top applicants and because the study does not attempt to obtain information from the entire applicant pool, it may limit generalizability to other programs.

The survey nature of the study may limit the completeness of the information obtained. It is possible that there are other factors that applicants value highly that were not asked in the survey. We attempted to limit the chance of this with a thorough review of the literature, discussions with program directors and pretests of the survey with residents to assess for completeness. Finally, we recognize that many of the numerical differences seen between applicant groups, although statistically significant, are small and may not represent meaningful differences. Furthermore, because we tested for multiple associations, it is possible that some of the differences seen are simply a matter of chance. We attempted to limit this possibility by adjusting for multiple comparisons using the Scheffe method. Despite these limitations, to our knowledge, we are the first to report on the relative importance of various factors in choosing a residency program among minority applicants.

In summary, we conclude that internal medicine residency applicants value programmatic and location factors most highly in choosing a particular internal medicine residency program. Creating a positive experience for applicants and improving house staff morale

**Table 3. Factors that differed in importance between URM\* and Caucasian, and Asian and Caucasian applicants to the 1999 NRMP in Internal Medicine\*\***

Factor	White (n=597)	URM (n=92)	P Value <sup>†</sup> (n=266)	Asian	P Value <sup>‡</sup>
Emphasis on primary care	2.6 ± 0.06	2.9 ± 0.15	0.05	2.8 ± 0.09	0.04
Serving medically indigent	3.3 ± 0.06	3.7 ± 0.14	0.004	3.3 ± 0.08	0.96
Good salary	2.6 ± 0.05	2.9 ± 0.13	0.02	2.8 ± 0.08	0.02
Other financial incentives	1.7 ± 0.05	2.0 ± 0.12	0.02	2.0 ± 0.07	0.0001
Amount of minority recruitment	1.6 ± 0.05	2.9 ± 0.12	<0.0001	2.0 ± 0.07	<0.0001
Feeling of being wanted	3.4 ± 0.06	3.8 ± 0.14	0.01	3.6 ± 0.08	0.09
Same ethnicity of interviewer	1.2 ± 0.03	1.5 ± 0.07	<0.0001	1.4 ± 0.04	<0.0001
Ethnic diversity of faculty	2.2 ± 0.06	3.1 ± 0.14	<0.0001	2.7 ± 0.08	<0.0001
Ethnic diversity of house staff	2.3 ± 0.06	3.3 ± 0.14	<0.0001	2.8 ± 0.08	<0.0001
Ethnic diversity of patients	3.3 ± 0.06	3.7 ± 0.14	0.01	3.3 ± 0.08	0.86
Ethnic diversity of city	3.3 ± 0.06	3.6 ± 0.14	0.04	3.4 ± 0.08	0.07
Academic environment supportive of ethnic minorities	2.3 ± 0.06	3.4 ± 0.14	<0.0001	2.9 ± 0.09	<0.0001
Political climate supportive of minorities	2.0 ± 0.06	3.0 ± 0.14	<0.0001	2.2 ± 0.08	0.005

\* URM: underrepresented minorities; \*\* Responses are reported as mean ± SE; † P value represents the result of the ANCOVA comparing minority to Caucasian applicants and controlling for gender, marital status, age and class rank; ‡ P value represents the result of the ANCOVA comparing Asian to Caucasian applicants and controlling for gender, marital status, age and class rank; 50 respondents did not answer the ethnicity question and are excluded from this analysis.

may enhance applicant interest in an internal medicine residency program, as these factors appear to be key in applicants' choice of residency program. Diversity of clinical experiences should also be emphasized and enhanced. For those programs with particular interest in recruiting women and ethnic minorities, emphasis might be placed on expanding gender and ethnic diversity among residents and faculty in the long-term. In the short-term, program directors can pay particular attention to voicing an interest in these issues and in the case of ethnic minorities, reaching out to them to make them feel more wanted. These interventions should be studied further to evaluate their effect on the ability of residency programs to recruit highly qualified female and minority applicants.

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