



March 1, 2024

To: The Honorable Julie A. Su
Acting Secretary of Labor
US Department of Labor
200 Constitution Ave. NW
Washington, DC 20210

From: National Women's Law Center
American Civil Liberties Union

Re: Recommendations for Preventing Bias and Discrimination in Employment in Response to the President's Executive Order on Artificial Intelligence

The National Women's Law Center (NWLC) and American Civil Liberties Union (ACLU) are writing regarding DOL's responsibilities under President Biden's Executive Order on the Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence.¹ Specifically, we write to provide recommendations regarding the Secretary of Labor's responsibility to "develop and publish principles and best practices for employers that could be used to mitigate AI's potential harms to employees' well-being and maximize its potential benefits"² and to "publish guidance for Federal contractors regarding nondiscrimination in hiring involving AI and other technology-based hiring systems."³ We also provide recommendations regarding DOL's broader role to help ensure that "AI should not be deployed in ways that undermine rights, worsen job quality,

¹ Exec. Order No. 14110, 88 Fed. Reg. 75191 (Oct. 30, 2023), <https://www.govinfo.gov/content/pkg/FR-2023-11-01/pdf/2023-24283.pdf>. Portions of this letter quote from and paraphrase 1) a letter that our organizations, along with Center for Democracy & Technology (CDT), Governing for Impact (GFI), the NAACP Legal Defense and Educational Fund, and Upturn submitted to the EEOC on Jan. 25, 2024; 2) comments from NWLC as well as joint comments that NWLC, ACLU, CDT, GFI and other organizations submitted to the White House Office of Science and Technology Policy (OSTP) last summer in response to its Request for Information on electronic surveillance in the workplace; and 3) testimony of ReNika Moore, Director of the Racial Justice Program, ACLU before the EEOC in a hearing entitled *Navigating Employment Discrimination in AI and Automated Systems: A New Civil Rights Frontier: Hearing Before the EEOC* (2023). See Letter from CDT et al. to Charlotte A. Burrows, Chair, EEOC (Jan. 25, 2024), <https://cdt.org/wp-content/uploads/2024/02/EEOC-Letter-2024.01.25-FINAL.pdf>; Comment Letter from NWLC on Automated Worker Surveillance and Management to OSTP (Jun. 29, 2023), https://nwlc.org/wp-content/uploads/2024/01/NWLC-Comment-OSTP-RFI-Electronic-Surveillance-and-Automated-Management-Systems-OSTP_FRDOC_0001-0008-6-29-2023.pdf; Comment Letter from CDT et al. on Automated Worker Surveillance and Management to OSTP (Jun. 29, 2023), <https://cdt.org/wp-content/uploads/2023/06/CDT-et-al-Workplace-Surveillance-Comments-to-OSTP-revised.pdf>; *Navigating Employment Discrimination in AI and Automated Systems: A New Civil Rights Frontier: Hearing Before the EEOC* (2023) (statement of ReNika Moore, Director of the Racial Justice Program, ACLU), <https://www.eeoc.gov/meetings/meeting-january-31-2023-navigating-employment-discrimination-ai-and-automated-systems-new/moore>

² *Id.* at § 6(b).

³ *Id.* at § 7.3(a).

encourage undue worker surveillance, lessen market competition, introduce new health and safety risks, or cause harmful labor-force disruptions.”⁴

The NWLC has worked for over 50 years to advance and protect women’s equality and opportunity—with a focus on women’s employment, education, income security, health, and reproductive rights—and has long worked to remove barriers to equal treatment of women in the workplace. The ACLU is a nationwide, nonpartisan organization dedicated to defending and preserving individual rights and liberties, including pursuing litigation and advocacy to address uses of technology and data in the context of employment that discriminates on the basis of race, gender, disability, or other protected characteristics. We appreciated the opportunity to participate in the listening sessions that DOL held in December of 2023 and write to provide additional input on, and recommendations to address, the ways in which the use of artificial intelligence, electronic surveillance, and automated management throughout the employment experience—from recruitment and hiring to the workplace setting—can harm working people, especially women, workers of color, workers with disabilities, and LGBTQI+ individuals, by replicating, heightening, or enabling discrimination.

I. Use of Technology Enabled Decision-Making Tools Can Perpetuate Bias and Discrimination and Limit Employment Opportunities

Despite technology’s potential to benefit society by reducing bias and improving the workplace experience, automated decision systems (ADS) used for recruitment, hiring, and other employment decisions have repeatedly been shown to lead to discrimination as algorithms replicate and amplify societal and workplace bias.⁵ ADS can be built on a wide range of algorithmic technologies, from rudimentary algorithmic systems to complex artificial intelligence (AI) such as machine learning or generative AI; ADS may substantially affect employment-related decisions from displaying employment ads to determining which applicants to hire or fire. Other technology tools, known as electronic surveillance and automated management systems (ESAM),⁶ are deployed to automatically monitor, supervise, and evaluate workers, often to their detriment and with outsized negative effects on women, people of color, disabled workers, and low-paid workers because of structural inequities in the workforce and society.⁷

⁴ *Id.* at § 2(c).

⁵ *See, e.g.*, HILKE SCHELLMANN, *THE ALGORITHM: HOW AI DECIDES WHO GETS HIRED, MONITORED, PROMOTED, AND FIRED AND WHY WE NEED TO FIGHT BACK NOW* (Hachette Books, 2024); Statement of ReNika Moore to EEOC, *supra* note 1; Olga Akselrod & Cody Venzke, *How Artificial Intelligence Might Prevent You From Getting Hired*, ACLU (Aug. 23, 2023), <https://www.aclu.org/news/racial-justice/how-artificial-intelligence-might-prevent-you-from-getting-hired>.

⁶ ADS and ESAM technologies are closely related. In fact, the automated management component of ESAM is a type of ADS. There are, however, important distinctions between the two types of technologies. While all ESAM have an ADS component, ESAM include practices (namely, the use of automated systems to monitor and collect data on current workers) that may not involve or lead to employment decisions. Conversely, while employers use ESAM to monitor and manage current employees, they use ADS to make decisions about both current employees and job candidates. ADS may also draw on data from a wide variety of sources, such as resumes and other application materials, employment tests, and even third-party sources such as social media platforms, data brokers, and credit bureaus. Thus, while the technologies overlap, each technology is unique and poses its own risks.

⁷ *See, e.g.*, ANNETTE BERNHARDT ET AL., UC BERKELEY LABOR CENTER, *DATA AND ALGORITHMS AT WORK: THE CASE FOR WORKER TECHNOLOGY RIGHTS 15* (2021), <https://laborcenter.berkeley.edu/wp-content/uploads/2021/11/Data-and-Algorithms-at-Work.pdf> (“But importantly, women and workers of color may

a. Algorithmic Decision-Making Tools Used for Recruitment, Screening, Hiring and Other Employment Decisions Can Perpetuate and Exacerbate Existing Biases

The potential discriminatory impact of AI algorithms can begin early in the hiring process, as algorithms can be used to target employment ads in ways that deny access to equal employment opportunity and further entrench occupational segregation.⁸ For example, researchers have found that algorithms used to decide who is shown online advertisements regarding employment opportunities discriminate based on race and gender, often reflecting existing inequities and stereotypes about who works in certain kinds of jobs.⁹ Significantly, a worker who does not receive a targeted advertisement, and thus is adversely impacted by the underlying algorithm, generally will not know of the advertisement’s existence at all, let alone the adverse impact they suffered. In one example, Facebook discriminated in the delivery of advertisements by using “algorithmic steering” that resulted in job ads for truck drivers being shown based on age and gender.¹⁰ As a result, a North Carolina advertisement for truck drivers designed for all audiences was shown only to an audience that was 94% men with just 11% of people aged 55 or older.¹¹ By

also be disproportionately subject to harms from data-driven technologies because of the occupations where they work, especially low-wage jobs like warehousing and call centers where experimentation with invasive monitoring or algorithmic management is more likely.”); KATHRYN ZICKUHR, WASHINGTON CENTER FOR EQUITABLE GROWTH, WORKPLACE SURVEILLANCE IS BECOMING THE NEW NORMAL FOR U.S. WORKERS 12-15 (2021), <https://equitablegrowth.org/wp-content/uploads/2021/08/081821-worker-surv-report.pdf>; see also Tanya Goldman, *What the Blueprint for an AI Bill of Rights Means for Workers*, DEP’T OF LAB. BLOG (Oct. 4, 2022), <http://blog.dol.gov/2022/10/04/what-the-blueprint-for-an-ai-bill-of-rights-means-for-workers>; AIHA NGUYEN, DATA & SOCIETY, THE CONSTANT BOSS: LABOR UNDER DIGITAL SURVEILLANCE 22 (2021), https://datasociety.net/wp-content/uploads/2021/05/The_Constant_Boss.pdf (“In warehousing alone, workers of color account for a full two-thirds of the frontline workforce while 95% of domestic workers are women, foreign-born, or people of color.”) (citing BETH GUTELIUS & NIK THEODORE, UC BERKELEY LABOR CENTER & WORKING PARTNERSHIPS USA, THE FUTURE OF WAREHOUSE WORK: TECHNOLOGICAL CHANGE IN THE U.S. LOGISTICS INDUSTRY 24-26 (2019)), <https://laborcenter.berkeley.edu/pdf/2019/Future-of-Warehouse-Work.pdf>; Kyle Boyd, *The Color of Help*, CENTER FOR AMERICAN PROGRESS (Jun. 17, 2011), <https://www.americanprogress.org/article/the-color-of-help/>.
⁸ See, e.g., Pauline Kim & Sharion Scott, *Discrimination in Online Employment Recruiting* (ST. LOUIS UNIV. L. J., Research Paper No. 18-07-02, 2018), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3214898; Linda Morris & Olga Akselrod, *Holding Facebook Accountable for Digital Redlining*, ACLU (Jan. 27, 2022), <https://www.aclu.org/news/privacy-technology/holding-facebook-accountable-for-digital-redlining>.

⁹ Muhammad Ali, et al., *Discrimination through optimization: How Facebook’s Ad Delivery Can Lead to Biased Outcomes*, 3 PROC. ACM ON HUM.-COMPUT. INTERACTION 1 (2019), https://www.ftc.gov/system/files/documents/public_events/1548288/privacycon-2020-muhammad_ali.pdf; Piotr Sapiezynski, et al., *Algorithms That “Don’t See Color”*: Comparing Biases in Lookalike and Special Ad Audiences, PROC. 2022 AAAI/ACM CONF. ON AI, ETHICS, & SOCIETY (2022), <https://dl.acm.org/doi/10.1145/3514094.3534135>; Ava Kofman & Ariana Tobin, *Facebook Ads Can Still Discriminate Against Women and Older Workers, Despite a Civil Rights Settlement*, PROPUBLICA (Dec. 13, 2019), <https://www.propublica.org/article/facebook-ads-can-still-discriminate-againstwomen-and-older-workers-despite-a-civil-rights-settlement>; Miranda Bogen, *All the Ways Hiring Algorithms Can Introduce Bias*, HARV. BUS. REV. (May 6, 2019), <https://hbr.org/2019/05/all-the-ways-hiring-algorithms-can-introduce-bias> (noting that supermarket cashier ads were shown to an audience of 85% women while ads for taxi drivers were shown to an audience that was 75% Black).

¹⁰ See REAL WOMEN IN TRUCKING V. META PLATFORMS, INC., Charge of Discrimination to the EEOC (Dec. 1, 2022), <https://guptawessler.wpenginepowered.com/wp-content/uploads/2022/12/Real-Women-in-Trucking-Meta-Charge.pdf>.

¹¹ Naomi Nix, *Female Truckers Group Alleges Facebook’s Ad System Is Discriminatory*, THE WASH. POST (Dec. 1, 2022), <https://www.washingtonpost.com/technology/2022/12/01/female-truckers-meta-ads/>; *id.* at 4.

reinforcing patterns of occupational segregation, such targeted advertisements limit access to employment opportunities for women, people of color, and other protected groups and help to perpetuate overrepresentation of these groups in lower-paid jobs with limited, if any, benefits.¹² Despite lawsuits and publicity about the harmful impact of such discriminatory advertising, it has continued.¹³

Platforms such as LinkedIn, ZipRecruiter, Indeed, and others also play a crucial role in many employers' recruitment and sourcing processes and in many job seekers' search processes. These platforms perform job matching: employers advertise open positions, job seekers upload or post information about their professional interests and backgrounds, and the platforms make recommendations, often in the form of ranked lists, to both candidates and employers about jobs they should apply for or candidates they should consider.

Despite the pervasiveness of these platforms and their integral role in sourcing and recruitment for many employers, these ranking and recommendation systems are generally black boxes to candidates and the general public. But what we do know demonstrates that there are multiple dangers with such recommender systems downplaying or even withholding job opportunities based on protected characteristics or proxies thereof. For example, in 2018, LinkedIn publicly shared that it had found that its recommendation system underpinning LinkedIn Recruiter generated results that unfairly ranked men over women, potentially enabling feedback loops in recruitment that perpetuated gender bias.¹⁴ While LinkedIn has stated that it has taken steps to address this issue,¹⁵ these kinds of biases are likely not limited to LinkedIn alone: researchers have found that recommender systems similar to those that comprise the core of job matching platforms can suffer from algorithmic bias in rankings and recommendations.¹⁶

¹² DEP'T OF LAB., BEARING THE COST: HOW OVERREPRESENTATION IN UNDERVALUED JOBS DISADVANTAGED WOMEN DURING THE PANDEMIC 6 (2022),

<https://www.dol.gov/sites/dolgov/files/WB/media/BearingTheCostReport.pdf>; See also JASMINE TUCKER & JULIE VOGTMAN, NWLC, HARD WORK IS NOT ENOUGH: WOMEN IN LOW-PAID JOBS (2023), https://nwlc.org/wp-content/uploads/2020/04/%C6%92.NWLC_Reports_HardWorkNotEnough_LowPaid_2023.pdf.

¹³ Clare Duffy & Carlotta Dotto, *People Are Missing Out on Job Opportunities on Facebook Because of Gender, Research Suggests*, CNN (Jun. 12, 2023), <https://www.cnn.com/2023/06/12/tech/facebook-job-ads-gender-discrimination-asequals-intl-cmd/index.html>; Karen Hao, *Facebook's Ad Algorithms Are Still Excluding Women From Seeing Jobs*, MIT TECH. REV. (Apr. 9, 2021),

<https://www.technologyreview.com/2021/04/09/1022217/facebook-ad-algorithm-sex-discrimination>.

¹⁴ See Sheridan Wall & Hilke Schellmann, *LinkedIn's Job-Matching AI was Biased. The Company's Solution? More AI.*, MIT TECH. REV. (Jun. 23, 2021), <https://www.technologyreview.com/2021/06/23/1026825/linkedin-ai-bias-ziprecruiter-monster-artificial-intelligence/>.

¹⁵ *Id.*; Sahin Cem Geyik & Krishnamurthy Kenthapadi, *Building Representative Talent Search at LinkedIn*, LINKEDIN ENGINEERING BLOG (Oct. 10, 2018), <https://engineering.linkedin.com/blog/2018/10/building-representative-talent-search-at-linkedin>.

¹⁶ See generally Michael D. Ekstrand, et al., *All the Cool Kids, How Do They Fit In?: Popularity and Demographic Biases in Recommender Evaluation and Effectiveness*, 81 PROC. OF MACH. LEARNING RSCH. 1 (2018), <https://proceedings.mlr.press/v81/ekstrand18b/ekstrand18b.pdf>; Masoud Mansoury, et al., *Feedback Loop and Bias Amplification in Recommender Systems*, INT'L CONF. ON INFO. AND KNOWLEDGE MGMT. 1 (2020), <https://arxiv.org/pdf/2007.13019.pdf>; Kyle Wiggers, *Researchers Find Evidence of Bias in Recommender Systems*, VENTUREBEAT (Jul. 29, 2020), <https://venturebeat.com/ai/researchers-find-evidence-of-bias-in-recommender-systems/>.

The potentially discriminatory impact of some ADS continues into the screening, application, and hiring process. Because AI relies on patterns in data, it can often produce results based on incidental correlations, rather than characteristics meaningful to job performance. And because the data incorporates existing societal and workplace inequalities, ADS may rely on correlations that reflect these inequalities. In one well-publicized case in 2014, Amazon created an automated tool that had the effect of systematically excluding women from the pool of applicants for software engineer jobs.¹⁷ The algorithm’s designers programmed it to search for applicants whose resumes resembled those of current, successful employees. Because the existing workforce was overwhelmingly male, applicants who had attended women’s colleges, or participated in women’s athletic or other activities, did not match up with this model of success and were therefore eliminated. As the algorithm “succeeded” in identifying applicants who looked like current workers, its discriminatory effects intensified. Amazon discarded the tool after designers were unable to fix it.¹⁸

In Hilke Schellmann’s recently published book, *The Algorithm: How AI Decides Who Gets Hired, Monitored, Promoted, and Fired and Why We Need to Fight Back Now*, there are multiple examples of the ways in which automated systems lead to discrimination, including in the use of resume screening tools, video game assessments, video interviews, personality assessments, emotion recognition, and more.¹⁹ Automated resume screening tools often create rigid rules for highly specific certifications, credentials or particular descriptions of job experience, or screen for gaps in work history of more than 6 months, which can weed out qualified candidates that a human reviewer may have otherwise interviewed or hired, and disproportionately create barriers for caregivers, predominantly women, as well as workers with disabilities and other people with protected characteristics.²⁰ Moreover, automated assessments are often designed to measure subjective and amorphous personality traits—characteristics such as optimism, positivity, ability to handle pressure, or extroversion—that are not clearly related to, much less necessary for, the job. In fact, relying on such characteristics exacerbates discrimination by reinforcing existing stereotypes about how applicants “should” act or speak and by failing to recognize differences based on gender, race, culture, disability and more.

Predictive tools that rely on analysis of facial, audio, or physical interaction with a computer raise even more risk that individuals will be automatically rejected or scored lower on the basis of protected characteristics. Research indicates that emotion-recognition systems, for example, are both less accurate and more likely to assign negative emotional states when analyzing women and people of color,²¹ and may represent an automated form of the “tone policing” that occurs with women of color, and Black women in particular. Likewise, there is a high risk that vocal assessments may perform more poorly on people with accents or with speech disabilities, and it has been established that video technology performs more poorly at recognizing faces with

¹⁷ Jeffrey Dastin, *Amazon Scraps Secret AI Recruiting Tool That Showed Bias Against Women*, REUTERS (Oct. 10, 2018), <https://www.reuters.com/article/idUSL2N1WP1RO/>.

¹⁸ *Id.*

¹⁹ SCHELLMANN, *supra* note 5.

²⁰ JOSEPH B. FULLER, ET AL., HARV. BUS. SCH. & ACCENTURE, HIDDEN WORKERS: UNTAPPED TALENT 22 (2021), <https://www.hbs.edu/managing-the-future-of-work/Documents/research/hiddenworkers09032021.pdf>.

²¹ Zickuhr, *supra* note 7, at 15 (citing RUHA BENJAMIN, RACE AFTER TECHNOLOGY: ABOLITIONIST TOOLS FOR THE NEW JIM CODE (Polity Press, 2019)); Lauren Rhue, *Racial Influence on Automated Perceptions of Emotions*, U. OF MD. ROBERT H. SMITH SCH. OF BUS. (2018), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3281765.

darker skin and faces of women, with the worst performance for the faces of women with darker skin.²² Tools that rely on detection of color or reactions to visual images, measure physical reactions and speed, require verbal responses to question prompts, or are incompatible with screen readers can also be inaccessible to people with disabilities.²³

Applicants often do not know that they are being subjected to ADS let alone what the tools are seeking to measure or how these measurements will be assessed. As a result, applicants often do not have enough information about the process to know whether to seek an accommodation or alternative evaluation method. This dynamic is compounded by the fact that reasonable accommodation notices on online hiring sites are often difficult to find or unclear.²⁴ The lack of transparency makes it more difficult to detect discrimination, reducing the ability of individuals, the private bar, and government agencies to enforce civil rights laws. As a result, individuals who may be eligible for reasonable accommodations, such as workers with disabilities and pregnant workers, will likely face many challenges accessing and enforcing their rights. Moreover, even where applicants are informed about the use of ADS and their rights to an accommodation, the pervasiveness of ADS means that more than ever before, applicants are faced with the decision as to whether to reveal their disability pre-offer or be subjected to a discriminatory hiring tool.

Without purposeful efforts to ensure that artificial intelligence and other data-driven technologies correct for biases and stereotypes, technology-enabled decision-making can easily reinforce workplace disparities. The frequent “black box” nature of such decision-making poses a particularly insidious possibility that such incorporated biases will be insulated from identification, review, or challenge.

b. ESAM and Discrimination in the Workplace

We also write to raise the ways in which the use of ESAM in the workplace may heighten the potential for discrimination. Women, people of color, and low-paid workers are particularly vulnerable to the impacts of these tools as these workers tend to be disproportionately represented in industries in which potentially problematic use of ESAM may be likely, such as caregiving, hospitality, warehouses, and call centers.²⁵ Many women and people of color also

²² See, e.g., Joy Buolamwini & Timnit Gebru, *Gender Shades: Intersectional Accuracy Disparities in Commercial Gender Classification*, 81 PROC. OF MACH. LEARNING RSCH. 1, 1-15 (2018) (presented at the 2018 ACM Conference on Fairness, Accountability, and Transparency),

<https://proceedings.mlr.press/v81/buolamwini18a/buolamwini18a.pdf>; LYDIA X. Z. BROWN ET AL., CENTER FOR DEMOCRACY & TECHNOLOGY, ALGORITHM-DRIVEN HIRING TOOLS: INNOVATIVE RECRUITMENT OR EXPEDITED DISABILITY DISCRIMINATION? 9 (2020), <https://cdt.org/wp-content/uploads/2020/12/Full-Text-Algorithm-driven-Hiring-Tools-Innovative-Recruitment-or-Expedited-Disability-Discrimination.pdf>; AARON RIEKE & MIRANDA BOGEN, UPTURN, HELP WANTED: AN EXAMINATION OF HIRING ALGORITHMS, EQUITY, AND BIAS 37 (2018), <https://www.upturn.org/work/help-wanted/>.

²³ ALGORITHM-DRIVEN HIRING TOOLS, *supra* note 22, at 10; U.S. DEP’T OF JUST. CIV. RTS. DIV., GUIDANCE ON WEB ACCESSIBILITY AND THE ADA (Mar. 18, 2022), <https://www.ada.gov/resources/web-guidance/>.

²⁴ See, e.g., ALGORITHM-DRIVEN HIRING TOOLS, *supra* note 22, at 10; AARON RIEKE, ET AL., UPTURN, ESSENTIAL WORK: ANALYZING THE HIRING TECHNOLOGIES OF LARGE HOURLY EMPLOYERS 24 (2021), <https://www.upturn.org/work/essential-work/>.

²⁵ See, e.g., BERNHARDT ET AL., *supra* note 7, at 15; ZICKUHR, *supra* note 7; see also Goldman, *supra* note 7; NGUYEN, *supra* note 7, at 22. See also ALEXANDRA MATEESCU, DATA & SOCIETY, ELECTRONIC VISIT

lack union representation and/or work in industries where corporate misclassification is rampant,²⁶ further compounding the potentially harmful impacts of ESAM and algorithmic discrimination. On top of these challenges, ESAM often lack transparency, with workers not knowing what data is being collected or how it is being used, creating specific challenges for people with disabilities and increasing the likelihood that any incorporated biases and discriminatory impacts will be difficult to identify, review, or challenge. Below we provide some examples of the ways in which the use of ESAM and other technologies can result in workplace discrimination.

At its core, the increased ability of technology to gather more extensive and personal data about workers—often without their knowledge, much less informed consent—could open the doors to increased discrimination in the workplace.²⁷ ESAM facilitate employers’ access to sensitive personal information, such as health data, religion, family structure, race, gender, and sexuality.²⁸ For example, data collection on health can capture information about fertility, pregnancy, abortion, gender-affirming care, or other private health data. It is not an unfounded fear that these tools may become additional opportunities for employers to discriminate in the workplace. Pregnant workers, for example, already face significant discrimination,²⁹ and given widespread state-level restrictions on abortion access, and the proliferation of state laws targeting LGBTQI+ individuals, the misuse of ESAM by employers, or of the data collected by these tools, could lead to severe consequences for workers seeking to become pregnant, access abortion, or obtain gender-affirming care.

Additionally, when ESAM are used to impose standardized expectations of behavior or to identify and flag “atypical” patterns of behavior, workers from marginalized or underrepresented groups are likely to suffer. A worker with a physical disability may move in ways that an automated video surveillance system identifies as suspicious. Immigrant workers in call centers monitored through speech-recognition systems may speak with accents that the algorithm may not accurately decipher. A tracking system using facial scanning may not function for workers with darker skin. And, as discussed above, “emotion recognition” technologies can reinforce troubling biases against protected groups.³⁰

Another common use of ESAM is to impose production quotas, which are designed to maximize the pace of work and may result in unsafe working conditions. Because of the often relentless

VERIFICATION: THE WEIGHT OF SURVEILLANCE AND THE FRACTURING OF CARE (2021), https://datasociety.net/wp-content/uploads/2021/11/EVV_REPORT_11162021.pdf (explaining that electronic visit verification (EVV), a recent Medicaid requirement that requires personal care and home health services workers to electronically verify information regarding their home visits, can negatively impact worker autonomy and quality of life); Lydia X. Z. Brown, *EVV Threatens Disabled People’s Privacy and Dignity—Whether We Need Care, or Work as Professional Caregivers*, CENTER FOR DEMOCRACY & TECHNOLOGY (Mar. 23, 2022), <https://cdt.org/insights/evv-threatens-disabled-peoples-privacy-and-dignity-whether-we-need-care-or-work-as-professional-caregivers/> (explaining that this surveillance disproportionately impacts women, as the majority of paid home care workers are women, often women of color, or immigrants).

²⁶ Charlotte S. Alexander, *Misclassification and Antidiscrimination: An Empirical Analysis*, 101 MINN. L. REV. 907, 924 (2017), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2757822.

²⁷ ZICKUHR, *supra* note 7, at 13–14; *see also* Goldman, *supra* note 7.

²⁸ ZICKUHR, *supra* note 7, at 13.

²⁹ Ben Giftis et al., *BPC—Morning Consult: 1 in 5 Moms Experience Pregnancy Discrimination in the Workplace*, BIPARTISAN POLICY CENTER (Feb. 11, 2022), <https://bipartisanpolicy.org/blog/bpc-morning-consult-pregnancy-discrimination/>.

³⁰ SCHELLMANN, *supra* note 5.

pace of “productivity standards,” they may operate in a way that fails to accommodate protected workers. A diabetic worker in a warehouse may need to adjust their activity level or take unscheduled breaks or downtime to manage their blood sugar. A pregnant or lactating worker may need more frequent breaks, rest time, or other reasonable accommodations than may be permitted under a particular productivity standard.³¹ Without ensuring a design and application that can accommodate protected groups, ESAM-imposed productivity standards could exacerbate discrimination and result in workplace discipline, termination, and other harms.³² Amazon, for example, has faced lawsuits from multiple pregnant workers alleging discrimination³³ and is notorious for its “proprietary productivity metric.”³⁴ In addition to the ongoing protections under the ADA, the Pregnant Workers Fairness Act³⁵ and the PUMP for Nursing Mothers Act³⁶ provide new protections for qualifying workers, but it may be challenging for workers to enforce their rights to these protections given the opaque nature of ESAM’s productivity standards, the lack of information shared with workers, and fear of retaliation.

Another significant challenge presented by ESAM is its potential to enable workplace harassment. In particular, the years since #MeToo went viral have demonstrated beyond argument that sex-based harassment remains endemic in U.S. workplaces and often intersects with other forms of harassment. Women and LGBTQI+ workers are disproportionately affected by workplace sexual harassment. Some studies indicate as many as 60 percent of women have experienced workplace sexual harassment; however, because many women do not report or disclose the harassment they experience, the numbers may be much higher.³⁷ Sexual harassment is particularly common for women in low-paid jobs, in male-dominated fields, and in industries

³¹ Low-paid pregnant workers of color are likely to be especially vulnerable to harm in the face of ESAM’s productivity standards. Over one in five pregnant workers are employed in low-paid jobs, which are particularly likely to be physically demanding. Moreover, pregnant Black women and Latinas are disproportionately represented in low-paid jobs and especially likely to stand, walk or run continuously during work, and may be more likely to need an accommodation at some point during pregnancy to continue to work safely. MORGAN HARWOOD & SARAH DAVID HEYDEMANN, NWLC, BY THE NUMBERS: WHERE DO PREGNANT WOMEN WORK? 5 (2019), <https://nwlc.org/wp-content/uploads/2019/08/Pregnant-Workers-by-the-Numbers-v3-1.pdf#:~:text=Pregnant%20workers%20in%20low-wage%20jobs%20may%20be%20particularly,make%20it%20difficult%20to%20informally%20address%20pregnancy-related%20needs>.

³² See generally Jenny R. Yang, *Adapting Our Anti-Discrimination Laws to Protect Workers’ Rights in the Age of Algorithmic Employment Assessments and Evolving Workplace Technology*, 35 A.B.A J. LAB. & EMP. L. 207, 234 (2021), https://www.americanbar.org/content/dam/aba/publications/aba_journal_of_labor_employment_law/v35/no-2/adapting-our-anti-discrimination-laws.pdf (aggressive productivity targets could “operate to disproportionately exclude individuals based on protected characteristics,” such as pregnancy, age, disability status, or religion).

³³ See Alfred Ng & Ben Fox Rubin, *Amazon Fired These 7 Pregnant Workers. Then Came the Lawsuits*, CNET (May 6, 2019), <https://www.cnet.com/tech/tech-industry/features/amazon-fired-these-7-pregnant-workers-then-came-the-lawsuits/>.

³⁴ See Colin Lecher, *How Amazon Automatically Tracks and Fires Warehouse Workers for “Productivity*, THE VERGE (Apr. 25, 2019), <https://www.theverge.com/2019/4/25/18516004/amazon-warehouse-fulfillment-centers-productivity-firing-terminations>.

³⁵ Pregnant Workers Fairness Act, Pub. L. No. 117-328, 136 Stat. 6084 (2022) (codified as amended at 42 U.S.C. § 2000gg).

³⁶ PUMP for Nursing Mothers Act, Pub. L. No. 117-328, 136 Stat. 6093 (2022) (codified as amended at 29 U.S.C. § 218d).

³⁷ CHAI R. FELDBLUM & VICTORIA A. LIPNIC, EEOC, REPORT OF THE CO-CHAIRS OF THE EEOC SELECT TASK FORCE ON THE STUDY OF HARASSMENT IN THE WORKPLACE (2016), <https://www.eeoc.gov/select-task-force-study-harassment-workplace>.

where workers have limited, or no, bargaining power in the workplace.³⁸ Sex-based harassment is also commonly experienced by LGBTQI+ workers. In a recent survey conducted by the Center for American Progress, 50 percent of LGBTQI+ respondents, including 70 percent of transgender respondents, reported experiencing some form of workplace discrimination or harassment in the past year because of their identity.³⁹ ESAM present both risks and opportunities for these workers. For example, ongoing surveillance could help ensure that workers seeking assistance to address harassment, including assault, receive rapid, responsive help. ESAM could also help employers find and respond to patterns of discrimination. However, ESAM could also create dangerous opportunities for harassment and stalking in the workplace unless there are proactive efforts to prevent such abuses. In the wrong hands, for example, ESAM could enable an abuser or harasser to track a victim's every move, increasing the risk of workplace stalking, which includes “[m]onitoring and/or surveilling the victim while at work; [t]racking software on work devices, [and m]onitoring workplace communications for information about the victim.”⁴⁰ The negative impacts of work-related stalking are far-reaching; they include diminished performance, work disruptions, violence at the workplace, and losing both one's job and sense of safety altogether.⁴¹

Further discussion regarding the multiple ways in which ESAM and algorithmic tools may create a potential for discrimination for protected groups and otherwise harm workers is available in comments submitted to the OSTP in June 2023.⁴²

II. Recommendations

DOL must consider policies, best practices, guidance, and other actions that not only combat discrimination and harmful workplace practices resulting from AI, but also improve opportunities and job quality, in particular for protected workers, such as women, people of color, disabled workers and LGBTQI+ workers.

a. Recommendations for principles and best practices for employers and for guidance for federal contractors

i. DOL should adopt as “principles and best practices” and include in their guidance for federal contractors the principles and standards from the Civil Rights Principles for Hiring Assessment Technologies

³⁸ *Id.*; see also FATIMA GOSS GRAVES ET AL., NWLC, REALITY CHECK: SEVENTEEN MILLION REASONS LOW-WAGE WORKERS NEED STRONG PROTECTIONS FROM HARASSMENT 3 (2014), https://nwlc.org/wp-content/uploads/2015/08/final_nwlc_vancereport2014.pdf.

³⁹ CAROLINE MEDINA & LINDSAY MAHOWALD, CENTER FOR AMERICAN PROGRESS, DISCRIMINATION AND BARRIERS TO WELL-BEING (2022), <https://www.americanprogress.org/article/discrimination-and-barriers-to-well-being-the-state-of-the-lgbtqi-community-in-2022/>.

⁴⁰ THE STALKING PREVENTION, AWARENESS, AND RESOURCE CENTER ET AL., STALKING AND THE WORKPLACE: FACT SHEET 1–2 (2023), <https://www.stalkingawareness.org/wp-content/uploads/2023/01/SPARC-FUTURES-Workplace-Stalking-Fact-Sheet.pdf> (“Stalking is a pattern of behavior directed at a specific person that would cause a reasonable person to feel fear or suffer emotional distress.”).

⁴¹ Liz Chacko et al., *Workplace Harassment Is Still Harassment Even When It Takes Place Outside of the Office Door*, NATIONAL WOMEN'S LAW CENTER BLOG (Jun. 23, 2023), <https://nwlc.org/workplace-harassment-is-still-harassment-even-when-it-takes-place-outside-of-the-office-door-nwlc-moves-to-file-amicus-brief-in-washington-state-court-of-appeals/>.

⁴² See *supra* note 1.

and the Civil Rights Standards for 21st Century Employment Selection Procedures

In July 2020, a group of organizations, including NWLC and ACLU, developed and signed on to a statement of Civil Rights Principles for Hiring Assessment Technologies (“Civil Rights Principles”).⁴³ This set of principles seeks to “guide the development, use, auditing, and oversight of hiring assessment technologies, with the goals of preventing discrimination and advancing equity in hiring.”⁴⁴ The Civil Rights Principles are organized into five categories: nondiscrimination, job-relatedness, notice and explanation, auditing, and oversight and accountability. The nondiscrimination principle reinforces that hiring technologies should not discriminate under existing laws based on protected characteristics such as sex, race, disability, and more. The requirement regarding job relatedness emphasizes that hiring assessments should measure traits and skills that are key to job performance, rather than finding traits based on statistical correlations. The notice and explanation category details that applicants should be meaningfully notified about how they will be assessed in hiring, so they can seek redress under existing laws or request accommodations. The Civil Rights Principles also propose that hiring assessments should be fully and regularly audited for both job-relatedness and discrimination before and during the use of assessments. Finally, the Civil Rights Principles call for oversight and accountability to enable meaningful enforcement of civil rights protections.

The Civil Rights Principles are key to ensuring that AI does not facilitate or otherwise result in a discriminatory impact on women, workers of color, people with disabilities, or other protected workers. While these principles were developed for hiring assessment technologies, they likewise apply to other ADS and ESAM that are used in the workplace. We therefore strongly recommend that DOL incorporate the Civil Rights Principles into its principles and best practices for employers and into their guidance for federal contractors to mitigate AI’s potential harms.

In 2022, CDT published the Civil Rights Standards for 21st Century Employment Selection Procedures (“Civil Rights Standards”), which were created by CDT, NWLC, ACLU, Leadership Conference on Civil and Human Rights, Upturn, and others.⁴⁵ The Civil Rights Standards provide concrete steps to implement and expand on the Civil Rights Principles, and are intended to cover all workers as well as all employers and employment agencies, which are defined to include developers and vendors of selection procedures. The Civil Rights Standards generally rely on the Uniform Guidelines on Employee Selection Procedures (UGESP) definition of “employment decision” but also include decisions that impact selection of workers for recruitment or advertising and decisions setting terms or conditions of employment. The Civil Rights Standards include pre-deployment audits; short-form disclosures; procedures to request accommodations, communicate concerns, or opt out; right to an explanation for adverse actions; ongoing audits and adjustments; audit summaries; recordkeeping; enforcement, remedies and liability; and enforcement agency authority and responsibilities.⁴⁶ The Civil Rights Standards

⁴³ THE LEADERSHIP CONFERENCE EDUCATION FUND, CIVIL RIGHTS PRINCIPLES FOR HIRING ASSESSMENT TECHNOLOGIES (2020), https://civilrightsdocs.info/pdf/policy/letters/2020/Hiring_Principles_FINAL_7.29.20.pdf.

⁴⁴ *Id.* at 1.

⁴⁵ CENTER FOR DEMOCRACY & TECHNOLOGY ET AL., CIVIL RIGHTS STANDARDS FOR 21ST CENTURY EMPLOYMENT SELECTION PROCEDURES (2022), <https://cdt.org/wp-content/uploads/2022/12/updated-2022-12-05-Civil-Rights-Standards-for-21st-Century-Employment-Selection-Procedures.pdf>.

⁴⁶ *Id.* Given the severe information disadvantage that workers experience regarding employers’ use of AI in the workplace, DOL’s best policies and practices should include detailed suggestions regarding employers’ disclosure

also call for prohibition of “certain selection procedures that create an especially high risk of discrimination. These include procedures that rely on analyzing candidates’ facial features or movements, body language, emotional state, affect, personality, tone of voice, pace of speech, and other methods as determined by the enforcement agency.”⁴⁷

The Civil Rights Standards provide a concrete, detailed road map for civil rights-focused guardrails for ADS, many of which will also be applicable to ESAM in the workplace. We urge DOL to incorporate the Civil Rights Standards into its principles and best practices for employers and into their guidance for federal contractors.

We also urge DOL to consider the principles provided in the UC Berkeley Labor Center’s Report, “Data and Algorithms at Work: The Case for Worker Technology Rights.”⁴⁸ This report identifies nine principles that provide a framework for addressing worker rights in the context of workplace technology. The authors describe this framework as “principles that give workers rights with respect to their data; hold employers responsible for any harms caused by their systems; regulate how employers use algorithms and electronic monitoring; ensure the right to organize around technology; guard against discrimination; and establish a strong enforcement regime.”⁴⁹

In issuing principles and best practices to employers and guidance to federal contractors, DOL must also make clear to employers their ongoing legal obligations and other implications of using AI in the workplace, even if they are relying on vendors or other outside companies for their recruitment, management, supervision, and other decisions.

ii. DOL’s “policies and best practices” should recommend that employers and vendors include members of protected groups in the development and testing of ADS and ESAM

DOL should use its platforms to encourage vendors and employers to include members of protected and otherwise marginalized groups from a variety of occupations in the ethical design, testing, and validation of modern selection procedures and ESAM. Ensuring an ethical and inclusive design, testing, and validation process is one potentially effective way to identify possible sources of disparate impact, inaccessibility, or other forms of discrimination, as well as other workplace violations, before they have the chance to affect real-world employment decisions and experiences.

b. Broader recommendations to further the principle that AI should not be deployed in ways that undermine workplace rights.

In addition to the recommendations we have provided that are directly responsive to DOL’s responsibilities under EO 14110, we are also providing additional recommendations that we believe are within DOL’s responsibility to address the harmful and discriminatory impacts of AI on workers. As the EO section on Policies and Principles notes, the “responsible development

of workplace AI to workers. Please see the recommendation for Worker Know Your Rights material for more detail. *Infra* Section II.c.iii.

⁴⁷ *Id.* at 8.

⁴⁸ BERNHARDT, *supra* note 7.

⁴⁹ *Id.* at 19.

and use of AI require a commitment to supporting American workers... [and] AI should not be deployed [in the workplace] in ways that undermine rights, worsen job quality, encourage undue worker surveillance, lessen market competition, introduce new health and safety risks, or cause harmful labor-force disruptions.”⁵⁰ Given the rapid developments in technology and the new realities that workers face in the recruitment and hiring process as well as in the workplace, DOL must update its guidance and regulations to address the impact of AI on workers. Below we have outlined some short and long term recommendations for DOL.

i. DOL, DOJ and EEOC should update the UGESP

The UGESP play a vital role in assessing the fairness and validity of hiring criteria and procedures used by employers—including federal contractors—to ensure that they do not have a disparate impact on women, people of color, and other protected groups.⁵¹ Unfortunately, the UGESP has not been updated in many years and does not address more recent laws, legal developments, or societal/technological developments, such as the role of AI in screening and recruiting workers. Given these many developments and the ways in which technology is influencing screening, recruitment, and hiring, DOL and the other federal agencies should begin to move forward in updating the UGESP.

ii. DOL should update the Internet Applicant Rule to apply to all applicants screened or evaluated by hiring technologies

The Office of Federal Contractor Compliance Program’s Internet Applicant Rule (IAR) is key to determining when an individual becomes an “applicant” for a job for purposes of recordkeeping and compliance with civil rights protections.⁵² The IAR must be updated to clarify that covered employers must collect data on people screened or evaluated for targeted job advertisements and other “passive” candidate screening techniques.

As discussed above, employers use a variety of algorithmic tools, including targeted advertisements, to solicit applications for employment and screen potential applicants, which, unfortunately, can replicate existing patterns of occupational inequities and segregation. Currently, employers are not required to collect data on all people who are evaluated using such screening techniques, and there is insufficient guidance on when techniques that decide which potential candidates learn of job opportunities, or that otherwise pre-screen workers who have not formally applied for a job, qualify as actionable employment decisions. For example, the IAR, which applies to federal contractors’ recordkeeping obligations, considers candidates to be applicants only if they have affirmatively expressed an interest in a position—an overly narrow interpretation in light of the increasing role that targeted advertisements and other “passive candidate” screening techniques play in determining which workers are selected for employment. This concern was identified in the Blueprint for an AI Bill of Rights, which notes that “[a]dvertisement delivery systems that predict who is most likely to click on a job advertisement end up delivering ads in ways that reinforce racial and gender stereotypes.”⁵³

⁵⁰ *Supra* note 1, at § 2(c).

⁵¹ See Uniform Guidelines on Employee Selection Procedures, Title VII, 29 CFR Part 1607.

⁵² See Obligations of Contractors and Subcontractors, 41 CFR 60-1.3 Definitions, “Internet Applicant” (2024).

⁵³ White House Office of Sci. & Tech. Pol’y, Blueprint for an AI Bill of Rights, <https://www.whitehouse.gov/wp-content/uploads/2022/10/Blueprint-for-an-AI-Bill-of-Rights.pdf>.

The DOL should work with EEOC and other relevant agencies to update the IAR to require covered employers to collect data on all people who are evaluated by candidate screening techniques, regardless of whether they have taken steps to obtain a position, and otherwise harmonize relevant federal rules and regulations.

iii. Worker Know Your Rights Materials: Agencies should issue educational materials for workers regarding ADS and ESAM

Workers are at a severe information disadvantage when it comes to employers' use of algorithmic tools such as ADS and ESAM. Current laws do not explicitly require employers to disclose when they are using these technologies, much less the specific types of technologies they are using and how those technologies may affect workers. However, employers who fail to communicate about the use and results of ADS and ESAM may run afoul of existing civil rights, labor, and employment laws. ESAM and ADS can implicate rights under the FLSA, the ADA, the PWFA, the PUMP Act, WIOA, EO 11246, Title VII, and more. For example, workers who do not have sufficient notice of technology being used in the workplace may not have the opportunity to raise concerns, access protections, and request either an accommodation or an alternative form of assessment that tests the worker's ability to perform the relevant essential job functions.

While notice and disclosure are an important piece of the best practices and policies that we propose to DOL for employers, this recommendation focuses on the role that DOL and other agencies can play to ensure that workers understand their basic legal rights regarding ADS and ESAM in the hiring and workplace experience. To help ensure that workers can seek access and assert their legal protections, the DOL, EEOC and other agencies should issue worker-facing "know your rights" fact sheets and other guidance to better inform workers of how the use of new workplace technologies may affect their legal rights. The agencies should work with labor unions and worker rights organizations to inform the development of these resources. Such materials should include information about:

- A basic overview and introduction to AI in the workplace, including the kinds of ADS and ESAM typically used in the workplace and how their use may impact workers, job seekers, and applicants;
- When workers can ask for reasonable accommodations in relation to employers' use of ADS or ESAM in the workplace that affect the terms and conditions of employment;
- What the privacy implications of such ADS and ESAM may be, including possible surveillance and worker personal data, such as health data; and
- What rights workers have, including when applicants and workers have a right to know that employers are using ADS and ESAM; when workers can ask for reasonable accommodations in relation to employers' use of ADS or ESAM in the workplace that affect the terms and conditions of employment; when workers have the right to dispute incorrect information; and when workers can ask employers for justification of their use of ADS or ESAM to make decisions affecting the terms and conditions of employment.

iv. DOL should promote opportunities to better understand the impact of ADS, ESAM and other technologies on workers.

The administration must conduct research and commission studies to better understand and address the impacts of ADS, ESAM, and other technology on workers, with a focus on the rights and experiences of protected groups. Research must encompass how these technologies may facilitate or obfuscate workplace discrimination and impact earnings, workplace discipline and promotions, working conditions, workplace injuries and fatalities, scheduling, and physical and mental health. Research should also examine the impact of ESAM on workers' ability to associate and engage in collective bargaining as well as on the experience of platform workers and independent contractors. In addition to examining potential harms, research also should identify ways in which ESAM and ADS can protect workers' rights while preserving worker autonomy and privacy, such as by using artificial intelligence to detect or prevent workplace discrimination and harassment, wage theft, and workplace safety. In planning and conducting such research, DOL should consider partnering with agencies such as the EEOC. Research should include findings disaggregated by demographic characteristics, including income, sex, gender identity, race, and other protected categories.

In addition to research, DOL, in conjunction with the EEOC, should hold hearings, listening sessions, panel discussions, workshops, and other forms of convenings to better understand the impact of AI and technology on workers. These events should include impacted workers, civil society organizations, employers, vendors, and other interested stakeholders. In addition to understanding the impact on workers' access to jobs and workplace experience, these events can also be used to explore technology to support workers, both in their current jobs as well as in considering possible training needed to reskill workers who may be vulnerable to job loss.

v. DOL should prioritize enforcement on violations involving ADS, ESAM and related technologies

Given the many potential harms that workers may face because of employers' use of ADS, ESAM, and other technologies in the workplace, the lack of transparency regarding technologies being used in the workplace, and the difficulty many workers may have identifying potential violations because of AI, DOL should prioritize enforcement in cases involving ADS, ESAM, and other technologies. DOL should put into place comprehensive, proactive, and systemic strategies to identify and enforce potential violations, particularly in industries where use of ADS and ESAM is widespread and where marginalized populations represent the majority of the workforce. DOL also should ensure that its staff has the necessary expertise in ADS and ESAM to prioritize and conduct investigations, conduct meaningful compliance reviews, and enforce relevant protections.

vi. DOL should dedicate funding for programs that create pathways to good jobs for workers at greater risk of displacement by AI

Women, Black workers, and workers with disabilities already face wage gaps, occupational segregation, and a host of other harmful workplace practices, including a greater likelihood of experiencing harm and disparate impact from the use of ADS and ESAM in the workplace. Of serious concern, women and Black workers also are most likely to experience displacement as a result of the impact of AI on the workforce.⁵⁴ DOL should view the increasing presence of AI in

⁵⁴ This anticipated skewed impact on women is based on an analysis of which jobs may be most impacted by AI developments. The majority of positions that may experience job loss or shifts in responsibilities, such as

the workforce as an opportunity to address the barriers and harms facing these groups by improving workplace supports and training for better access to good jobs. DOL should seek and dedicate funding to develop programs targeted at women, Black workers, and other vulnerable populations to ensure that they develop skills to move into good jobs that provide living wages and benefits such as health insurance and paid leave.

III. Conclusion

Thank you for the opportunity to share these recommendations regarding steps that the DOL should take to ensure that AI is deployed in a manner that supports workers and mitigates discrimination resulting from ADS and ESAM in the workplace. We look forward to continued engagement on these issues. If you have any questions, please do not hesitate to contact Adrienne DerVartanian, Senior Counsel for Workplace Justice at NWLC (adervartanian@nwlc.org) or Olga Akselrod, Senior Staff Attorney at ACLU's Racial Justice Program (oakselrod@aclu.org).

Sincerely,

National Women's Law Center
American Civil Liberties Union

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administrative roles, customer service and food services, are disproportionately held by women and Black workers due to occupational segregation, and thus AI threatens to further widen the enormous wealth gap between Black and white households. *See, e.g.,* Darrell M. West, Commentary, *AI Poses Disproportionate Risks to Women*, BROOKINGS INSTITUTION (Nov. 20, 2023), <https://www.brookings.edu/articles/ai-poses-disproportionate-risks-to-women/>; Jan Shelly Brown et al., *The Impact of Generative AI on Black Communities*, MCKINSEY INSTITUTE FOR BLACK ECONOMIC MOBILITY (Dec. 19, 2023), <https://www.mckinsey.com/bem/our-insights/the-impact-of-generative-ai-on-black-communities> (noting that “some 24 percent of all Black workers are in occupations with greater than 75 percent automation potential, compared with just 20 percent of White workers”); KWEILIN ELLINGURD ET AL., MCKINSEY GLOBAL INSTITUTE, *GENERATIVE AI AND THE FUTURE OF WORK IN AMERICA* (2023), <https://www.mckinsey.com/mgi/our-research/generative-ai-and-the-future-of-work-in-america#/> (noting that “women are 1.5 times more likely to need to move into new occupations than men.”).