

*Diversity, Equity, Inclusion, and Justice*

# Navigating Bias on Interview Day: Strategies for Charting an Inclusive and Equitable Course

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**T**he workforce in medicine should reflect the patient populations served, yet underrepresentation of residents and fellows from diverse racial and socioeconomic backgrounds persists.<sup>1</sup> Institutional racism and entrenched implicit and explicit biases represent substantial barriers to achieving such a workforce. Though systemic changes are necessary to address such barriers and encourage an annual pool of applicants that is representative of the patients we serve, we believe it is also incumbent upon residency and fellowship programs to explicitly address bias in their recruitment processes. The interview day represents a recruitment step that is particularly susceptible to bias and accessible for intervention. Here, based on best practices from medical and corporate literature, cognitive psychology theory, and our own experiences, we present actionable and accessible strategies for navigating and mitigating the pitfalls of bias during the residency and fellowship interview season.

## Chart the Course

### Identify and Disseminate Goals

The identification, prioritization, and dissemination of diversity goals are key drivers in creating organizational cultures that promote recruitment of diverse candidates.<sup>2</sup> It is insufficient to simply state, without specifics, that one's program broadly values diversity. An effective mission statement must convey specific goals, including measurable diversity targets.<sup>3,4</sup> We recommend that programs identify the recruitment of a diverse resident workforce as a priority and clearly describe recruitment goals to trainees, faculty, and staff.

### Understand That Bias Takes Many Forms, and Diversity Is Not Skin Deep

Before you chart your course, it is imperative to understand the waters in which you plan to sail.

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Programs must recognize that diversity is not limited to readily discernible physical attributes. Recent data from US medical school matriculants demonstrate a significant underrepresentation of Hispanic and Black students.<sup>5</sup> Less is known about other traditionally disenfranchised groups in medicine, including LGBTQIA+ trainees, partly due to a culture that discourages self-identification.<sup>6</sup> Individuals with physical disabilities also remain underrepresented in medicine.<sup>7</sup> Furthermore, medical training remains a privileged path, with medical students primarily matriculating from families with median incomes double that of the general population.<sup>8</sup> In charting approaches to address equity in recruitment, programs must consider all potential biases and consider that many identities with which applicants identify may not be explicitly shared.

## Recruit and Train Your Crew

### Identify and Include All Stakeholders

Program leaders should ask themselves 3 key questions<sup>9,10</sup>: Which individuals have a fundamental impact on your training program? Can your program exist without them? Who is invested in seeing your program thrive? These stakeholders may include current and former trainees, interviewers, program leadership, clerkship directors, program coordinators, nurses, and administrators, and should be included in each step of planning and refining the interview process. These individuals may also participate in the interviews. This wide breadth of perspectives broadens the base for idea generation and advances programs toward a culture of inclusivity.

### Train Your Team

While it may not be possible to eliminate implicit bias, evidence from clinical studies suggests that simple awareness may mitigate its effects, and cognitive psychologists describe prejudice as “a habit

that can be broken” through awareness and motivation.<sup>11,12</sup> Implicit bias is both a product and driver of departmental culture, and engaging all stakeholders can help mitigate its systemic implications. Consider asking stakeholders to undergo measures of implicit bias, such as the Implicit Association Test (IAT), and to reflect on their results.<sup>13</sup> Were the results what they expected? How might such biases affect interviews, and what mitigation strategies can be employed? Subsequently, we suggest that programs offer a workshop on bias in trainee selection after team members have had an opportunity to reflect on the IAT. To this end, program leaders may consider building on preexisting workshops from non-medical organizations, such as Google re:Work, to meet their specific needs.<sup>14</sup>

### Be Intentional in Choosing Interviewers

Interviewers must reflect the program’s diversity and support its goals. Interviewers should receive feedback and coaching, and programs should strongly consider uninviting any interviewer who does not effectively represent the program’s values. Consider sharing with applicants any identities interviewers are willing to disclose and offer to pair applicants with interviewers of their choosing. This approach allows applicants to seek interviewers with whom they identify without feeling compelled to disclose their own identities.

Although representation from underrepresented faculty during interview day is essential, programs must be vigilant about not burdening a single person or group—an experience commonly referred to as the minority tax. Ensure that faculty efforts aimed toward enhancing diversity are appropriately valued, funded, and counted toward academic promotion.<sup>15</sup>

### Predefine Merit

The assessment of merit for each applicant will be subject to the biases of each selection committee member. Programs should deliberately predefine merits or qualities they find most valuable—a strategy shown to mitigate bias in hiring decisions.<sup>16</sup> We suggest programs convene stakeholders to predefine merit by considering program values and the characteristics that their most successful trainees possess. For example, one program identified “leadership and volunteer experience with disadvantaged communities, languages spoken, and socioeconomic hardship” as desirable qualities in a potential resident.<sup>17</sup> These qualities should align with the program’s mission (see above in “Identify and Disseminate Goals”).

#### BOX 1 Examples of Desired Characteristics and Corresponding Behaviorally Based Questions

1. Internal motivation: “Our residents often go above and beyond. Please describe a time when you went the extra mile when it would have been just as acceptable not to, and why.”
2. Compassion: “Please give an example of a time when compassion was shown to you at work and how that affected you or your practice.”
3. Resilience: “Our residents often address difficult or challenging situations. Please give an example of a time when you faced a challenge that tested your coping skills.”

### Prepare Standard Interview Questions

Once stakeholders have defined characteristics desirable in candidates, generate standard, behaviorally based questions along with scoring rubrics with narrative anchors to capture these qualities during interviews. Using standard questions and scoring rubrics related directly to desired attributes is a recognized best practice,<sup>18</sup> yet it is infrequently employed in residency interviews.<sup>19,20</sup>

Sources of behaviorally based questions include cognitive psychology and corporate literature.<sup>21,22</sup> Questions used in our program’s interview process are provided as examples in BOX 1. Interviewers should be trained on asking these questions and should familiarize themselves with the scoring rubric to ensure reliability in their evaluations of candidates’ responses.

### Setting Sail

#### Ensure Your Physical and Virtual Spaces Fully Represent Your Program

Nonverbal signals can represent sources of bias on interview day. Portraits displayed on hospital walls, for instance, are interpreted as a visual demonstration of institutional values<sup>23</sup>; the lack of diversity in institutional portraiture may lead medical students to believe that they do not belong.<sup>24</sup> We recommend preparing for interview season with a thorough evaluation of all signals applicants may encounter and verifying that they authentically and accurately reflect the program’s current priorities, trainees, faculty, and staff (BOX 2).<sup>25,26</sup> When training their teams, program leaders should ensure that all stakeholders demonstrate comfort and facility with language-based signals, including pronouns and gender-neutral language.

### Include a Blinded Interview

Interviews conducted without a pre-review of candidates’ applications, termed “blinded interviews,” are

**BOX 2 Suggestions and Examples for Enhancing Non-verbal Signals of Inclusivity**

1. Be intentional about what is displayed in physical spaces
  - Consider spaces both large and small, including walls, desks, lapels, etc
2. Be intentional about images displayed in virtual spaces, including photographs, images, and language
  - Review program websites, social media, or any slideshow presentations
  - Review photographs to ensure that they represent the current makeup of your program
3. Create accessible spaces
  - Restroom signage inclusive of transgender or nonbinary applicants
  - Access points and restrooms for applicants with physical differences
4. Carefully consider what language is displayed
  - Interviewer pronouns delineated on any interview materials or included with the interviewer's name on online platforms during virtual interviews
  - Use of gender-neutral language in written and virtual communications
5. Ask stakeholders already invested in the program to ensure that signals of inclusivity and welcome are clearly displayed

a recognized best practice in non-medical and medical fields.<sup>27,28</sup> Applications are heavily populated with information that is susceptible to bias; a blinded interview may not only mitigate an interviewer's own biases but may also diminish downstream effects of the bias entrenched within an applicant's file (BOX 3).

Our program has found that blinded interviews are easy to implement, provide valuable information, and are well-received by applicants who are informed in advance of the blinded interview's purpose. Applicants reported valuing the ability to speak freely about themselves, feeling empowered to ask questions, steering the conversation and focusing on their self-perceived strengths, and expressing themselves without predetermined judgment.

**Bias Is Bidirectional**

Implicit biases impact not only programs' impressions of applicants but also applicants' impressions of programs. Interviewees are not immune to their own biases, which may stem from cultural norms, historical stigma, or the signals that applicants perceive.<sup>34</sup> Programs must consider how they send signals of inclusivity since these signals can influence applicants' perceptions of their likelihood of being offered a position.<sup>35</sup> Programs should solicit feedback

**BOX 3 How and Why a Non-Blinded Interview Introduces or Exacerbates Bias**

How reviewing an application can introduce interview day bias<sup>27</sup>

1. Upon reviewing an application, general impressions are formed by the interviewer, and candidates are judged based on interviewers' assumptions about elements of the application, such as the reputation of the training institution
2. Interviewers treat the interview as an opportunity to confirm those impressions, rather than to objectively discover new information
3. Impressions formed in the review phase and confirmed in the interview may strongly influence final outcomes

Potential sources of bias within a candidate's application

1. Photographs
  - Perception of candidates' physical appearance may predispose interviewers to consider them more or less favorably
2. Demographics
  - Applications often contain applicants' race, gender, and hometowns, which may represent sources for bias
3. Letters of recommendation
  - Linguistic analysis of letters of recommendation demonstrates disparities in tone depending on the gender of the letter writer and the candidate,<sup>29-31</sup> though standardization of letters may somewhat mitigate this phenomenon<sup>32</sup>
4. Selection to medical honor societies
  - Controlling for USMLE scores, research, community service, leadership, and Gold Humanism Honor Society membership, White students are 6 times more likely than Black students and twice as likely as Asian students to be selected for Alpha Omega Alpha<sup>33</sup>

on this area in post-interview surveys and focus groups with incoming interns.

Supplementing interviews by sponsoring second-look visits or scholarships for students who are underrepresented in medicine allows programs to "audition" for prospective students while these students "audition" for a residency position. Bias is a 2-way street, but this 2-way audition may overcome negative preconceptions by fostering mutual understanding, which can affect the future diversity of a program.<sup>36,37</sup>

**Conclusion**

While systemic changes and institutional paradigm shifts are necessary to achieve workforce equity in health care, training programs can take concrete steps toward mitigating effects of bias in recruitment. The evidence- and experience-based strategies presented

here map a low-cost, adaptable pathway toward achieving diversity goals.

Bias mitigation and inclusive recruiting are iterative processes. Programs should not merely employ an intervention such as a bias training workshop and consider the problem solved. Programs must continuously re-evaluate their recruitment processes while collecting data, learning from others, and building on each year's successes. These strategies can help mitigate implicit biases and support programs' inclusive recruitment efforts during interview season. Recruitment, however, is only the first step, and retention is next. Ultimately, structural institutional changes are required to continue on the path to inclusivity from medical school to residency, fellowship, and beyond.

## References

- Association of American Medical Colleges. Diversity in Medicine: Facts Figures 2019. <https://www.aamc.org/data-reports/workforce/report/diversity-medicine-facts-and-figures-2019>. Accessed June 2, 2021.
- Creating a culture of equality in the workplace. *Accenture*. <https://www.accenture.com/us-en/about/inclusion-diversity/gender-equality>. Accessed June 2, 2021.
- Shook E, Sweet J. When She Rises, We All Rise: Getting to Equal 2018: Creating a culture where everyone thrives. *Accenture*. [https://www.accenture.com/\\_acnmedia/PDF-73/Accenture-When-She-Rises-We-All-Rise.pdf](https://www.accenture.com/_acnmedia/PDF-73/Accenture-When-She-Rises-We-All-Rise.pdf). Accessed June 2, 2021.
- Carnes M, Fine E, Sheridan J. Promises and pitfalls of diversity statements: proceed with caution. *Acad Med*. 2019;94(1):20–24. doi:10.1097/ACM.0000000000002388
- Lett LA, Murdock HM, Orji WU, Aysola J, Sebro R. Trends in racial/ethnic representation among US medical students. *JAMA Netw Open*. 2019;2(9):e1910490. doi:10.1001/jamanetworkopen.2019.10490
- Merchant RC, Jongco III AM, Woodward L. Disclosure of sexual orientation by medical students and residency applicants. *Acad Med*. 2005;80(8):786. doi:10.1097/00001888-200508000-00017
- Schwarz CM, Zetkovic M. You belong in the room: addressing the underrepresentation of physicians with physical disabilities. *Acad Med*. 2019;94(1):17–19. doi:10.1097/ACM.0000000000002435
- Hardeman RR, Burgess D, Phelan S, Yeazel M, Nelson D, van Ryn M. Medical student socio-demographic characteristics and attitudes toward patient centered care: do race, socioeconomic status and gender matter? A report from the Medical Student CHANGES study. *Patient Educ Couns*. 2015;98(3):350–355. doi:10.1016/j.pec.2014.11.013
- Smallwood N, Sweetman K, Ulrich D. A leader's five key stakeholders. *Harvard Business Review*. <https://hbr.org/2007/11/a-leaders-five-key-stakeholder>. Accessed June 2, 2021.
- Kenny G. Five questions to identify key stakeholders. *Harvard Business Review*. <https://hbr.org/2014/03/five-questions-to-identify-key-stakeholders>. Accessed June 2, 2021.
- Devine PG, Forscher PS, Austin AJ, Cox WT. Long-term reduction in implicit race bias: a prejudice habit-breaking intervention. *J Exp Soc Psychol*. 2012;48(6):1267–1278. doi:10.1016/j.jesp.2012.06.003
- Green AR, Carney DR, Pallin DJ, et al. Implicit bias among physicians and its prediction of thrombolysis decisions for black and white patients. *J Gen Intern Med*. 2007;22(9):1231–1238. doi:10.1007/s11606-007-0258-5
- Chapman EN, Kaatz A, Carnes M. Physicians and implicit bias: how doctors may unwittingly perpetuate health care disparities. *J Gen Intern Med*. 2013;28(11):1504–1510. doi:10.1007/s11606-013-2441-1
- Google re:Work. Tool: Give your own unbiasing workshop. <https://rework.withgoogle.com/guides/unbiasing-raise-awareness/steps/give-your-own-unbiasing-workshop/>. Accessed June 2, 2021.
- Rodríguez JE, Campbell KM, Pololi LH. Addressing disparities in academic medicine: what of the minority tax? *BMC Med Educ*. 2015;15:6. doi:10.1186/s12909-015-0290-9
- Uhlmann EL, Cohen GL. Constructed criteria: redefining merit to justify discrimination. *Psychol Sci*. 2005;16(6):474–480. doi:10.1111/j.0956-7976.2005.01559.x
- Garrick JF, Perez B, Anaebere TC, Craine P, Lyons C, Lee T. The diversity snowball effect: the quest to increase diversity in emergency medicine: a case study of Highland's Emergency Medicine Residency Program. *Ann Emerg Med*. 2019;73(6):639–647. doi:10.1016/j.annemergmed.2019.01.039
- A guide to conducting behavioral interviews with early career job candidates. *Society for Human Resource Management*. <https://www.shrm.org/LearningAndCareer/learning/Documents/Behavioral%20Interviewing%20Guide%20for%20Early%20Career%20Candidates.pdf>. Accessed June 2, 2021.
- Kasales C, Peterson C, Gagnon E. Interview techniques utilized in radiology resident selection—a survey of the APDR. *Acad Radiol*. 2019;26(7):989–998. doi:10.1016/j.acra.2018.11.002
- Kim RH, Gilbert T, Suh S, Miller JK, Eggerstedt JM. General surgery residency interviews: are we following

- best practices? *Am J Surg.* 2016;211(2):476–481.e3. doi:10.1016/j.amjsurg.2015.10.003
21. University of Arkansas Walton School of Business. Extensive List of Competency Based Interview Questions. [https://walton.uark.edu/career/files\\_career\\_center/Extensive\\_List\\_of\\_Competency-Based\\_Interview\\_Questions.pdf](https://walton.uark.edu/career/files_career_center/Extensive_List_of_Competency-Based_Interview_Questions.pdf). Accessed June 2, 2021.
  22. Hoevemeyer VA. *High-Impact Interview Questions: 701 Behavior-Based Questions to Find the Right Person for Every Job*. 1st ed. New York, NY: American Management Association; 2005.
  23. Sivashanker K, Rexrode K, Nour N, Kachalia A. Healthcare portraiture and unconscious bias. *BMJ.* 2019;365:l1668. doi:10.1136/bmj.l1668
  24. Fitzsousa E, Anderson N, Reisman A. “This institution was never meant for me”: the impact of institutional historical portraiture on medical students. *J Gen Intern Med.* 2019;34(12):2738–2739. doi:10.1007/s11606-019-05138-9
  25. Thoroughgood C, Sawyer K, Webster JR. Creating a trans-inclusive workplace. *Harvard Business Review.* <https://hbr.org/2020/03/creating-a-trans-inclusive-workplace>. Accessed June 2, 2021.
  26. Kim J. A Step-by-Step Guide to Cultivating Diversity and Inclusion Part 1: 50+ Ideas. *Lever.* <https://www.lever.co/blog/50-ideas-for-cultivating-diversity-and-inclusion-in-the-workplace/>. Accessed June 2, 2021.
  27. Huffcutt AI. From science to practice: seven principles for conducting employment interviews. *Appl HRM Res.* 2010;12(1):121–136.
  28. Talamantes E, Henderson MC, Fancher TL, Mullan F. Closing the gap—making medical school admissions more equitable. *N Engl J Med.* 2019;380(9):803–805. doi:10.1056/NEJMp1808582
  29. Filippou P, Mahajan S, Deal A, et al. The presence of gender bias in letters of recommendations written for urology residency applicants. *Urology.* 2019;134:56–61. doi:10.1016/j.urology.2019.05.065
  30. Schmader T, Whitehead J, Wysocki VH. A linguistic comparison of letters of recommendation for male and female chemistry and biochemistry job applicants. *Sex Roles.* 2007;57(7–8):509–514. doi:10.1007/s11199-007-9291-4
  31. Madera JM, Hebl MR, Martin RC. Gender and letters of recommendation for academia: agentic and communal differences. *J Appl Psychol.* 2009;94(6):1591–1599. doi:10.1037/a0016539
  32. Li S, Fant AL, McCarthy DM, Miller D, Craig J, Kontrick A. Gender differences in language of standardized letter of evaluation narratives for emergency medicine residency applicants. *AEM Educ Train.* 2017;1(4):334–339. doi:10.1002/aet2.10057
  33. Boatright D, Ross D, O’Connor P, Moore E, Nunez-Smith M. Racial disparities in medical student membership in the Alpha Omega Alpha Honor Society. *JAMA Intern Med.* 2017;177(5):659–665. doi:10.1001/jamainternmed.2016.9623
  34. Love JN, Howell JM, Hegarty CB, et al. Factors that influence medical student selection of an emergency medicine residency program: implications for training programs. *Acad Emerg Med.* 2012;19(4):455–460. doi:10.1111/j.1553-2712.2012.01323.x
  35. Hebl MR, Foster JB, Mannix LM, Dovidio JF. Formal and interpersonal discrimination: a field study of bias toward homosexual applicants. *Pers Soc Psychol Bull.* 2002;28(6):815–825. doi:10.1177/0146167202289010
  36. Duong DK, Samuels EA, Boatright D, Wilson T. Association between emergency medicine clerkship diversity scholarships and residency diversity [published online ahead of print October 13, 2020]. *AEM Educ Train.* doi:10.1002/aet2.10547
  37. Tunson J, Boatright D, Oberfoell S, et al. Increasing resident diversity in an emergency medicine residency program: a pilot intervention with three principal strategies. *Acad Med.* 2016;91(7):958–961. doi:10.1097/ACM.0000000000000957



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