



# ADVANCE

Investing in Cultures of Inclusive Excellence for Faculty

## How Bias Emerges in Academic Hiring

*A Research Brief for Faculty Search Committees*

This research brief provides an overview of recent social science research on the ways that implicit bias can shape the academic hiring process. The hiring process is broken into four major phases: framing the position and forming the committee; marketing, outreach, and recruitment; evaluation of candidates; and forming the short-list and making final hiring decisions. Studies conducted within higher education settings are emphasized.

### PHASE 1: FRAMING THE POSITION & FORMING THE SEARCH COMMITTEE

#### ***Writing the Job Announcement***

The language used in the job ad can bias who is interested in applying for a role at a specific institution. Job advertisements in male-dominated fields (e.g. plumbing, security, computer programming) tend to use more masculine-typed words (e.g. “competitive” or “dominant”), in comparison to ads in female-dominated fields (nursing, administrative assistant). When job ads are written with masculine-typed wording or stress prototypically masculine personal characteristics (business sense, decisiveness), women are less likely to apply - while men are equally likely to apply regardless of the language used in the job ad.<sup>1</sup> Women and underrepresented minority candidates may be particularly attuned to the signals that the job ad contains regarding the diversity climate in the department or institution. For example, research shows that women and underrepresented job-seekers are more likely to apply to positions that signal a commitment to diversity within the job ad – beyond what is required by legal equal employment language.<sup>2</sup>

#### ***Forming the Search Committee***

Individuals are naturally attracted to others who have similar backgrounds and experiences. Search committees may gravitate toward candidates who mirror their own skills or backgrounds, or who replicate the faculty member who held the position previously.<sup>3</sup> Thus, search committees that lack diverse membership may be more prone to bias in their evaluation of candidates.<sup>4</sup> In one study, researchers in Spain found that the gender composition of the selection committee had a strong relationship with the gender of the final hire.<sup>5</sup> For example, they found that on a committee with seven members, the addition of each female evaluator increased the chances of success for a female applicant by 14 percent – but only for full professor candidates.



## PHASE 2: MARKETING, OUTREACH, AND RECRUITMENT

### ***Who is Asked and Encouraged to Apply to Faculty Positions***

Bias can emerge in the recruitment and marketing process in many ways. Search committees may feel that there is no diversity in the pipeline, or that qualified underrepresented candidates are so highly sought after that recruitment efforts will be a waste of time. Though there are fields with less diversity than others, recent studies show that diversity among PhD doctoral degree recipients outpaces faculty diversity.<sup>6</sup> Additionally, studies on faculty hiring show that even the most competitive faculty candidates only receive around two tenure-track offers (or less), and that candidates from minority groups are not receiving significantly more offers in comparison to peers from other backgrounds.<sup>7</sup>

### ***Institutional Prestige and Reputation***

Often, the rank or prestige of the institution that a scholar matriculates from is used as a proxy for determining their quality and future productivity – elements essential to determining hireability.<sup>8</sup> For example, in computer science, history, and business fields, researchers found that only 25 percent of degree-granting institutions produce 71 percent of all tenured and tenure-track faculty.<sup>9</sup> Yet, women are underrepresented among the highest-prestige programs and overrepresented in unranked programs.<sup>10</sup> By only recruiting from the “top-ranked” programs, search committees may miss opportunities to recruit candidates from underrepresented groups, in addition to missing out on highly productive future faculty.<sup>11</sup>

## PHASE 3: EVALUATING CANDIDATES

### ***Letters of Recommendation***

Four studies in different academic fields (chemistry/biochemistry, psychology, academic medicine, and geoscience) found that the content and quality of letters of recommendation for academic positions varies significantly based on the gender of the applicant.<sup>12</sup> Letters for women tended to be shorter, and contained more doubt raisers. Women were often described as communal and less agentic than male applicants. Letters for male applicants contained more standout adjectives (“outstanding”, “excellent”), while letters for women contained more grindstone words (“hardworking”). These trends were true regardless of recommender gender.



### ***CVs***

We rely heavily upon CVs and resumes to evaluate candidates’ research interests, teaching experience, and leadership potential. However, bias can influence our evaluation of these materials in multiple ways. In academia, researchers conducted an experiment using a CV from a real-life scientist.<sup>13</sup> They created two identical versions - one with a traditionally male name and one with a traditionally female name. Both men and women reviewers were more likely to vote

to hire the male job applicant than the female job applicant. Reviewers also reported that the male candidate had adequate qualifications in comparison to the female candidate. Also in academia, a randomized double-blind study found that science faculty at research institutions rated male applicants for a lab manager position higher than female applicants with the same application materials.<sup>14</sup> Faculty – regardless of gender - perceived the female candidate to be less competent and less hireable, and indicated they would offer the female candidate less money to take the role.

### ***Parental Status***

In laboratory experiments testing the impact of parenthood on employment, researchers asked participants to evaluate the resumes of two, equally qualified candidates with different parental status.<sup>15</sup> Evaluators found mothers to be less competent and recommended a lower starting salary. This research supports other findings in higher ed, which indicate motherhood can have significant impacts on women faculty's careers.<sup>16</sup>



### ***Perceptions of Brilliance, Competence, and Leadership Potential***

When evaluating candidates, search committees may also be influenced by their perceptions of the candidate's brilliance, competence, or leadership potential. Studies indicate that in fields where "brilliance" or natural talent is a criterion for success (such as mathematics, physics, or economics), African Americans and women are less likely to obtain doctoral degrees.<sup>17</sup> Women and URMs are often evaluated as being less competent than white and/or male colleagues – especially when the hiring criteria is vague or ambiguous - which has been linked to negative hiring outcomes.<sup>18</sup> Finally, women and URMs are less likely to be viewed as future leaders, in part because they may be perceived to not have traditional qualities we associate with leadership (e.g. decisiveness, competitiveness).<sup>19</sup>

### ***Teaching Evaluations***

Students are also prone to bias in their evaluation of faculty.<sup>20</sup> In one study, researchers drew from RateMyProfessors to examine the evaluations of 190,006 professors in the United States.<sup>21</sup> They found that women faculty, particularly in specific disciplines, were rated more harshly than male faculty. Another study found similar results for openly gay faculty, with students reporting that gay faculty were significantly less credible than straight teachers.<sup>22</sup> URMs and women are also less likely to be described as brilliant in teaching evaluations from students.<sup>23</sup> Other research has found that women with a feminine appearance are less likely to be viewed as scientists.<sup>24</sup>

### ***Assessment of Research & Contributions to Research Teams***

Bias can emerge when evaluating how much individuals contribute to group research.<sup>25</sup> In one study, the researcher used academic CVs to assess whether coauthored or solo-authored publications mattered differently for the tenure decisions of men and women faculty.<sup>26</sup> The author found that men are tenured at roughly the same rate regardless of whether they co-authored or solo-authored papers, while women suffered a significant penalty (lowered chances of getting tenure) when they were listed as co-authors. In another experimental study, researchers manipulated the gender of the author associated with a research abstract.<sup>27</sup> They

found that students were more likely to say that an abstract associated with a male author had higher scientific quality than the same abstract written by a female author.

## PHASE 4: SHORT LISTS AND FINAL DECISIONS

### ***Candidates on the Short List***

In a recent study, researchers found that the demographic composition of the shortlist impacts hiring outcomes - beyond the impact of mere probability.<sup>28</sup> Evaluators assessed the credentials of candidates in a finalist pool, who had the same qualifications but whose names were experimentally manipulated to sound more White or Black (or female versus male). They found when the majority of candidates were White (or a man), the participants preferred a White candidate, but when the majority of candidates were Black, they preferred a Black candidate. If two or more Black candidates were in the candidate pool – regardless of the pool size – the odds of hiring a Black candidate were significantly increased.

### ***Job Talks***

An emerging area of research indicates that women are more likely to be interrupted during academic job talks than male candidates.<sup>29</sup> Researchers analyzed video recordings from 119 job talks across five engineering departments at two research intensive universities. They found that women receive more follow-up questions and more overall questions, and that a higher proportion of women’s time during the job talk is taken up by audience questions. The overall effect is that women candidates have less time to discuss their skills and qualifications, and instead, spend more time responding to audience questions that may not be related to their skills or competencies as faculty. This research mirrors findings from the greater literature that indicates women are more likely to be interrupted in both private and public settings.<sup>30</sup>



### **About UMCP’s Inclusive Faculty Hiring Pilot Program**

What can we do to mitigate implicit bias shaping our search processes? We can increase awareness of implicit bias, engage in intentional recruitment efforts to diverse groups, use an agreed upon rubric of clear criteria to evaluate each candidate, and design a fair and attractive interview process for a diverse shortlist of candidates. Visit <https://advance.umd.edu/inclusive-faculty-hiring> for more resources on how to incorporate these strategies into your search.

The Inclusive Faculty Hiring Pilot Program, funded by the Office of the Provost at the University of Maryland College Park, launched in August 2016. The Pilot was led by the ADVANCE Program for Inclusive Excellence, in partnership with the Office of Diversity & Inclusion. The goals of the Pilot program are to: 1) Enhance the use of evidence-based practices in faculty hiring at the University of Maryland College Park; 2) Enhance the diversity of candidate applicant pools, candidates deemed qualified, and faculty hired at the University of Maryland College Park, and 3) Facilitate organizational learning regarding how our faculty hiring processes can be improved to be more inclusive of and attractive to diverse candidates.

***For more information, please contact ADVANCE at [advance@umd.edu](mailto:advance@umd.edu).***

## IMPLICIT BIAS RESOURCES, READINGS, AND VIDEOS

### Books

- Banaji, M. R., & Greenwald, A. G. (2013). *Blindspot: Hidden Biases of Good People*. New York: Delacorte Press.
- Bohnet, I. (2016). *What works: Gender equality by design*. Cambridge, MA: Harvard University Press.
- Kahneman, D. (2011). *Thinking, Fast and Slow*. New York: Farrar, Staus & Giroux.

### Reports & Journal Articles

- Correll, S.J., & Benard, S. (2006, March 16). *Gender and racial bias in hiring*. Retrieved from [http://provost.upenn.edu/uploads/media\\_items/gender-racial-bias.original.pdf](http://provost.upenn.edu/uploads/media_items/gender-racial-bias.original.pdf)
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### Podcasts

- Dubner, S. (Host). (2016, July 20). *What are gender barriers made of?* [Audio Podcast]. Retrieved from <http://freakonomics.com/podcast/gender-barriers/>
- Rosin, H., & Spiegel, A. (Hosts). (2017, June 9). *The culture inside* [Audio Podcast]. Retrieved from <http://www.npr.org/programs/invisibilia/532950995/the-culture-inside>

### Videos and Talks

- TEDx Talks. (2014, January 28). *Immaculate perception: Jerry Kang at TEDxSanDiego 2013* [Video File]. Retrieved from <https://www.youtube.com/watch?v=9VGbwNI6Ssk>
- Ohio State Human Resources. (2013, April 18). *The impact of implicit bias* [Video File]. Retrieved from [https://www.youtube.com/watch?v=fL9\\_gD88xk&t=11s&list=PLI4wLES\\_EVNfouuXnClXuEAHFJvQK8wXf&index=9](https://www.youtube.com/watch?v=fL9_gD88xk&t=11s&list=PLI4wLES_EVNfouuXnClXuEAHFJvQK8wXf&index=9)

### Search Committee Manuals & Guides

- Fine, E., & Handelsman, J. (2012). *Searching for excellence and diversity: A guide for search committees at the University of Wisconsin-Madison* (2<sup>nd</sup> Ed). Madison, WI: University of Wisconsin.
- Office for Equity and Diversity (2012). *Best practices in recruiting and retaining under-represented U.S. minority faculty at the University of Minnesota*. Minneapolis, MN: University of Minnesota.
- Office for Faculty Advancement (2016). *Best practices for faculty searches*. Seattle, WA: University of Washington.
- Office of the Provost (n.d.). *Guide to best practices in faculty search and hiring*. New York: NY: Columbia University.
- Office of the Vice President for Ethics and Compliance, (2015). *Faculty search and screen: Procedures manual for faculty search and screen committees*. West Lafayette, IN: Purdue University.
- Roehling, M.V., & Granberry Russell, P. (Eds.) (2012). *Faculty search toolkit: A resource for search committees and administrators at Michigan State University (NSF ADVANCE Grant #0811205)*. East Lansing, MI: Michigan State University.
- University of Michigan STRIDE (n.d.). *Handbook for faculty searches and hiring*. Ann Arbor, MI: Author.

## FURTHER READING: SELECTED REFERENCES ON EFFECTIVE BIAS INTERVENTIONS

Fine, E., Sheridan, J., Carnes, M., Handelsman, J., Pribbenow, C., Savoy, J., & Wendt, A. (2014). Minimizing the influence of gender bias on the faculty search process. In V. Demos, C.W. Berheide, & M.T. Segal (Eds.), *Advances in Gender Research: Gender Transformation in the Academy*, 19, (pp. 267-289). Bingley, UK: Emerald Insight.

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