

Best Practices for Search Committees: Avoiding Bias and Promoting a Diverse Search

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This document is a compilation of resources for search committees and is aimed at i) providing guidelines to search/selection committees; and ii) shedding light on unconscious biases that impact our decision-making processes and exist in everyone. Section I provides information on some common biases that are prevalent in the workplace, as documented by social science research. Section II provides guidelines on conducting an effective and diverse search and review of applicants. Please note that this document should be reviewed carefully *before* evaluating any candidates.

Section I: Evidence of Bias in Academic Settings

Unconscious Bias:

We all hold unconscious or implicit biases that are rooted in gender constructs, stereotypes, and gender schemas. Moreover, these biases begin in early childhood and continue in adulthood. Cognitive science and psychology has shown that the brain employs these biases to make sense of complex situations. Unless checked, these implicit biases disproportionately affect underrepresented and marginalized groups, such as women and racial/ethnic minorities in academia. These are apparent in the following:

- **Hiring:** A study by researchers at Yale University showed that science faculty's subtle gender biases favored male students. In a randomized double-blind study, science faculty rated the application materials of a student – who was randomly assigned either a male or female name – for a lab manager position. Faculty participants rated the male applicant as significantly more competent and hireable than the (identical) female applicant. The starting salary offered was also higher. The gender of the faculty did not affect the responses, i.e. both male and female faculty were equally likely to exhibit bias against the female student. (Moss-Racusin et al, 2012)
- **Letters of Recommendation:** A study of more than 1,200 letters of recommendation in the geosciences found that regardless of the gender of the letter writer, male applicants were significantly more likely to receive outstanding letters compared to female applicants (Dutt et al, 2016). This is similar to studies in other fields such as medicine, psychology, chemistry, and biochemistry, all of which have found that men

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were more likely to be described in glowing terms compared to women. A 2009 study in psychology found that women were more likely to be described in communal terms (such as “reliable” or “caring”) and men in more agentic terms and that these communal characteristics are negatively related to hiring decisions based on letters of recommendation (Madera et al, 2009). A 2003 study in medicine found that men were more likely to be described as “brilliant” and “superb” while women were more likely to be described as “hardworking” and “intelligent” (Trix & Psenke, 2003).

- **Salaries:** A report in Nature indicated that female scientists earn between 25% and 40% less than their male counterparts (Shen, 2013). Studies also show that salaries for women don’t progress as quickly as salaries for men (Valian, 2005). Also, there is widespread evidence that women ask for less than their male colleagues (Babcock & Laschever, 2003).
- **Performance Evaluation:** Data from symphony orchestra auditions showed that with the introduction of blind auditions, the number of women hired increased fivefold, and the probability that a woman would advance from preliminary rounds increased by 50%. Researchers maintain that blind audition procedures alone accounted for a significant increase in the proportion of women musicians hired into top-tier American symphonies (Goldin and Rouse, 2000).
- **Teaching Evaluations:** A study found that a professor with a male name received higher teaching evaluations than an identical professor with a female name, and that this bias was not limited to subjective aspects such as how good the students believed the teacher was, but also for objective questions such as whether the teacher returned homework assignments on time (Boring et al, 2016).
- **Contribution:** A study found that women disproportionately perform the labor and experimental work of producing science – such as pipetting and centrifuging – while men are more likely to be credited for the bigger picture such as conceiving ideas and analyzing data (Sugimoto et al, 2016).
- **Entrepreneurial Ventures:** In a study conducted by Harvard Business School, Wharton, and MIT Sloan, researchers found that investors preferred entrepreneurial ventures pitched by a man over identical ventures pitched by a woman by a rate of 68% to 32%. Investors found the male pitches more “persuasive, logical, and fact-based” than the *identical* female pitches (Brooks et al., 2014).
- **Curriculum Vitae:** In an older study 238 psychologists were presented with one of four versions of a CV (female job applicant, male job applicant, female tenure candidate, and male tenure candidate). All the CVs came from a real-life scientist at two different stages in her career, but the names were changed to traditional male and female names. The study found that both men and women were more likely to select a male applicant than a female applicant with an identical record, and credit the

male applicant with more teaching, research and service experience compared to the female applicant with an identical record (Steinpres et al., 1999).

- **Stereotyping:** A study found that without any information other than a candidate's appearance (making gender clear) both men and women were twice as likely to hire a man than a woman to do an arithmetic task that, on average, both genders perform equally well. This discrimination survived if performance was self-reported because men had a greater tendency to boast about their performance. This discrimination was reduced but not eliminated by providing full information about previous performance on the task (Reuben et al., 2014). An earlier study found that when evaluators were busy, distracted, or under time pressure, they tended to give women lower ratings than men, i.e. a greater reliance on stereotypes when distracted or under stress (Martell, 1991).
- **Funding Success:** A study of 128 applicants for a prestigious grant found that males and females were evaluated differently, and that gender disparities were especially pronounced in biology and the Earth sciences (Brouns, 2000). Another study found that female applicants for NIH grants received only 63% of the funding that male applicants received (RAND, 2005).
- **Publications:** A study of postdoctoral fellowships found that peer reviewers gave female applicants lower scores than male applicants who showed the same level of scientific productivity. The study also found that women needed 2.5 times more publications as men to achieve the same rating on scientific competence as men. The study also found a "friendship bonus" i.e. knowing someone on the review panel improved one's rating of scientific competence (Wenneras and Wold, 1997).
- **Negotiations:** In a study done by researchers at Harvard and Carnegie Mellon, women who negotiated a higher salary were perceived as being more difficult and less nice to work with compared to men who negotiated a higher salary (Bowles et al., 2005). Another study found that due to the negative stereotype of aggressiveness associated with women leaders, women avoided leadership opportunities (Davies et al., 2005).
- **Attitude towards gender bias evidence:** A 2015 study found that men evaluated gender bias research less favorably than women, and this was especially prominent among male faculty in STEM fields (Handley et al, 2015).

Race & Ethnicity Bias:

- **Innate Talent:** A study found that women and minorities (particularly African Americans) were underrepresented in fields where raw innate talent and brilliance were considered a requirement for success in those fields, since they were

stereotyped as not possessing such brilliance. This bias was reduced for Asians. (Leslie et al, 2015). Another study found that words like “brilliant” and “genius” in online teaching evaluations were significantly lower for women and African Americans (Storage et al, 2016).

- **Double Jeopardy/ Intersectionality:** “Double jeopardy” and “Intersectionality” are used to describe a situation where people with more than one marginalized identity face more bias and stereotype threat. A study in astronomy and planetary science found that women of color experienced the highest rates of negative workplace experiences, including harassment and assault (Clancy et al. 2017).
- **Grant Awards:** A study commissioned by the National Institutes of Health revealed that Black Ph.D. scientists were far less likely to receive NIH funding for a research idea than a White scientist from a similar institution with the same research record. A smaller gap was also found for Asians, though this gap disappeared when only US citizens were included. (Ginther et al., 2011)
- **Interview Callback:** Using fictitious resumes a study found a significant racial gap in callbacks for interviews. Resumes with traditionally white names such as Emily and Greg elicited 50% more callbacks than similar resumes with black/ethnic names such as Lakisha and Jamal. Also, a higher quality resume elicited 30% more callbacks for Whites but a far smaller increase for Blacks. (Bertrand and Mullainathan, 2003).
- **Shifting Standards:** A study showed that holding stereotypes tended to shift the standards for judging an individual or group. When asked to rate verbal skills, evaluators rated the skills lower if they were told that an African American provided the definitions for certain words than if they were told that a white person provided them (Biernat et al., 1994).
- **Treatment of Ambiguity:** A study found that White participants did not discriminate against Blacks relative to White candidates when the candidates’ qualifications were clearly strong or weak, but they did discriminate against Black candidates when the decision was more ambiguous. That is, when a candidate’s qualifications for a position were ambiguous, bias against blacks was stronger than bias against equally qualified whites (Dovidio and Gaertner, 2000).

Section II: Guidelines for Search Committees²

Pool Development:

- **Search Definition:** Broad search definitions produce diverse applicant pools and assertive language could include, for example, “The selection committee is especially interested in qualified candidates who can contribute, through their excellence in

² Detailed guidelines on conducting a diverse search can be found in the dossier, *Guidelines for LDEO Search Committees*, of which this document is one component.

research, teaching, or service, to the diversity and excellence of the academic community.”³

- **Expansion of Sources:** Expanded recruitment sources also allow for diverse applicant pools. Wherever possible, selection committees can try to utilize databases and fellowship directories that identify outstanding and diverse candidates.
- **Search Committee Composition:** Including women and minorities in search committees is strongly encouraged as a diverse committee allows for a broader range of perspectives, attitudes and selection criteria, promoting a more diverse search.

Candidate Selection:

- **Multiple Lists:** Selection committees should make multiple lists of candidates, using different criteria for each list. This will be helpful in remind committee members that many different talents are relevant and important to science, and that each candidate will rank differently on the selection criteria.
- **Evaluation Form:** Using a candidate evaluation form can increase the accuracy and objectivity of ratings. An example of a candidate evaluation form included in the appendix to this document – search committees can adapt it to their needs.
- **Semi-structured Interviews:** Studies have shown that semi-structured interviews, as opposed to free-flowing interviews, reduce bias in evaluations since all candidates are asked the same set of questions in the same order.
- **Group Discussion:** Ensuring that all members of the selection committee contribute to the selection process will ensure that a few vocal members do not dominate the discussion and the selection process. Wherever possible, require input and comment from every committee member. This will also incentivize people to “do their homework.”

³ Excerpt from the University of Michigan Faculty Handbook, 2004-2005

Appendix

Candidate Evaluation Form for Search Committees

Adapted from the University of Michigan ADVANCE Program Candidate Tool

The following form is meant as a template to evaluate job candidates at Lamont. Search committees may modify it as necessary depending on the rank, title and unique requirements of the position being considered.

Candidate's Name:

Points to consider when evaluating the candidate:

- Candidate's job talk
- CV
- List of publications
- Record of federal grant funding received
- Proposals written and funded
- Letters of recommendation
- Scientific merit
- Fit at Lamont, with respect to the LDEO Strategic Plan
- Outreach and education efforts
- Teaching ability, if applicable
- Other (e.g. meeting with candidate; AGU talk)

	Excellent	Good	Neutral	Fair	Poor	Unable to judge
Please rate the candidate on each of the following:						
Potential for (or evidence of) scholarly impact						
Potential for (or evidence of) research productivity						
Potential for (or evidence of) research funding						
Potential for (or evidence of) collaboration						
Fit with department's priorities						
Potential or demonstrated ability to make positive contribution to department's climate						
Potential or demonstrated ability to teach and supervise students						
Potential (or demonstrated ability) to be a conscientious university community member						

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