



1350 I STREET NW  
SUITE 700  
WASHINGTON, DC 20005  
202-588-5180  
NWLC.ORG

June 29, 2023

White House, Office of Science and Technology Policy  
Executive Office of the President  
Attn: Alan Mislove, Assistant Director for Data and Democracy  
Eisenhower Executive Office Building  
1650 Pennsylvania Avenue  
Washington, D.C. 20504

*Submitted via regulations.gov*

**Re: Comments on Automated Worker Surveillance and Management,  
OSTP\_FRDOC\_0001-0008**

Dear Mr. Mislove:

The National Women's Law Center (NWLC) submits this letter in response to the Request for Information (RFI) by the White House Office of Science and Technology Policy (OSTP) regarding the impact of automated surveillance and management in the workplace on workers' rights, opportunities, health, and safety.<sup>1</sup> The National Women's Law Center 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. We applaud OSTP for recognizing the increasing prevalence of automated surveillance and management in the workplace and its potential to cause myriad harms to workers.

We write specifically to raise the ways in which working women, especially women of color and low-paid women, may be negatively impacted by the use of electronic surveillance and automated management (ESAM) systems in the workplace that threaten to exacerbate discrimination, lead to violations of employment and labor laws, and reduce job quality—and quality of life—for workers. ESAM tools may have outsized negative effects on women, people of color, and low-paid workers because of structural inequities in the workforce and society. Women, people of color, and low-paid workers tend to be disproportionately represented in industries in which potentially problematic use of ESAM may be likely, such as caregiving,

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<sup>1</sup> Request for Information: Extension of Comment Deadline Automated Worker Surveillance and Management, 88 FR 39870, Doc. No. 2023-12995, June 20, 2023; Request for Information: Automated Worker Surveillance and Management, 88 FR 27932, Doc. No. 2023-09353, May 3, 2023.

hospitality, warehouses and call centers.<sup>2</sup> Moreover, women—especially Black, Latina, and Native women, women with disabilities, and immigrant women—and LGBTQI+ individuals have also long been disproportionately likely to experience poverty and hardship.<sup>3</sup> Workers living from paycheck to paycheck may feel constrained seeking to enforce workplace protections given the very real fears of retaliation.<sup>4</sup> And many women and people of color lack union representation<sup>5</sup> and/or work in the industries where corporate misclassification is rampant,<sup>6</sup> further compounding the potentially harmful impacts of ESAM. Given these considerations, OSTP should ensure that employers relying on ESAM understand the impact of these systems on their workforce as well as their continuing legal obligations under anti-discrimination and employment law.

We offer a series of recommendations for the Administration to consider as it works to prevent and address these impacts, especially as a growing number of companies are using ESAM to hire and monitor their workforce.<sup>5</sup>

## **I. ESAM and Discrimination in the Workplace**

As discussed above, women, people of color, and low-paid workers may be particularly susceptible to potential harm from ESAM. ESAM tools may exacerbate existing patterns of discrimination and increase the risk of additional discrimination.<sup>6</sup> On top of these challenges,

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<sup>2</sup> See, e.g., Annette Bernhardt, Lisa Kresge and Reem Suleiman, *Data and Algorithms at Work: The Case for Worker Technology Rights*, UC Berkeley Labor Center, 15 (Nov. 2021), <https://laborcenter.berkeley.edu/data-algorithms-at-work/> (“But importantly, women and workers of color may 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, *Workplace surveillance is becoming the new normal for U.S. workers*, Equitable Growth Report, (Aug. 18, 2021). See also Tanya Goldman, *What the Blueprint for an AI Bill of Rights Means for Workers*, DOL (Oct. 4, 2022), [What the Blueprint for an AI Bill of Rights Means for Workers | U.S. Department of Labor Blog \(dol.gov\)](https://www.dol.gov/eop/whats-new/what-the-blueprint-for-an-ai-bill-of-rights-means-for-workers); Aiha Nguyen, *The Constant Boss: Work Under Digital Surveillance*, Data & Society, (May 2021), [https://datasociety.net/wp-content/uploads/2021/05/The\\_Constant\\_Boss.pdf](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 Gutelius and Theodore, *The Future of Warehouse Work*; Kyle Boyd, *The Color of Help*, Center for American Progress (June 17, 2011)).

<sup>3</sup> Jasmine Tucker, Sarah Hassmer, Amy Matsui, Melissa Boteach, and Cara Claflin, *BY THE NUMBERS: Data on Key Programs for the Well-Being of Women & Their Families*, National Women’s Law Center (June 2021).

<sup>4</sup> Research reveals that few people report the harassment they face, and those who do report too often face retaliation in the form of lost opportunities or outright firing. See Donald T. Tomaskovic-Devey et al., *63% of Workers Who File an EEOC Discrimination Complaint Lose Their Jobs*, The Conversation (Jul. 13, 2021), <https://theconversation.com/63-of-workers-who-file-aneecodiscrimination-complaint-lose-their-jobs-163048>.

<sup>5</sup> While there are no comprehensive, validated data indicating precisely how many companies are using these technologies – and companies are generally not required to report or disclose their use – one study estimated that 60% of large employers were using tools to track their workers, with the number expected to rise. Jordan Turner, *The Right Way to Monitor Your Employee Productivity*, Gartner (June 9, 2022), <https://www.gartner.com/en/articles/the-right-way-to-monitor-your-employee-productivity>.

<sup>6</sup> In the hiring context, we have already seen how AI algorithms can replicate bias and discrimination, including by relying on proxies for protected classes to make employment-related decisions. Jeffrey Dastin, *Amazon Scraps Secret AI Recruiting Tool That Showed Bias Against Women*, REUTERS (Oct. 9, 2018), <https://www.reuters.com/article/us-amazon-com-jobs-automation-insight/amazon-scraps-secret-ai-recruiting-tool-that-showed-bias-against-women-idUSKCN1MK08G>.

ESAM often lacks transparency, with workers not knowing what data is being collected and how it is being used, creating a very real possibility that any incorporated biases and discriminatory impacts will be difficult to identify, review, or challenge.

Below we identify several ways in which ESAM may create a potential for discrimination for protected groups.

### **Productivity standards**

One common use of ESAM is to impose production quotas, which are designed to maximize productivity and may result in an increased pace of work, discouraging and even penalizing workers from taking breaks or downtime. Because of the often relentless pace of productivity standards, they may operate in a way that fails to accommodate protected workers.

One group of protected workers who may face potential discrimination in the face of ESAM's productivity standards are pregnant and lactating workers, some of whom may need more frequent breaks, rest time, or other reasonable accommodations than may be permitted under the productivity standard. 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.<sup>7</sup> Amazon, for example, has faced lawsuits from multiple pregnant women alleging discrimination<sup>8</sup> and is notorious for its “proprietary productivity metric.”<sup>9</sup> The Pregnant Workers Fairness Act<sup>10</sup> and the PUMP for Nursing Mothers Act,<sup>11</sup> which is built on the Break Time for Nursing Mothers Act, provide new protections for these 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 the concerns many workers may have regarding retaliation.

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.<sup>12</sup> 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

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<sup>7</sup> 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 ABA J. Labor & 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](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).

<sup>8</sup> 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/>.

<sup>9</sup> See Colin Lecher, *How Amazon Automatically Tracks and Fires Warehouse Workers for “Productivity*, The Verge (Apr. 25, 2019).

<sup>10</sup> Consolidated Appropriations Act, 2023, Pub. L. No. 117-328, 136 Stat. 4459 (2022).

<sup>11</sup> *Id.*

<sup>12</sup> Morgan Harwood and Sarah David Heydemann, *By The Numbers: Where do Pregnant Women Work?*, National Women's Law Center (June 2021), [Pregnant-Workers-by-the-Numbers-v3-1.pdf \(nwlc.org\)](https://www.nwlc.org/publications/by-the-numbers-where-do-pregnant-women-work/). Over one in five pregnant workers are employed in low-wage jobs, which are particularly likely to be physically demanding.

at some point during pregnancy to continue to work safely.<sup>13</sup>

### **Data Collection**

The increased ability of ESAM to gather more extensive and personal data about workers—often without informed consent—could open the doors to increased discrimination in the workplace.<sup>14</sup> ESAM facilitates employers’ access to sensitive personal information, including health data, religious practices, family structure, race, gender, sexuality, and nationality/immigration status. For example, data collection on health can capture information about fertility, pregnancy, abortions, gender affirmation procedures 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 already face significant discrimination.<sup>15</sup> 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 abortions or obtain gender affirming care.

One example of such invasive and potentially discriminatory tools are workplace wellness apps, which could provide employers with data that leads to discrimination. While workplace wellness apps have been in use for years, the increasing development and prevalence of ESAM enable employers to gather even more potentially harmful data on their workers.<sup>16</sup> For example, a recent pregnancy-tracking app gathered information about menstruation, fertility and pregnancy, and, in at least one instance, the health data (in a “de-identified,” aggregated form”) was shared with employers.<sup>17</sup> Even in its “de-identified” form, the information shared with employers could provide individually identifiable findings if the workplace has few women of child-bearing age or few pregnant women, or if employers are able to piece together information from the broader sets of data they collect. It is concerning that employers are able to access and track such personal and private data, as it could lead to increased adverse employment actions against workers. For example, an employer could terminate or fail to promote an individual based on pregnancy before a worker even disclosed their status to their employer. With the opaque nature of ESAM and data collection, it could be extremely challenging for a worker facing such discrimination to recognize it or prove it.

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<sup>13</sup> *Id.* Lack of access to these important protections can result in significant harm to protected groups of workers, such as increased vulnerability of low-paid pregnant workers to health effects of physically demanding work, including preterm birth, low birth weight, miscarriage, and stillbirth.

<sup>14</sup> See Zickuhr, *supra* note 2.

<sup>15</sup> Giftis, Sprick, and Schweer, *BPC – Morning Consult: 1 in 5 Moms Experience Pregnancy Discrimination in the Workplace*, Results from National Tracking Poll, Bipartisan Policy Center (Feb. 4-6, 2022), *BPC – Morning Consult: 1 in 5 Moms Experience Pregnancy Discrimination in the Workplace* | Bipartisan Policy Center.

<sup>16</sup> Bernhardt, Kresge and Suleiman, *supra* note 2, at 4.

<sup>17</sup> Drew Harwell, *Is your pregnancy app sharing your intimate data with your boss?*, The Washington Post (Apr. 10, 2019), <https://www.washingtonpost.com/technology/2019/04/10/tracking-your-pregnancy-an-app-may-be-more-public-than-you-think/?arc404=true>. The pregnancy-tracking app Ovia lets women record their most sensitive data for themselves — and their boss.

## Emotion Recognition

Another troubling category of ESAM consists of so-called “emotion recognition” technologies, which can exacerbate discrimination in the workplace.<sup>18</sup> Research indicates that these systems are both less accurate<sup>19</sup> and more likely to assign negative emotional states when analyzing women and people of color.<sup>20</sup> Such tools also may internalize and repeat existing discriminatory stereotypes about how women “should” act or speak and may represent an automated form of the “tone policing” that occurs with women of color, and Black women in particular. Thus, these systems are likely to have outsized negative effects on women, people of color, LGBTQI+ persons, disabled workers, and other historically underrepresented and marginalized groups and could lead to discrimination based on gender, race, disability and national origin. When used as a tool to measure performance, for example, inaccurate assessments for protected workers could result in discriminatory employment decisions and actions, such as lack of access to bonuses, discipline of or failure to promote affected workers, as well as increased burdens to comply with work requirements. As an example, call centers, where women represent the majority of workers,<sup>21</sup> may use emotion recognition to monitor their workforce, resulting in confusing, misleading and harmful negative feedback.<sup>22</sup> In response to such monitoring, Communications Workers of America has negotiated protections for call-center workers with respect to monitoring technology.<sup>23</sup>

## Online Reviews

ESAM can also lead to discrimination when platform companies rely on online reviews to evaluate, promote and even remove workers from their platforms.<sup>24</sup> Multiple studies have found evidence of racial and gender bias in online reviews, with users giving lower and/or fewer ratings to Black workers and women than to white workers and men.<sup>25</sup> The growth of online platforms and their continued reliance on online reviews both to make workplace decisions and as part of workers’ profiles could exacerbate workplace discrimination. Of particular concern is the failure of such platforms to ensure a mechanism to correct for customer gender and racial bias.<sup>26</sup>

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<sup>18</sup> See Zickuhr, *supra* note 2, at 15 (citing Ruha Benjamin, *Race After Technology: Abolitionist Tools for the New Jim Code* (Cambridge, UK: Polity Press, 2019)); Lauren Rhue, *Racial Influence on Automated Perceptions of Emotions*, SSRN (2018), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3281765](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3281765).

<sup>19</sup> See Joan Palmiter Bajorek, *Voice Recognition Still Has Significant Race and Gender Biases*, Harvard Business Review (May 10, 2019), [Voice Recognition Still Has Significant Race and Gender Biases \(hbr.org\)](https://hbr.org/voice-recognition-still-has-significant-race-and-gender-biases).

<sup>20</sup> See Zickuhr, *supra* note 2, at 15; Lauren Rhue, *Racial Influence on Automated Perceptions of Emotions*, SSRN (2018), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3281765](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3281765).

<sup>21</sup> See *Women speak out about gender-based harassment in call centers*, Coworker.org (Apr. 20, 2018), <https://home.coworker.org/resources/women-speak-out-about-gender-based-harassment-in-call-centers/>.

<sup>22</sup> Yang, *supra* note 7, at 235-236.

<sup>23</sup> *Id.* (citing Commc’ns Workers of Am. Res. Dep’t, CWA Issue Brief: Protections Against Abusive Monitoring (2014), [https://files.cwa-union.org/national/Customerservice/Protections-Against-Abusive-Monitoring\\_CWA-Issue-Brief.pdf](https://files.cwa-union.org/national/Customerservice/Protections-Against-Abusive-Monitoring_CWA-Issue-Brief.pdf))

<sup>24</sup> See, e.g., *id.*

<sup>25</sup> *Id.*

<sup>26</sup> See, e.g., Kati Sipp, *Ratings in the Gig Economy Are a Mess. Here's How to Fix Them*, Wired (Dec. 27, 2017), *The Gig Economy’s Rating System Is a Mess. Here's How to Fix It. | WIRED*. There is a line of Title VII cases finding that customer bias is not a permissible rationale for employer bias. See, e.g., *EEOC v. Treatment Centers, LLC d/b/a*

## Sexual Harassment, Assault and Stalking

Another significant challenge for women, LGBTQI+ people, and workers of color is workplace harassment and assault. ESAM presents both risks and opportunities for workers with respect to this potential workplace discrimination. For example, ongoing surveillance could help ensure that workers seeking assistance to address harassment or assault could receive rapid, responsive help or could help employers find and respond to patterns of discrimination. However, ESAM also could create dangerous opportunities for harassment and stalking in the workplace unless there are intentional 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, greatly increasing 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.”<sup>27</sup> Millions of people are stalked every year in the United States--of the roughly 42% stalking victims who are stalked by an acquaintance, about one-fourth of those are professional acquaintances.<sup>28</sup> 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.<sup>29</sup>

## II. ESAM and Job Quality

As discussed above, women and people of color are disproportionately represented in industries that may utilize ESAM, and many of these jobs are considered precarious work—including part-time, temporary, and contract work.<sup>30</sup> Low-paid, part-time, and contract workers are less likely than workers in traditional, full-time employment to have jobs with stable schedules, predictable incomes, or benefits. Unfortunately, ESAM is being used in ways that can magnify these problems and create other job quality challenges, such as invasive surveillance. Below are a few examples of how ESAM can harm work quality for many women and workers of color.

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*Lexington Treatment Assocs.*, Civil Action No.1:19-cv-00933 (M.D.N.C. Sep. 12, 2019); *Chaney v. Plainfield Healthcare Center*, 612 F.3d 908 (7th Cir. 2010) (“the racial preference policy violates Title VII by creating a hostile work environment”).

<sup>27</sup> “Stalking is a pattern of behavior directed at a specific person that would cause a reasonable person to feel fear or suffer emotional distress.” Stalking Prevention, Awareness, and Resource Center, *Workplaces Respond to Domestic & Sexual Violence*, and FUTURES Without Violence, *Stalking and the Workplace: Fact Sheet* (Jan. 2023)

[Workplace Stalking Fact Sheet \(stalkingawareness.org\)](https://stalkingawareness.org/).

<sup>28</sup> *Id.*

<sup>29</sup> See Liz Chacko, Elizabeth Vogel, and Sunu Chandy, *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*, National Women's Law Center (June 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/>.

<sup>30</sup> Women, especially women of color, are significantly more likely than men to work in the lowest-paying jobs and in part-time jobs. *Letter to Committee on Education and Labor on the Future of Work*, National Women's Law Center (June 15, 2020), <https://nwlc.org/wp-content/uploads/2020/09/NWLC-Letter-to-Ed-Labor-future-of-work-6.15.20-final.pdf>; Jasmine Tucker & Julie Vogtman, *When Hard Work Is Not Enough: Women in Low-Paid Jobs*, NAT'L WOMEN'S LAW CTR (April 2020), <https://nwlc.org/resources/when-hard-work-is-not-enough-women-in-low-paid-jobs/>. Claire Ewing-Nelson, *Part-Time Workers Are Paid Less, Have Less Access to Benefits – and Most Are Women*, NAT'L WOMEN'S LAW CTR. (February 2020), <https://nwlc.org/resources/part-time-workers-are-paid-less-have-lessaccess-to-benefits-and-most-are-women/>.

## Scheduling

Employers have increasingly used ESAM to set worker schedules in ways that can negatively impact worker autonomy and quality of life. ESAM causes significant disruption in workers' ability to anticipate their workweeks and plan accordingly because the use of scheduling algorithms often produces erratic schedules.<sup>31</sup> Workforce management systems use algorithms to base workers' schedules on perceived consumer demand and maximize flexibility for the employer at the expense of the employee. Unpredictable scheduling can be especially detrimental for women, who are often concentrated in the service sector jobs in which unpredictable hours are prevalent and still shoulder the majority of caregiving responsibilities in families. Women of color are especially likely to be breadwinners for their families, and also are more likely to experience scheduling instability than their white counterparts.<sup>32</sup> For mothers responsible for child care and checkups, for pregnant workers needing to attend multiple medical appointments, and for the many other responsibilities of life, control over scheduling is key to the ability to successfully manage work, personal and family responsibilities.<sup>33</sup> Predictability regarding earnings is also important to be able to budget for rent, food, child care and other child-related expenses, such as diapers. In addition, erratic work schedules can make it nearly impossible for workers to pursue further education or training while holding down a job. A worker's inability to access workforce training programs or education in turn makes it more difficult for them to move into higher-paying jobs, negatively impacting longer-term economic security.

## Productivity Standards

As discussed above, ESAM is often used to impose productivity standards, many times at unsustainable levels. In addition to the potential discriminatory impact already discussed, productivity standards may also lead to significant reductions in work quality and quality of life for many workers. The pace of work resulting from ESAM's productivity standards often results in musculoskeletal strain, an increased likelihood of accidents and workplace injuries, as well as mental health consequences.<sup>34</sup> The risk of physical injury arises from the increased pace of work, a decrease in breaks and other forms of downtime that protect workers' bodies from physical strain, and the physical manifestations of the mental health effects of ESAM.<sup>35</sup> Such harm includes the physical injuries that are the natural result of a punishing and often repetitive pace of work, as well as the inability to follow safety practices due to time constraints. The

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<sup>31</sup> See, e.g., Zickuhr, *supra* note 2, at 17.

<sup>32</sup> See, e.g., *NWLC Supports SB 5717, An Act Relating to Secure Scheduling*, Testimony, National Women's Law Center (Jan. 29, 2020), <https://nwlc.org/resource/testimony-in-support-of-fair-scheduling-in-washington/>.

<sup>33</sup> See, e.g., Samantha Fields, *Child care is a challenge for the many parents with unpredictable work hours*, Marketplace (June 12, 2023), <https://www.marketplace.org/2023/06/12/unpredictable-work-schedules-for-parents-make-child-care-a-huge-challenge/>.

<sup>34</sup> See, e.g., Matt Scherer, *Bossware May be Hazardous to Your Health*, Center for Democracy & Technology (July 29, 2021), <https://cdt.org/wp-content/uploads/2021/07/2021-07-29-Warning-Bossware-May-Be-Hazardous-To-Your-Health-Final.pdf>; Nguyen, *supra* note 2; Daniel A. Hanley & Sally Hubbard, *Eyes Everywhere: Amazon's Surveillance Infrastructure and Revitalizing Worker Power* 10, Open Markets Institute (Sept. 2020), [https://static1.squarespace.com/static/5e449c8c3ef68d752f3e70dc/t/5f4cfea23958d79eae1ab23/1598881772432/Amazon\\_Report\\_Final.pdf](https://static1.squarespace.com/static/5e449c8c3ef68d752f3e70dc/t/5f4cfea23958d79eae1ab23/1598881772432/Amazon_Report_Final.pdf).

<sup>35</sup> Scherer, *supra* note 34.

relentless pace of work and lack of downtime also lead to mental strain, depression and anxiety.<sup>36</sup> Because women and people of color are more likely to be working at worksites using such ESAM, they are also more likely to experience these risks to their health and safety.

### Surveillance of Caregivers

ESAM raises multiple privacy concerns that reduce the quality of work for paid caregivers, compounding the precarious working arrangements many already face.<sup>37</sup> In-home caregivers, the majority of whom are women, and disproportionately women of color or immigrants,<sup>38</sup> are often uniquely exposed to surveillance and public exposure. Many nannies, for example, work in homes with “nanny cams” that can record both their images and their voices.<sup>39</sup> In addition, new apps such as “stroller patrol” encourage bystanders to capture and post images of nannies engaged in perceived wrongdoing.<sup>40</sup> Such images can be shared widely, resulting in public shaming and reputational harm for nannies, who have limited opportunity to respond.<sup>41</sup> The increasing use of online marketplaces to seek employment further exposes nannies to public scrutiny, as they often feel pressured to share personal details, such as family status and photos, in order to improve their chances of employment.<sup>42</sup> Workers’ profiles also show ratings based on customer reviews and other metrics, and can influence workers’ chances of being hired. As discussed above, customer ratings may reflect societal discrimination against people of color, yet the systems do not provide a way to correct for these biases. Care workers have also noted that while employers are able to review workers, there is no opportunity for workers to provide feedback on employers, including to flag sexual harassment, wage theft or other workplace violations.<sup>43</sup>

Another example of potentially invasive and harmful ESAM affecting paid caregivers is 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.<sup>44</sup> The EVV systems vary from state to state, with some systems that are overly invasive and

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<sup>36</sup> *Id.*; Nguyen, *supra* note 2.

<sup>37</sup> Zickuhr, *supra* note 2, at 14.

<sup>38</sup> 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. 22, 2022), <https://cdt.org/insights/evv-threatens-disabled-peoples-privacy-and-dignity-whether-we-need-care-or-work-as-professional-caregivers>.

<sup>39</sup> *See, e.g.*, Adam Santucci, McNees Wallace & Nurick LLC, *Nanny Cams & Workplace Privacy: PA Supreme Court Provides Clarity on Domestic Employees’ Expectation of Privacy*, JD Supra (Apr. 7, 2021), <https://www.jdsupra.com/legalnews/nanny-cams-workplace-privacy-pa-supreme-6467973/>.

<sup>40</sup> Jane Ridley, *Controversial nanny-spying app lets ‘paranoid’ parents track their baby sitters*, NY Post (Dec. 11, 2019), <https://nypost.com/2019/12/11/controversial-nanny-spying-app-lets-paranoid-parents-track-their-baby-sitters/>.

<sup>41</sup> Jane Ridley, *‘Nanny shaming’ sparks uproar with baby sitters, mommy groups*, NY Post (Sept. 19, 2019), <https://nypost.com/2019/09/18/nanny-shaming-sparks-uproar-with-baby-sitters-mommy-groups/>.

<sup>42</sup> *See, e.g.*, Alexandra Mateescu, *Nannies Already Felt Like They Were Under Constant Surveillance. The Internet Has Made It Even Worse*, Slate (Aug. 13, 2018), <https://slate.com/human-interest/2018/08/nannies-are-under-constant-surveillance-online-care-sites-are-making-it-worse.html>; Julia Ticona, Alexandra Mateescu, and Alex Rosenblat, *Beyond Disruption: How Tech Shapes Labor Across Domestic Work & Ridehailing*, Data & Society, 25-26 (June 2018), [https://datasociety.net/wp-content/uploads/2018/06/Data\\_Society\\_Beyond\\_Disruption\\_FINAL.pdf](https://datasociety.net/wp-content/uploads/2018/06/Data_Society_Beyond_Disruption_FINAL.pdf).

<sup>43</sup> *See, e.g.*, Bernhardt, Kresge and Suleiman, *supra* note 2, at 8; Ticona, Mateescu, and Rosenblat, *id.* at 28.

<sup>44</sup> Alexandra Mateescu, *Electronic Visit Verification: The Weight of Surveillance and the Fracturing of Care*, Data & Society (Nov. 2021), [https://datasociety.net/wp-content/uploads/2021/11/EVV\\_REPORT\\_11162021.pdf](https://datasociety.net/wp-content/uploads/2021/11/EVV_REPORT_11162021.pdf).



complicated, tracking workers' locations, attendance, and work duties, and often requiring workers to use handheld devices, wearables, or even biometric recognition systems.<sup>45</sup> Both patients and workers suffer from EVV workplace mandates that force caregiving into timed physical tasks with limited autonomy over caregiving that fail to allow for flexibility for individual circumstances.<sup>46</sup> On top of the autonomy and privacy implications, some of the EVV systems require workers to manage a demanding technology—time for which they may not be paid.<sup>47</sup> In Arkansas, for example, home care workers faced lost or delayed wages in addition to increased surveillance as a result of EVV.<sup>48</sup> Again, the burden of this surveillance is born disproportionately by women, as the majority of paid home care workers are women, and often women of color or immigrants.<sup>49</sup>

### III. ESAM and Employment and Labor Protections

Structural inequalities in the workplace exacerbate vulnerability to harm from ESAM, impacting workers access to union representation, increasing worker misclassification, and negatively impacting wages and working conditions. Workers may also face greater challenges enforcing their protections in the face of ESAM.

#### Barriers to Unionization

The potential impacts of ESAM on women's wages, working conditions and benefits are compounded in non-union workplaces where some companies are using ESAM to identify and disrupt workers' efforts to organize themselves and push back against harmful workplace practices.<sup>50</sup> Amazon, for example, has sought to hire analysts and purchase software that would allow it to monitor "labor organizing threats" and analyze data on unions.<sup>51</sup> Given that very few women in the workforce are union members—just 9.6% in 2022<sup>52</sup>—ESAM threatens to further impede women's ability to improve their wages and other benefits through union membership. Union membership has clear advantages for women workers, and particularly for Black and Latina women.<sup>53</sup> For example, women who are union members typically make \$205 more per

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<sup>45</sup> Bernhardt, Kresge and Suleiman, *supra* note 2, at 8; Brown, *supra* note 38.

<sup>46</sup> See, e.g., Mateescu, *supra* note 44.

<sup>47</sup> Virginia Eubanks and Alexandra Mateescu, 'We don't deserve this': new app places US caregivers under digital surveillance, *The Guardian* (July 28, 2021).

<sup>48</sup> *Id.*

<sup>49</sup> Brown, *supra* note 38.

<sup>50</sup> Annie Palmer, *How Amazon keeps a close eye on employee activism to head off unions*, CNBC (Oct. 24, 2020), <https://www.cnbc.com/2020/10/24/how-amazon-prevents-unions-by-surveilling-employee-activism.html>. NLRB General Counsel Abruzzo's October 2022 memorandum addresses the threat that electronic surveillance poses to workers' rights under the National Labor Relations Act (NLRA). Jennifer A. Abruzzo, *Memorandum GC 23-02, Electronic Monitoring and Algorithmic Management of Employees Interfering with the Exercise of Section 7 Rights*, National Labor Relations Board (Oct. 31, 2022).

<sup>51</sup> Palmer, *id.*

<sup>52</sup> DOL Bureau of Labor Statistics, *Economic News Release, Union Members Summary* (Jan. 19, 2023), <https://www.bls.gov/news.release/union2.t01.htm>. Table 1. Union affiliation of employed wage and salary workers by selected characteristics - 2022 A01 Results.

<sup>53</sup> See Amanda Fins, Sarah David Heydemann, Jasmine Tucker, *Unions Are Good for Women*, National Women's Law Center (July 2021), <https://nwlc.org/wp-content/uploads/2021/07/Union-Factsheet-9.8.21.pdf>.

week than women who are not union members;<sup>54</sup> and while the gender wage gap persists even when women are unionized, women in unions are consistently paid wages that are not just higher but also more equal to men's wages.<sup>55</sup> Moreover, union members are more likely than non-union members to have access to other benefits, such as health benefits and paid sick days.<sup>56</sup> And, of course, union membership enables members to enforce their rights through a grievance procedure, making it more likely that unionized workers will feel comfortable enforcing their rights in the face of ESAM-related legal violations or other harms.

### **Misclassification of Workers**

The intersection of ESAM and corporate misclassification further exacerbate the harms associated with each, and disproportionately impacts women and people of color, as they are overrepresented in the low-paid, labor-intensive industries in which misclassification is common, such as delivery services, janitorial services, transportation, and home care, as well as in app-dispatched work.<sup>57</sup> ESAM enables employers to closely control workers—for example, unilaterally setting fee rates, dictating when and how workers interact with customers—while imposing take-it-or-leave-it independent contractor agreements on their workforce.<sup>58</sup> Digital labor platform companies are emerging in sectors like retail<sup>59</sup> and food service,<sup>60</sup> in which the majority of the workforce historically has been engaged as payroll employees. In digital labor platform work, Black and Latinx workers are overrepresented by 45 percent—more than in traditional misclassification prone sectors.<sup>61</sup> All workers who are misclassified suffer from a lack of workplace protections, but women, people of color, and immigrants face unique barriers to economic security and disproportionately must accept low-paid, unsafe, and insecure working conditions.

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<sup>54</sup> *Id.* NWLC calculations using U.S. Department of Labor, Bureau of Labor Statistics, “Median weekly earnings of full-time wage and salary workers by union affiliation and selected characteristics, 2019-2020 annual averages,” Table 2 in *Union Members – 2020* (Washington, DC: Jan. 22, 2021), <https://www.bls.gov/news.release/union2.t02.htm>. Men union members make \$165 more in weekly earnings than men who are not unionized.

<sup>55</sup> Kayla Patrick and Sarah David Heydemann, *Union Membership is Critical for Equal Pay*, National Women's Law Center (Mar. 2018), <https://nwlc.org/resources/union-membership-critical-womens-wage-equality/>.

<sup>56</sup> Fins, Heydemann, and Tucker, *supra* note 53.

<sup>57</sup> *See, e.g.*, Sarah Leberstein, *Independent Contractor Misclassification Imposes Huge Costs on Workers and Federal and State Treasuries*, National Employment Law Project (June 2010) <https://www.faircontracting.org/wp-content/uploads/2012/09/IndependentContractorCosts.pdf#:~:text=Employers%20increasingly%20misclassify%20their%20employees%20as%20independent%20contractors%2C.federal%2C%20state%20and%20local%20tax%20withholding%20and%20revenues.>

<sup>58</sup> *See generally* Rebecca Smith & Sarah Leberstein, *Rights On Demand: Ensuring Workplace Standards and Worker Security in the On-Demand Economy*, National Employment Law Project (Sept. 2015), <https://s27147.pcdn.co/wp-content/uploads/Rights-On-DemandReport.pdf>.

<sup>59</sup> Josh Constone, *How Jyve Secretly Raised \$35M & Built a \$400M Retail Gig Economy*, TECHCRUNCH (Jan. 24, 2019), <https://techcrunch.com/2019/01/24/jyve-jobs/>.

<sup>60</sup> Richard Morgan, *Apps Have Turned Restaurant Work into a Gig-Economy Hustle. Here's How One Cook Chases a Paycheck*, The Washington Post (Feb. 25, 2020), [https://www.washingtonpost.com/lifestyle/food/apps-have-turned-restaurant-work-into-a-gig-economy-hustle-heres-how-one-cook-chases-a-paycheck/2020/02/24/1f02ee5c-54a8-11ea-9e47-59804be1dcfb\\_story.html](https://www.washingtonpost.com/lifestyle/food/apps-have-turned-restaurant-work-into-a-gig-economy-hustle-heres-how-one-cook-chases-a-paycheck/2020/02/24/1f02ee5c-54a8-11ea-9e47-59804be1dcfb_story.html).

<sup>61</sup> U.S. Dep't of Labor, Bureau of Labor Statistics, *Electronically Mediated Work: New Questions in the Contingent Worker Supplement*, Monthly Labor Review (Sept. 2018), <https://www.bls.gov/opub/mlr/2018/article/electronically-mediated-worknew-questions-in-thecontingent-worker-supplement.htm>.

Compensation for gig platform workers, which is often opaque and confusing, illustrates how ESAM can exacerbate barriers facing gig workers. A 2021 report by the Pew Research Center found that fewer than half of gig workers understood how the companies for which they work determine how much they get paid.<sup>62</sup> Some gig platform companies use ESAM in ways that increase this information asymmetry and result in lower and inconsistent earnings for workers, including gender pay gaps.<sup>63</sup> Companies may use data mining and ESAM to estimate and pay the lowest amount that the worker will accept to engage in desired behaviors.<sup>64</sup> Given the longstanding wage gap for women's pay, it is not hard to imagine that such a system could result in lower pay for women than men. Some gig-economy platforms exploit this ambiguity by combining low overall pay with volume and time-based incentives that maximize workers' time on the platform while minimizing workers' take-home pay.<sup>65</sup>

### **Lost compensation**

ESAM also has resulted in loss of earned compensation for some workers. ESAM tools that integrate timekeeping and payroll systems give employers the ability to automatically dock workers' pay for time spent away from the computer or time off task.<sup>66</sup> Protected workers who may need more frequent breaks, such as some women who are pregnant or breastfeeding, could be disproportionately impacted by such ESAM-driven practices.

### **Enforcement of workplace rights**

Intrinsic in the analysis of the impact of ESAM on workers' rights is the ability of workers to exercise and enforce their workplace rights. As discussed above, ESAM may be used by some employers to push workers to meet productivity standards that may limit their access to legally required breaks or accommodations, to monitor workers for potential "labor organizing threats," to dock workers' pay, to misclassify workers, and more.<sup>67</sup> The lack of transparency regarding ESAM in the workplace, the intimidation of workers through ongoing surveillance, and the increased challenges workers face discussing workplace protections and collective action without detection create multiple barriers to the ability of workers both to identify violations of their workplace rights and to enforce their rights.

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<sup>62</sup> Monica Anderson, *et al.*, *The State of Gig Work in 2021: How gig platform workers view their jobs*, Pew Research Center (Dec. 8, 2021), <https://www.pewresearch.org/internet/2021/12/08/how-gig-platform-workers-view-their-jobs/>.

<sup>63</sup> *See generally* Veena Dubal, *On Algorithmic Wage Discrimination* (Jan. 19, 2023), [https://ssrn.com/abstract\\_id=4331080](https://ssrn.com/abstract_id=4331080) (citing a 2020 study showing that women working for Uber make roughly seven percent less than men and pointing to "the structure of the wage setting—by algorithmic wage discrimination" as the basis for pay differences despite Uber research explanation that the wage differential resulted from worker experience, driver speed and "rideshare specific human capital").

<sup>64</sup> *See generally id.*

<sup>65</sup> *Id.*; *see also* Veena Dubal, *The House Always Wins: The Algorithmic Gambification of Work*, LPE Project Blog (Jan. 23, 2023), <https://lpeproject.org/blog/the-house-always-wins-the-algorithmic-gambification-of-work/>.

<sup>66</sup> *See, e.g.*, Elizabeth Chika Tippet, Charlotte Alexander, and Zev Eigen, *When Timekeeping Software Undermines Compliance*, 19 Yale J.L. & Tech. 1 (Jan. 10, 2017), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2902756](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2902756); Elizabeth Chika Tippet, *How Employers Profit from Digital Wage Theft Under the FLSA*, American Business Law Journal 55(2):315-401 (July 2018), [https://www.researchgate.net/publication/325201518\\_How\\_Employers\\_Profit\\_from\\_Digital\\_Wage\\_Theft\\_Under\\_the\\_FLSA](https://www.researchgate.net/publication/325201518_How_Employers_Profit_from_Digital_Wage_Theft_Under_the_FLSA).

<sup>67</sup> Zickuhr, *supra* note 2.

## **IV. Recommendations**

### **Research**

The administration must conduct research and commission studies to better understand and address the impacts of ESAM on workers, with a focus on the rights and experiences of protected groups. Research must encompass how ESAM and ESAM-driven practices may facilitate or obfuscate workplace discrimination, and otherwise 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 gig workers and independent contractors. Finally, research should identify ways in which ESAM can protect workers' rights, such as by using ESAM to detect or prevent workplace discrimination and harassment. Research should include findings disaggregated by demographic characteristics, including income, sex, gender identity, race and other protected categories.

### **Guidance and rulemaking**

The administration must make clear the existing applicability of civil rights laws and other worker protections under ESAM. The Equal Employment Opportunity Commission (EEOC), Department of Labor (DOL) and the National Labor Relations Board (NLRB) should issue guidance, as well as regulations, under each of the statutes within their purview clarifying and detailing employers' obligations to ensure that ESAM does not violate these laws, including the right to reasonable accommodation where applicable, and prohibiting uses of ESAM that harm or marginalize protected workers. The agencies must also conduct worker outreach to ensure that workers subject to ESAM are aware of their rights. Clarifying the mandate regarding legal applicability of and authority with respect to ESAM could help curtail many harmful applications of ESAM, although additional legislation is needed.

DOL and NLRB must also finalize rulemaking on joint-employer status. The rules must make clear that the use of ESAM to monitor and manage workers is evidence of control and weighs in favor of a finding of employer status.

As the Administration moves forward to research and regulate the impact of ESAM on workers, the principles within the Blueprint for an AI Bill of Rights should provide the administration with a framework to address ESAM practices that disadvantage protected worker groups.

### **Legislation**

The Administration should engage with Congress to develop and support legislation that would provide transparency, accountability, and increased protections to address ESAM in the workplace.

### **Conclusion**

We thank the administration for the opportunity to provide comments on the impact of ESAM on women workers, particularly women of color and low-paid women workers. As demonstrated above, the use of ESAM in the workplace does raise concerns regarding discrimination, job quality, and employment and labor rights. We look forward to working with the administration

to address these challenges. Please contact Adrienne DerVartanian, Senior Counsel, Workplace Justice and Education, at [adervartanian@nwlc.org](mailto:adervartanian@nwlc.org), with any questions.

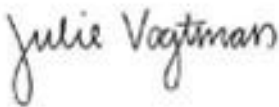
Sincerely,

A handwritten signature in black ink, appearing to read "Adrienne DerVartanian".

Adrienne DerVartanian  
Senior Counsel, Education & Workplace Justice  
National Women's Law Center

A handwritten signature in blue ink, appearing to read "Gaylynn Burroughs".

Gaylynn Burroughs  
Director of Workplace Equality & Senior Counsel, Education & Workplace Justice  
National Women's Law Center

A handwritten signature in black ink, appearing to read "Julie Vogtman".

Julie Vogtman  
Director of Job Quality & Senior Counsel, Education & Workplace Justice  
National Women's Law Center

A handwritten signature in blue ink, appearing to read "Emily Martin".

Emily Martin  
Vice President for Education & Workplace Justice  
National Women's Law Center