

# *What Researchers Discovered When They Sent 80,000 Fake Résumés to U.S. Jobs*

Some companies discriminated against Black applicants much more than others, and H.R. practices made a big difference.



By Claire Cain Miller and Josh Katz

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A group of economists recently performed an experiment on around 100 of the largest companies in the country, applying for jobs using made-up résumés with equivalent qualifications but different personal characteristics. They changed applicants’ names to suggest that they were white or Black, and male or female — Latisha or Amy, Lamar or Adam.

On Monday, they released the names of the companies. On average, they found, employers contacted the presumed white applicants 9.5 percent more often than the presumed Black applicants.

Yet this practice varied significantly by firm and industry. One-fifth of the companies — many of them retailers or car dealers — were responsible for nearly half of the gap in callbacks to white and Black applicants.

Two companies favored white applicants over Black applicants significantly more than others. They were AutoNation, a used car retailer, which contacted presumed white applicants 43 percent more often, and Genuine Parts Company, which sells auto parts including under the NAPA brand, and called presumed white candidates 33 percent more often.

In a statement, Heather Ross, a spokeswoman for Genuine Parts, said, “We are always evaluating our practices to ensure inclusivity and break down barriers, and we will continue to do so.” AutoNation did not respond to a request for comment.

### **Companies With the Largest and Smallest Racial Contact Gaps**

Of the 97 companies in the experiment, two stood out as contacting presumed white job applicants significantly more often than presumed Black ones. At 14 companies, there was little or no difference in how often they called back the presumed white or Black applicants.

Companies where the racial gap was **the largest**

**AutoNation**



Companies where the racial gap was **the smallest**

**avis budget**



**KOHLS**





Source: Patrick Kline, Evan K. Rose and Christopher R. Walters

Known as an audit study, the experiment was the largest of its kind in the United States: The researchers sent 80,000 résumés to 10,000 jobs from 2019 to 2021. The results demonstrate how entrenched employment discrimination is in parts of the U.S. labor market — and the extent to which Black workers start behind in certain industries.

“I am not in the least bit surprised,” said Dairuri Steele, an assistant professor at the University of Alabama School of Law who previously worked for the Department of Labor on employment discrimination. “If you’re having trouble breaking in, the biggest issue is the ripple effect it has. It affects your wages and the economy of your community going forward.”

Some companies showed no difference in how they treated applications from people assumed to be white or Black. Their human resources practices — and one policy in particular (more on that later) — offer guidance for how companies can avoid biased decisions in the hiring process.

A lack of racial bias was more common in certain industries: food stores, including Kroger; food products, including Mondelez; freight and transport, including FedEx and Ryder; and wholesale, including Sysco and McLane Company.

“We want to bring people’s attention not only to the fact that racism is real, sexism is real, some are discriminating, but also that it’s possible to do better, and there’s something to be learned from those that have been doing a good job,” said Patrick Kline, an economist at the University of California, Berkeley, who

conducted the study with Ewan K. Rose at the University of Chicago and Christopher R. Walters at Berkeley.

The researchers first published details of their experiment in 2021, but without naming the companies. The new paper, which is set to run in the American Economic Review, names the companies and explains the methodology developed to group them by their performance, while accounting for statistical noise.

### Sample Résumés From the Experiment

Fictitious résumés sent to large U.S. companies revealed a preference, on average, for candidates whose names suggested that they were white.

#### Résumés with distinctively white names

##### “Todd”

**Todd Troyer**

(409) 251-2292  
 2017 Madison  
 Grand Prairie, TX

**Jobd Man Millwork Masters Laborer**  
 9/2018--Present  
 Grand Prairie, TX  
 Manager, Morro Osuna  
 (817) 384-7672

1. Experience with Handcrank Rollers pack.
2. Controlled automated processes for production purposes.
3. Moved freight to proper location in the warehouse after being checked in.

**Chelden Homes: Dockworker**  
 9/2017--9/2019  
 Aubrey, TX  
 Manager, Chyna Alexander  
 (820) 117-1239

1. Entered and stored cement work area daily.
2. Followed quality service standards and complied with procedures, rules and regulations.

**Truckload Services: Laborer**  
 3/2016--9/2017  
 Dallas, TX  
 Manager, Stephen Tucker  
 (982) 456-9016

1. Worked late nights and early mornings regularly.
2. Stocked and banded pallets appropriately for effective shipping.

**Miscellaneous**  
 Excellent MS Word capabilities  
 Strong decision making abilities  
 Excellent team player

**Education**  
**La Vega High School, Waco, TX**  
 1995--1997

##### “Allison”

**Allison Byler**

(702) 760-0000  
 11111  
 Henderson, NV

**Work Experience**  
 Allison Byler  
**Arming Hill Cheese Sock - Host**  
 Columbia, MD  
 Supervisor - Alaska Wild  
 (443) 686-9072

- I had done open open guest arrival and departure.
- Approved telephone calls and responded to inquiries via traditional calls.

**Burnside Republic - Team Member**  
 Hialeah, FL  
 Supervisor - Eddie Haron  
 (407) 967-7792

- I had worked at this job in a fast paced environment.
- I handled customer issues that you do.

**Skills**  
 Excellent problem solving skills  
 Good communication skills  
 Fast learner computer skills

**Education History**  
 9/05-2008  
**Harford Community College - Adm. Art, MD**  
 Special Education - Associate Degree

1991-1996  
**Northwest High - Germantown, MD**  
 Diploma

## Résumés with distinctively Black names

### “Lakisha”

**Lakisha**  
Alston

astorkisha41@gmail.com  
 (803) 615-4928  
 7041 Memory Court  
 District Heights, MD

**Education**  
 Hagerstown Community College, Hagerstown, MD  
 2013 - 2015  
 Associate of Arts Information Systems

Glen Burnie High, Glen Burnie, MD  
 2009 - 2013  
 General Education

**Related Skills**  
 Excellent problem solving abilities  
 Native English speaker  
 Strong time-management capabilities

**Previous Employment**  
 Assistant, Fort Washington, MD  
 12/2019 - Present  
 Maryland Investment Homes  
 Reference: Cherie Hawkins  
 (301) 215-9629  
 15+ Experience with designing, setting up, maintaining, reviewing and documenting record systems.  
 - Communicated with database administrators regarding new updates.  
 - Provided excellent customer service by answering and directing all incoming calls in a professional and courteous manner.

Assistant, Clinton, MD  
 2/2019 - 12/2019  
 Vendor With Design, LLC  
 Reference: Berno Price  
 (240) 801-7180  
 - Formatted Visual presentations for speeches and meetings using state-of-the-art applications and equipment.  
 - Arranged for conferences and meetings.

Assistant, Clinton, MD  
 6/2017 - 3/2018  
 Duane Di Paul Estate  
 Reference: Mia James  
 (301) 215-9629  
 - Managed multiple console laptops system.  
 - Managed professional when interacting with executives or high-profile clients.

### “Leroy”

**Leroy Hairston**

leroyhairston@gmail.com  
 1225 S Diamond St  
 (455) 268-9579

**Education History**  
 Fortis College, Bayonna  
 Associate of Arts  
 Major: Design  
 653 Enterprise Parkway  
 Johnson High School  
 401 South Oregon St, Johnson  
 2005-2009

**Job History**  
 Cashier, First Broadway Store  
 Bedford, OH  
 12/2019 - Present  
 1. Required to hang work area clean and sanitized.  
 2. Accepted payments, entered all prices and quantities were accurate, and provided a receipt to every customer.  
 3. Wiped down register area between customers.  
 Supervisor: Angel Mason  
 (440) 381-6032

**Dishwasher, Marrow Lodge**  
 Aurora, OH  
 1/2019 - 12/2019  
 1. Sanitized other dish washers.  
 2. Cleaned, per approved sanitation and safety guidelines, all dishes, glasses, utensils, pots and pans and related food preparation/serving items and equipment.  
 3. Followed requirements for washing pots and pans.  
 Supervisor: Romie Hunt  
 (337) 90-1010

**Miscellaneous**  
 Present English.

To assign names, the researchers started with a prior list that had been assembled using Massachusetts birth certificates from 1974 to 1979. They then supplemented this list with names found in a database of speeding tickets issued in North Carolina between 2006 and 2018, classifying a name as “distinctive” if more than 90 percent of people with that name were of a particular race. • Source: Patrick Kline, Evan K. Rose and Christopher R. Walters

The study includes 97 firms. The jobs the researchers applied to were entry level, not requiring a college degree or substantial work experience. In addition to race and gender, the researchers tested other characteristics protected by law, like age and sexual orientation.

They sent up to 1,000 applications to each company, applying for as many as 125 jobs per company in locations nationwide, to try to uncover patterns in companies' operations versus isolated instances. Then they tracked whether the employer contacted the applicant within 30 days.

## **A bias against Black names**

Companies requiring lots of interaction with customers, like sales and retail, particularly in the auto sector, were most likely to show a preference for applicants presumed to be white. This was true even when applying for positions at those firms that didn't involve customer interaction, suggesting that discriminatory practices were baked in to corporate culture or H.R. practices, the researchers said.

Still, there were exceptions — some of the companies exhibiting the least bias were retailers, like Lowe's and Target.

The study may underestimate the rate of discrimination against Black applicants in the labor market as a whole because it tested large companies, which tend to discriminate less, said Lincoln Quillian, a sociologist at Northwestern who analyzes audit studies. It did not include names intended to represent Latino or Asian American applicants, but other research suggests that they are also contacted less than white applicants, though they face less discrimination than Black applicants.

The experiment ended in 2021, and some of the companies involved might have changed their practices since. Still, a review of all available audit studies found that discrimination against Black applicants had not changed in three decades. After the Black Lives Matter protests in 2020, such discrimination was found to have disappeared among certain employers, but the researchers behind that study said the effect was most likely short-lived.

## **Gender, age and L.G.B.T.Q. status**

On average, companies did not treat male and female applicants differently. This aligns with other research showing that gender discrimination against women is rare in entry-level jobs, and starts later in careers.

However, when companies did favor men (especially in manufacturing) or women (mostly at apparel stores), the biases were much larger than for race. Builders FirstSource contacted presumed male applicants more than twice as often as female ones. Ascena, which owns brands like Ann Taylor, contacted women 66 percent more than men.

Neither company responded to requests for comment.

The consequences of being female differed by race. The differences were small, but being female was a slight benefit for white applicants, and a slight penalty for Black applicants.

The researchers also tested several other characteristics protected by law, with a smaller number of résumés. They found there was a small penalty for being over 40.

Overall, they found no penalty for using nonbinary pronouns. Being gay, as indicated by including membership in an L.G.B.T.Q. club on the résumé, resulted in a slight penalty for white applicants, but benefited Black applicants — although the effect was small, when this was on their résumés, the racial penalty disappeared.

Under the Civil Rights Act of 1964, discrimination is illegal even if it's unintentional. Yet in the real world, it is difficult for job applicants to know why they did not hear back from a company.

“These practices are particularly challenging to address because applicants often do not know whether they are being discriminated against in the hiring process,” Brandalyn Bickner, a spokeswoman for the Equal Employment Opportunity Commission, said in a statement. (It has seen the data and spoken with the researchers, though it could not use an academic study as the basis for an investigation, she said.)

## **What companies can do to reduce discrimination**

Several common measures — like employing a chief diversity officer, offering diversity training or having a diverse board — were not correlated with decreased discrimination in entry-level hiring, the researchers found.

But one thing strongly predicted less discrimination: a centralized H.R. operation.

The researchers recorded the voice mail messages that the fake applicants received. When a company’s calls came from fewer individual phone numbers, suggesting that they were originating from a central office, there tended to be less bias. When they came from individual hiring managers at local stores or warehouses, there was more. These messages often sounded frantic and informal, asking if an applicant could start the next day, for example.

“That’s when implicit biases kick in,” Professor Kline said. A more formalized hiring process helps overcome this, he said: “Just thinking about things, which steps to take, having to run something by someone for approval, can be quite important in mitigating bias.”

At Sysco, a wholesale restaurant food distributor, which showed no racial bias in the study, a centralized recruitment team reviews résumés and decides whom to call. “Consistency in how we review candidates, with a focus on the requirements of the position, is key,” said Ron Phillips, Sysco’s chief human resources officer. “It



lessens the opportunity for personal viewpoints to rise in the process.”

Another important factor is diversity among the people hiring, said Paula Hubbard, the chief human resources officer at McLane Company. It procures, stores and delivers products for large chains like Walmart, and showed no racial bias in the study. Around 40 percent of the company’s recruiters are people of color, and 60 percent are women.

Diversifying the pool of people who apply also helps, H.R. officials said. McLane goes to events for women in trucking and puts up billboards in Spanish.

So does hiring based on skills, versus degrees. While McLane used to require a college degree for many roles, it changed that practice after determining that specific skills mattered more for warehousing or driving jobs.

“We now do that for all our jobs: Is there truly a degree required?” Ms. Hubbard said. “Why? Does it make sense? Is experience enough?”

Hilton, another company that showed no racial bias in the study, also stopped requiring degrees for many jobs, in 2018.

Another factor associated with less bias in hiring, the new study found, was more regulatory scrutiny — like at federal contractors, or companies with more Labor Department citations.

Finally, more profitable companies were less biased, in line with a long-held economics theory by the Nobel Prize winner Gary Becker that discrimination is bad for business. Economists said that could be because the more profitable companies benefit from a more diverse set of employees. Or it could be an indication that they had more efficient business processes, in H.R. and elsewhere.

**Claire Cain Miller** writes about gender, families and the future of work for The Upshot. She joined The Times in 2008 and was part of a team that won a Pulitzer Prize in 2018 for public service for reporting on workplace sexual harassment issues. More about Claire Cain Miller

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