

## WHAT IS A RESUME STUDY?

“Resume studies” are an effective way to examine whether conscious or unconscious prejudice influences how individuals are judged (evaluation bias). There are two common types of resume studies. In the first type, the researcher creates resumes or applications (usually job or academic applications) that are identical except for one piece of information, or “cue,” that signals the identity of interest. For example, researchers might create two identical resumes except for the name of the applicant, and send evaluators one or the other. If one resume was for Greg Miller and the other for Emily Miller, researchers could determine whether gender bias affected evaluation of the job candidates.

In the second type of resume study, called an “audit study,” the researcher creates pairs of non-identical resumes or applications with equally qualified applicants (usually confirmed with pre-testing) who differ on the identity of interest. For example, researchers might create equally qualified resumes for applicants that differ in their sexual orientation (indicated by participation in a LGBTQ-related organization) and send them to real job postings. Then can then compare how many “callbacks” each applicant receives to determine whether employers discriminate against LGBTQ applicants.

Using either of these methods, researchers have been able to examine evaluation bias related to the applicant’s gender, race, immigrant status, sexual orientation, and parental status. Below, we provide some key pieces of information from several rigorous evaluation bias studies. We have selected studies with the most relevance for faculty hiring in a university context; the articles are available on our website:

<https://advance.umich.edu/stride-readings/>.

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### What Resume Studies Tell Us About Bias Due To...

#### ...RACE

**Bertrand, M., & Mullainathan, S. (2003). Are Emily and Greg more employable than Lakisha and Jamal? A field experiment on labor market discrimination. *American Economic Review*, 94(1), 991–1013.**

#### ***What was the research question?***

Are African American applicants discriminated against in the labor market?

#### ***How was the study conducted?***

Fictitious resumes were sent in response to job advertisements in Boston and Chicago newspapers. The resumes were identical with the exception of the assigned name, which was either stereotypically African American (Jamal) or White (Greg).

#### ***What were the key findings?***

Resumes with White names received 50% more callbacks for interviews than African American names. Based on their data using resumes showing varying levels of experience, researchers estimated that the African American applicant would need an additional 8 years of experience to receive a callback rate similar to the White applicant.

#### ***What does this mean for hiring?***

A person’s name alone can be enough to trigger biases that advantage those assumed to be White and disadvantage those perceived to belong to a racial minority group.

## ...GENDER

**Moss-Racusin, C. A., Dovidio, J. F., Brescoll, V. A., Graham, M. J., & Handelsman, J. (2012). Science faculty's subtle gender biases favor male students. *Proceedings of the National Academy of Sciences*, 109(41), 16474–16479.**

### ***What was the research question?***

Are women students evaluated more negatively than men students when applying for a university lab manager position?

### ***How was the study conducted?***

A national sample of professors in biology, chemistry, and physics evaluated the application of an undergraduate science student who had applied for a science lab manager position. The applications were identical except half had a male name and half had a female name.

### ***What were the key findings?***

The female applicant was rated as less competent and hireable than the male applicant, and faculty raters offered her less career mentoring and a lower starting salary. Both male and female faculty raters demonstrated this gender evaluation bias, and the evaluation bias was also not related to the faculty rater's age, field, or tenure status.

### ***What does this mean for hiring?***

Female applicants may be evaluated more negatively than male applicants, even when they have similar qualifications and experience.

## ...THE INTERSECTION OF RACE AND GENDER

**Eaton, A. A., Saunders, J. F., Jacobson, R. K., & West, K. (2019). How gender and race stereotypes impact the advancement of scholars in STEM: Professors' biased evaluations of physics and biology post-doctoral candidates. *Sex Roles*, 1-15. doi: 10.1007/s11199-019-01052-w**

### ***What was the research question?***

Numerous studies document hiring discrimination against women and racial minorities in various fields. This study sought to evaluate discrimination among post-doctoral candidates in STEM fields based on race and gender, as well as the intersections among these categories.

### ***How was the study conducted?***

Biology and physics professors were asked to evaluate fictitious CVs of potential post-docs that were identical except for the candidate's name, which was used to manipulate gender and race.

### ***What were the key findings?***

Faculty in both departments rated Asian candidates as more competent and hireable than Black and Latinx candidates. Faculty in physics also favored candidates who were White or male. An interaction among identities emerged for physics faculty, whereby Black and Latinx women candidates were rated the lowest in hireability.

### ***What does this mean for hiring?***

This study demonstrated that evaluation bias can occur based on race, gender, and in some cases, their intersection to disadvantage racially underrepresented women the most.

## ...PARENTAL STATUS

**Correll, S., Benard, S., & Paik, I. (2007). Getting a job: Is there a motherhood penalty? *American Journal of Sociology* 112(5), 1297–1338.**

### ***What was the research question?***

Survey research finds that mothers suffer a substantial wage penalty, although the causal mechanism producing it remains elusive. The authors used a laboratory experiment to evaluate the hypothesis that parental-status bias occurs in hiring, as well as an audit study of actual employers to assess its real-world implications.

### ***How was the study conducted?***

In both studies, participants evaluated resumes for a pair of same-gender equally qualified job candidates who differed on parental status. The pairs of resumes were not identical, but they were pretested to ensure that the applicants were perceived as equally qualified. One resume in each pair signaled that the applicant was a parent by listing their participation in a parent-teacher association.

### ***What were the key findings?***

The laboratory experiment found that mothers were perceived to be less competent and less committed to paid work than non-mothers. Fathers were seen as more competent and more committed. The audit study of actual employers showed that they discriminate against mothers, but not against fathers. Specifically, non-mothers were more likely to receive callbacks than mothers, whereas non-fathers and fathers received similar callback rates.

### ***What does this mean for hiring?***

Even the slightest signal of parental status during the hiring process can negatively impact mothers, and positively impact fathers, with regard to perceived competence and starting wages. These findings can help us understand why policies are in place to prohibit us from asking job candidates about their parent status.

## ...SEXUAL ORIENTATION

**Tilcsik, A. (2011). Pride and Prejudice: Employment Discrimination against Openly Gay Men in the United States. *American Journal of Sociology*, 117(2), 586–626. <https://doi.org/10.1086/661653>**

### ***What was the research question?***

Are openly gay men discriminated against in the job market?

### ***How was the study conducted?***

Pairs of equally qualified, fictitious resumes from college seniors were sent to over 1700 entry-level job postings in seven states. One resume signaled the applicant's sexual orientation by listing their experience as treasurer in a gay student organization.

### ***What were the key findings?***

In some but not all states, presumably gay applicants were significantly less likely to receive callbacks than presumably heterosexual applicants.

### ***What does this mean for hiring?***

Small cues about sexual orientation can advantage those perceived as heterosexual and disadvantage those perceived as belonging to sexual minority groups.

## ...IMMIGRANT STATUS

Oreopoulos, P. (2011). Why do skilled immigrants struggle in the labor market? A field experiment with thirteen thousand resumes. *American Economic Journal: Economic Policy*, 3(4), 148–171.

### ***What was the research question?***

Canada encourages immigration and prioritizes the entry of skilled immigrants, yet their salaries lag behind those of non-immigrants. This study sought to determine whether immigrants in Canada are subjected to discrimination in hiring.

### ***How was the study conducted?***

Thousands of resumes were sent in response to online postings for various types of jobs in Toronto, and names were manipulated to signal immigrant status.

### ***What were the key findings?***

Callbacks for applicants with Chinese, Indian, Pakistani, and even Greek-sounding names were substantially lower than for those with English-sounding names. Experience or education in Canada did not reduce this effect. Employers frequently invoked concerns about communication as the explanation for their behavior, but stated language fluency as mentioned in the resumes had little influence on callback decisions.

### ***What does this mean for hiring?***

A non-English-sounding name is sufficient to impede hireability in many fields.

## ...DISABILITY

Ameri, M., Schur, L., Adya, M., Bentley, F. S., McKay, P., & Kruse, D. (2017). The Disability Employment Puzzle: A Field Experiment on Employer Hiring Behavior. *ILR Review*, 71(2), 329-364. <https://doi:10.1177/0019793917717474>

### ***What was the research question?***

Does disability status affect the hiring process?

### ***How was the study conducted?***

Resumes were sent to 6,016 advertised accounting positions from well-qualified fictional applicants, with one-third of cover letters indicating the applicant had a spinal cord injury, one-third indicating the presence of Asperger's Syndrome, and one-third indicating no disability. These disabilities were chosen because they do not limit productivity in accounting, helping to rule out productivity-based explanations for any differences in employer responses.

### ***What were the key findings?***

The fictional applicants with disabilities received 26% fewer callbacks than those not indicating a disability. Employers were especially unlikely to express interest in the more experienced applicants with disabilities. The specific type of disability made little difference in relative employer interest. The results indicate that disability gaps in employer interest are concentrated among small private-sector employers, who have fewer than 15 employees.

***What does this mean for hiring?***

Employers express less interest in job applicants with disabilities than in otherwise-similar job applicants without disabilities, even for positions where the disability would not affect the ability to do the job. This points to employer bias in hiring as an important piece of the puzzle helping to explain the low employment rate of people with disabilities. Increased applicant training and qualifications will not help to erase the disadvantages faced by people with disabilities and, conversely, will decrease their chances of getting an application call-back.

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