



BOSSWARE COMES TO CALIFORNIA

The Impact of New Management Technologies on Workers and the Case for Policy Regulation

Center on Policy Initiatives | East Bay Alliance for a Sustainable Economy
Los Angeles Alliance for a New Economy | Working Partnerships USA
PowerSwitch Action | UC Berkeley Labor Center | UCLA Labor Center

TABLE OF CONTENTS

1. Executive Summary.....	5
2. Introduction.....	7
3. Bossware 101: What, When, Where, How, and Why.....	10
4. Employer Use of Bossware Can Make Work Worse for Workers.....	13
5. Bossware is Already Here: California Workers Share Their Stories.....	17
6. A Framework for 21st-Century Labor Standards to Regulate Bossware.....	25
7. Endnotes.....	29

This report was written collaboratively by Annette Bernhardt, Kung Feng, Beth Gutelius, Brian Justie, Lisa Kresge, Minsu Longiaru, and CJ Valasek. Additional research support was provided by Jessica Cordova, Neil Martin, Roxana Tynan, and Stasia Hansen. The report was copyedited by Sam Royall and Kristen Schwarz, the latter of whom handled layout and design. The authors extend a special thanks to the California Federation of Labor Unions, the South Bay Labor Council, and the Los Angeles Federation of Labor for sharing their expertise, insights, and feedback in the development of this report.

About the Organizations

Center on Policy Initiatives

Center on Policy Initiatives (CPI) is a nonprofit organization dedicated to fighting for worker justice in our workplaces and communities. We are working to make the San Diego border region a place where everyone has everything they need to thrive. We envision a world where we all live in our full dignity with self-determination over our bodies and our labor, and where our communities are true multiracial democracies.

East Bay Alliance for a Sustainable Economy

The East Bay Alliance for a Sustainable Economy (EBASE) has been at the forefront of economic and racial justice for 27 years, fostering a Thriving East Bay where all people and families have safe homes, healthy communities, and sustainable work that supports basic needs and ensures dignity. As an anchor organization in the region, EBASE holds a strong track record of cultivating alliances among community organizations, labor unions, worker centers, faith institutions, and government leaders, and developing the leadership and capacity of Black and brown communities, low-wage workers, and tenants.

Los Angeles Alliance for a New Economy

Combining dynamic research, innovative public policy, and strategic organizing of broad alliances, LAANE promotes a new economic approach based on good jobs, thriving communities, and a healthy environment. For over 30 years, LAANE has been at the forefront of Los Angeles' progressive movement, transforming conditions in key industries and improving the lives of hundreds of thousands of working families in Southern California.

PowerSwitch Action

PowerSwitch Action is a national community of leaders, organizers, and strategists forging multiracial feminist democracy and economies in our cities and towns. Our network of 21 grassroots affiliates weaves strategic alliances and alignments amongst labor, neighborhood, housing, racial justice, faith, ethnic-based, and environmental organizations. Together, we're building people power and people's institutions. We win innovative public policy and rein in greedy corporations to realize our collective freedom and liberation.

UC Berkeley Labor Center

The Center for Labor Research and Education (Labor Center) is a public service project of the UC Berkeley Institute for Research on Labor and Employment that links academic resources with working people. Since 1964, the Labor Center has produced research, trainings, and curricula that deepen understanding of employment conditions and develop diverse new generations of leaders.

UCLA Labor Center

The UCLA Labor Center believes that a public university belongs to the people and should advance quality education and employment for all. Every day we bring together workers, students, faculty, and policymakers to address the most critical issues facing working people today. Our research, education, and policy work lifts industry standards, creates jobs that are good for communities, and strengthens immigrant rights, especially for students and youth.

Working Partnerships USA

Working Partnerships USA is a nonprofit that combines research, policy advocacy and grassroots organizing to build the political power of workers and low-income residents in Santa Clara County. For 30 years, we have worked in the heart of Silicon Valley, where decisions made by a handful of powerful companies shape how millions of people work and live. Each time the economy has shifted, from the rise of the tech industry to the spread of app-based work, we have organized alongside workers to protect their rights and their voice on the job. Today, as emerging technology is increasingly deployed in our workplaces and public life, we are building power on the ground so that workers and communities have a say in what comes next.

Citation

UCLA Labor Center, UC Berkeley Labor Center, Center on Policy Initiatives, East Bay Alliance for a Sustainable Economy, Los Angeles Alliance for a New Economy, PowerSwitch Action, and Working Partnerships USA. *Bossware Comes to California: The Impact of New Management Technologies on Workers and the Case for Policy Regulation*. October 8, 2026.

Creative Commons

This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License. To view a copy of this license, visit <https://creativecommons.org/licenses/by-nc-sa/4.0/>.

1. EXECUTIVE SUMMARY

As policymakers debate how artificial intelligence could impact jobs and workers in the future, a profound transformation of the California workplace is already underway. Employers are increasingly using digital technologies to monitor workers, measure their performance, assign tasks and schedules, set the pace of work, and inform decisions about pay, discipline, and termination. These technologies—collectively known as “bossware”—combine electronic monitoring with algorithmic management. Taken together, the concern is that these tools tilt the balance of power further toward employers, who can use bossware to tighten control, intensify work, and extract more value from workers, even at the expense of safety and workplace dignity.

Bossware can include algorithmic performance evaluation systems, location and activity tracking, productivity software, digital scheduling tools, biometric timekeeping, wearable devices and sensors, always-on cameras, and even AI-generated predictive analytics that measure emotion or sentiment. Although employers often present these tools as ways to improve efficiency, fairness, or safety, their use remains largely unregulated and—as we detail in the report—can lead to an array of harms to workers. Most employers do not disclose to workers what data is being collected about them, how it’s being used, or whether an algorithm produced a decision affecting their livelihood. Workers are rarely able to review or correct inaccurate data, challenge an automated decision, or prevent their information from being shared with third parties.

This report draws on a large body of existing social science and legal research, as well as 25 in-depth interviews with

California workers in industries including hospitality, health care, warehousing, sanitation, transportation, security and janitorial services, delivery, and software engineering. The evidence presented makes clear that the risks of unchecked bossware are not merely speculative, but already reshaping working conditions, undercutting established labor protections, and shifting power toward employers—often without workers’ knowledge or consent.

Key Findings

Bossware adoption is widespread and accelerating. A number of employer surveys put current rates of worker monitoring at 60% to 80%, with a recent large-scale report finding that of those employers that use digital tracking tools, a significant share are using biometric data collection like fingerprints and facial recognition (67%) and AI-driven productivity analytics (61%). Researchers have identified more than 500 companies operating in the commercial bossware market, while industry analysts project continued market growth of approximately 8% to 18% per year.

Bossware is often implemented without sufficient disclosure to workers. Worker-reported adoption rates tend to be lower than employer-reported sources, indicating a clear knowledge gap around workplace technology implementation: 41% of workers received no communication from their employer about workplace data collection or AI use, according to recent research. Workers interviewed for this report discovered that their employers were monitoring them only through rumors from colleagues, mistaken app notifications, or chance encounters with hidden software features.

Bossware can intensify work and exacerbate health and safety risks.

Employers can use electronic monitoring and algorithmic management tools to push workers to unsafe speeds, leading to physical harm and mental anguish. Workers interviewed for this report described these pressures in vivid terms. A San Diego warehouse worker called his digitally-directed workload “an infinite amount of work” with “no breathing room.” Delivery drivers reported being pressured to run between stops and forgo bathroom breaks. Bus drivers and sanitation workers explained that computerized schedules failed to account for traffic, speed limits, and rest periods. Hotel workers described losing control over how they organized their work as devices repeatedly redirected them across large properties.

Bossware can deepen existing workplace inequities.

Algorithmic management systems reduce complex work processes to rankings, notifications, and productivity scores, providing employers with a veneer of objectivity even as they continue to treat workers unfairly. These measurements can be incomplete, inaccurate, or stripped of context, yet employers sometimes treat them as more credible than workers’ own accounts. Workers described being disciplined for alerts they never received, package-scanning errors, disputed driving infractions, and delays beyond

their control. Low-wage workers, workers of color, immigrant workers, workers with disabilities, and workers with limited English proficiency are especially likely to face intensive surveillance or barriers created by poorly-designed systems.

Bossware can give employers unchecked control and erode worker power.

These same systems can facilitate wage theft through unaccountable and opaque timekeeping processes, can mask employer retaliation after workers speak up or attempt to organize, and can automate the process of discipline or termination. Workers find disputes with management over shifts, wages, and job expectations more common as their work is increasingly mediated through apps. Freight drivers in Los Angeles, for example, were terminated through an automated notification system after being evaluated using a poorly-designed algorithmic ranking system.

These outcomes are not inevitable consequences of technology. Workplace technology can improve safety, job quality, and productivity when its design and implementation are worker-centered and worker-informed. The harms documented in this report result from choices about who controls the technology, what goals it serves, and whether workers have enforceable rights over technology adoption and implementation in their workplaces.

The Regulatory Challenge

The increasing prevalence of bossware and the growing evidence of its serious and wide-ranging harms raise urgent questions for policymakers. The majority of existing labor, employment, and data privacy laws fall woefully short when it comes to protecting workers from the negative impacts of these new technologies. California has gone the furthest of any state in the country in beginning to tackle the regulatory challenge, with the California Federation of Labor Unions sponsoring four bills that have now been signed into law establishing critical first-generation guardrails. These protections address some of the worst abuses of bossware, but they are not comprehensive. They establish new labor standards for the 21st century that provide an important foundation for the state and its cities, counties,

and municipal governments to build a robust regulatory regime that fully protects the safety and dignity of all workers in the use of electronic monitoring and algorithmic management. That regulatory regime should incorporate the following four principles:

1. Employers, not algorithms, should make decisions about workers.

Bossware should not automatically hire, fire, discipline, or make other consequential decisions about workers. Employers should be required to conduct meaningful human review, consider independent evidence, and provide workers with a fair appeals process.

2. Workers must know when and how bossware is being used.

Employers should provide detailed notice before introducing or changing a bossware system. Workers should also receive specific notice whenever bossware is used to make a decision affecting them. Workers must be able to access and correct their data, and have the right to prevent their data and work product from being used to train an AI system that then replaces them.

3. Harmful uses of management technologies by employers must be prohibited.

Employers should not monitor workers while they are off duty or in private spaces; use algorithms to infer sensitive personal characteristics; use unreliable emotion, facial, or behavioral recognition systems; set individualized wages using surveillance data; or use bossware to evade labor, civil rights, wage-and-hour, or health and safety laws.

4. Protections must cover all workers and include meaningful enforcement.

Standards should apply to all workers: employees, independent contractors, job applicants, temporary workers, and workers employed through subcontractors, in both the public and private sectors. Workers must be protected from retaliation and able to seek remedies through government enforcement and private legal action.

Policymakers have an opportunity to act before further damage is done, establishing the rights and protections that millions of California workers need as bossware becomes ubiquitous in the workplace. Californians are eager for progress on this front: More than nine in ten workers support human decision-making, strong guardrails against harmful workplace AI, and greater transparency and accountability from employers around technological implementation. Cities in particular have the opportunity to lead the charge and continue their trailblazer role, further bolstering workers' rights to know about, challenge, and be protected from the harms of employers' use of bossware. Acting in concert, our state and local policymakers have the ability to ensure that workers have access to fair, safe, and dignified jobs amidst ongoing rapid technological change.

2. INTRODUCTION

As the debate continues over whether or not artificial intelligence will lead to widespread job loss in the future, an equally important technological transformation of California's workplaces is already well underway. Employers across the state are using digital technologies to monitor, manage, and discipline workers with few rules governing their use. These technologies—collectively known as “bossware”—range from productivity apps, safety cameras, and biometric timekeeping to tracking systems that monitor workers or automate management decisions. They affect workers across industries and occupations, from union-represented workers to those scrambling to secure temporary gigs. The practices of electronic monitoring and automated management are not new. But recent technological developments, many grouped under the broad label of AI, have significantly expanded what these systems can do and the potential harms they pose to workers.

This report documents how employers are currently using bossware and sounds the alarm of further risks associated with its unchecked proliferation. We open with a detailed analysis of bossware technology, documenting how these tools can be used by employers to undermine working conditions while extracting more effort from workers, often in the interest of exerting more control and cutting labor costs. Next, we present a taxonomy of potential harms to workers, including work intensification and its negative effects on the health and safety of workers, deskilling and loss of individual autonomy, discriminatory effects and deepening inequities, algorithmic wage suppression and risk of wage theft, and systematic workplace surveillance and the erosion of privacy. We then bring these harms into focus in a section

documenting the experiences of workers across California who have already found themselves on the frontlines of bossware implementation.

Negative impacts on workers result from the near total lack of regulation of bossware at the federal, state, and local level. Currently, the large majority of workers in the U.S. do not have the right to know what data is being gathered on them, or whether it is being sold to third parties. Most employers are not required to notify workers about electronic monitoring or their use of algorithms

BOSSWARE CENTRALIZES POWER IN THE HANDS OF EMPLOYERS, ALLOWING THEM TO TIGHTEN CONTROL, INTENSIFY WORK, AND EXTRACT MORE VALUE FROM WORKERS WITHOUT SHARING THE GAINS.

to make consequential employment decisions—and workers do not have the right to review or challenge the data used to render those decisions (except for the rights provided to workers in California under SB 947, the No Robot Bosses Act). Most importantly, there are few meaningful guardrails around which technologies employers are allowed to use or how they use them in their workplaces. In the absence of well-defined and enforceable regulations, there will continue to be an incentive for employers to exploit workers by pursuing invasive and opaque forms of employee monitoring, data collection, and algorithmic management, with no means of recourse or appeal for affected workers. In essence, bossware centralizes power in the hands of employers, allowing them to

tighten control, intensify work, and extract more value from workers without sharing the gains.

We conclude this report with a careful analysis of how public policies should be crafted to regulate the use of bossware and establish worker rights and employer responsibilities for the 21st-century workplace. We draw on the significant progress that unions, privacy experts, and policymakers have made over the past several years in developing a framework for the responsible deployment of technology in the workplace. In California, recently passed bills that begin to tackle the task of regulating bossware provide a foundation upon which the state and its cities can continue to build out a robust set of worker technology rights. More generally, the policy principles we outline reflect the growing demands by a

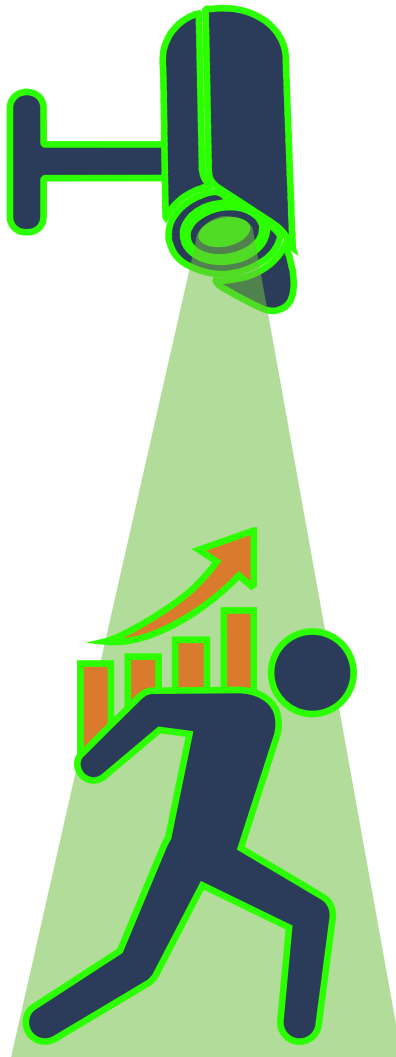
broad range of advocates calling for civil society governance of AI and other digital technologies in all facets of our lives, from our schools to our hospitals, from the voting booth to our workplaces.¹

The rapid development and deployment of new technological capabilities—accelerated by recent advances in AI—makes this a critical moment for legislators and regulators to keep their eye on the ball: *Employers* are always responsible for the decisions that impact workers, regardless of the extent to which these decisions are informed, augmented, or executed by technological means. Given the pace and scale of these developments, policymakers must commit to an ongoing, long-term project of ensuring the safety and dignity of all workers amidst rapid technological change.



3. BOSSWARE 101: WHAT, WHEN, WHERE, HOW, AND WHY

Across industries and occupations, employers are using digital technology systems to track, monitor, and manage workers, often in expansive, invasive, and hidden ways.² These systems are referred to as bossware, which typically consists of two interlinked processes:



1. Electronic monitoring: Employers collect data from or about workers using electronic monitoring technologies, enabling them to monitor and surveil workers, workplaces, and work processes. These systems can collect biometric information, such as fingerprints, facial features, eye movement, gait, or voice characteristics. They can also collect data on worker activities, including communications, location and movement, work behaviors, computer use, task completion, and productivity. Data may be gathered through wearable devices (such as badges, smartwatches, or pendants), GPS-enabled vehicles, smartphones, cameras, sensors, microphones, handheld devices, computers, productivity monitoring software, and other digital workplace technologies.³

2. Algorithmic management. Employers use automated computer programs, known as algorithms, to analyze worker data and perform functions traditionally handled by human managers. These algorithms, which are increasingly designed using AI and machine-learning techniques, produce outputs such as scores, classifications, predictions, recommendations, rankings, and other performance metrics that employers may use to make decisions about their workforce.⁴ When these algorithms are integrated into systems that support or automate managerial functions, they are often referred to as algorithmic management systems. Employers use these systems to assist or automate a wide range of workforce management tasks including hiring, scheduling, assigning tasks, performance evaluation, discipline, compensation, promotion, and termination.

Employers typically buy software and hardware developed by third-party vendors to implement electronic monitoring, algorithmic management, and other workplace technology systems. These products often combine data collection, data analysis, and decision-making capabilities into integrated platforms that employers can configure for their own workplace.⁵ Depending on how they are designed and deployed, these systems may recommend or automate a wide range of decisions affecting the terms and conditions of work; in some cases, there is limited or no meaningful human oversight by managers, and workers have few opportunities to identify errors or appeal adverse decisions.⁶

Bossware products span nearly every aspect of workforce management. Products currently marketed to employers include:



Assessing the current extent of bossware adoption by employers is not a straightforward task. Large-scale, nationally representative data on employers' use of AI and related workplace technologies—including electronic monitoring and algorithmic management systems—remain limited. As a result, researchers must triangulate across multiple data sources to understand emerging trends in the prevalence and penetration of bossware in California's workplaces, including market research, employer surveys, and worker surveys. Taken together, the data suggest that employer adoption of workforce management systems is increasing across a wide range of industries and occupations, though not yet used by all employers for all workers. We currently have the strongest evidence of employer adoption of electronic monitoring and related technologies. That likely reflects both the greater attention it has received in employer and worker surveys and the fact that data collection and monitoring are foundational components of many algorithmic management systems.

Research on the product market of workforce monitoring and management technologies provides one indicator of growing employer adoption, with industry trade groups and market analysts documenting rapid market expansion. Across six industry reports published between 2020 and 2026, analysts found a consistently expanding multibillion-dollar market and unanimously projected accelerating growth in the years ahead.⁷ While these estimates vary significantly based on scope, terminology, and methodology, most analysts project compound annual growth rates between 8% and 18% over the next decade. Investment trends point in the same direction: global venture capital investment in workplace technology reached \$3.55 billion across 119 deals in the first half of 2025, a 60% increase over the same

period in 2024.⁸ Research conducted by Cworker.org has identified more than 500 technology companies operating in the bossware market, underscoring both the scale of the industry and the growing availability of tools and services that enable employers to monitor and manage workers.⁹

Employer surveys provide a second line of evidence, with several collecting data directly from firms about their adoption and use of bossware and related workplace technologies. While the nationally representative Annual Business Survey (ABS) provides important evidence on employer adoption of AI and other advanced technologies, it does not collect sufficiently detailed information to identify specific workplace applications, such as electronic monitoring or algorithmic management systems.¹⁰ Consequently, the available employer survey evidence on bossware adoption must draw on non-governmental employer surveys conducted by technology vendors, industry trade associations, and independent research organizations, each of which uses different samples, definitions, and methodologies.

Employer-reported figures are consistent with the above market research, indicating a pattern of increasing employer adoption of workplace monitoring technologies over time. A 2007 American Management Association (AMA)/ePolicy Institute survey of 304 companies documented employer use of a broad range of monitoring technologies, including internet, email, telephone, computer, and video monitoring, demonstrating that many of the core capabilities associated with today's bossware were already in use.¹¹ Subsequent employer surveys indicate that adoption has continued to increase, accelerating during the COVID-19 pandemic as remote work drove greater reliance on digital monitoring, and remaining elevated in the years since as these technologies

have become a more permanent feature of workplace management. A survey of 239 large corporations that examined the use of employee monitoring technologies found an adoption rate of 30% in 2015 that had grown to more than 50% by 2019.¹² Similarly, in 2022, a venture capitalist estimated that funding for performance management technologies had seen an eightfold increase over the previous five years.¹³

The abrupt shift to remote and hybrid work in 2020 created heightened interest in understanding the prevalence and implications of employer monitoring and surveillance techniques, leading to a slate of new surveys that consistently found between 60% and 80% of employers using one or more forms of technology to monitor or manage their workforce.¹⁴ A 2025 survey of 1,500 US-based employers found that nearly three-quarters use some form of digital tracking tool, with a significant share using even more advanced techniques including biometric data collection like fingerprints and facial recognition (67%) and AI-driven productivity analytics (61%).¹⁵

Worker surveys constitute a third source of evidence, providing an employee perspective on the prevalence and use of bossware in the workplace as well as some of the harms. Researchers have conducted

broad-based surveys asking workers about how their employers are monitoring and evaluating them using technology. Three large national worker surveys conducted recently found similar levels of bossware use by employers: 1) In 2022, the National Employment Law Project surveyed 1,849 U.S. workers and found a prevalence rate of 47%,¹⁶ 2) in 2023, the American Psychological Association surveyed 2,515 U.S. workers and found that 51% of their employers were using technology to monitor workers,¹⁷ and 3) a 2025 Gallup panel of 18,429 U.S. workers found 42% of workers were subjected to electronic monitoring by their employers.¹⁸

These figures are lower than employer-reported estimates, which could indicate a knowledge gap in workplaces due to the current lack of disclosure requirements for employers deploying bossware technologies. Research conducted by Gartner Inc. has affirmed this notion, finding that 41% of employees surveyed report a total lack of communication from employers or supervisors regarding how workplace and worker data is being collected or used.¹⁹ Such insufficient or nonexistent disclosure practices are a growing concern for workers, as large majorities of workers have expressed apprehension over employers' increased use of digital technologies to monitor and manage workers.²⁰

4. EMPLOYER USE OF BOSSWARE CAN MAKE WORK WORSE FOR WORKERS

Employers cite a range of reasons for their use of bossware, including increases in efficiency, fairness, and safety. Yet a growing body of evidence suggests that bossware use can result in a wide array of interrelated harms, as numerous researchers, advocates, and journalists have begun to document.²¹ Moreover, the effects of bossware extend beyond impacting individual workers. By giving employers greater capacity to monitor, evaluate, and direct workers, these technologies can strengthen employer control and shift power away from workers, shaping who

benefits and who suffers from the integration of new technologies in the workplace. When these dynamics occur across the economy, they can contribute to greater concentration of income, wealth, and power, with families and communities facing consequences including stagnant incomes, economic insecurity, reduced ability to afford basic needs, and growing imbalances in economic and political power.

Work Intensification and Increased Stress

When an employer implements bossware, the pace of work can intensify.²² Heightened monitoring and automated performance evaluation compel workers to work at an unsustainable pace, increasing the risk of stress, burnout, and other adverse health outcomes.²³ Some bossware systems use centralized algorithms to set productivity requirements for workers that disregard the individual circumstances and contingencies of a job, creating pressure to maximize productivity at the expense of worker safety or output quality.²⁴ The effects are well documented: decades of research link electronic monitoring to increased stress and negative psychosocial outcomes,²⁵ and a recent American Psychological Association study found that electronic monitoring at work was associated with lower employee morale, greater emotional exhaustion, and a stronger sense they did not matter in their workplace.²⁶

Health and Safety Risks

Employers' use of bossware is strongly related to negative health and safety outcomes for workers.²⁷ A recent nationally representative survey found that workers who were subjected to more intensive workplace electronic productivity monitoring were substantially more likely to work at unsafe speeds (46% vs. 15%), have anxiety at work (53% vs. 41%), and be injured on the job (9% vs. 4%).²⁸ Another study based on a survey of more than 27,000 workers found that each one-unit increase in the intensity of workplace algorithmic management

was associated with a 21% rise in psychosocial risks and a 16.5% increase in health issues.²⁹ Ultimately, the danger is that employers' use of these systems creates a self-reinforcing feedback loop: the output of an electronic monitoring system (worker data) becomes the input for algorithmic management tools; the output of algorithmic management tools (managerial decisions) impels workers to modify their behavior (i.e., speeding up) in a way that intensifies their work and creates a less safe work environment by setting a new baseline production rate recaptured as input by the electronic monitoring systems.³⁰

Deskilling and Loss of Autonomy

Employers can use bossware to strip skill, judgment, and discretion out of a job by automating particular tasks, breaking complex tasks into simpler ones, or transferring decision-making from workers to automated systems.³¹ Deconstructing complex work processes into a series of discrete, separable tasks not only makes it easier to automate some or all of the process; it also enables employers to monitor and evaluate workers in increasingly granular ways.³² As researchers have shown, a job is not merely an assortment of interchangeable tasks, but rather a holistic compound of interdependent and complementary actions, judgments, and decisions; bossware threatens to undermine this, potentially leading to diminished wages and the erosion of worker power.³³

The transfer of workers' expertise and decision-making to automated systems can also reduce opportunities for workers to

exercise professional judgment, diminishing workers' ability to analyze, diagnose, and understand critical problems or unique circumstances, which can lead to deskilling over time.³⁴ When bossware reshapes work tasks in a way that prevents workers from learning on the job, this can prevent workers from obtaining foundational skills in the first place, limiting their long-term career advancement.³⁵ Scholars have referred to this as “never-skilling,” whereby automated systems create work environments in which workers remain stuck in limited roles with little opportunity to hone occupational expertise.³⁶ In effect, when employers implement bossware, jobs become more rote and less dynamic, and workers lose a pathway to dignity, fulfillment, and greater earning potential over time.³⁷

Bias, Discrimination and Systemic Inequity

The use of bossware can have a number of impacts on existing forms of workplace bias, discrimination and systemic inequity.³⁸ First, unequal outcomes can arise when software developers design and/or employers implement technologies without accounting for a diverse workforce, such as differences in language, access to devices and broadband, or familiarity with digital systems. This can create barriers for immigrant workers, workers with limited English proficiency, workers with disabilities, and others whose needs are not considered.³⁹ Second, bossware systems often use “black-box” algorithms that are trained on real-world data that encodes existing inequities, reproducing discriminatory patterns on the basis of race, gender, and other protected categories through opaque outputs.⁴⁰ Third, employers can use bossware in ways that perpetuate bias and inequity by subjecting some groups of workers to greater levels of surveillance and algorithmic control. Workers of color, for example, are more

likely to report being electronically monitored and having tasks or schedules assigned by algorithmic management software.⁴¹ Moreover, some of the most aggressive experimentation with bossware has occurred in low-wage industries that disproportionately employ workers of color and immigrant workers, reflecting longstanding patterns of discrimination and occupational segregation.⁴² Finally, from food service to gig work, bossware used by employers to evaluate workers and make consequential employment decisions, including pay, promotion, and termination, may incorporate biased or unreliable data sources.⁴³

Unfair and Erroneous Workplace Discipline and Firings

Bossware enables employers to pervasively monitor workers, set opaque quotas, and automate the evaluation of workers in ways that can result in arbitrary, unfair, and erroneous discipline due to inaccurate data and/or the reductive and sometimes faulty nature of automated systems.⁴⁴ Additionally, in what one researcher has called “at-will employment on steroids,” employers can essentially mask retaliatory actions behind reams of surveillance data and workplace algorithms, making it difficult for workers to challenge or contest a disciplinary decision.⁴⁵ Low-road employers operating on a high-turnover business model can also use bossware to automate the processes of hiring, managing, disciplining, and firing workers.⁴⁶

Lower Pay

Employers can use information obtained through electronic surveillance and other data sources as inputs for wage-setting algorithms in order to lower workers' wages or even create cutthroat bidding systems where workers effectively compete against one another to undercut wage standards.⁴⁷

This can take the form of what researchers have called “surveillance wages,” in which employers use data mining and predictive analytics to set wages based on workers’ personal data rather than the actual value or difficulty of the work—for example, to identify the lowest wage a worker is willing to accept.⁴⁸ A recent first-of-its-kind audit of workplace technology vendors found twenty whose products were determined to have high risk for enabling surveillance-based wages in industries ranging from customer service, health care, logistics, manufacturing, retail, finance, education, transportation, and technology.⁴⁹ Research also shows that digital timekeeping systems can be used to facilitate wage theft violations through rounding, automatic break deductions, and time shaving.⁵⁰ All of these practices are extremely difficult for workers to prove in litigation because of the inherently opaque nature of most bossware systems, meaning that employers are likely to keep most of the stolen wages.⁵¹

Misclassification and Destabilizing Traditional Employer-Employee Relationships

Through a combination of electronic monitoring and automated decision technologies, bossware enables employers to manage work and workers remotely, which in turn facilitates their ability to outsource tasks and shift work to external on-demand labor pools and platform workers.⁵² In effect, these technologies provide a means to institutionalize practices that fragment workplaces, allowing employers to use bossware to help them classify workers as independent contractors, use temporary staffing agencies, avoid joint employer status, and otherwise reorganize work outside of the crucial worker protections afforded by traditional employment relationships while also having control over work processes and workers.⁵³

Suppression of the Right to Organize

Employers can use bossware to suppress workers’ right to organize at each step in the unionization process.⁵⁴ The pervasive monitoring enabled by bossware can discourage or prevent workers from engaging in casual interactions that build workplace trust and camaraderie, undermining the formation of coworker bonds that can productively seed organizing.⁵⁵ Through intensive monitoring and specialized data analysis tools, employers can be alerted when worker organizing efforts have taken root, and are even able to predict the likelihood of future organizing at other worksites that they can preemptively target.⁵⁶ Once workers begin to act collectively, the same digital technologies can be used to identify, punish, or otherwise deter workers from further participation.⁵⁷ While such actions likely violate NLRA protections, a recent report from the Electronic Privacy Information Center shows that existing labor law is largely ineffectual in curbing “algorithmic unionbusting,” underscoring the need for targeted protections.⁵⁸

Intrusive Surveillance and Privacy Harms

Bossware enables pervasive and granular surveillance by collecting detailed information about workers, raising significant concerns about privacy and autonomy.⁵⁹ The result is an “always on” workplace of “limitless worker surveillance,” in which workers’ movements, communication, interactions, and work activities are continuously tracked and analyzed.⁶⁰ For example, so-called “Emotion AI” tools purport to detect workers’ feelings, while management apps installed on workers’ phones can mine their data 24/7.⁶¹ A recent study of nine widely used workplace monitoring platforms found that one-third have features to track workers’ precise

location at any time—even when the app is not in use, and potentially when the worker is clocked out.⁶² The study found evidence suggesting that these same widely used bossware platforms are sharing workers' personally identifiable information and online activities with third parties "in ways that are not clearly disclosed to workers."⁶³

These harms are not inevitable. Rather, they are a symptom of the weak U.S. regulatory landscape in which bossware is being developed and deployed. The result is that low-road and often short-sighted employers have the incentive to use bossware to cut labor costs, increase work intensity and worker output, micromanage and control workers, and suppress worker organizing.⁶⁴ Workplace technology need not worsen outcomes for workers; to the contrary, there are many examples of employers using technology in ways that benefit workers while also resulting in productivity and efficiency gains. Scheduling software can help workers swap shifts in ways that help improve work-life balance and improve productivity.⁶⁵ And a recent study of call-center workers found that workplace technology can improve job quality while enhancing

customer service, provided technologies are "adopted in a way that supports employees, allowing them to better apply or develop their skills and to be more effective in their jobs."⁶⁶ Researchers have highlighted how participatory approaches

**THESE HARMS ARE NOT INEVITABLE.
RATHER, THEY ARE A SYMPTOM OF THE
WEAK U.S. REGULATORY LANDSCAPE IN
WHICH BOSSWARE IS BEING DEVELOPED
AND DEPLOYED.**

to AI design and implementation that incorporate worker experience and expertise can lead to improvements in efficiency without sacrificing job quality.⁶⁷ The harms or benefits of workplace technologies are not technological givens, but governance outcomes—the product of choices employers make about the role of worker voice in technology design and implementation, and the choices policymakers make about regulation.

5. BOSSWARE IS ALREADY HERE: CALIFORNIA WORKERS SHARE THEIR STORIES

For many workers in California, bossware is not an abstract concept, but something that has already reshaped their workplaces. Through 25 in-depth interviews with workers across the state, in sectors ranging from janitorial services to commercial truck driving to software engineering, conducted over several months this year, a vivid picture emerges: bossware is facilitating an unprecedented degree of workplace surveillance, which not only exacts a physical and emotional toll on workers, but serves as a mechanism for newfound and increasingly automated punitive measures.⁶⁸ In some cases, this suite of digital technologies is even enabling employers to circumvent legal protections. Taken together, this collection of stories represents the cutting edge of bossware implementation by employers, highlighting the concern that in the future, more workers across more sectors could face similar realities of inhumane and unsustainable workloads and the systemic erosion of privacy, autonomy, and dignity.

Pervasive monitoring and surveillance lead to intensified working conditions, as employers prioritize speed and control over safety and efficiency.

Across sectors and occupations, workers described how bossware pushes them to work faster and take on more tasks, even at the expense of safety or efficiency. For Jordan, who works in a San Diego warehouse, a device strapped to his arm essentially became his “supervisor for the day,” delegating tasks and recording how quickly he processed packages. When he or his coworkers would fall behind, supervisors would be notified and quickly intervene, sometimes taking the notification as an opportunity for harassment or intimidation, aggressively asking, “What’s going on? Why are you slow?” Jordan described the resulting pace as relentless: “It’s an infinite amount of work, basically—there’s no breathing room.”

Automated task delegation and productivity monitoring, he said, made it clear that the expectation was to “work as hard as you can, work as fast as you can, pretty much the whole time.” This also meant that legally mandated rest breaks were undermined by the inflexible productivity requirements: “the way they counted was 15 minutes between scanning packages,” allotting no time to walk to the breakrooms, which could take “three, four minutes” both ways, significantly reducing the time actually available to rest. Under such strict metrics with automatic notifications to supervisors, “you don’t have time to walk to your car or take a breather outside,” Jordan explained.

Alex, another San Diego warehouse worker, described how software was being used to determine staffing levels, with little regard for overall productivity or workplace

sustainability. When too few people were working, the job could be “brutal,” with workers “running up and down” aisles just to keep up with the productivity quotas. Yet management nevertheless cut hours for some workers if an algorithmically-generated metric indicated that staffing was too high. “Even if it’s high flow,” he said, referring to particularly busy shifts, or “even if we’re already struggling,” managers were seemingly “bound and restricted [by] whatever the computer is saying to them.”

Being able to meet overly demanding productivity expectations, Alex said, also seemed to carry an implicit penalty, as demonstrating strong individual performance “encourages them to keep putting you on higher and higher demanding work.” Luis, a garbage truck driver in the South Bay of Northern California, described a similar dynamic. His supervisor now uses a feature in a GPS-tracking app on a tablet to automatically compare his current route times with previous shifts, disregarding variations in traffic or any number of other variables out of his control. Finishing unusually quickly once, he noted, could become the basis for assigning additional work during subsequent shifts. “Now they expect me to do it every single time,” he said, “they want to give me more work.”

Hotel workers in Los Angeles described a similar loss of control over how they organized their day. Lucía, a room attendant, said workers had previously been able to adjust the sequence of room cleaning based on their own judgment and experience. “We owned our time,” she recalled, alluding to a sense of independence that was beginning to wane following her employer’s introduction of a new digital task system called HotSOS. Now, she lamented, “we are not owners of our time, because we have to follow the device.” HotSOS, she said, would generate abrupt mid-shift changes to workload that

might send her back and forth across the large hotel floorplan, requiring more time in transit between rooms and hindering her ability to meet productivity requirements. For David, an experienced bus driver in the East Bay, computerized scheduling meant not only a loss of control, but also a direct conflict with dignified and safe working conditions. “They make these routes so efficient,” David explained, “but they don’t take into consideration changes in traffic... or the speed limits that have been reduced.” The digital routing system was designed to enforce specific time expectations, meaning that routine delays would eat into the required rest period at the end of a route. But as David put it, the pressure to stay on a computerized schedule was top priority, and management’s position was that “the rest period is for the bus, it’s

**AUTOMATED TASK DELEGATION AND
PRODUCTIVITY MONITORING MADE IT
CLEAR THAT THE EXPECTATION WAS TO
“WORK AS HARD AS YOU CAN, WORK AS
FAST AS YOU CAN, PRETTY MUCH
THE WHOLE TIME.”**

not for human beings.” With routing and timing managed digitally, David pointed to a dangerous tradeoff: “So what does that do? That encourages [us] to speed.” Even stopping to use the restroom, he said, left drivers further behind, with no ability to adjust the digital routing system’s timekeeping.

A delivery driver in San Diego named Daniel described a similar experience, being forced to choose between meeting algorithmic productivity requirements and basic physical needs. “I got told I needed to run between the van and the door to make sure I kept on schedule,” he said. This

frantic pace of work, monitored closely by his employer, left no time to find or use a bathroom while working. During a pickup at the warehousing facility during his shift, he saw a sign that seemed to indicate that his employer was well aware of this issue, but had no sympathy; it read “Do not dispose of pee bottles on [employer] property.” His reaction was blunt, capturing the implied sentiment that meeting the productivity requirements was paramount, no matter the toll on workers: “[the employer] wants us peeing in bottles.”

Across these workplaces, workers described losing control over time they had previously managed themselves, a loss of autonomy that made work harder and less predictable. Devices determined the next task, computer models exacerbated understaffing, routing algorithms undermined safety, and productivity tracking set increasingly intense expectations for workers. Jordan, the San Diegan warehouse worker, expressed how the growing integration of bossware took more than just a physical toll, describing his workplace as increasingly “dehumanizing, isolating,” leaving him feeling “anger and just a deep loneliness” while on the job. David, the bus driver, spoke about being “beaten down and broken up,” which “affects our relationships and our families, too.”

For workers across sectors, the consequences of making work continuously measurable and inhumanely optimized does not stop with an accelerating pace and growing workload. All of this data—an unending stream of scans, locations, recordings, alerts, routes, and rankings—is also being used by employers to evaluate and discipline workers.

Bossware provides employers with a new mechanism for evaluating and disciplining workers, creating an unfair and oppressive workplace.

Late last year, five drivers employed by a Los Angeles-area freight company were shocked and confused when they received an automated text message informing them that their employment had been terminated. Their employer, they learned after the fact, had implemented an algorithmic productivity tracking system that ranked their delivery times against other drivers from across the country. The system had determined that these drivers were taking too long to reach their destinations and unload their cargo, leading to substandard rankings in the system and triggering automatic disciplinary measures, seemingly without any direct input or oversight from human supervisors. The drivers—several of whom had worked for the company for multiple decades—were never made aware that there was a digital system tracking their performance, let alone how these productivity metrics were being used. The drivers were dumbfounded that their employer would resort to such disciplinary tactics, given the famously unpredictable nature of Los Angeles traffic.

These drivers, however, were unionized and therefore protected by a collective bargaining agreement that had protections over how productivity was tracked, allowing their union to challenge the terminations and ultimately reestablish their employment. But even a successful reversal like this could not undo the disruption, stress, and economic insecurity caused by such an abrupt and unfair termination. The case demonstrates the stakes when employers introduce algorithmic performance standards without workers' knowledge or input. It also demonstrates the importance of

workers having enforceable rights and a meaningful way to challenge technology-driven discipline when the standards behind it are unreasonable or unfair.

For Marcus, a security officer who has been stationed on a large tech campus since 2019, the progression from digital task management to digital discipline was similarly direct. He and his coworkers are required to respond to electronic “pings” sent to their personal phones with specific tasks, but this alert system, he said, is overwhelming and unreliable. More than once he’s been written up for failing to respond to a ping he insists he never received on his phone, despite being glued to his phone to such an extent that it sometimes undermines his ability to do

A NURSE HANDLING A SERIOUS MEDICAL SITUATION, SHE SAID, COULD REMAIN “CALM AND NEUTRAL” AND YET BE PENALIZED BY THE SOFTWARE FOR BEING “FLAT OR LOW SENTIMENT.”

his actual job. “I never even knew about that until it was a write-up,” he recalls; “No warning, nothing.” When he asked his supervisor to show him proof of the ping in the digital messaging platform, he said no one was able to produce any record or digital paper trail, yet the unproven ping was taken as truth over Marcus’s word. On another occasion, Marcus witnessed the technology fail while standing beside a supervisor who had just sent a ping to his own phone that never arrived: “*‘Oh, well... I didn’t get it.’* I say, ‘*You see what I’m saying?*’” Despite supervisors being aware of these glitches, workers could still be punished when the system failed: “They will write you up for the ping not showing up on your phone.”

Warehouse workers across the state similarly described how mistaken or misleading outputs from digital systems could lead to unfair disciplinary actions. Eli, who has worked at a warehouse in Northern California for just over a year, said that management used digital tools to closely monitor the interval between consecutive package scans and would jump to hasty conclusions, “assum[ing] that we basically took an extended break” when, as Eli insisted, “that’s not necessarily the case.” Alex, meanwhile, pointed to a recurring issue at his warehouse regarding “first scan attempt failures,” which are automatically recorded whenever a package is scanned in the wrong order, a common occurrence given the rapid and unrelenting pace of work. Each time this happened, the scanning device would emit a loud beep and flash its lights, gradually becoming a statistic, Alex said, that was “heavily monitored” by supervisors. These alerts became the grounds for intensive scrutiny and discipline, despite remaining “very untransparent” to workers. “I don’t really know how any of the data is being used or collected,” Alex said, unsure how it was “helping inform systems that are making decisions.”

Daniel, a former delivery driver from San Diego, described how automated monitoring effectively created a new system of traffic enforcement inside the workplace. Drivers used an employer-developed app to scan packages and navigate their routes, while an AI-enabled camera near the rearview mirror, “watching absolutely everything you do,” monitored speed, lane position, and other driving behavior. On just his second day, a supervisor called to tell him the system had flagged him for running a stop sign and warned that another incident could cost him his job. Daniel had not received a traffic citation or been found to have violated the law; instead, an employer-controlled system had generated its own record of

a supposed infraction with potentially serious employment consequences. For workers who dispute what the technology records, this creates a troubling dynamic: an allegation generated by bossware can become grounds for discipline even when no independent authority has determined that a violation occurred.

A telephone triage nurse in the East Bay named Maya shared an example of automated evaluation that was even more opaque. Calls with patients had long been recorded, but a newer AI-enabled monitoring system had begun generating “sentiment scores,” something she and her coworkers discovered only after reviewing call logs themselves. Maya said workers “didn’t know exactly how or when we were being scored” and had serious concerns about the system’s accuracy. A nurse handling a serious medical situation, she said, could remain “calm and neutral” and yet be penalized by the software for being “flat or low sentiment.” A significant body of research affirms these concerns, with multiple studies demonstrating severe racial and gender bias in AI-driven sentiment and emotion analysis tools⁶⁹

Luis, the garbage truck driver mentioned earlier, described how in-cab cameras and automated alerts could subject even routine aspects of a worker’s day to heightened scrutiny. With cameras recording both the driver and the road, Luis felt that management could search through hours of footage looking for potential mistakes unrelated to whatever initially drew their attention: “let’s look at what you were doing three hours before that.” Luis was not opposed to investigating legitimate safety concerns, but felt workers should have an opportunity to explain what happened before supervisors drew conclusions or expanded their scrutiny. “It just takes one time and all of a sudden everything changes,” he said. In his experience, constant recording meant that

a single automated notification could lead supervisors to scrutinize hours of otherwise routine work, creating more opportunities to identify and discipline workers for the kinds of mistakes or imperfections that are inevitable over the course of a workday.

Having worked as a sanitation driver for more than three decades, Miguel described a counterexample to the claim that collecting workplace data increases fairness. GPS tracking gives supervisors a detailed record of when trucks stop, are delayed, or deviate from their routes, but Miguel said the same kinds of incidents did not always result in the same consequences. Some workers could be disciplined based on the data while others were given a pass for similar behavior,

WHEN TERESA ASKED HER EMPLOYER TO PROVIDE A DEVICE THAT WOULD RELIABLY TRACK HER HOURS, HE TOLD HER “THAT IT WAS [HER] PROBLEM AND [SHE] HAD TO FIND A SOLUTION.”

reinforcing patterns of favoritism that he said existed long before the technology arrived. In these cases, the problem was not human judgment itself, but the selective use of technological evidence to justify decisions that could appear neutral or data-driven. Rather than eliminating bias from workplace discipline, Miguel’s experience shows how bossware can provide a new layer of apparent objectivity behind which unequal treatment can persist.

These workers’ experiences show how algorithmic management can create new harms or deepen existing inequities. At its root, bossware changes how employers evaluate their workforce by fundamentally reshaping what is considered evidence

of poor performance or misconduct and shifting the ground upon which discipline is exacted. Even when human managers make the final decision, they are increasingly making those decisions based on data and decision-making systems workers may not understand, cannot inspect, and sometimes know to be incomplete or contain erroneous information.

Employers are using bossware in ways that sidestep or undermine existing labor law and worker protections.

In some workplaces, bossware allows employers to sidestep worker protections or even undermine existing labor law. Many workers have no means of appealing an automated disciplinary action, contesting a digital timekeeping system, or even ensuring that a legal protection or bargained right will be enforced when a new app or tool is introduced in their workplace. In instances like these, the lack of protection around electronic monitoring and algorithmic management becomes particularly stark, leaving workers exposed to bossware-enabled wage theft, retaliation, and union-busting.

Teresa, the clinic janitor, described how disputes over scheduling and hours became more common after her employer developed an internal, proprietary management app. After the app was installed on her personal phone, she repeatedly had issues with connectivity while at the worksite, which affected her ability to log hours. Despite working a regularly scheduled eleven-hour shift, she said, “when I was around six or seven hours in, the system would kick me out.” With no way to correct this discrepancy, these hours went unpaid. When Teresa asked her employer to provide a device

that would reliably track her hours, he told her “that it was [her] problem and [she] had to find a solution.” After responding that it should be the employer’s obligation to allow workers to correct errors like this, her employer retaliated, cutting her hours and accusing her of using the app’s glitches to “commit fraud.”

Alejandro echoed this experience with a different app, which his employer used to manage timekeeping and scheduling for his cleaning shifts at government buildings. His contract covers multiple government buildings across San Diego County, and includes mileage reimbursement for travel between worksites. After three pay periods without reimbursement, however, Alejandro raised the issue with his employer and was met with immediate retaliation mediated through Ponchi: “I had barely clocked in for 3 minutes when I got the notification.” His employer had used the app to automatically end his shift, effectively cutting his hours without any notice or conversation from a human supervisor.

Workers like Teresa and Alejandro, who lack union representation and therefore have less leverage negotiating how workplace technology is implemented, are especially vulnerable to such app-driven retaliation and wage theft. Yet, union workers have also found themselves confronted by new forms of technology introduced without disclosure or bargaining. Maya, the nurse concerned about “sentiment scores,” said that while the digital patient contact platform had gone through the bargaining process, it appeared that the vendor had integrated this AI feature in a subsequent software update. This reveals a serious gap in the oversight of workplace technology even in unionized workplaces, as digital software can be seamlessly updated without subsequent disclosure to workers. For Maya, who has been a nurse for more than a decade, the sticking point was that

this AI feature in the call monitoring tool was flying under the radar in a way that had seemingly circumvented the collective bargaining process.

Bossware has also given employers new ways to scrutinize the activities and communications of individual workers, especially around protected concerted activities like union organizing or other ethical issues, as numerous media reports have documented, including by major employers in California.⁷⁰ As with wage theft and retaliation, the prospect of technologically-enabled suppression of worker organizing reflects the underlying structural problem exacerbated by unchecked bossware. Without a legal right to know when and how employers are using digital tools to monitor and manage them, workers are left to reverse-engineer the effects of bossware *ex post facto* and with little reassurance that these harms will be meaningfully remedied.

Bossware enables employers to erode worker privacy by constantly tracking and monitoring workers, often without disclosure or concern for worker well-being.

A commonality across sectors is the lack of timely or comprehensive disclosure from employers regarding bossware implementation. Workers reported learning about the extent of technology-enabled surveillance only after the fact: through rumors circulating amongst coworkers, a mistaken app notification, or a chance discovery. Multiple janitorial workers described how they were now required to install apps on their personal phones which their employers used to handle scheduling and track their shifts. Alejandro, who cleans government buildings in San Diego County, said that he was told the app was only needed to “mark start and end

times.” Yet it was only after he received an unexpected notification from the app while off the clock that he discovered that the app was tracking his location even when he was not at work. Now he makes a point to disable location tracking after each shift. “I’ve realized I can block it when I’m not at work so they can’t see where I am,” he said, “because they have no right.” Another janitor, Teresa, who cleans an infusion clinic, similarly only found out that her employer’s proprietary scheduling app was also tracking her location when a coworker asked to see her phone one day at work. She was shocked when he showed her how the tracking function worked in the background: “Wow, it keeps activating and locating where I am.” She was concerned about the extent of this monitoring, speculating that if “they’re locating me at home or at the market,” she wondered, “I don’t know if they can hear me too, but that’s the doubt I have now.”

Secretive or unannounced tracking like this can make work feel dehumanizing. Sherry, a security officer who works the night shift at a large corporate campus in San Jose, said that after her company introduced an app that tracks her whereabouts at all times, she was effectively reduced to just a “dot on the map.” The rationale, according to her employer, is to ensure officer safety while doing rounds, but Sherry described how in practice, this monitoring actually extends to off-duty time or routine bathroom breaks—neither of which she felt were appropriate, and raised serious concerns about her own personal privacy. For her, location tracking did not help her do her job any more effectively, and seemed to be little more than a means of control: “You should trust your employees to do what they need to do without constant monitoring.” She described how onerous workplace surveillance adds stress and anxiety to her day-to-day, noting that even though she can technically log out of the app during each bathroom or rest break,

she and her coworkers remained fearful of retaliation, saying that “most of us don’t even bother going offline because of the consequences.”

Software engineers across the state recounted how computer-based jobs seemed particularly vulnerable to new and granular forms of monitoring and productivity tracking. At a Bay Area tech company, an AI-based code review bot was used without informing workers, functioning as an experimental project of senior leadership with high stakes for their subordinates. Kiran, who has worked there for nearly a decade, said that a vice president had developed the bot to automatically produce weekly reports and flag “underperformers” producing below-average code output, possibly leading to further disciplinary measures. Kiran

**SHE AND HER COWORKERS REMAINED
FEARFUL OF RETALIATION, SAYING
THAT “MOST OF US DON’T EVEN
BOTHR GOING OFFLINE BECAUSE OF
THE CONSEQUENCES.”**

recalled that this unexpected surveillance led him to change how he worked, focusing less on the quality of his output than the quantity, as the “bot requires me to push a lot of code reviews, so I’m not getting targeted.”

Devon, who works in the video game division of a major technology company in San Diego, learned through workplace rumors that the badges used to give employees access to buildings and conference rooms actually doubled as a surreptitious mechanism for performance evaluation. Badge swipes tracked when workers entered and exited certain spaces, providing supervisors with a record of worker whereabouts, which

became a proxy for assessing their overall performance amidst changing policies around remote work. Devon felt that the inconsistent enforcement of his company's return-to-work policy gave license to managers to actively surveil individual workers and unfairly interpret their badge swipe data.

Each worker connected the constant monitoring and tracking enabled by

bossware to heightened states of stress, anxiety, and burnout. More transparency from employers could assuage these feelings, but in the absence of enforceable guardrails about what worker data can be collected and how it can be used, these negative impacts are likely to worsen as more data-driven bossware tools become available to employers.

6. A FRAMEWORK FOR 21ST-CENTURY LABOR STANDARDS TO REGULATE BOSSWARE

The Regulatory Challenge

The increasing prevalence of bossware and the growing evidence of its serious and wide-ranging harms raise urgent questions for policymakers. But the majority of existing labor, employment, and data privacy laws fall woefully short when it comes to protecting workers from the potential negative impacts of these new technologies.⁷¹ As a result, employers are currently implementing untested workplace surveillance and algorithmic management systems with virtually no meaningful guardrails.

California has gone the furthest of any state in the country in beginning to tackle the regulatory challenge. For example, the California Consumer Privacy Act (CCPA) provides some workers at large companies with admittedly very basic data rights.⁷² More importantly, four bills that were recently passed into law in Sacramento establish the following first-generation guardrails:⁷³

- **SB 947 (No Robot Bosses Act)**, which bans bosses from using AI to discipline or fire workers without human oversight and corroborating data.

- **SB 951 (AI Job Killer Notice Act)**, which modernizes the WARN Act to provide workers additional information on layoffs caused by AI and directs the EDD to study the impact of AI on hiring and the workforce.
- **AB 1331 (No Bosses in the Bathroom Act)**, which bans the use of any AI surveillance in workplace bathrooms.
- **AB 1883 (Stop AI Strip Searches Act)**, which bans employers from using potentially biased and invasive forms of AI-powered surveillance in the workplace to recognize, infer, or predict workers' emotional states or collect their neural data.

These protections are not comprehensive, but they have created an important foundation for the state and its cities, counties, and municipal governments to erect a robust regulatory regime that fully protects the safety and dignity of all workers in the use of electronic monitoring and algorithmic management.

The future of U.S. labor standards is at stake. Low-road employers still have a strong incentive to use bossware to

relentlessly cut labor costs and extract ever more labor from their workers—starting a race to the bottom that makes it difficult for other employers to pursue an alternative path of technology adoption, one that equally benefits workers and the company’s bottom line. This is a key lesson from the history of labor market regulation in the U.S.: strong standards in wages and working conditions must be proactively established to set a baseline for all employers that cannot be undermined for competitive advantage.⁷⁴ As digital technologies are increasingly integrated into jobs, it is more essential than ever to heed this lesson by inaugurating a new set of 21st-century labor standards that establish worker rights and employer responsibilities for the AI- and data-driven workplace.⁷⁵

The goal of these standards should be to prohibit exploitative uses of bossware by employers while incentivizing technology adoption that supports the flourishing of all workers.⁷⁶ Unfortunately, federal legislation is unlikely to pass in the near future. Therefore, as in other areas of labor standards—such as minimum wage, paid sick leave, and fair scheduling laws—state and local governments must continue leading the way in worker-centered regulation by enacting innovative policies that can serve as models for future federal legislation.⁷⁷

The public overwhelmingly supports such common-sense measures. A recent national poll of workers who are also registered voters found that more than nine in ten workers support requiring a human to be the final decision-maker on any issues that affect workers and their employment, instituting guardrails against harmful uses of AI in the workplace, and requiring transparency and accountability over when and how employers use AI.⁷⁸ Another recent poll of 1,400 Californians found that 70% agreed upon the need for stronger laws to make

AI fair.⁷⁹ A Quinnipiac University poll also found that Americans are overwhelmingly opposed to “RoboBosses”—another name for bossware—with 80% unwilling to work in a job where their employer used an AI tool to directly assign tasks and determine schedules.⁸⁰

The following principles can help guide California’s policymakers as leaders in establishing well-crafted and enforceable policy to mitigate the risks of unchecked bossware use by employers.

Policy Principles

Across four policy principles, we propose a framework for regulating bossware and promoting worker rights in the face of the potential harms from employers’ growing use of digital technologies, drawing on a large body of policy analysis and proposals that have been developed in recent years.⁸¹

1. Employers, not algorithms, should be the ones making decisions about workers, and workers must have the right to appeal.

As documented above, employers are increasingly using bossware despite the fact that the technologies underlying these systems are error-prone, produce biased results, and can be used to exploit workers and degrade job quality.⁸² To guard against these harms, employers should be prohibited from using bossware to automatically hire, fire, discipline, or make other employment-related decisions about a worker. California’s new No Robot Bosses Act is the first in the country to prohibit employers from using bossware to discipline or fire workers without corroborating evidence; this will be an important foundation to build upon going forward. Employers should be required to use a human reviewer and gather independent, corroborating evidence

in conjunction with any employment decisions involving electronic monitoring or algorithmic management. If insufficient corroborating evidence exists, or if an employer cannot prove the accuracy of the input data relied upon by the automated decision-making system, the employer should not be allowed to use the bossware's recommendation, output, or worker data to make that decision.

Another critical safeguard is that workers should have the right to an appeal process when bossware is used to make a decision that impacts them. This includes the right to request human review of the employment decision, obtain disclosure of the data used to inform this decision, and have the opportunity to correct any errors in the data or algorithm used by the bossware. Workers must also have the right to have a union or other representatives act on their behalf in the appeal process.

2. Workers should have the right to know when and how bossware is used by their employer, and the right to access and correct their data.

Employers' lack of transparency in their deployment of bossware is one of the most significant obstacles facing workers and policymakers who are trying to track and address the harms of AI and other digital technologies. As discussed above, there is ample evidence of a significant knowledge gap between the employers implementing bossware and the workers subjected to it—one survey found that 41% of workers received no information from their employers about data collection or AI use in their workplaces.⁸³ Workers must have the right to know when employers are using electronic monitoring and algorithmic management systems in their workplace. In particular, employers should be required to issue pre-use notices whenever they introduce or make changes (including software updates) to bossware systems.

These notices should include detailed information on what worker data is being collected by electronic monitoring systems and how the employer will use that data to make employment-related decisions. Pre-use notices should also disclose the kinds of data and logic used in algorithmic management systems, and which employment-related decisions could be affected by such systems.

Even more important, employers should be required to issue post-use notices to affected workers whenever they use bossware to make an employment-related decision; California's new No Robot Bosses Act, for example, requires post-use notice in the case of firing and discipline decisions. Workers must have the right to know when these types of decisions have been made using algorithmic management or electronic monitoring, be provided with details about the systems and data that were used, and have the right to appeal those decisions.

Finally, workers must have the right to access and review their data, with a transparent and timely process established by the employer for correcting any errors. Workers must additionally have the right to prevent their own data and work product from being used to train AI systems that then replace their jobs. And importantly, employers should be legally prohibited from selling or transferring worker data to vendors, subcontractors, or other third parties, barring exceptional circumstances or when required by law.

3. Employers should be prohibited from using bossware in ways that are intrusive and harmful.

An important part of incentivizing employers to use digital technologies responsibly is to prohibit clearly harmful uses that are inappropriate in any scenario. Employers should not be allowed to use bossware to violate established labor, health and

safety, or civil rights laws, or to gather or infer sensitive data about a worker, such as their immigration status, political beliefs, or sexual orientation, as prohibited by the new No Robot Bosses Act. Further, employers should be prohibited from using any technologies proven to be biased or prone to error, including those that purport to recognize workers' faces, gait, or emotions, or that collect neural data; California's new Stop AI Strip Searches Act prohibits the use of the latter two technologies. Finally, all electronic monitoring should be prohibited when workers are off-duty or in bathrooms or other private areas, as California now does with its new No Bosses in the Bathroom Act.

Another set of prohibitions focuses on uses of bossware that are unfair to workers and make inferences about them that have nothing to do with their actual performance on the job. For example, employers should not be allowed to use algorithmic management to profile workers and predict their behavior, beliefs, health status, or other characteristics unrelated to their job function. Similarly, employers should not be allowed to use workforce management systems in any way that violates labor, health and safety, or civil rights laws. A related principle would prohibit employers from using surveillance data about a worker to set individualized wages. When data is collected from or about workers, there must be a broad prohibition on using this data to develop or train algorithmic models that could replace these workers.

4. All workers must be protected, and they should have the power to enforce their rights.

An essential principle to effectively regulate employers' use of bossware is the comprehensive coverage of all workers, including job applicants, employees, and independent contractors, as well as all private and public sector employers. This

should extend to include workers employed through labor subcontractors, temporary staffing agencies, or any other relevant intermediaries. Workers must also have strong recourse and enforcement rights; they should have the right to file a complaint with a government agency, and to sue employers directly over illegal bossware use. Workers must also have the right to be free from retaliation.

The Opportunity for Local Innovation

As employers across the state continue to adopt workforce management systems like those described in this report, California's workers are increasingly vulnerable to a wide range of harms. Bossware is not an autonomous system deployed in a vacuum; rather, it is a tool used by employers to achieve specific outcomes that impact wages, working conditions, and job quality. Ultimately, how employers choose to deploy these tools depends on the legal and economic incentives established through state and local policymaking.

Legislators stand at an inflection point, with the power to determine whether employers' use of bossware will be regulated in ways that protect workers and foster more equitable and fair workplaces, or make work harder, more dangerous, less fair, and less sustainable for millions of Californians.⁸⁴ The actions taken by legislators can significantly reshape how new technologies impact not only workers, but the broader communities they serve and engage with every day, including a wide range of affected constituents like patients, students, parents, tenants, and consumers.

Policymakers at all levels have a role to play in meeting the regulatory challenge. State legislators have been hard at work over the past two years, introducing trend-setting bills addressing a range of consumer and workplace technologies—and some of

these have begun to pass, including the four recent bills described above. But cities, counties, and municipal governments have a significant opportunity to meaningfully contribute to the pursuit of achieving worker-centered technology policy.

From paid sick days to minimum wage and fair scheduling laws, California's local governments have been trailblazers in advancing workers' rights, often resulting in policy innovations that are subsequently adopted at the state and federal levels.⁸⁵

In particular, cities have the opportunity to lead the charge and build upon the first-generation workplace technology guardrails established at the state level by further strengthening workers' rights to know about, challenge, and be protected from the harms of employers' use of bossware. Acting in concert, our state and local policymakers can ensure that workers have access to fair, safe, and dignified jobs amidst ongoing rapid technological change.

7. ENDNOTES

1. For an overview of how AI is being used by governments, landlords, employers, and other powerful private interests, see Kevin De Liban, *Inescapable AI: The Ways AI Decides How Low-Income People Work, Live, Learn, and Survive* (TechTonic Justice, November 2024), <https://www.techtonicjustice.org/reports/inescapable-ai>.

2. Luke Munn, "Expansive and Invasive: Mapping the 'Bossware' Used to Monitor Workers," *Surveillance & Society* 22, no. 2 (2024): 104-119, <https://doi.org/10.24908/ss.v22i2.16179>; Alexander Hertel-Fernandez, "Estimating the prevalence of automated management and surveillance technologies at work and their impact on workers' well-being," *Washington Center for Equitable Growth*, October 1, 2024, <https://equitablegrowth.org/research-paper/estimating-the-prevalence-of-automated-management-and-surveillance-technologies-at-work-and-their-impact-on-workers-well-being/>; Lora Kelley, "Are 'Bossware' Tools Tracking You?" *The New York Times*, March 1, 2026, <https://www.nytimes.com/2026/03/01/business/bossware-work-surveillance-tools.html>.

3. Annette Bernhardt and Lisa Kresge, "Electronic Monitoring and Automated Decision Systems: Frequently Asked Questions," *UC Berkeley Labor Center*, May 2025, 1, <https://laborcenter.berkeley.edu/electronic-monitoring-and-automated-decision-systems-frequently-asked-questions/>; Irene Tung et al., "When 'Bossware' Manages Workers: A Policy Agenda to Stop Digital Surveillance and Automated-Decision-System Abuses," *National Employment Law Project*, July 2025, 4, <https://www.nelp.org/insights-research/when-bossware-manages-workers-digital-surveillance-automated-decision-system-abuses/>; Annette Bernhardt, Lisa Kresge, and Reem Suleiman, "Data & Algorithms at Work: The Case for Worker Technology Rights," *UC Berkeley Labor Center*, November 3, 2021, <https://laborcenter.berkeley.edu/data-algorithms-at-work/>.

4. Tung et al., "When 'Bossware' Manages Workers."

5. U.S. Government Accountability Office, *Digital Surveillance of Workers: Tools, Uses, and Stakeholder Perspectives*, GAO-24-107639 (August 28, 2024), <https://www.gao.gov/products/gao-24-107639>; Bennett Cyphers and Karen Gullo, "Inside the Invasive, Secretive 'Bossware' Tracking Workers," *Electronic Frontier Foundation*, June 30, 2020, <https://www.eff.org/>

deeplinks/2020/06/inside-invasive-secretive-bossware-tracking-workers; Kelley, “Bossware’ Tools”; U.S. Government Accountability Office, *Digital Surveillance: Potential Effects on Workers and Roles of Federal Agencies*, GAO-25-107126 (September 2, 2025; rev. December 10, 2025), <https://www.gao.gov/products/gao-25-107126>.

6. Alexandra Mateescu and Aiha Nguyen, “Explainer: Algorithmic Management in the Workplace,” *Data & Society*, February 6, 2019, <https://datasociety.net/research-library/explainer-algorithmic-management-in-the-workplace/>; “Algorithmic Management in the Workplace,” *OECD Artificial Intelligence Papers*, no. 31 (February 2025), <https://doi.org/10.1787/287c13c4-en>.

7. Stacia Garr and Priyanka Mehrotra, *People Analytics Tech 2020*, RedThread Research, December 2020, archived November 6, 2022, at https://web.archive.org/web/20221106154208/https://redthreadresearch.com/wp-content/uploads/2020/12/RedThread_PAT2020_Final-1.pdf; “Employee Monitoring Software Market,” IndustryARC, 2024, <https://www.industryarc.com/Report/19332/employee-monitoring-software-market.html>; Kiran Jinkalwad and Aarti Dhapte, *Employee Monitoring Solution Market* (Market Research Future, July 2026), <https://www.marketresearchfuture.com/reports/employee-monitoring-solution-market-7623>; *Employee Monitoring Software Market Size, Share, and Growth Analysis* (SkyQuest Technology, January 2025), <https://www.skyquestt.com/report/employee-monitoring-software-market>; *Employee Monitoring Software Market Report 2026* (The Business Research Company / Research and Markets, February 2026), <https://www.researchandmarkets.com/report/global-employee-monitoring-market>; *Employee Surveillance and Monitoring Software Market Size, Share & Industry Analysis* (Fortune Business Insights, July 2026), <https://www.fortunebusinessinsights.com/employee-surveillance-and-monitoring-software-market-104796>.

8. Roy Maurer, Global HR Tech Investment Surges in 2025, SHRM, October 6, 2025, <https://www.shrm.org/topics-tools/news/technology/global-hr-tech-investment-surges-in-2025>.

9. “Bossware and Employment Tech Database,” *Coworker.org*, November 17, 2021, <https://home.coworker.org/worktech/>.

10. U.S. Census Bureau, “About the Annual Business Survey (ABS),” accessed September 2, 2026, <https://www.census.gov/programs-surveys/abs/about.html>.

11. “2007 Electronic Monitoring & Surveillance Survey,” American Management Association and The ePolicy Institute, 2007, <http://www.epolicyinstitute.com/2007-survey-results>.

12. Brian Kropp, “The Future of Employee Monitoring,” *Gartner*, May 3, 2019, archived June 29, 2022, at <https://web.archive.org/web/20220629180618/https://www.gartner.com/smarterwithgartner/the-future-of-employee-monitoring>.

13. Jodi Kantor and Arya Sundaram, “The Rise of the Worker Productivity Score,” *The New York Times*, August 14, 2022, <https://www.nytimes.com/interactive/2022/08/14/business/worker-productivity-tracking.html>.

14. “6 in 10 Employers Require Monitoring Software for Remote Workers,” *Digital.com*, January 31, 2022, archived May 9, 2022, at <https://web.archive.org/web/20220509115502/https://digital.com/6-in-10-employers-require-monitoring-software-for-remote-workers/>; Lauren Hendry Parsons, “80% of Employers Engage in Remote Work Surveillance, ExpressVPN Survey

Finds,” *ExpressVPN Blog*, March 10, 2023, <https://www.expressvpn.com/blog/expressvpn-survey-surveillance-on-the-remote-workforce/>; Kantor and Sundaram, “The Rise of the Worker Productivity Score”; Jordan Turner, “The Right Way to Monitor Your Employee Productivity,” *Gartner*, June 9, 2022, archived March 17, 2023, at <https://web.archive.org/web/20230317011019/https://www.gartner.com/en/articles/the-right-way-to-monitor-your-employee-productivity>; “U.S. Survey: 1 in 6 Workers Would Quit Over Workplace Surveillance as Monitoring Increases,” *ExpressVPN Blog*, June 2, 2025, www.expressvpn.com/blog/workplace-surveillance-trends-us/.

15. “U.S. Survey: 1 in 6 Workers Would Quit,” *ExpressVPN*.

16. Irene Tung and Paul Sonn, *Fired with No Reason, No Warning, No Severance: The Case for Replacing At-Will Employment with a Just Cause Standard*, National Employment Law Project, December 2022, <https://www.nelp.org/app/uploads/2022/12/2022-Just-Cause-Survey-Report-FINAL3.pdf>.

17. *2023 Work in America Survey: Artificial Intelligence, Monitoring Technology, and Psychological Well-Being*, American Psychological Association, September 15, 2023, <https://www.apa.org/pubs/reports/work-in-america/2023-work-america-ai-monitoring>.

18. Jobs for the Future, *The American Job Quality Study: 2025 State of the U.S. Labor Force*, October 2025, https://www.jff.org/wp-content/uploads/2025/10/AmericanJobQualityReport_Final_10142025.pdf.

19. “The Right Way to Monitor Your Employee Productivity,” *Gartner*.

20. Lee Rainie et al., “AI in Hiring and Evaluating Workers: What Americans Think,” *Pew Research Center*, April 20, 2023, <http://www.pewresearch.org/internet/2023/04/20/ai-in-hiring-and-evaluating-workers-what-americans-think/>.

21. We are indebted to numerous researchers and advocates who have described, analyzed, and offered frameworks to understand the harms of bossware. See, e.g. Bernhardt, Kresge, and Suleiman, *Data & Algorithms at Work*; Irene Tung and Paul Sonn, *Fired with No Reason, No Warning, No Severance* (National Employment Law Project, July 2021), 8–15, <https://www.nelp.org/insights-research/fired-with-no-reason-no-warning-no-severance-the-case-for-replacing-at-will-employment-with-a-just-cause-standard/>; Stephanie T. Nguyen et al., *Workplace Monitoring Platforms Are Sharing Your Data: An Investigation & Roadmap to Address Data Abuses* (New York: Columbia Law School Center for Law and the Economy, May 2026), 46–53, https://scholarship.law.columbia.edu/law_economy/5; Annette Bernhardt and Lisa Kresge, “Electronic Monitoring and Automated Decision Systems: Frequently Asked Questions,” UC Berkeley Labor Center, May 13, 2025, 4–5, <https://laborcenter.berkeley.edu/electronic-monitoring-and-automated-decision-systems-frequently-asked-questions/>; Matt Scherer and Ly Xīnzhen M. Zhāngsūn Brown, *Warning: Bossware May Be Hazardous to Your Health* (Center for Democracy & Technology, July 24, 2021), <https://cdt.org/insights/report-warning-bossware-may-be-hazardous-to-your-health/>; Kathryn Zickuhr, “Workplace Surveillance Is Becoming the New Normal for U.S. Workers,” Washington Center for Equitable Growth, August 18, 2021, <https://equitablegrowth.org/workplace-surveillance-is-becoming-the-new-normal-for-u-s-workers>; Katherine Eyster and Sara Steffens, “Introduction to AI and Worker Power: Understanding Key Issues and Impacts for Workers,” Congressional Progressive Caucus Center, September 11, 2025, <https://webuildprogress.org/explainer-2025-09-11>; “Issue Brief: Without Robust Guardrails, AI

Harms Workers,” AFL-CIO Tech Institute, March 25, 2026, <https://aflciotechinstitute.org/policy/AIHarmIssueBrief>.

22. Tricia Miller Klapheke, “SCS Faculty Advise Government Officials on Benefits, Threats and Regulation Required for Ethical AI Implementation,” *The Link*, accessed August 10, 2026, <https://magazine.cs.cmu.edu/shaping-ai-policy>; Rebecca Plevin, “More Stress, Fewer Breaks. Hotel Housekeepers Reveal What It’s Like Working for an App,” *Proof*, May 19, 2026, <https://www.proofnews.org/hotel-housekeepers/>; and Alexandra Mateescu, *Electronic Visit Verification: The Weight of Surveillance and the Fracturing of Care*, (New York: Data & Society Research Institute, November 16, 2021), https://datasociety.net/wp-content/uploads/2021/11/EVV_REPORT_11162021.pdf.

23. Sara Baiocco et al., *The Algorithmic Management of Work and Its Implications in Different Contexts*, Background Paper no. 9 (Geneva and Brussels: International Labour Organization and European Commission, June 2022), <https://www.ilo.org/publications/algorithmic-management-work-and-its-implications-different-contexts>.

24. Alex J. Wood, “Algorithmic management consequences for work organisation and working conditions,” *JRC Working Papers Series on Labour, Education and Technology*, No. 2021/07, European Commission, Joint Research Centre (JRC), Seville, 2021, <https://publications.jrc.ec.europa.eu/repository/handle/JRC124874>; Jorge Martín et al., “Algorithmic management and AI-based systems as a new form of work organisation,” *Partnership for European Research in Occupational Safety and Health*, 2025, <https://perosh.eu/repository/report-algorithmic-management-and-ai-based-systems-as-a-new-form-of-work-organisation/>.

25. Lisa Kresge, “35 Years Under Electronic Monitoring and Still Waiting for Worker Rights,” *UC Berkeley Labor Center*, January 6, 2023, <https://laborcenter.berkeley.edu/35-years-under-electronic-monitoring-and-still-waiting-for-worker-rights/>.

26. American Psychological Association, “Worries about AI, surveillance at work may be connected to poor mental health,” Press Release, September 7, 2023, <https://www.apa.org/news/press/releases/2023/09/artificial-intelligence-poor-mental-health>. See also Matt Scherer et al., *What Do Workers Want? - A CDT/Coworker Deliberative Poll on Workplace Surveillance and Datafication* (Center for Democracy and Technology and Coworker, March 2025), <https://cdt.org/insights/what-do-workers-want-a-cdt-coworker-deliberative-poll-on-workplace-surveillance-and-datafication/>; Daniel M. Ravid et al., “A meta-analysis of the effects of electronic performance monitoring on work outcomes,” *Personnel Psychology* 76, no. 1 (2022): 5–40, <https://doi.org/10.1111/peps.12514>; Rudolf Siegel et al., “The impact of electronic monitoring on employees’ job satisfaction, stress, performance, and counterproductive work behavior,” *Computers in Human Behavior Reports* 8 (December 2022), <https://doi.org/10.1016/j.chbr.2022.100227>.

27. Mishal Khan, *At Work and Under Watch: Surveillance and Suffering at Amazon and Walmart Warehouses* (Boston: Oxfam America, April 9, 2024), <https://www.oxfamamerica.org/explore/research-publications/at-work-and-under-watch/>; *The Injury Machine: How Amazon’s Production System Hurts Workers* (Strategic Organizing Center, April 2022), https://thesoc.org/wp-content/uploads/sites/342/The-Injury-Machine_How-Amazons-Production-System-Hurts-Workers-1.pdf; Scherer et al., *Warning*; “Comment of Public Citizen to the White House Office of Science and Technology Request for Information: Automated Worker Surveillance and Management Docket Number OSTP-FRDOC-0001,” June 29, 2023; “Comment of Governing for

Impact and the Center for Democracy and Technology to The Occupational Safety and Health Administration and The National Institute for Occupational Safety and Health,” April 3, 2023; Paula Fontenelle, “The AI Rush Is Burning Us Out,” *Psychology Today*, November 4, 2025, <https://www.psychologytoday.com/us/blog/understanding-suicide/202511/the-ai-rush-is-burning-us-out-and-freezing-our-leaders>; Kat Roemmich et al., “Emotion AI at Work,” *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems*, April 19, 2023, <https://doi.org/10.1145/3544548.3580950>.

28. Hertel-Fernandez, “Estimating the prevalence of automated management and surveillance technologies at work.”

29. Mairi Bowdler et al., “Algorithmic management and psychosocial risks at work: An Emerging Occupational Safety and Health Challenge,” *Scandinavian Journal of Work, Environment, and Health* 52, no. 1 (2026), <https://www.sjweh.fi/article/4270>; Annarosa Pesole, “Surveillance and monitoring of remote workers,” Luxembourg: *European Agency for Safety and Health at Work*, 2023, https://osha.europa.eu/sites/default/files/documents/Remote_workers_monitoring_report_en_2.pdf.

30. Merv Hickok et al., “A policy primer and roadmap on AI worker surveillance and productivity scoring tools,” *AI Ethics* 3, no. 4, (2023), <https://doi.org/10.1007/s43681-023-00275-8>; Christine Carter, “AI Surveillance: Reclaiming Privacy through Informational Control,” *European Labour Law Journal* 16, no. 2 (2025), <https://doi.org/10.1177/20319525241306327>.

31. In health care settings, this issue has been particularly pernicious, see Chris Mills Rodrigo, “The Nurses Union Breaking Ranks to Fight AI in Hospitals,” *Tech Policy Press*, April 1, 2026, <https://www.techpolicy.press/the-nurses-union-breaking-ranks-to-fight-ai-in-hospitals/>; “AI’s Impact on Nursing and Health Care,” National Nurses United, accessed June 13, 2026, <https://www.nationalnursesunited.org/artificial-intelligence>; and National Nurses United, Comment Letter on “Use of Clinical Algorithms That Have the Potential To Introduce Racial/Ethnic Bias Into Healthcare Delivery, Request for Information (RFI),” 86 Fed. Reg. 12,948 (Mar. 5, 2021), May 11, 2021, https://www.nationalnursesunited.org/sites/default/files/nnu/documents/NNU_Comments_AHRQ_Clinical_Algorithms_Racial_Ethnic_Bias.pdf.

32. Amanda Ballantyne et al., “Crafting an Innovation Ecosystem That Works for Working People,” *New England Journal of Public Policy* 34, no. 1 (July 10, 2022): 3, <https://scholarworks.umb.edu/nejpp/vol34/iss1/11>.

33. David Autor and Neil Thompson, “Expertise,” NBER Working Paper No. 33941 (Cambridge, MA: National Bureau of Economic Research, June 2025), <https://doi.org/10.3386/w33941>.

34. Samuel Greengard, “The AI Deskilling Paradox,” *Communications of the ACM*, November 7, 2025, <https://cacm.acm.org/news/the-ai-deskilling-paradox/>; Theo Cox and Gerard Rinse Oosterwijk, *Algorithmic Management in the Workplace* (Brussels: Foundation for European Progressive Studies, October 2024), <https://feps-europe.eu/wp-content/uploads/2024/09/Algorithmic-management-in-traditional-workplaces.pdf>; Gonul Bodur et al., “Artificial Intelligence in Nursing Practice: A Qualitative Study of Nurses’ Perspectives on Opportunities, Challenges, and Ethical Implications,” *BMC Nursing* 24 (October 14, 2025): 1263, <https://doi.org/10.1186/s12912-025-03775-6>.

35. Greengard, “The AI Deskilling Paradox.”

36. Yuhe Ke et al., “AI-induced never-skilling in medical education,” *Nature Medicine*, 32, no. 6 (May 22, 2026): 1997-2006, <https://doi.org/10.1038/s41591-026-04438-y>; Liz Mineo, “‘De-skilling’ is bad. This is worse,” *The Harvard Gazette*, May 11, 2026, <https://news.harvard.edu/gazette/story/2026/05/deskilling-is-bad-this-is-worse/>.
37. “Issue Brief,” AFL-CIO; Karen Levy, “Labor Under Many Eyes,” *Law and Political Economy Project*, January 31, 2023, <https://lpeproject.org/blog/labor-under-many-eyes/>.
38. For examples across a number of industries, see Alvaro M. Bedoya, “Life in Hawtch-Hawtch: Unfairness in Workplace Surveillance and Automated Management” (remarks, New York University Wagner Labor Initiative, November 17, 2024), 11n42, https://www.ftc.gov/system/files/ftc_gov/pdf/bedoya-remarks-unfairness-in-workplace-surveillance-and-automated-management.pdf; Allison Koenecke et al., “Racial Disparities in Automated Speech Recognition,” *Proceedings of the National Academy of Sciences* 117, no. 14 (April 2020): 7684–89, <https://doi.org/10.1073/pnas.1915768117>; Claudia Lopez Lloreda, “Speech Recognition Tech Is Yet Another Example of Bias,” *Scientific American*, July 5, 2020, <https://www.scientificamerican.com/article/speech-recognition-tech-is-yet-another-example-of-bias/>; PowerSwitch Action and Gig Workers Rising, *Uber’s Inequality Machine* (June 2025), <https://www.datocms-assets.com/64990/1752622539-ubers-inequality-machine-07152025.pdf>.
39. See “Digital Inclusion 101,” *National Digital Inclusion Alliance*, last checked June 14, 2026, <https://www.digitalinclusion.org/digital-inclusion-101/>; Joseph B. Fuller, “Hidden Workers,” *Harvard Business School, Managing the Future of Work*, October 4, 2021, <https://www.hbs.edu/managing-the-future-of-work/research/hidden-workers-untapped-talent>.
40. Yeshimabeit Milner and Amy Traub, *Data Capitalism and Algorithmic Racism* (New York: Data for Black Lives and Demos, May 17, 2021), <https://www.demos.org/research/data-capitalism-and-algorithmic-racism>; Pauline T. Kim, “Data-Driven Discrimination at Work,” *William & Mary Law Review* 58, no. 3 (2017): 857-936, <https://scholarship.law.wm.edu/wmlr/vol58/iss3/4/>; Ruha Benjamin, *Race After Technology: Abolitionist Tools for the New Jim Code* (Cambridge, UK: Polity Press, 2019), <https://politybooks.com/bookdetail/?isbn=9781509526390>.
41. Hertel-Fernandez, “Estimating the prevalence of automated management and surveillance technologies at work.”
42. Seema N. Patel, “Governance & Guardrails: Artificial Intelligence and Low-Wage Workers,” *Maryland Law Review* 85, no. 1 (2025): 9n40, <https://digitalcommons.law.umaryland.edu/mlr/vol85/iss1/2>.
43. Qiuping Yu, “How Customer Feedback Surveys Perpetuate Workplace Inequality,” *Brookings Institution*, May 20, 2025, <https://www.brookings.edu/articles/how-customer-feedback-surveys-perpetuate-workplace-inequality/>; Keith Cunningham-Parmeter, “Discrimination by Algorithm: Employer Accountability for Biased Customer Reviews,” *UCLA Law Review* 70 (2023): 92-153, https://lawcommons.lclark.edu/faculty_articles/208; Sam Harnett, “Black and Brown Gig Workers Report Lower Ratings—But Companies Make Bias Hard to Track,” *KQED*, July 22, 2021, <https://www.kqed.org/news/11878952/black-and-brown-gig-workers-report-lower-ratings-but-companies-make-bias-hard-to-track>; Alex Rosenblat et al., “Discriminating Tastes: Uber’s Customer Ratings as Vehicles for Workplace Discrimination,” *Policy & Internet* 9, no. 3 (2017): 256-79, <https://doi.org/10.1002/poi3.153>.

44. Irene Tung et al., “When ‘Bossware’ Manages Workers,” 8; Irene Tung, Paul Sonn, and Jared Odessky, *Just Cause Job Protections: Building Racial Equity and Shifting the Power Balance between Workers and Employers* (New York: National Employment Law Project, April 30, 2021), <https://www.nelp.org/insights-research/just-cause-job-protections-building-racial-equity-and-shifting-the-power-balance-between-workers-and-employers/>; Tiran Bajgiran, “When Algorithms Fire Humans,” *OnLabor* (blog), January 5, 2022, <https://onlabor.org/when-algorithms-fire-humans/>; Kirstie Ball, *Electronic Monitoring and Surveillance in the Workplace: Literature Review and Policy Recommendations* (Luxembourg: Publications Office of the European Union, 2021), <https://doi.org/10.2760/5137>; Madeleine Clare Elish, “Letting Autopilot Off the Hook,” *Slate*, June 16, 2016, <https://slate.com/technology/2016/06/why-do-blame-humans-when-automation-fails.html>; Lauren Kaori Gurley, “Amazon’s AI Cameras Are Punishing Drivers for Mistakes They Didn’t Make,” *Vice*, September 20, 2021, <https://www.vice.com/en/article/amazons-ai-cameras-are-punishing-drivers-for-mistakes-they-didnt-make/>.

45. Livia Garofalo et al., *Essentially Unprotected: Health Data and Surveillance of Essential Workers During the COVID-19 Pandemic* (New York: Data & Society Research Institute, February 22, 2023), <https://datasociety.net/research-library/essentially-unprotected-health-data-and-surveillance-of-essential-workers-during-the-covid-19-pandemic/>; Ifeoma Ajunwa, “The ‘black box’ at work,” *Big Data & Society* 7, no. 2 (2020), <https://doi.org/10.1177/2053951720938093>; Daniel Diez, “From Hire to Fire,” *University of Miami Business Law Review*, November 11, 2025, <https://business-law-review.law.miami.edu/from-hire-to-fire-how-ai-is-reshaping-civil-liability-in-the-workplace/>; Veronica Avila et al., “Driven Out By AI,” *Action Center on Race & the Economy*, March 19, 2025, https://acrecampaigns.org/research_post/driven-out-by-ai/; Jeremias Adams-Prassl et al., “Regulating Algorithmic Management: A Blueprint,” *European Labour Law Journal* 14, no. 2 (2023): 140, <https://doi.org/10.1177/20319525231167299>.

46. See, e.g., Jodi Kantor et al., “The Amazon That Customers Don’t See,” *New York Times*, June 15, 2021, <https://www.nytimes.com/interactive/2021/06/15/us/amazon-workers.html>; Todd Bishop, “Amazon’s ‘Turnover Machine,’” *GeekWire*, June 18, 2021, <https://www.geekwire.com/2021/amazons-turnover-machine-inside-nyts-investigation-tech-giants-hr-practices/>.

47. Zephyr Teachout, “Algorithmic Personalized Wages,” *Politics & Society* 51, no. 3 (2023), https://ir.lawnet.fordham.edu/faculty_scholarship/1276; Veena Dubal, “On Algorithmic Wage Discrimination,” *Columbia Law Review* 123, no. 7 (2023): 1929–1992, https://columbialawreview.org/wp-content/uploads/2023/11/Dubal-On_Algorithmic_Wage_discrimination.pdf; AI Now Institute et al., *Prohibiting Surveillance Prices and Wages* (2025), <https://ainowinstitute.org/wp-content/uploads/2025/02/Real-Surveillance-Prices-and-Wages-Report.pdf>; Katie J. Wells and Funda Ustek Spilda, *Uber for Nursing: How an AI-Powered Gig Model Is Threatening Health Care* (New York: Roosevelt Institute, December 17, 2024), <https://rooseveltinstitute.org/publications/uber-for-nursing/>.

48. Zephyr Teachout, “When Big Brother Is Your Boss: The Rise of Surveillance Wages,” *The Nation*, January 5, 2022, <https://www.thenation.com/?p=404926>.

49. Veena Dubal and Wilneida Negrón, “How Artificial Intelligence Uncouples Hard Work from Fair Wages through ‘Surveillance Pay’ Practices—and How to Fix It,” Washington Center for Equitable Growth, August 21, 2025, <https://equitablegrowth.org/how-artificial-intelligence-uncouples-hard-work-from-fair-wages-through-surveillance-pay-practices-and-how-to-fix-it/>.

50. Elizabeth C. Tippet, “How Employers Profit from Digital Wage Theft Under the FLSA,” *American Business Law Journal* 55 (2018): 315–401, <https://ssrn.com/abstract=3877641>.

51. Tippet, “Digital Wage Theft.”

52. Tung et al., “When ‘Bossware’ Manages Workers;” Dubal, “On Algorithmic Wage Discrimination.”

53. Heather Boushey, “In Conversation with David Weil,” Washington Center for Equitable Growth, June 22, 2017, <https://equitablegrowth.org/equitable-growth-in-conversation-david-weil/>.

54. Reports have shown that major employers are already using bossware to this end; see Susan Berfield, “How Walmart Keeps an Eye on Its Massive Workforce,” *Bloomberg Businessweek*, November 24, 2015, <https://www.bloomberg.com/features/2015-walmart-union-surveillance/>; Jason Del Rey and Shirin Ghaffary, “Leaked: Confidential Amazon Memo Reveals New Software to Track Unions,” *Vox*, October 6, 2020, <https://www.vox.com/recode/2020/10/6/21502639/amazon-union-busting-tracking-memo-spc>; Indigo Oliver, “McDonald’s Spies on Union Activists—That’s How Scared They Are of Workers’ Rights,” *The Guardian*, March 2, 2021, <https://www.theguardian.com/commentisfree/2021/mar/02/mcdonalds-unions-workers-rights>; Jo Constantz, “They Were Spying on Us,” *Newsweek*, December 13, 2021, <https://www.newsweek.com/they-were-spying-us-amazon-walmart-use-surveillance-technology-bust-unions-1658603>.

55. Charlotte Garden and Michael Oswalt, “Collective Bargaining Can Counteract Intrusive Workplace Surveillance,” *The Hill*, June 4, 2024, <https://thehill.com/opinion/technology/4701779-collective-bargaining-can-counteract-intrusive-workplace-surveillance/>.

56. Hayley Peterson, “Amazon-Owned Whole Foods Is Quietly Tracking Its Employees with a Heat Map Tool That Ranks Which Stores Are Most at Risk of Unionizing,” *Business Insider*, April 20, 2020, <https://www.businessinsider.com/whole-foods-tracks-unionization-risk-with-heat-map-2020-1>; Annie Palmer, “How Amazon Keeps a Close Eye on Employee Activism to Head Off Unions,” *CNBC*, October 24, 2020, <https://www.cnn.com/2020/10/24/how-amazon-prevents-unions-by-surveilling-employee-activism.html>.

57. U.S. National Labor Relations Board, “NLRB General Counsel Issues Memo on Unlawful Electronic Surveillance and Automated Management Practices,” Office of Public Affairs, October 31, 2022, <https://www.nlr.gov/news-outreach/news-story/nlr-general-counsel-issues-memo-on-unlawful-electronic-surveillance-and>; Teke Wiggins, “Weaponizing the Workplace: How Algorithmic Management Shaped Amazon’s Antiunion Campaign in Bessemer, Alabama,” *Socius* 11 (2025), <https://doi.org/10.1177/23780231251318389>.

58. Abby Frerick, Abigail Kunkler, and Mayu Tobin-Miyaji, *Who’s Got the Power? Restoring Worker Power in the Age of Algorithmic Unionbusting*, Electronic Privacy Information Center and National Institute for Workers’ Rights, July 2026, <https://epic.org/whos-got-the-power/>.

59. See, for example, Jay Stanley, “Amazon Drivers Placed Under Robot Surveillance Microscope,” *American Civil Liberties Union*, March 23, 2021, <https://www.aclu.org/news/privacy-technology/amazon-drivers-placed-under-robot-surveillance-microscope>; Jay Stanley, “The Nightmarish

Loss of Workplace Privacy,” *American Civil Liberties Union*, August 26, 2022, <https://www.aclu.org/news/privacy-technology/the-nightmarish-loss-of-workplace-privacy>.

60. Ifeoma Ajunwa, Kate Crawford, and Jason Schultz, “Limitless Worker Surveillance,” *California Law Review* 105 (2017), <https://ssrn.com/abstract=2746211>; Ifeoma Ajunwa, *The Quantified Worker: Law and Technology in the Modern Workplace* (Cambridge: Cambridge University Press, 2023), <https://www.cambridge.org/core/books/the-quantified-worker/CDA274EFF118E3AB6E583424D95DF40D>.

61. Nazanin Andalibi, “Emotion AI Will Not Fix the Workplace,” *Interactions* 32, no. 2 (March–April 2025): 33–35, <https://interactions.acm.org/archive/view/march-april-2025/emotion-ai-will-not-fix-the-workplace>; Stephanie T. Nguyen, “‘Bossware’ Is Spying on Workers and Sharing Their Data,” *Vanderbilt Policy Accelerator*, May 21, 2026, <https://vanderbiltpolicyaccelerator.substack.com/p/bossware-is-spying-on-workers-and-sharing-their-data>; Ellen Cushing, “The Rise of Emotional Surveillance,” *The Atlantic*, May 3, 2026, <https://www.theatlantic.com/culture/2026/05/worker-surveillance-emotion-ai/687029/>.

62. Nguyen, “Bossware,” 29.

63. Nguyen, “Bossware,” 6.

64. See, e.g., Bernhardt, Kresge, and Suleiman, *Data & Algorithms at Work*.

65. Joan C. Williams et al., *Stable Scheduling Increases Productivity and Sales* (San Francisco: Center for WorkLife Law, UC Hastings College of the Law, 2018), <https://worklifelaw.org/publications/Stable-Scheduling-Study-Report.pdf>.

66. Virginia Doellgast et al., *AI in Contact Centers: Artificial Intelligence and Algorithmic Management in Frontline Service Workplaces* (Ithaca, NY: Cornell University ILR School, 2023), <https://ecommons.cornell.edu/entities/publication/2c04c957-d672-400e-9aed-adb5f6ace640>.

67. Thomas A. Kochan, Ben Armstrong, Julie Shah, Emilio J. Castilla, Ben Likis, and Martha E. Mangelsdorf, “Bringing Worker Voice into Generative AI,” *An MIT Exploration of Generative AI*, March 2024, <https://doi.org/10.21428/e4baedd9.0d255ab6>.

68. Worker names have been pseudonymized to ensure confidentiality.

69. John Culnan, Seongjin Park, Meghavarshini Krishnaswamy, and Rebecca Sharp, “Me, Myself, and Ire: Effects of Automatic Transcription Quality on Emotion, Sarcasm, and Personality Detection,” in *Proceedings of the Eleventh Workshop on Computational Approaches to Subjectivity, Sentiment and Social Media Analysis* (Online: Association for Computational Linguistics, 2021), 250–56, <https://aclanthology.org/2021.wassa-1.26/>; Alicia Beckford Wassink, Cady Gansen, and Isabel Bartholomew, “Uneven Success: Automatic Speech Recognition and Ethnicity-Related Dialects,” *Speech Communication* 140 (May 2022): 50–70, <https://doi.org/10.1016/j.specom.2022.03.009>; Matheus Schmitz, Rehan Ahmed, and Jimi Cao, “Bias and Fairness on Multimodal Emotion Detection Algorithms,” *arXiv*, submitted May 11, 2022, preprint, <https://doi.org/10.48550/arXiv.2205.08383>.

70. Berfield, “How Walmart Keeps an Eye”; Del Rey and Ghaffary, “Leaked: Confidential Amazon

Memo”; Oliver, “McDonald’s Spies on Union Activists”; Constantz, “They Were Spying on Us.”

71. See Patel, “Governance & Guardrails”; Pauline Kim and Matthew T. Bodie, “Artificial Intelligence and the Challenges of Workplace Discrimination and Privacy,” *ABA Journal of Labor & Employment Law* 35, no. 2 (2021): 289, https://openscholarship.wustl.edu/law_scholarship/434; Ajunwa, *Quantified Worker*; Reed Shaw, “Electronic Surveillance Is Short-Circuiting Employment and Labor Law,” Law & Political Economy Project, February 6, 2023, <https://lpeproject.org/blog/electron-surveillance-is-short-circuiting-employment-and-labor-law/>; Veena Dubal, “Data Laws at Work,” *Yale Law Journal Forum* 134 (January 31, 2025): 405–447, <https://yalelawjournal.org/forum/data-laws-at-work>.

72. Kung Feng, *Your Work, Your Data: A Toolkit for Exercising Worker Data Rights Under the California Consumer Privacy Act* (UC Berkeley Labor Center, 2024), <https://laborcenter.berkeley.edu/your-work-your-data>.

73. California Federation of Labor Unions. “Governor Gavin Newsom Signs California Federation of Labor Unions’ Sponsored Bills Regulating AI in the Workplace,” press release, September 30, 2026, <https://calaborfed.org/press-releases/governor-gavin-newsom-signs-california-federation-of-labor-unions-sponsored-bills-regulating-ai-in-the-workplace/>.

74. Kate Andrias, “An American Approach to Social Democracy: The Forgotten Promise of the Fair Labor Standards Act,” *Yale Law Journal* 128, no. 3 (2019), <https://yalelawjournal.org/article/an-american-approach-to-social-democracy>: 616–709; Arindrajit Dube, *The Wage Standard: What’s Wrong in the Labor Market and How to Fix It*, Penguin Random House, 2026; Annette Bernhardt, Heather Boushey, Laura Dresser, and Chris Tilly, eds., *The Gloves-Off Economy: Workplace Standards at the Bottom of America’s Labor Market* (Ithaca: Cornell University Press, 2008).

75. Bernhardt, Kresge, and Suleiman, *Data & Algorithms at Work*.

76. Daniel Solove, *On Privacy and Technology* (Oxford University Press, 2025), 85.

77. Terri Gerstein and LiJia Gong, “The Role of Local Government in Protecting Workers’ Rights,” *Economic Policy Institute*, June 13, 2022, <https://www.epi.org/publication/the-role-of-local-government-in-protecting-workers-rights-a-comprehensive-overview-of-the-ways-that-cities-counties-and-other-localities-are-taking-action-on-behalf-of-working-people/>; Terri Gerstein, “State and Local Workers’ Rights Innovations: New Players, New Laws, New Methods of Enforcement,” *Saint Louis University Law Journal* 65 (2020), <https://scholarship.law.slu.edu/lj/vol65/iss1/5>.

78. David Binder Research, “AI and Work Survey: Conducted April 14–22, 2026,” https://aflcio.org/sites/default/files/2026-05/DBR_AFLCIO_AI_Research_Memo.pdf.

79. Tech Equity, “How Californians Feel About AI: Findings from the 2025 California AI Compass,” August 19, 2025, <https://techequity.us/2025/08/19/how-californians-feel-about-ai/>, 5.

80. “The Age of Artificial Intelligence: Americans’ AI Use Increases While Views on It Sour, Quinnipiac University Poll on AI Finds,” Quinnipiac University Poll, March 30, 2026, <https://poll.qu.edu/poll-release?releaseid=3955>.

81. See Mishal Khan and Kung Feng, *A First Look at Labor's AI Values: An Analysis of Recent Statements About Technology by Unions and Other Worker Organizations* (UC Berkeley Labor Center, September 18, 2025), <https://laborcenter.berkeley.edu/wp-content/uploads/2025/09/Labors-AI-Values-v2.pdf>; Mishal Khan and Annette Bernhardt, "The Current Landscape of Tech and Work Policy in the U.S.: A Guide to Key Laws, Bills, and Concepts," *UC Berkeley Labor Center*, December 15, 2025; Irene Tung et al., "When 'Bossware' Manages Workers."
82. See discussion of potential harms to workers in the "Employer Use of Bossware" section.
83. See "Bossware 101" section for discussion of disparity between employer-reported and worker-reported sources measuring bossware prevalence.
84. Hillary Ronen, *Local Leadership in the Era of Artificial Intelligence and the Tech Oligarchy*, Local Progress and AI Now Institute, May 2025, <https://localprogress.org/wp-content/uploads/2025/09/Local-Leadership-in-the-Era-of-AI-and-the-Tech-Oligarchy-Report-May-2025.pdf>.
85. Jean Merl, "Labor Leaders Back 'Living Wage' Law," *Los Angeles Times*, February 15, 1997; David Fairris, David Runsten, Carolina Briones, and Jessica Goodheart, *Examining the Evidence: The Impact of the Los Angeles Living Wage Ordinance on Workers and Businesses* (Los Angeles: Los Angeles Alliance for a New Economy, 2005), <https://escholarship.org/uc/item/0b73b6f0>; Michael Reich, Ken Jacobs, and Miranda Dietz, eds., *When Mandates Work: Raising Labor Standards at the Local Level* (Berkeley: University of California Press, 2014); "Emeryville Passes Fair Workweek Policy," East Bay Alliance for a Sustainable Economy, October 19, 2016, <https://workingeastbay.org/whats-new/emeryville-passes-fair-workweek-policy/>; Hannah Orbach-Mandel, "California Cities Take Lead on Paid Sick Leave, State Law Falls Short," California Budget & Policy Center, June 2023, <https://calbudgetcenter.org/resources/california-cities-take-lead-on-paid-sick-leave-state-law-falls-short/>.