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Agenda

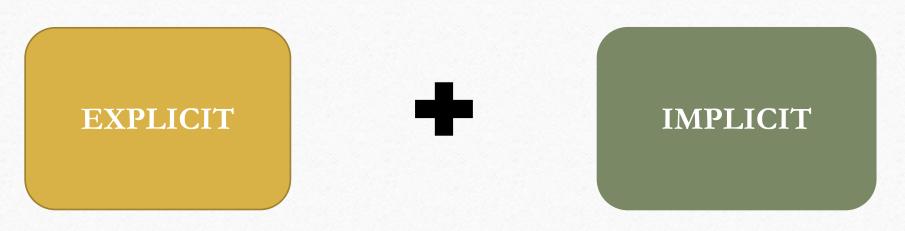
- Review of bias
- Discussion about stereotypes/stereotype threat
- Being intentional about diversity
- Where do we go from here?





Bias 101

An attitude that projects favorable or unfavorable dispositions towards people



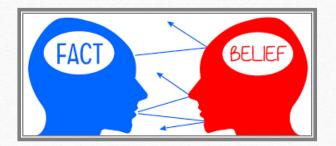








Bias 101



- We believe:
 - "I am able to assess others in a fair and accurate way"
 - "I am objective"
- But the facts are:
 - We are all biased
 - We activate stereotypes without awareness
 - Perceptions and judgements are altered without our awareness
 - Ingrained mind habits often produce errors in how we perceive, judge, and make decisions.
 - We rely on implicit assumptions when we feel stressed, rushed, or afraid
 - Knowledge from prior experiences is used to quickly fill in gaps when rushed









Bias 101

Implicit Bias is a normal part of the human experience Our biases may not be aligned with our declared beliefs

We tend to have preferences for those who share similar characteristics

Debiasing techniques can help unlearn biases

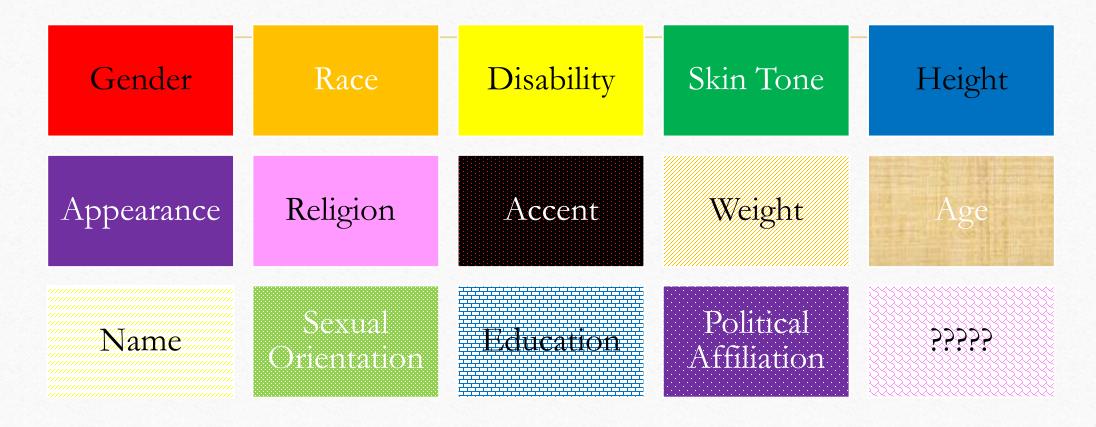








Which are our biases?













Common Bias Patterns

- Affinity Bias: feeling more comfortable and confident in people who share one's own culture, interests, experiences and backgrounds
- **Positive stereotypes** that influence perceptions of competence
- Subjective assessments of a person's potential rather than accomplishments
- Presumptions of competence based upon unconscious negative stereotypes









20 COGNITIVE BIASES THAT SCREW UP YOUR DECISIONS

1. Anchoring bias.

People are over-reliant on the first piece of information they hear. In a salary negotiation, whoever makes the first offer establishes a range of reasonable possibilities in each person's mind.



2. Availability heuristic.

People overestimate the importance of information that is available to them. A person might argue that smoking is not unhealthy because they know someone who lived to 100 and smoked three packs a day.



2. Bandwagon effect.

The probability of one person adopting a belief increases based on the number of people who hold that belief. This is a powerful form of groupthink and is reason why meetings are often unproductive.



4. Blind-spot bias.

Falling to recognize your own cognitive biases is a bias in itself. People notice cognitive and motivational biases much more in others than in themselves.



5. Choice-supportive bias.

When you choose something, you tend to feel positive about it, even if that choice has flaws. Like how you think your dog is awesome — even if it bites people every once in a while.



6. Clustering illusion.

This is the tendency to see patterns in random events. It is key to various gambling fallacies, like the idea that red is more or less likely to turn up on a roulette table after a string of reds.



7. Confirmation bias.

We tend to listen only to information that confirms our preconceptions — one of the many reasons it's so hard to have an intelligent conversation about climate change.



8. Conservatism bias.

Where people favor prior evidence over new evidence or information that has emerged. People were slow to accept that the Earth was round because they maintained their earlier understanding that the planet was flat.









9. Information bias.

The tendency to seek information when it does not affect action. More information is not always better. With less information, people can often make more accurate predictions.



10. Ostrich effect.

The decision to ignore dangerous or negative information by "burying" one's head in the sand, like an ostrich. Research suggests that investors check the value of their holdings significantly less often during bad markets.



11. Outcome bias.

Judging a decision based on the outcome — rather than how exactly the decision was made in the moment. Just because you won a lot in Vegas doesn't mean gambling your money was a smart decision.



12. Overconfidence.

Some of us are too confident about our abilities, and this causes us to take greater risks in our daily lives. Experts are more prone to this bias than laypeople, since they are more convinced that they are right.



13. Placebo effect.

When simply believing that something will have a certain effect on you causes it to have that effect. In medicine, people given fake pills often experience the same physiological effects as people given the real thing.



14. Pro-innovation bias.

When a proponent of an innovation tends to overvalue its usefulness and undervalue its limitations. Sound familiar, Silicon Valley?



15. Recency.

The tendency to weigh the latest information more heavily than older data. Investors often think the market will always look the way it looks today and make unwise decisions.



16. Salience.

Our tendency to focus on the most easily recognizable features of a person or concept. When you think about dying, you might worry about being mauled by a lion, as opposed to what is statistically more likely, like dying in a car accident.



17. Selective perception.

Allowing our expectations to influence how we perceive the world. An experiment involving a football game between students from two universities showed that one team saw the opposing team commit more infractions.



18. Stereotyping.

Expecting a group or person to have certain qualities without having real information about the person. It allows us to quickly identify strangers as friends or enemies, but people tend to **overuse and abuse** it.



19. Survivorship bias.

An error that comes from focusing only on surviving examples, causing us to misjudge a situation. For instance, we might think that being an entrepreneur is easy because we haven't heard of all those who failed.



20. Zero-risk bias.

Sociologists have found that we love certainty — even if it's counterproductive. Eliminating risk entirely means there is no chance of harm being caused.







https://www.mentalfloss.com/article/68705/20-cognitive-biases-affect-

Factors that Trigger Implicit Bias For or Against Applicants during the Evaluation Process





AGAINST	FOR
Non-traditional career paths	Traditional career paths
Non-traditional research interests or methodologies	Traditional research interests and methodologies.
Degrees from less historically prestigious institutions	Degrees from historically prestigious institutions
Prior work experience at less prestigious or lower-ranked institutions.	Prior work experience at prestigious or highly-ranked institutions
Do not appear to "fit" the unit's existing profile (e.g., in terms of gender, age, background, interests, and so forth).	Appear to "fit" the unit's existing profile (e.g., in terms of gender, age, background, interests, and so forth). This is sometimes referred to as "cloning"—replicating the current unit profile in new hires

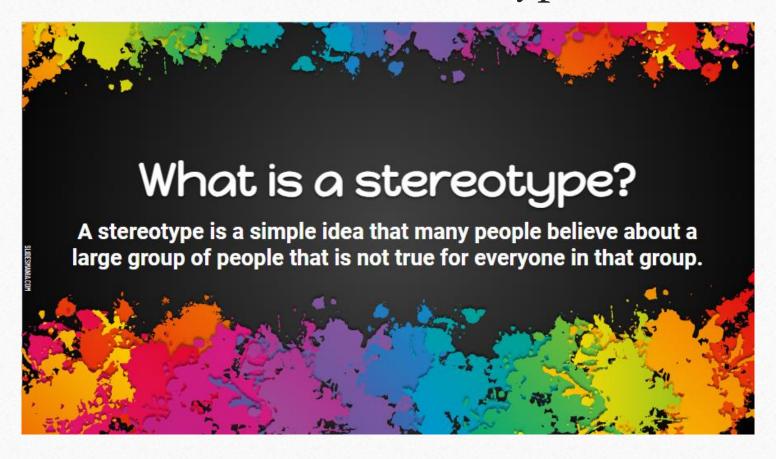








What is a stereotype?











Stereotype Threat

- Predicament felt by people in situations, whether positive or negative learning experiences, where they could conform to negative stereotypes associated with their own group membership
- Can potentially affect members of any group about whom a negative stereotype exists.
- Threat is cued by the mere recognition that a negative group stereotype could apply to oneself in a given situation.
- For those who have surmounted obstacles to enter the domain, stereotype threat can be particularly self-threatening.
- Longstanding underrepresentation of women and minorities in many surgical subspecialities may set the stage for stereotype threat









What is fit? How important is culture? What are the group's core values?

- Never trust your gut.
- More often than not, your gut guides you to hire people who are similar to you (affinity bias), which can lead to a homogeneous culture: people with similar backgrounds who think and act in similar ways.
- This can undermine your organization's diversity and shut people out based on their backgrounds
- Core Values: attributes candidates possess and have demonstrated in their previous experience can and do cross a wide range of demographics and types of people.





From the Harvard Business Review

"Finding the right people is also not a matter of "culture fit." What most people really mean when they say someone is a good fit culturally is that he or she is someone they'd like to have a beer with. But people with all sorts of personalities can be great at the job you need done. This misguided hiring strategy can also contribute to a company's lack of diversity, since very often the people we enjoy hanging out with have backgrounds much like our own."





Diversity in Otolaryngology Residency Programs: A Survey of Otolaryngology Program Directors

Hillary Newsome, MD¹, Erynne A. Faucett, MD², Thomas Chelius, MS³, and Valerie Flanary, MD⁴

Otolaryngology—Head and Neck Surgery 2018, Vol. 158(6) 995–1001

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http://otojournal.org









- Nonexhaustive list of specialty and residency program characteristics identified as important to URM students includes
 - "pipeline programs"
 - presence of minority association groups
 - visibility of URM mentorship at their institution,
 - years to complete training
 - match rate
- More than half of survey responders indicated 1 or fewer URM faculty members work within the department
- Association between the number of URM faculty and the number of URM applicants matriculated was statistically significant









- Nearly one-third of program directors reported no URM medical student applicants coming from their program in the past 15 years.
- Approximately half of program director responders confirmed the presence of a special outreach program for URM students.
- The present study, interestingly, did not find an association between outreach programs and the number of URM applicants (very small sample size)









Harvard Business Review

Gender

If There's Only One Woman in Your Candidate Pool, There's Statistically No Chance She'll Be Hired

by Stefanie K. Johnson, David R. Hekman, and Elsa T. Chan

When there were two minorities or women in the pool of finalists, the status quo changed, resulting in a woman or minority becoming the favored candidate.









- Two studies in the HBR article:
 - 144 undergraduate students look at resume for athletic director position, candidates with same credentials only difference is race (manipulated names). Half of students evaluated pool with 2 white candidates and 1 Black candidate and half did the opposite
 - when a majority of the finalists were white (demonstrating the status quo), participants tended to recommend hiring a white candidate. But when a majority of finalists were Black, participants tended to recommend hiring a Black candidate (F = 3.96, $\eta_p^2 = .03$; p < .05).
 - Second study was same but used gender instead of race



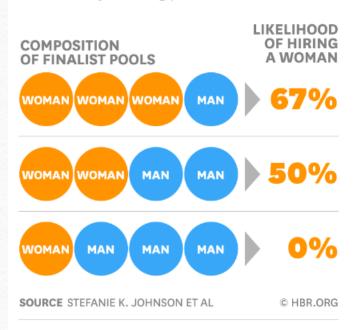






The Relationship Between Finalist **Pools and Actual Hiring Decisions**

According to one study of 598 finalists for university teaching positions.



Able to measure unconscious racism and sexism using implicit association tests (IATs) — reaction-time tests that measure unconscious bias. We saw that the status quo effect was particularly strong among participants who had scored high in unconscious racism or sexism on the IAT.

So, when hiring a black candidate was perceived to be the status quo (i.e., the pool was two black candidates and one white candidate), individuals scoring average in unconscious racism tended to rate the black candidate 10% better than the white candidate

Individuals scoring one standard deviation above average in unconscious racism tended to rate the black candidate 23% better than the white candidate ($\theta = .24$, p < .05). We found a similar effect for gender.









The odds of hiring a woman were 79.14 times greater if there were at least two women in the finalist pool (controlling for the number of other men and women finalists).

The odds of hiring a minority were 193.72 times greater if there were at least two minority candidates in the finalist pool (controlling for the number of other minority and white finalists).

This effect held no matter the size of the pool (six finalists, eight finalists, etc.), and these analyses excluded all cases in which there were no women or minority applicants.







The Life of a Black Medical Trainee in the United States: Past, Present, Future

Jared Alexander Stowers, M.S., Sophia Desrosiers, B.S., Kirubel Zeleke, M.D., Oluwadunsin Bakare, B.S., Ali Seifi, M.D., F.A.C.P.

- **ISOLATION**
- IMPOSTER SYNDROME
- HIGHER RISK OF DEPRESSION AND ANXIETY DUE TO LACK OF SUPPORT
- A 2015 AAMC report showed that Black male medical school matriculants failed to increase significantly between 1978 and 2014, despite numerously greater opportunities for medical education in the 21st century
- SOLUTIONS
 - Diversifying medical institutions from top down: leadership
 - Recruitment pipelines for underrepresented high school and college students

"Most importantly, medical institutions must seek diversity actively to dismantle the ingrained ideologies of systemic racism rooted in healthcare and medical education"





How can I be aware of my biases?

- Project Implicit is a non-profit organization and international collaboration between researchers who are interested in implicit social cognition - thoughts and feelings outside of conscious awareness and control.
 - <u>Tony Greenwald</u> (University of Washington), <u>Mahzarin Banaji</u> (Harvard University), and <u>Brian Nosek</u> (University of Virginia)
- The Implicit Association Test measures attitudes and beliefs that people may be unwilling or unable to report



https://implicit.harvard.edu/implicit/takeatest.html

Weight ('Fat - Thin' IAT). This IAT requires the ability to distinguish faces of people who are obese and people who are thin. It often reveals an automatic preference for thin people relative to fat people.
Native American ('Native - White American' IAT). This IAT requires the ability to recognize White and Native American faces in either classic or modern dress, and the names of places that are either American or Foreign in origin.
Arab-Muslim ('Arab Muslim - Other People' IAT). This IAT requires the ability to distinguish names that are likely to belong to Arab-Muslims versus people of other nationalities or religions.
Gender - Career. This IAT often reveals a relative link between family and females and between career and males.
Disability ('Disabled - Abled' IAT). This IAT requires the ability to recognize symbols representing abled and disabled individuals.
Presidents ('Presidential Popularity' IAT). This IAT requires the ability to recognize photos of Donald Trump and one or more previous presidents.
Sexuality ('Gay - Straight' IAT). This IAT requires the ability to distinguish words and symbols representing gay and straight people. It often reveals an automatic preference for straight relative to gay people.
Religion ('Religions' IAT). This IAT requires some familiarity with religious terms from various world religions.
Transgender ('Transgender People – Cisgender People' IAT). This IAT requires the ability to distinguish photos of transgender celebrity faces from photos of cisgender celebrity faces.







Managing Bias: What Works

- Cultural Humility: Curiosity, Empathy, Non-Judgment
- **Understand:** Bias is *normal* and reducing implicit bias is like *breaking a habit*.
- **Be aware of your biases:** Assess what you make *snap judgements* about and then SLOW DOWN
- Realize the impact of your biases: Acknowledging (good) intent is ok, but not more important than owning the impact. Focusing only on intent centers the person who inflicted the wound
- Replace those biases:
- Think more broadly
- **Counter** stereotypical examples
- Perspective taking





Slow Down, Take Your Time

- More likely to fall for cognitive errors (unconscious bias) when distracted, under time pressure, or tired.
- If possible, be rested:
 - Morning people are more likely to rely on stereotypes at night vs.
 night people are more likely to rely on stereotypes in the morning.
 - Sleep deprived individuals are less cognitively flexible



Bodenhausen, G. V. (1990). *Psychological Science*. Ghumman, S., & Barnes, C. M. (2013).. *Journal of Applied Social Psychology*

Slide adapted from Dr. Anna Han, NIH







Diversity, Equity, Inclusion, and Justice



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

Kamna Singh Balhara, MD, MA P. Logan Weygandt, MD, MPH Michael R. Ehmann, MD, MPH, MS Linda Regan, MD, MEd

- 1. <u>Chart the course</u>: identification, prioritization, and dissemination of diversity goals are key drivers in creating organizational cultures that promote recruitment of diverse candidates
 - programs identify the recruitment of a diverse resident workforce as a priority and clearly describe recruitment goals to trainees, faculty, and staff
 - Understand diversity is not skin deep what are the other "under-represented" or marginalized groups

2. Recruit and train your crew:

- Identify and include all stakeholders
- Train your team: IAT, Bias workshops
- Be intentional in choosing interviewers
- Predefine merit: or qualities they find most valuable and are aligned with the department's mission
- Prepare standard interview questions









Standard Interview Questions

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."







Current Urology Reports https://doi.org/10.1007/s11934-022-01116-7

EDUCATION (G BADALATO AND E MARGOLIN, SECTION EDITORS)



Best Practices for Reducing Bias in the Interview Process

Ilana Bergelson¹ · Chad Tracy¹ · Elizabeth Takacs¹

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- Determining which core values predict resident success in a particular program
- Questions can be formatted to elicit those traits during the interview process
- Once key attributes have been chosen and questions have been selected, a scoring rubric can be created.
 *The scoring of each question is important as it helps define what makes a high-performing versus low-performing answer









Behavioral question example	Trait evaluated
Tell me about a time in which you had to use your spoken communication skills to get a point across that was important to you.	Communication, patience
Can you tell me a time during one of your rotations where you needed to take a leadership role in the case workup or care of the patient? How did this occur and what was the outcome?	Drive, determination
Tell us about a time when you made a major mistake. How did you handle it?	Integrity
What is the most difficult experience you have had in medical school?	Recognition of own limitations









<u>Spoken Communications:</u> Able to clearly present information through the spoken word; influence or persuade others through oral presentation in positive or negative circumstances

Effective communication involves both listening and speaking. Tell me about a specific experience where you used communication to change an attitude, sell an idea, or to otherwise persuade someone.

Very Strong evidence skill is not present (1)	Strong evidence skill is not present (2)	Some evidence skill is present (3)	Strong evidence skill is present (4)	Very strong evidence skill is present (5)
-Short answer/No Insight -Example unclear/non-specific -Muffled/stammering -Centered on self vs others -Stage fright; freezes up -Poor listener		-Some Insight -Expresses communication style -Gets off track -No speech problems -Talks about self & others -Passable as a speaker -Adequate listener		-Insightful -Extrapolates in detail -Remains relevant - Skilled at influencing others - Clear articulate speech -Understands and uses others' interests/perspectives/background - Listens well -Attends to facts/feelings

Fig. 1 Example of standardized question to evaluate communication with scoring criteria









CORD BEST PRACTICES

Holistic Review, Mitigating Bias, and Other Strategies in Residency Recruitment for Diversity, Equity, and Inclusion: An Evidence-based Guide to Best Practices from the Council of Residency Directors in Emergency Medicine

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Figure 2. Qualities and characteristics to consider during holistic review.*

- Persistence/Grit/Emotional intelligence: As evidenced by distance traveled (ie, cumulative life experience, adversities faced, etc.)
- Strength of character: As evidenced by letters of recommendation and interview
- Capacity for growth/Growth mindset: As evidenced by history of challenges overcome, letters of recommendation, personal statement
- Cultural sensitivity/Empathy: As evidenced by letters of recommendation, personal statement, and interview
- Commitment to service: As evidenced by a consistent history of engagement
- Interpersonal skills: As evidenced by letters of recommendation and interview





^{*}Adapted from DeBenedectis (2019) and Witzburg (2013). 12,73



Diversity, Equity, Inclusion, and Justice



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Setting Sail

- Ensure your physical and virtual spaces fully represent your program
- Include a blinded interview
 - 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
- Bias is bidirectional
 - Interviewees are not immune to their own biases: may stem from cultural norms, historical stigma, or the signals that applicants perceive
 - Programs must consider how they send signals of inclusivity since these signals can influence applicants' perceptions of their likelihood of being offered a position
 - Consider supplementing interviews by offering second looks to students who are URIM









BOX 2 Suggestions and Examples for Enhancing Nonverbal 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









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

How reviewing an application can introduce interview day bias²⁷

- 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,^{29–31} though standardization of letters may somewhat mitigate this phenomenon³²
- 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 Alpha³³









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- Duke University School of Medicine, Department of Emergency Medicine, Durham, North Carolina
- A study of the 20 largest Accreditation Council for Graduate Medical Education (ACGME) resident specialties observed that no residency program represented Black or Latino populations at comparable rates to the United States population

Best Practice Recommendations:

- Define clear and prioritized goals for diversity-related residency recruitment. (Level 5, Grade D)
- Assess program readiness to implement diversity-related recruitment and support UIM trainees that match. (Level 4, Grade C)
- Mitigate bias through inclusion of bias training and predetermined scoring rubrics for screening, interviews, and ranking. (Level 3, Grade B)
- Create DEI committees to inform and steer diversity-related recruitment. (Level 3, Grade B)
- Ensure representation of UIM faculty in the screening, interview, and selection process but avoiding tasking UIM faculty with too much during the recruitment cycle. (Level 5, Grade D) (Level 4, Grade C)
- Begin recruitment of UIM applicants early through directed and expanded efforts such as enrichment, outreach, and pathway programming. (Level 5, Grade D)
- Collaborate with minority student groups in early mentorship and advisory programs for UIM applicants. (Level 5, Grade D)





Conclusions



We are all biased



We must learn to recognize our biases and the impact it has on residency recruitment



There are tools we can implement to mitigate these biases



We must be intentional about setting goals for diversity within our specialty



We must make sure that our interview day and recruitment efforts create a culture of inclusion



Creating an environment of inclusion and belonging so that when you have successful recruitment, that the diverse trainees are welcomed and not marginalized











Thank you for your time!



