Systemic Discrimination Among Large U.S. Employers

Patrick Kline, Evan Rose, and Christopher Walters

Employment discrimination is a stubbornly persistent social ill. But to what extent is discrimination a systemic problem afflicting particular companies? New research by economists **Patrick Kline** (UC Berkeley), **Evan Rose** (University of Chicago), and **Christopher Walters** (UC Berkeley) answers this question using the largest resume correspondence study ever conducted. The study sent more than 83,000 fictional applications to over 11,000 entry-level jobs across 108 Fortune 500 employers. The researchers randomized applicant characteristics to isolate the effects of race, gender, and other legally-protected characteristics on employers' decisions to contact job seekers. By applying to many jobs across the country, the researchers are able to identify systemic, nationwide patterns of discrimination at particular companies. The findings show that illegal discrimination varies tremendously across large employers. While all firms weakly favor white applicants, the worst 20% of companies are responsible for roughly half of total discrimination against Black applicants in the study. Firms also vary substantially in their treatment of gender, with some favoring men and others favoring women. Racially discriminatory firms are concentrated in the auto services and retail sectors, while discrimination against women is common in wholesale durables and discrimination against men is more prevalent at apparel stores. Using modern large-scale inference methods developed for studying genetic disorders, the researchers show that individual firms responsible for the "disease" of discrimination can be detected with high statistical confidence. Twenty-three Fortune 500 employers are detected to be discriminating against Black applicants with greater than 95% certainty. The results establish that systemic illegal discrimination is concentrated among a select set of large employers, many of which can be identified with high confidence.

SETTING

The Civil Rights Act of 1964 prohibits discrimination against job applicants based on race, gender, and other protected characteristics. Despite these legal protections, research using resume correspondence studies demonstrates that some employers discriminate in employment decisions. Correspondence studies submit fictitious resumes to real job vacancies, randomizing applicant race and gender to study the impacts of these attributes on employers' decisions to contact applicants. Previous research using this approach has shown that applicants with distinctively Black names receive fewer callbacks from employers than applicants with distinctively white names.

This new study reports results from the largest resume correspondence study ever conducted, designed specifically to measure patterns of discrimination across large employers in the United States. The study sent more than 83,000 job applications to over 11,000 job vacancies across 108 Fortune 500 companies. By sending applications to as many as 125 geographically-distinct establishments for each employer, the study averages out idiosyncrasies associated with particular hiring managers and geographic areas, revealing systemic nationwide patterns of discrimination for individual employers.

The study's first key finding is that illegal discrimination varies dramatically across large employers in the United States. On average, job applications with distinctively Black names received fewer callbacks than applications with distinctively white names in the study. This average bias is displayed in the first column of Panel A in **Figure 1**, which shows that Black applicants received 21 fewer callbacks per 1,000 applications sent than white applicants. Some companies are much more biased than others, however. The second and third columns show that the least-discriminatory employers exhibit a negligible difference in contact rates between white and Black applicants, while the most-discriminatory employers favor whites by nearly 50 callbacks per 1,000 applications. The researchers find that the top 20% of discriminatory employers are responsible for roughly half of the total difference in callbacks between white and Black applicants in the experiment.

The study also shows substantial differences in gender discrimination among large employers. As displayed in the first column of Panel B in Figure 1, the researchers found no average difference in the rates at which employers contacted male and female applicants. This zero result masks very large differences for particular employers, with some firms favoring men and others favoring women. The second and third columns of Panel B show that the firms that are most biased against women contact 35 more male than female applicants per 1,000 applications, while the firms that are most biased against men contact about 30 more female than male applicants per 1,000 applications.

The researchers show that the most discriminatory firms are concentrated in particular industries. Discrimination against Black applicants is more pronounced in the auto services and retail sectors, while discrimination against women is more common in the wholesale durables sector, and discrimination against men is more prevalent in the apparel sector. The researchers also find that discrimination is less common among federal contractors, which are subject to heightened scrutiny concerning employment discrimination.

## Figure 1: Discrimination across companies
A: Race
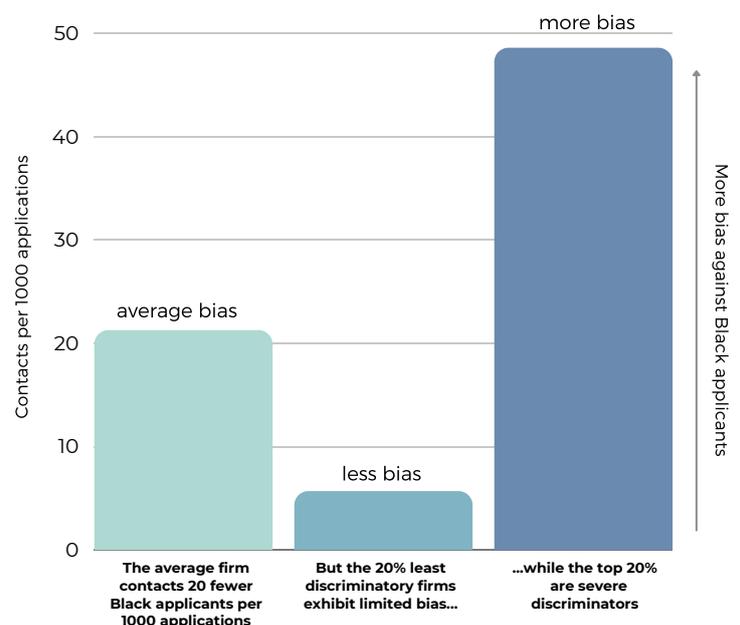
B: Gender
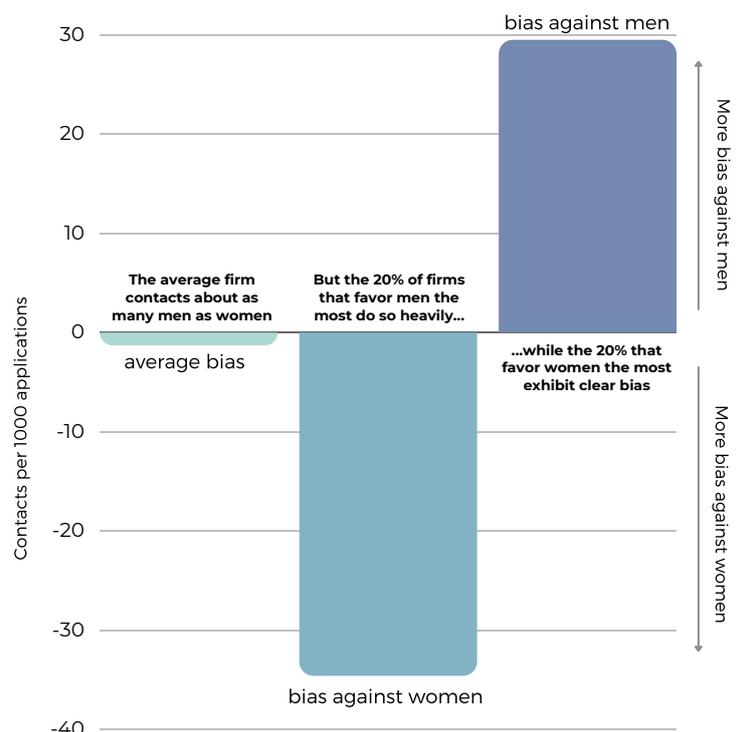
KEY FINDING #2: DETECTING DISCRIMINATION BY INDIVIDUAL EMPLOYERS IS POSSIBLE

Employment discrimination can be viewed as a problem that emerges from the decisions of individual employers, analogous to how genetic diseases emerge from the malfunctioning of individual genes. Motivated by this idea, the study leverages modern large-scale inference methods that are commonly applied in research on the genetic determinants of diseases to draw conclusions about discrimination at individual firms.

The study identifies 23 large employers that are very likely to be engaged in systemic discrimination against Black applicants. **Figure 2** displays estimates of the white/Black gap in contact rates for each of the 23 companies. These employers, which are responsible for 40% of total discrimination against Black applicants in the experiment, are over-represented in auto services and in the retail sector. Remarkably, 8 of the 23 firms are federal contractors. One large apparel firm is found to discriminate both against Black applicants and against male applicants.

Figure 2: Individual companies ranked by discrimination against Black applicants

# of Black applications passed over due to race (per 1000)

Federal contractor? ▢ Yes ▮ No
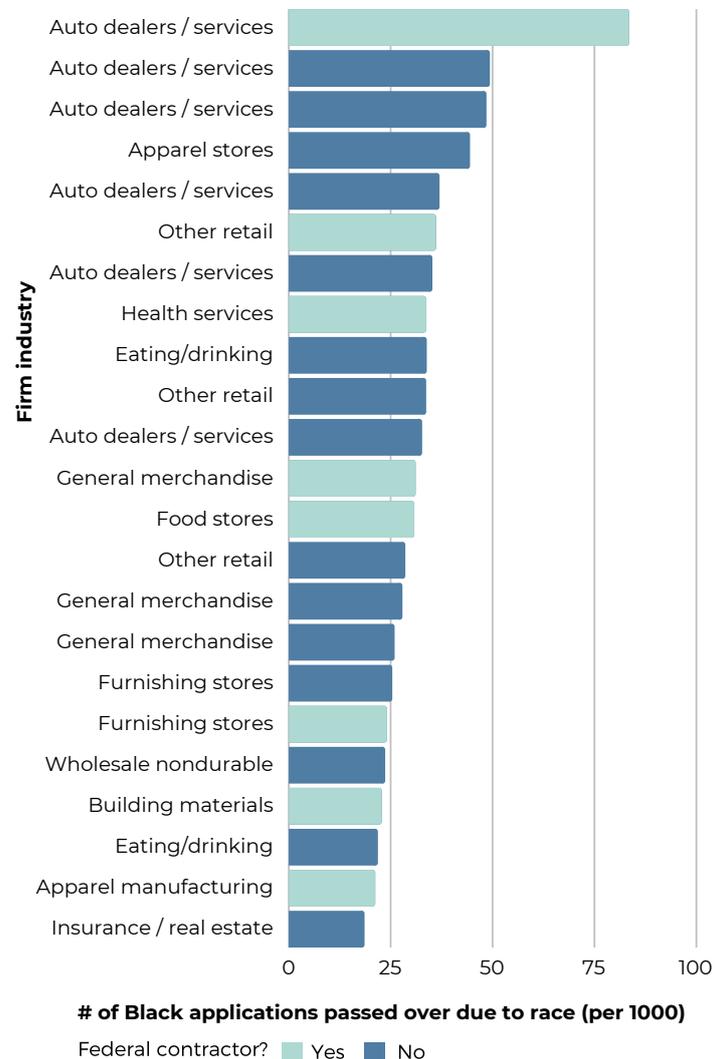
IMPLICATIONS

The study demonstrates that discriminatory behavior is clustered in particular firms and that the identity of many of these firms can be deduced with high confidence. Like the discovery of a gene signaling a predisposition to disease, the news that any particular firm exhibits a nationwide pattern of discrimination is disappointing but offers a potential path to mitigation. The results of this study may be used by regulatory agencies such as the Office of Federal Contract Compliance or the Equal Opportunity Employment Commission to better target audits of compliance with employment law, and by the firms themselves to promote more equitable and inclusive hiring processes. Diagnosis is the first step on the road to prevention.

SOURCES

Kline, P., Rose, E., and Walters, C. "Systemic Discrimination Among Large U.S. Employers." Working paper, 2021.