AI & Inequities in the Hiring Process for Black Educators

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AI & Inequities in the Hiring Process for Black Educators

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Policy Lab: AI and Implicit Bias at the University of Pennsylvania Carey Law School

This report is dedicated to the author’s mother, Franchessca Dyer (on the cover page), and all Black educators around the nation, who’ve made transformative impacts on their students’ lives every day. We thank you for empowering the youth and educating generations of inventors, creatives, and leaders of tomorrow.
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Foreword

As a Black woman, who had only three Black teachers in my academic journey – one being in elementary school and two in law school – I have always wanted to learn from an educator who looks like me. My experiences with the three Black teachers I learned from, especially my fourth-grade math teacher, was the most invaluable education experience in my life. Ms. Weathers challenged me to strive for academic success, all while embracing my race and roots I came from. Each year at Garfield East Elementary school in Willingboro, N.J., students held a Black history month presentation, organized by Ms. Weathers, that consisted of stepping, singing, and reciting poems. In each of her students, Ms. Weathers instilled love and admiration for our race, our culture, and our people. My time at Garfield East was halted by a change in schools once my father’s new position prompted my family’s move to Pennsylvania. Going from a majority Black school to a majority White school was like culture shock – I was if not the only, one out of two Black students in each of my classes. And with no Black teachers to relate my cultural differences and experiences to, the challenge of readjusting and finding my identity was not easy. I empathize with Black students going through similar experiences as more than half of the schools in Pennsylvania still do not have teachers of color.¹

There is value in seeing and learning from a person who looks like you. The recent confirmation of the first Black woman Supreme Court Justice, Ketanji Brown Jackson, symbolizes a manifestation of dreams, Black women, like me, only envision in our sleep. More Black educators are necessary to give students of color the confidence and support to accomplish the unimaginable.

I developed this report to shed light on the importance of representation and diversity in the education hiring process. As we reach a more technologically advanced world, the proliferation of algorithmic bias becomes a larger civil rights issue – left unchecked, artificial intelligence can cause more detrimental harm to society than its intended benefits. Thank you, Professor de Silva de Alwis, for the opportunity to conduct this seminal research and highlight my mother in my last semester of law school. I will continue to advocate for equity in all aspects of society and address crucial issues necessary to make the world a more inclusive space.
I. Introduction

In the classroom, diverse representation among staff and students are critical for an enrich education experience. Unfortunately, schools across the country significantly lack this diversity. The National Center for Education Statistics found that Black teachers make up less than 7% of the teaching force in public schools and about 10% in charters schools, despite evidence of the positive impact Black teachers have on Black students’ tests scores and graduation rates.ii

In Philadelphia, there are only 23% of Black teachers in public and charter schools, while over 54% of the student enrollment are Black students.iii The teacher force also does not represent Philadelphia’s demographics as 35% of Philadelphians are White residents and 44% are Black residents.iv Philadelphia educator, Franchessca Dyer (pictured to the right) told the author in an interview, “I absolutely love teaching. There’s something about the feeling I get when students who I have taught learn, excel, and move on to do great things. I like to think that I played a part in that; shaping young people for the future.” The hiring process for educators must prioritize retention of diverse teachers from various racial and ethnic backgrounds.

Hiring platforms, like Indeed and LinkedIn, help employers hire candidates who match the listed job description to their listed qualifications using artificial intelligence (“AI”). This expedites resume review down to milliseconds.v However, the expedited process does not eliminate discrimination or bias Black educators encounter in the hiring process. In fact, bias may be rooted in the data that trains artificial agents to find patterns.vi Harvard Business Review article states, “[a]lgorithms are, in part, our opinions embedded in code. They reflect human biases and prejudices that lead to machine learning mistakes and
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AI is a civil rights issue – left unmonitored, AI can perpetuate the same inequities in hiring we wish to improve.

This report explores potential algorithmic biases at the intersection of race, gender, and education. With the use of quantitative and qualitative data, the author tells the stories of Black educators who experienced algorithmic bias in the hiring process or other biases throughout their respective careers in education. The author divides the report in three sections to reflect the most alarming data: Transparency in AI, Stereotype Threat, and the Normalization of AI Bias. This single seminal report cannot address the plethora of inequities Black educators face in hiring and the workplace, nor does this report serve to address each potential issue in AI. Instead, this report aims to alert users and vendors of algorithmic bias and to consider more transparency and accountability before reliance on an AI-based platform.

In Professor de Silva de Alwis’s Policy Lab, students were joined by brilliant scholars and revolutionary leaders in AI tying together interdisciplinary concepts from the Global North and South. This report will include thoughts and remarks about AI bias from several speakers to further support the data collected from Black educators.

The following guest speakers highlighted:

- Judith Donath – Author of *The Social Machine*, writer, designer, and artist
- Ethan Zuckerman – Social scientist and Philosopher, former Director of the Center for Civic Media at MIT, former Associate Professor of the Practice at the MIT Media Lab
- Heather Sussman – Partner and head of Orrick’s Global, Cyber, Privacy & Data Innovation Group
- Deborah Raji – computer scientist, worked closely with Dr. Joy Buolamwini in Algorithmic Justice League, MIT’s 35 under 35 innovators
II. Methodology

This report surveys sixty-one Black educators, of which forty-three identified as women and eighteen identified as men, which reflects the fact that Black men only account for 2% of teachers in America. The ages of the respondents varied, with most middle-aged educators, between ages forty-one to fifty years old and fewer respondents ages twenty-one to thirty years old.

Out of the total respondents, thirty-seven have a master’s degree, thirteen have a bachelor’s degree, and seven have a PhD. These results show that the respondents, of which most are Black women, are highly educated, with a rich academic background.

Majority of respondents are from the United States.
Majority of the respondents work in the Philadelphia school district.

**Other regions include:** Chicago, Baltimore, Pittsburgh, Mississippi, Georgia, New Jersey, Berks County, Missouri, Washington, D.C., Upper Darby, Michigan, Virginia, Chester, Newark, Delaware County, Sicklerville, N.J., Horsham, Kokomo, Indiana, and Redondo Beach, CA.

**Type of Institution**

Majority of Black respondents teach at charter or public schools. A charter school is an independently operated public school with the freedom to design

Francesca Dyer teaches high school English as a Certified Educator with her bachelor’s degree in English and master’s degree in Education Leadership.
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classrooms that meet needs of students.\textsuperscript{xiv} Philadelphia has over one hundred charter schools, of which thirty-seven include high school grades.\textsuperscript{xv} Conversely, there are 217 public district schools in Philadelphia. Of the district schools, nearly 50\% of student enrollment are Black or African American.\textsuperscript{xvi} While Black teachers make up about half the number of Black student enrollment, Black students are more likely to miss out on the opportunity to learn from a Black teacher who shares similar racial, cultural, and social experiences as them.

\textit{Type of Educators}

Majority of the respondents are teachers or professors. All other respondents hold valuable positions as: Counselor, Principal, Retired Teacher, Coach, Consultant, and Instruction Educator.

![Pie chart showing percentages of different types of educators.](chart.png)
III. Results

**Hiring Platforms**

More than 50% of the Respondents have used hiring or recruiting websites in the past to apply to desired education positions. When asked to list the hiring platforms used, respondents stated the following: LinkedIn, Indeed, Monster.com, Regional Education Applicant Placement ("REAP"), Glassdoor, Pennsylvania REAP ("PA REAP"), PA-Educator.net, Simply Hired, Kaplan, Chronicle of Higher Education, and Idealist.org. Indeed was the most stated hiring platform from the respondents use. LinkedIn and REAP came second on the list.

A. Transparency in AI

Algorithms are step by step instructions constructed to follow certain tasks. Transparency in AI is necessary to understand whether the program acts in its intended design, without any consequences to a particular group of people. LinkedIn offers employers algorithmic ranking of job candidates based on qualification or job postings of their site. Even with the advanced technology in its hiring platform, in 2017, John Jersin, Vice President of LinkedIn Talent Solutions stated, “I certainly would not trust any AI system today to make a hiring decision on its own. The technology is just not ready yet.” Reliance on AI-hiring tools alone can lead to the replication of unintended bias from human decision making.
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Question 11 and Question 27 recall the benefits of AI hiring platforms in terms of recommending Black educators to positions that match based on skills, expertise, and credentials.

For Question 11, more than half of the respondents stated hiring platforms match qualifications most of the time. A little over 24% did not notice any other patterns. 18% of respondents stated that hiring platforms usually match below qualifications. None, however, noticed matches above their qualifications, which suggests that AI-recruiting tools are unlikely to overestimate Black educators’ abilities. Recall Question 27, when asked whether hiring platforms ever recommended programs that were not on part with the respondents’ credentials. Though some respondents recall AI-hiring platforms matching their qualifications to positions, AI may still reject the same applicants from other positions they are more than qualified for. Furthermore, legal scholar, Pauline Kim and Sharion Scott, argue in Discrimination in Online Employment Recruiting, “not informing people of a job opportunity is a highly effective barrier,” which suggests that AI-recruiting can still disadvantage users without their awareness.
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Q31 - How much, if at all, do you worry that employers or managers using AI-based hiring platforms will undervalue some of your skills or experiences? (e.g., concerned your experience working a paid service position such as waitressing will not be valued as much as an unpaid internship position in your area of interest)

For Question 31, most respondents worry “a little” that employers using AI-hiring platforms will undervalue some of their skills or experience, and the least worry “a lot” or “a great deal.” This suggests that most respondents are not worried, or at least do not know whether they should be worried about AI bias on hiring platforms. One respondent expressed a particular worry however – respondent shared, “I worry that AI based hiring platforms may not recommend me for a particular position if I do not include certain “buzzwords” in my resume and cover letter that have been programmed into their selection algorithms.”

In an interview with the author, Inez Serrano, an educator of eight years, shared another issue in education for Black educators. Ms. Serrano stated, “Hiring processes really aren’t the biggest issues to me. It is unconscious bias that is the issue. Districts should utilize their resources to provide professional development on unconscious bias and how to combat that and try to minimize or make people in positions to hire aware of their unconscious bias.”

Inez Serrano is a 31-year-old educator of color. Raised in the suburbs of Willingboro, N.J. where her passion for education and advocacy was nourished through the school system. She held a position as a mathematics teacher for seven years and then transitioned into administration as a Vice Principal in Camden County, N.J.
In Question 12, Question 26, and Question 28 below, the author asks respondents questions related to recommendations on hiring platforms.

**Q12 - Do you feel that these hiring platforms recommend connections with other professionals who have similar backgrounds to you?**

When asked whether respondents felt hiring platforms recommend connections with other professionals who have similar backgrounds, **most respondents did not notice a pattern.** Again, this suggests that many AI-users lack algorithmic literacy, which inhibits their ability to detect the negative effects of AI bias and how to respond to it. Also, nine respondents selected “[m]ost of the time they do not have similar backgrounds,” which indicates that some Black educators are aware of the pitfalls of AI-recruiting tools.

**Q26 - Have the hiring platform(s) that you use ever recommend a job for you that you felt was targeted towards a particular aspect of your racial and/or gender identity as opposed to your credentials? (e.g., Black woman with a Master’s in Education recommended Waitress Position).**
Interestingly, Questions 26 and Question 28 receive nearly split responses, but shows overall, hiring platform may be properly matching the credentials of Black educators to similar credentials professionals and not recommending educators for a job that targets their race or gender identity.

Though the results suggest hiring platforms accurately match Black educators’ qualifications to employers, research conducted by the Harvard Business Review, found that Black applicants receive fewer callbacks relative to White applicants.xxv Furthermore, according to the Pew Research Center, public school teachers are more likely to be White than their students are.xxvi Perhaps this is because most bias occurs during the interview phase, as one respondent recalled, “[t]here are sites like REAP, LinkedIn, and others that can match your qualifications with open positions. But I had experiences where once I arrived at the interview, the interviewer gave me a look of surprise as if he/she were expecting a different person, perhaps different race.”

Another explanation of the stagnant amount of hiring discrimination for Black Americans is that the AI automated screening process may not match enough Black applicants to qualified positions if the past data, which the AI tool learns from, is based on outdated information.xxvii When author of The Social Machine, Judith Donath, visited Professor de Silva de Alwis’s Policy Lab, she stated, “When we think about algorithms and biases, these algorithms take small bits of data and develop their own prototypes that we match against. We are likely to have huge mix-matching.” MIT Professor Ethan Zuckerman, who teaches about technology and ethics in the MIT Media Lab, also joined, and stated, “Often we are using bad data and often there is no good data. First, we would have to fix the system, then take data from that fixed system and remodel it.” To ensure AI tools do not replicate human bias in the dataset, AI-
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recruiting platforms and vendors or employers, who rely on the AI, should evaluate the data by looking at the number of candidates selected and why.

“Often, we are using bad data and often there is no good data. First, we would have to fix the system, then take data from that fixed system and remodel it.”

The qualitative stories below suggest that many Black educators are aware of the lack of diversity in education and have experienced discrimination in the hire process.

“Teachers need to be pursued and prepared with an intensive apprenticeship framework that aligns with the challenges they will face in the field. Black teachers need to be courted in college and during teacher preparatory programs and mentored throughout their first few years in the career so that retention rates increase.” - Respondent

“I would like to see more recruiting of minorities.” - Respondent

“I would like specifically Black teachers to be treated and hired the same regards as other races even in areas where the school population is Black.” - Respondent

“Diversity recruitment.” - Respondent

Victoria Gross, a Black woman at Penn Carey Law School and student in the Policy Lab spoke with her mother, who is an educator in Bayside, Queens, about the importance of Black children having Black educators. Ms. Gross shared, “The world may not be expecting them to make significant contributions. That’s where the element of surprise becomes very valuable. Convincing our children that there is something only can contribute is the most powerful lesson we can teach them and ultimately their world.” The retention of Black educators in schools, particularly Black men, who represent 2% of the teaching force, needs to increase.
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While AI is a beneficial tool to reduce bias from human-decision making found in the interview stage, it cannot serve as the answer to eliminate bias completely. Algorithms mimic human decision making, which can inadvertently reinforce discrimination in the hiring process. Thus, transparency and accountability in AI are necessary to monitor algorithmic bias. Like Partner at Orrick, Heather Sussman stated in the Policy Lab, “The more open and available and accessible data is, the more we have the ability to address issues of bias.” Transparency starts with auditing AI platforms to minimize algorithmic bias, increase accuracy, and develop modifications to the data. xxviii This check not only reduces potential bias towards a specific group, but boosts the AI-platform and vendor’s reputation and public support. But with no awareness of how AI works and how users of these platforms are being evaluated, the proliferation of hiring inequities can worsen.

B. Stereotype Threat

Stereotype threat was coined by leading cognitive psychologists Claude Steele and Joshua Aronson, who defined the term as the “risk of confirming, as a self-characteristic, a negative stereotype about one’s group…the existence of such a stereotype means that anything one does or any of one’s features that conform to it make the stereotype more plausible as a self-characterization in the eyes of others.” xxix In class, Professor de Silva de Alwis stated, “Even if educators may not yet experience bias in AI, stereotype threat can profoundly affect our use in AI, threatening to undermine performance, causing both emotional and intellectual reactions affecting their career choices.” The next questions look at stereotype threat amongst Black educators in AI-hiring platforms.

Q13 - In what ways, if any, do you worry that employers or managers using AI-based recruiting tools might not consider you for a position because of your gender identity?

For Question 13, majority of respondents selected they worry employers or managers using AI-recruiting tools might not consider them based of their gender identity in hiring, pay, or promotion. Most of the respondents identify as female
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which supports the fact that education is a historically female-dominated profession; thus, likely to suggest that Black women educators are concerned their gender identity can prevent consideration of their application. Furthermore, 12 respondents worry they will not be considered because of racial identity regarding “assumptions about personality traits due to stereotypes.” This suggests the prevalence of the stereotype threat in the hiring process. When asked respondents to share experience with biases or discrimination in education, several respondents shared racial stereotypes they experience in the hiring process and workplace. One respondent stated, “I have been subjected to exclusion, micromanaging, and harsh criticism that my male counterparts have not.”

Another respondent stated she was not hired because the committee thought she had “too strong of a voice such that would make people ‘work.’” This relates to the stereotype of Black women being “too aggressive” and even “too strong” to experience pain. The other responses, to the left, involve the stereotype of Black people being uneducated, with their credentials questioned after their academic achievements. We saw the prevalence of this stereotype during the confirmation hearings of the first Black woman nominated to Supreme Court Justice Ketanji Brown Jackson. Despite her tremendous academic success, opposition still inquired about Justice Jackson’s Law School Admissions Test scores.

“I was not given the job because I was told that the committee thought I had “too strong of a voice,” “I seemed too strong such that would make people ‘work’ and I had the nerve to have blond in my hair!”
  - Respondent

“I have been targeted by staff members in a white institution where I was the only Black male PhD. One person, in particular, tried to block my tenure.”
  - Respondent

“I had an employer disbelieve that I had a master’s degree from a school he believed is prestigious.”
  - Respondent
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Q14 - In what ways, if any, do you worry that employers or managers using AI-based recruiting tools might not consider you for a position because of your racial identity?

Recall Question 14, when asked whether respondents worry that employer using AI-recruiting tools might not consider them for a position because of racial identity, the responses were scattered, but again, most respondents selected “in hiring, pay, or promotion.” This suggests that Black educators are concerned they will get overlooked due to their racial identity. Conversely from Question 13, more respondents selected “assumptions about personality traits due to stereotypes” and “treated as less intelligent, unqualified, etc.,” which suggests Black educators face more concern of racial stereotyping in the hiring process and workplace. One respondent shared that, “Breaking the glass-ceiling in becoming an administrator has taken quite a bit of time. I feel that if I was of white/European descent, I would have been identified and ‘mentored’ along that track sooner.”

Both question results suggest the intersection of race and gender impacts the concerns Black educators have using AI-hiring platforms. And while there is evidence hiring platforms properly match qualifications to positions, after automation resume review, discrimination is prevalent in during human interviews. During an interview, Ms. Dyer, who has been an educator for over eighteen years, noted that “As an African American woman, there are many challenges we face due to systemic racism. On more than one occasion, I have walked into an interview and have received that look that makes me think the interviewer was not expecting me to be African American. Usually, I feel like I’m about to waste my time. I would like to be considered based on my experience and qualifications and not my skin color.”
The next following questions provide a good indication that Black educators are not worried AI-hiring platforms reject due to specific items on their application. Question 15, Question 16, and Question 17 ask whether the respondents worry specific items, such as “all-women’s college” listed on applications will be of detriment to them on AI-hiring platforms. Here, there appears no stereotype threat, but instead, perhaps appreciation and admiration for where they live, their extracurricular activities, and Black organizations they may affiliate with.

**Q15**: How much, if at all, do you worry that employers or managers using algorithmic hiring platforms might not consider you for a position because of the address listed on your resume or applicant profile?

**Q16**: How much, if at all, do you worry that employers or managers using AI-based hiring platforms might not consider you for a position because of your extracurricular activities? (e.g., concerned you may not be considered because you played basketball instead of golf)

**Q17**: How much, if at all, do you worry that employers or managers using AI-based hiring platforms might not consider you for a position because of your listed interests? (e.g., concerned you may not be considered because you are affiliated with an organization that identifies your racial identity)
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One respondent expressed this admiration when asked to share about experiences with biases or discrimination in education. She stated, “Thankfully, I have crafted a career that primarily favors Black women (African-centered educator). So, I personally have had outstanding experiences because I am a Black woman who has worked for Black women and men that care about Black people. I know this is not the norm, but thankfully, I have no experienced much discrimination at all.” The unity of Black culture and togetherness is showcased in her answer and particularly, Question 18, when asked whether respondents worry that employers might not consider them on AI hiring platforms because of their organization affiliation.

We find similar results in Q20 and Q21 below.

Interestingly, for Question 20 and Question 21, majority of the respondents selected, “None at all.” This suggests Black educators are not concerned their affiliation to specific schools will deter job opportunities. It is worth noting that Question 20 had more respondents select “a moderate amount” than in Question 21, which indicates that Black educators may have slightly more worry about listing their attendance at an HBCU.**xxiii**
Q16 - How much, if at all, do you worry that employers or managers will not consider you for a position because of your picture/photo?

Interestingly, majority of respondents often worry employers will not consider them for a position because of their picture/photo. This is quite alarming. In 2020, the killing of George Floyd, caused many companies to promote social justice initiatives, increase diversity and inclusion, and hire more Black Americans. Even with these recent initiatives, Black educators still worry their physical features will negatively impact job opportunities from the inevitable human biases. AI can unintentionally exacerbate these biases. We see this in Dr. Buolamwini’s analysis on AI-facial recognition. Deborah Raji and Dr. Buolamwini conducted facial analysis and found that darker-skinned persons were often undetected on AI systems. This was due to the lack of representation in the training data. The thought-provoking leader and computer scientist, Deborah Raji, visited the Policy Lab and stated, “darker-skinned persons were more likely to be misidentified and specifically women were likely be misidentified.” This extensive research further supports the importance of ensuring AI-based tools do not disadvantage a specific group of people.
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The next set of questions ask whether respondents worry employers using AI platforms might not consider the respondent based on their listed name.

Q19 - How much, if at all, do you worry that employers or managers using algorithmic hiring platforms might not consider you for a position because of your name?

Interestingly, in Q19, when respondents were asked how much they worry employers using AI-platforms might not consider them for a position because of their name, the results were scattered throughout, of which majority of respondents worry about their name a lot, a moderate amount, or a little. This affirms concerns Black educators have that their profiles may be overlooked because their name is associated to a stereotype of “ghetto” or “unprofessional.” These concerns reflect the study conducted by Princeton University researchers who found that AI programs more often associated African American names with “unpleasantness” than European American names. xxxv To the right, Ms. Dyer also shared occasional worries of rejection due to the name or organization listed on her application.

“I was aware of bias but not algorithmic. I am often concerned when I apply online; wondering if I will be eliminated because of my name or the organizations for which I am a member but I also think that the same things that could eliminate me could help depending on where I am applying. It would be nice if I didn’t have to be concerned about any of these things. I am sure I am not alone with these concerns.” - Franchessca Dyer
Recall Question 22, when asked respondents if they experienced bias on AI-platforms in search for a particular name, majority of respondents selected “No,” which is a good indicator that search engines on AI-platforms have no obvious bias towards names.

While there are good indicators that AI-hiring platforms can assist users in finding employment, the stereotype threat coupled with AI bias can be just as harmful. The above results found evidence that Black educators are concerned about facing stereotypes in the hiring process. And while employers can learn from mistakes and discriminatory hiring practices, AI cannot, which expands the opportunity of algorithmic bias to seep in, affect AI-recruiting results, and go unchecked.
C. Normalization of Algorithmic Bias

The last section focuses on the normalization of AI bias in hiring platforms and other social media sites where algorithmic biases are more noticeable. This normalization inhibits improvements and accountability for companies that may have a lasting harmful effect on the user.

Q23 - Which of the following apps do you use in a typical month? Select all that apply.

The most used apps were Instagram, Tiktok, and Facebook. This comes to no surprise as there is ample evidence of the addictive effects Instagram, Facebook, and more recently, TikTok, may have on the user. One respondent, however refrains from these apps and shared, “I personally do not use any social media platforms due to feeling like I am tracked and monitored by my current place of employment and any future opportunities that may come my way. I have seen people personally affected based upon post[s] on social media. So, for me, I stay away from it.”

"I personally do not use any social media platforms due to feeling like I am tracked and monitored by my current place of employment and any future opportunities that may come my way. I have seen people personally affected based upon post on social media. So, for me I stay away from it.”

- Respondent
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Q24 - When you use these apps, how much, if at all, are you worried that the platform's algorithm is biased?

Most the respondents worry “a great deal” that the platforms they use have algorithmic bias. This is quite alarming as respondents continue to use these apps while worried a great deal of algorithmic bias. And when asked in what ways do they perceive bias in Question 25 (below), majority of the respondents selected “all of the above,” which suggest that most respondents perceive bias in each category listed. Furthermore 15 respondents selected “on the basis of skin color,” which suggests that some of the Black educators worry the social media platforms they use perpetrate algorithmic bias based on skin color. Most of the apps listed above require a photo image for the user’s profile. Perhaps the response indicates Black educators worry their image alone, which may include their skin color, may create algorithmic bias on the platform.

Q25 - If worried, in what ways do you perceive these platforms to be biased?
Recall Question 29, when asked whether respondents observed any sort of bias in the hiring process on hiring sites, there was a nearly split response. This could suggest AI is working properly on hiring sites, some respondents have not observed bias, or some respondents do not use AI-based platforms to avoid potential algorithmic bias. One respondent shared, “I’ve not had any experiences using AI-based hiring. If I utilize going forward and suspect bias, I will not use.”

"I've not had any experiences using AI based hiring. If I utilize going forward and suspect bias, I will not use."  
- Respondent

Recall Question 30, when asked if you do perceive bias on apps, does it discourage you from using them. Here, most respondents selected slightly and no, which indicates that though Black educators are worried a great deal of the bias on social media apps – specifically bias on the basis of skin color – this does not discourage respondents from using the app. This suggests that users normalize biases they encounter and continue to use the application.

Q30 – If you do perceive bias on any of these apps, does your perception of bias on any of these apps discourage you from using them?
IV. Conclusion

This report serves as a start to a larger, more robust data collection and conversation of the inequities Black educators face on AI-hiring platforms and in the workplace. The results display ample evidence of the need for more transparency and accountability to eliminate the stereotype threats and normalization of biases that exist amongst Black educators. As algorithms and technology advance, we cannot lean on the AI-tools without full understanding of the benefits and consequences it has. Yes, AI-platforms can contribute to a more equitable society through the removal of systemic barriers we are privy to in the interview stages of hiring. However, the unknown of how to detect algorithmic bias is in some respects more troubling for the user. To employers who turn to websites like LinkedIn, Monster, or Indeed, caution heavy reliance and trust in these platforms and seek more knowledge of the data compilation and its effect.

Educators play a significant role in the development of the next generation of innovators and leaders; thus, why the hiring process for Black educators should be prioritized and enhanced to ensure students receive an abundance of representation, knowledge, and skills to excel in their future endeavors.
V. Appendix A: Qualitative Data

**Q32 - Please provide any experiences you’ve had with artificial intelligence bias in the hiring process or in general.**

I personally do not use any social media platforms due to feeling like I am tracked and monitored by my current place of employment and any future opportunities that may come my way. I have seen people personally affected based upon post on social media. So, for me I stay away from it.

I worry that AI based hiring platforms may not recommend me for a particular position if I do not include certain “buzzwords” in my resume and cover letter that have been programmed into their selection algorithms.

I have largely had solid and good experiences when I have used Indeed in particular.

I’ve not had any experiences using AI based hiring. If I utilize going forward and suspect bias, I will not use.

Mainly worrying that my application won’t get looked at because it’s coming from an AI based platform

I have used Indeed and Handshake to search for jobs. I have a profile on Handshake, but not on Indeed. I'm not very experienced with intelligence bias because I have not conducted many job searches.

I have not experienced any bias or if it occurred, I was not aware of it. I have received matches that were below my level or positions where I was overqualified, but I cannot say there was racial bias involved. I certainly was qualified. I have concerns there may be bias in the hiring process but not due to AI. I feel that the bias occurs when humans are involved and given the opportunity to project their own thoughts, bias, and beliefs into the equation.

Being black in rural areas
Lower GPA qualifications

**Q33 - Please provide any experiences you’ve had with biases or discrimination in education.**

Currently being discriminated against as a single mother and a woman. A new principal started after I was hired by the previous principal. I have been subjected to exclusion, micromanaging, and harsh criticism that my male counterparts have not.

I have been targeted by staff members in a white institution where I was the only Black Male PhD. One, in particular, tried to block my tenure.

Age K feel. Or not knowing the right people

I was not given a job because I was told that the committee thought I had “too strong of a voice,” I seemed too strong such that I would make people “work” and I had the nerve to have blond in my hair!

Road blocks to contracts due to minority small business access or limits

Hiring based on your political affiliation.

More often than not the biases I am combating come from being a young woman in education pursuing leadership positions that are most often regarded or held for men.

Thankfully, I have a crafted a career that primarily favors Black women (African-centered educator). So, I personally have had outstanding experiences because I am a Black woman who has worked for Black women and Black men that care about Black people. I know that is not the norm but thankfully, I have not experienced much discrimination at all.

Systemic racism is alive and well at most schools in America. African American and Hispanic boys are especially being treated unfairly and are being miseducation/undereducated because there is a lack of cultural sensitivity training for teachers and administrators.

I had an employer disbelieve that I had a master’s degree from a school he believed is prestigious.
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Breaking the glass-ceiling in becoming an administrator has taken quite a bit of time. I feel that if I was of white/European descent, I would have been identified and “mentored” along that track sooner.

There have been times where I was not extended the grace of my other coworkers who were white. I had a young white co teacher who was coddled during a situation while I was deemed that I was cold to the same situation.

Coworkers tendencies to clique up by race or background

In my educational background, I felt like my professors were not always inclusive of Black-centered education or the particular experiences of Black teachers. I hope the education programs change.

As I mentioned in the previous answer, I have had experiences where once I arrived to the interview, the interviewer gave me a look of surprise as if he/she were expecting a different person, perhaps different race. Some people are very obvious and you know immediately that you have wasted your time.

Micro aggressions, conscious vis and unconscious bias from Administrators, Colleagues, students, and parents

hired to handle the "bad" black kids; hired to fill a quota

As a black male educator. I don’t think this tiny box is big enough for the instances of discrimination and bias in a female dominated profession

Getting hired in rural areas working with kids as a black man
Q34 - How would you like the hiring process for teachers to improve? If no suggested improvements, put "N/A" or leave blank.

A shift to a multi-step process with more behavioral questions and tasks.

I would like the process to be expedited. In the event that a school District is in favor of a candidate, do not take 3-6 months to make the hire.

Allow for candidates that are in the process of obtaining certification.

I would like to see more recruiting of minorities.

Teachers need to be pursued and prepared with an intensive apprenticeship framework that aligns with the challenges they will face in the field. Black teachers need to be courted in college and during teacher preparatory programs and mentored throughout their first few years in the career, so that retention rates increase.

I think that there should be a more concerted effort to bring people into the teaching profession from high school age.

I think all teachers/administrators should be required to pass a series of multicultural trainings in order to be hired especially for placement at public schools.

I would like the hiring process for teachers to become more rigorous and include the requirement for more references and observation in the classroom.

I would like for specifically black teachers to be treated and hired the same regards as other races even in areas where the school population is black.

Talk about the elephant in the room which is race/ethic problems that staff may face or the community of the school faces and how the district is trying to handle said problems

Diversity recruitment

I'm not sure how to improve the hiring process for teachers. There are sites like REAP, LinkedIn and others that can match your qualifications with open positions. But I have had experiences where once I arrived to the interview, the interviewer gave me a look of surprise as if he/she were expecting a different person, perhaps different race. Sites like LinkedIn includes pictures, but then the question becomes does that help or hurt? I would like to see more diversity in the faculty population, but I think that would involve a change in the hiring practices.
VI. Appendix B: Endnotes


ii Seth Gershenson, et. al., The Long-Run Impacts of Same-Race Teachers, National Bureau of Economic Research, revised Feb. 2021, https://www.nber.org/system/files/working_papers/w25254/w25254.pdf (finding that Black students with at least one Black elementary school teacher are more likely to graduate from high school and more likely to enroll in college); See Rann Miller, Hire More Black Teachers, The Progressive Magazine, Dec. 30, 2019, https://progressive.org/public-schools-advocate/hire-more-black-teachers-miller-191230/ (discussing the disproportionate discipline of Black students in schools where Black teachers are limited).

iii See Half of Pa. Schools Still Don’t Have a Single Teacher of Color (emphasizing that half of all public schools in Pennsylvania have only white teachers, and “[i]n more than a third of all districts, there are no teachers of color, including 10 entire counties”).


ix Algorithmic Bias is defined as “the outcomes which are systematically less favorable to individuals within a particular group and where there is no relevant difference between groups that justifies such harms.” Nicol Turner Lee, et. al., Algorithmic Bias Detection and Mitigation: Best Practices and Policies to Reduce Consumer Harms, Brookings, May 22, 2019, https://www.brookings.edu/research/algorithmic-bias-detection-and-mitigation-best-practices-and-policies-to-reduce-consumer-harms/ (defining algorithmic bias) (“Hereinafter Algorithmic Bias Detection and Mitigation: Best Practices and Policies to Reduce Consumer Harms”).

x Fifty-six respondents identified as Black or African American, three identified as bi-racial, and two identified as two Hispanic or Latino. The author may refer to respondents as “Black educators.”

xi Nora Macaluso, The Next Generation of Philly Teachers will Include More Black Men, These Future Educators Say, Feb. 11, 2022, https://philadelphia.chalkbeat.org/2022/2/11/22929312/philadelphia-black-teachers-pipeline-project-schools. When asked respondents to share experiences of bias or discrimination in education, one respondent shared, “[a]s a black male educator. I don’t think this tiny box is big enough for the instances of discrimination and bias in a female dominated profession.” The retention of Black male educators must be prioritized as we advocate for a more equitable education system.

xii Nine respondents selected between ages twenty-one to thirty; fourteen respondents selected between ages thirty-one to forty; twenty respondents selected between ages forty-one to fifty; sixteen respondents selected between ages fifty-one to sixty-five; and two respondents selected ages sixty-five and up.

xiii One Respondent is from Trinidad and another from Jamaica.
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xiv What is a Charter School, National Alliance for Public Charter Schools, https://www.publiccharters.org/about-charter-schools/what-charter-school-(defining-charter-schools); comparing with district public schools, which are required to adhere to state and federal regulations and are funded by the state or federal governments). What are Public Schools, Learn.org, https://learn.org/articles/What_are_Public_Schools.html (distinguishing between charter schools).


x9 Official LinkedIn Blog, LinkedIn, https://blog.linkedin.com (citing image of LinkedIn logo).

xii Thirty-three respondents selected “Most of the time it matches my qualifications; eleven respondents selected “Usually below my qualifications”; fourteen respondents selected “I have not noticed any other patterns; none of the respondents selected, “Usually above my qualifications; three respondents did not answer the question.”


xxiv A student in the Policy Lab shared that her husband includes a box of buzzwords on his resume, of which he knows are desired for the particular position.


xxvii Hiring Algorithms are Not Neutral (highlighting the data used could be from a time when there were fewer women in the workplace, which then teaches the AI-tool to penalize women with resumes indicating their gender identity).

xxviii It is worth noting there are no federal regulations to the collection of data used in AI platforms, and intellectual property laws protect many technological companies from the disclosure of information about their AI models. This alone is a problem that allows AI bias and unintentional discrimination to proliferate with no consequences or mitigation. Roy Maurer, AI-Based Hiring Concerns Academics, Regulators., SHRM, Feb. 14, 2020, https://www.shrm.org/resourcesandtools/hr-topics/talent-acquisition/pages/ai-based-hiring-concerns-academics-regulators.aspx (hereinafter “AI-Based Hiring Concerns Academics, Regulators”).

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https://www.apa.org/topics/racism-bias-discrimination/stereotypes (defining and analyzing the coined term “stereotype threat”).


xxxix In 2015, Amazon was exposed for its automation resume review favoring male candidates over female candidates for the same software developer jobs. https://www.shrm.org/resourcesandtools/hr-topics/talent-acquisition/pages/will-ai-remove-hiring-bias-hr-technology.aspx. The AI system was based off resumes received in a 10-year period, of which men applied more often than women. Id. In a reflection of the data, the automated system penalized resumes with the word “women’s,” such as “women’s chess club captain.” Amazon Scraps Secret AI Recruiting Tool that Showed Bias Against Women (discussing Amazon’s AI-recruiting tool that displayed bias towards women applicants).

xxxii “HBCU” stands for Historically Black Colleges and Universities.


xxxiv See Algorithmic Bias Detection and Mitigation: Best Practices and Policies to Reduce Consumer Harms (discussing AI-facial recognition research conducted by Dr. Joy Buolamwini and Deborah Raji).

xxxv See Algorithmic Bias Detection and Mitigation: Best Practices and Policies to Reduce Consumer Harms (finding that words “woman” and “girl” were “more likely associated with the arts instead of science and math, which were most likely connected to males”). See Adam Hadhazy, Biased Bot: Artificial-Intelligence Systems Echo Human Prejudices, Princeton University, April 18, 2017, https://www.princeton.edu/news/2017/04/18/biased-bots-artificial-intelligence-systems-echo-human-prejudices. (highlighting results from Princeton University researchers).

xxxvi This survey highlights Black educators predominantly in the Philadelphia school districts and educators in the Eastern region of the United States. The author recommends a larger sample, with different school districts, comparing a variety of races and their experiences with hiring platforms.

xxxvii See AI-Based Hiring Concerns Academics, Regulators (highlighting remarks about AI made from Manish Raghavan, doctoral student in computer at Cornell University and Jenny Yang, a senior fellow at the Urban Institute).