

DECEMBER 2020

EDUCATION AND LABOR COMMITTEE

THE FUTURE OF WORK:

HOW CONGRESS CAN SUPPORT
WORKERS IN THE MODERN ECONOMY

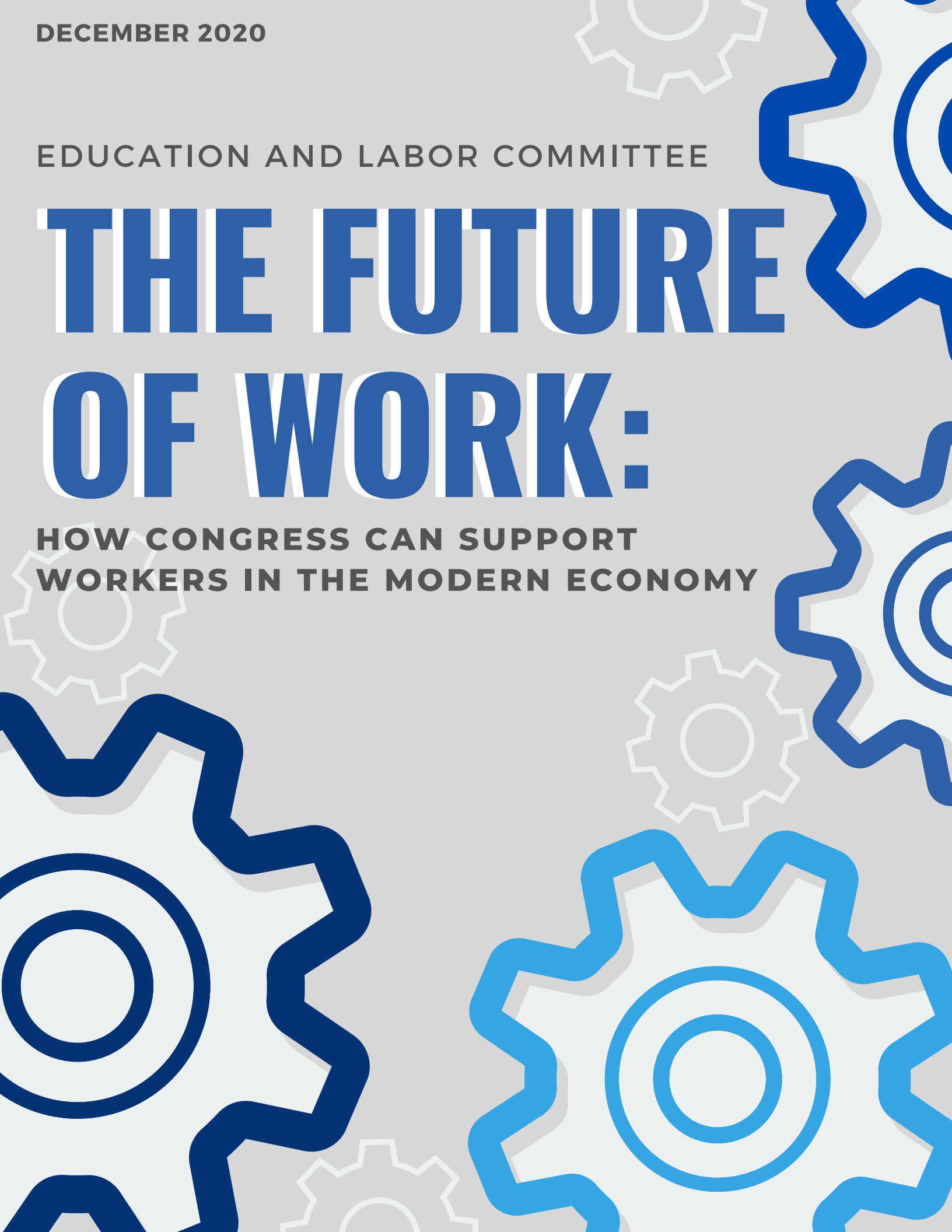
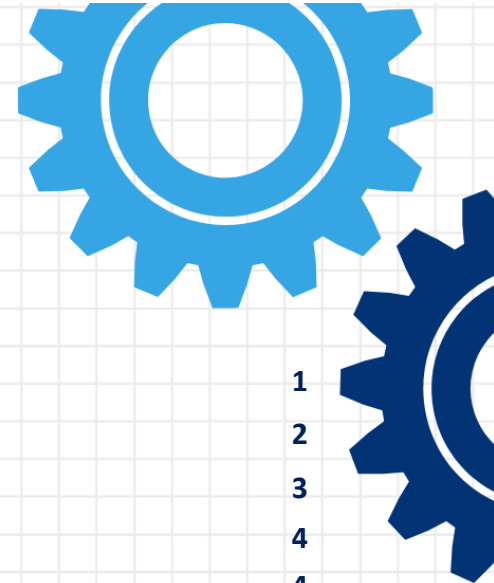


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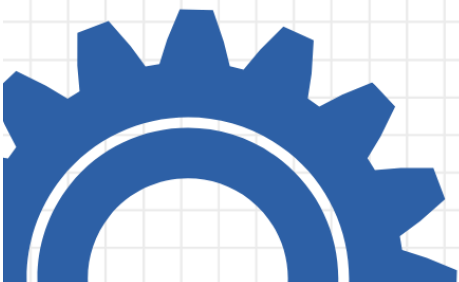
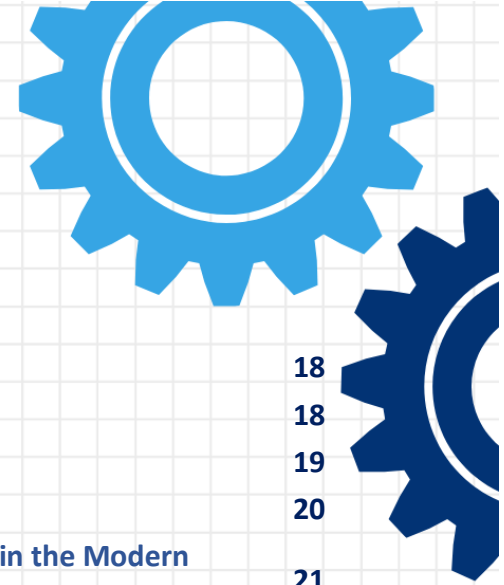


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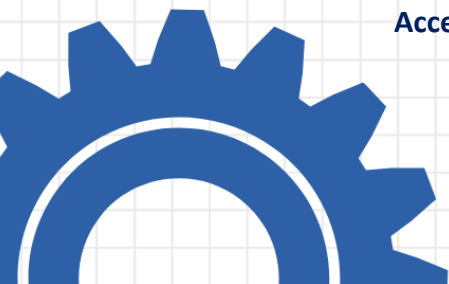
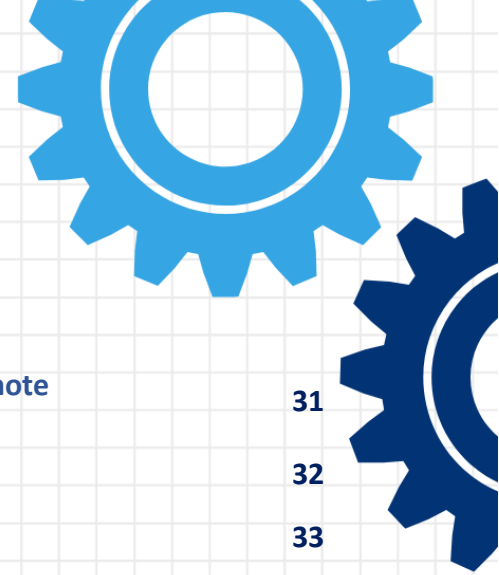


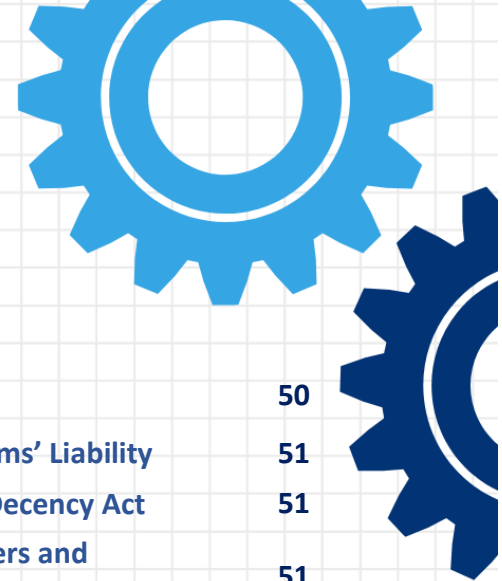
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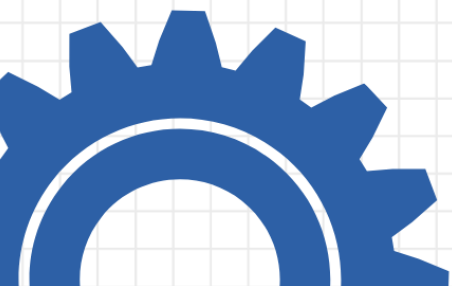
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Executive Summary

In the 116th Congress, the Education and Labor Committee explored how a flood of new technology and business models (often referred to as the *future of work*) are driving changes that are affecting workers in the United States. To gauge the trajectory of these changes and assess their impacts, Committee staff met with hundreds of stakeholders throughout 2019—including worker advocacy groups, business organizations, employers, think tanks, and many others—culminating in a public-facing stakeholder roundtable. From October 2019 to February 2020, the Committee held a series of three hearings in which Committee Members heard from and questioned expert witnesses.

Through this work, the Committee identified **three key challenges** Congress must tackle to protect, promote, and prepare American workers in the coming decades. Informed by expert testimony and stakeholder input, this report offers detailed recommendations to address each challenge in turn:

1. **Preserving worker protections in the modern economy.** For decades, our nation’s labor and employment laws have helped workers bargain for higher wages, safer working conditions, and better benefits. Over the past few decades, however, some businesses have shifted away from directly hiring workers and opted, instead, for work arrangements where workers are temporary, subcontracted, or are treated or designated as independent contractors. This changing landscape frequently leaves workers worse off and requires lawmakers to repair and renew the policy framework to ensure workers can benefit from workplace standards that once built a thriving American middle class.
2. **Ensuring workers are competitive in a rapidly changing workplace.** Even when economic indicators point to a strong economy, some amount of job loss is expected. However, the U.S. is experiencing an increasingly polarized labor market, which means a large and growing share of the American workforce is stuck in low-paid jobs with little shot at upward mobility. What’s more, the U.S. has an insufficient patchwork of workforce development programs that are poorly integrated, inequitably targeted, underfunded, and fail to promote lifelong learning to ensure workers remain competitive.
3. **Protecting workers’ civil rights in the digital age.** Automated technologies such as hiring algorithms and productivity tracking devices are becoming commonplace as workplaces attempt to modernize. Intentionally or unintentionally, these tools may promote discrimination, threaten workers’ civil rights, or systematically lock certain workers out of employment opportunities altogether. Yet, our nation’s foundational workplace civil rights laws and policies have not been updated for the digital era.

Since the Committee completed its hearings in February 2020, the COVID-19 pandemic has drastically altered American life (see COVID-19 Supplement on page 3). The crisis has revealed and exacerbated pre-existing inequalities in our nation’s labor market, dealing the greatest blow to our nation’s most vulnerable workers. Now, as a result of the pandemic, the urgency to address the challenges identified in this report—ensuring workers are secure, protected, and prepared for the future of work—has only grown.

Summary of Key Federal Policy Recommendations

More detailed descriptions of policy recommendations are included at the end of each chapter.

Preserving Worker Protections in the Modern Economy

- Establish clearer tests for determining whether a worker is an employee or independent contractor, such as the “ABC” test used in the *Protecting the Right to Organize (PRO) Act*.
- Regularly collect data on the prevalence and impact of employee misclassification.
- Create penalties for employers that misclassify employees as independent contractors.
- Ensure that, when subcontracted workers organize a union, all companies that control the terms and conditions of work are at the bargaining table.
- Require employers to have a “broad duty” to comply with health and safety standards and protect *all* employees who may be harmed by an unsafe workplace or hazardous conditions, not just direct hires.
- Ensure portable benefit programs are centered around workers’ interests and do not facilitate employee misclassification.
- Strengthen access to health and retirement benefits for all workers.

Ensuring Workers Are Competitive in a Rapidly Changing Economy

- Create a universal displacement assistance program—including providing displaced workers with income while enrolled in education and training—to cover all categories of displaced workers.
- Significantly increase funding for key *Workforce Innovation and Opportunity Act (WIOA)* programs.
- Authorize and provide federal support for Lifelong Learning Accounts.
- Improve the quality and timeliness of labor-market data.
- Improve the availability and quality of public information on non-degree credentials and training providers.
- Scale up Registered Apprenticeship opportunities by passing the *National Apprenticeship Act of 2020*.
- Expand access to affordable postsecondary opportunities by passing the *College Affordability Act*.
- Strengthen the *Worker Adjustment and Retraining Notification (WARN) Act*.

Protecting Workers’ Civil Rights in the Digital Age

- Establish a new division devoted to digital discrimination within the Equal Employment Opportunity Commission (EEOC).
- Develop an enforceable set of workers’ rights with respect to hiring practices and employment decision-making using new algorithmic technologies.
- Require periodic “de-biasing” and independent audits of predictive hiring tools.
- Hold technology vendors and platforms accountable when they assist employers in activity that violates workers’ and jobseekers’ civil rights.
- Require employers retain certain data during the hiring process so that sufficient information exists to evaluate whether an applicant was subjected to discriminatory hiring practices.
- Restore and update the Office of Technology Assessment to advise Congress on science and technology issues, as proposed in the *Office of Technology Assessment Improvement and Enhancement Act*.
- Extend additional civil rights protections to true independent contractors.
- Ensure workers have ownership and control over personal data collected by tracking, monitoring, and other devices required or encouraged by their employers; and place reasonable limits on the extent of employers’ ability to collect such personal data.

Supplement: COVID-19 and the Impact on American Workers

In the months since the Education and Labor Committee completed its final hearing on the future of work, the nation has faced one of the greatest economic and public health crises in modern history due to the COVID-19 pandemic. As of December 2020, more than 280,000 people have died and nearly 15 million have contracted the virus in the United States, alone.¹

The pandemic upended the U.S. labor market and economy, creating both the largest spike in unemployment and drop in economic output since the Great Depression. The United States lost a record 22 million payroll jobs between February and April 2020,² and gross domestic product (GDP) plunged at an annualized rate of nearly 32 percent in the second quarter of 2020.³ At the end of March 2020, initial weekly applications for Unemployment Insurance reached 6.9 million—shattering the previous historical record of 695,000 claims in October 1982—and have continued to exceed this record for 35 consecutive weeks as of mid-November 2020.⁴

Painful as the COVID-19 pandemic has been for families and workers everywhere, the economic burden has not been shared equally. The nation's most vulnerable workers—including workers of color, women, disabled workers, and low-wage workers—have been hit the hardest. The nation is experiencing a “K-shaped” economic recovery,⁵ with higher-income households recovering quickly and the super wealthy making huge gains, while lower-income households continuing to experience crisis. For example, data shows that while employment is down just 0.3 percent compared to pre-pandemic levels for workers making more than \$60,000 per year, workers making less than \$27,000 per year have seen employment fall by nearly 20 percent.⁶

The COVID-19 pandemic has only compounded the urgency of the Committee's recommendations to address the three key challenges identified in this report. The economic crisis has shown how low wages, tenuous work arrangements, and lack of savings have left tens of millions of workers without a buffer. This is particularly true for workers who do not have the benefits and protections of traditional employment relationships (see Chapter 1). As thousands of businesses close their doors for good, entire sectors of the economy are undergoing seismic structural shifts, and an estimated 7 million of the jobs lost will disappear permanently.⁷ This means an unprecedented number of workers are likely to need some form of retraining to help them stay in the workforce (see Chapter 2). And, as a greater-than-ever share of employers deploy new digital tools to conduct virtual hiring processes and facilitate remote work, concerns about digital discrimination against workers based on their protected class status intensify every day (see Chapter 3).

In the initial weeks of the crisis, Congress took swift, bipartisan action to support workers, families, and the economy. Legislation such as the *Coronavirus Aid, Relief, and Economic Security (CARES) Act* kept millions of families from falling into poverty and prevented job losses and businesses closures.⁸ However, many of these relief provisions have expired or will soon expire, even as the pandemic surges in nearly every state. The Democratic-controlled House has passed two strong stimulus measures in the intervening months,⁹ but the Republican-controlled Senate has blocked desperately needed relief, despite repeated warnings from Federal Reserve Chair Jerome Powell that delaying relief will slow the economic recovery and deepen inequalities.¹⁰

As the 116th Congress closes and the 117th begins, Congress must address the unprecedented challenges facing the American people head-on by bringing the COVID-19 virus under control, passing much-needed relief, and building an economy that benefits *all* workers.

Chapter 1: Preserving Worker Protections in the Modern Economy

Introduction

For decades, our nation’s labor and employment laws have helped workers secure fair wages and benefits, safe workplaces, and an opportunity to bargain for better working conditions. Over the past few decades, however, some businesses have shifted away from directly hiring workers and opted, instead, for work arrangements where workers are temporary, subcontracted, or treated like independent contractors. By divorcing themselves from the direct employment relationship, some businesses may fail to meet their responsibility for fundamental workplace rights, leaving workers worse off. This changing landscape requires lawmakers to repair and renew the policy framework that ensures workers benefit from the workplace standards that once built a thriving American middle class.

On October 23, 2019, the Subcommittee on Health, Employment, Labor, and Pensions and the Subcommittee on Workforce Protections held a joint hearing entitled “The Future of Work: Preserving Worker Protections in the Modern Economy” to examine this issue. Members heard from Dr. David Weil, Dean and Professor at the Heller School for Social Policy and Management at Brandeis University and former Administrator of the U.S. Department of Labor’s (DOL) Wage and Hour Division (WHD); Professor Brishen Rogers, Associate Professor at Temple University Law School and Fellow at the Roosevelt Institute; Ms. Jessica Beck, co-founder and Chief Operating Officer for Hello Alfred, a company that provides customers with app-based, on-demand personal home management services; and Ms. Rachel Greszler, Research Fellow in Economics, Budget, and Entitlements at the Heritage Foundation.

The October 2019 hearing, along with other Committee hearings on related issues, stakeholder discussions, and external expert reports released on this topic helped shape recommendations for responding to the changing nature of work. This chapter places these recommendations in context by discussing the trends in and effects of the way individuals are engaged in work in the modern economy (Section I), the importance of the employment relationship and strong employment standards (Section II), the compatibility between the employment relationship and workplace flexibility (Section III), the toll of misclassification and weak joint employment standards on workers’ rights (Section IV), rights and responsibilities beyond the employment relationship (Section V), emerging issues related to the future of work (Section VI), and policy recommendations (Section VII).

Section I: The Fissured Workplace Is Leaving Workers Worse Off

As Dr. David Weil testified at the October 2019 hearing, “[t]he future of work demands that we address the way that the present state of work has been transformed so that we can assure workers a more promising future.”¹¹ Much of the 20th century was dominated by the direct employment relationship: large, national companies (referred to as “lead businesses” hereinafter) directly hired workers to perform services or produce goods.¹² However, over the past three decades, lead businesses have increasingly moved away from directly hiring employees. Instead, they have opted to shift some employment to “a subcontractor, franchisee, or other business organization that undertakes the work of a lead business”¹³ (hereinafter referred to as “lower-level businesses”)¹⁴ or engage workers who are treated as independent contractors, including workers misclassified as independent contractors.¹⁵ This change in the structure of work, termed the “fissured workplace” by Dr. Weil, has and will continue to shape the future of work.¹⁶

According to Dr. Weil, the fissuring of the workplace is a consequence of lead businesses' focus on maximizing profits for investors by "shedding" activities (e.g., payroll, janitorial, or customer relations services) that are not at the core of these businesses' competencies.¹⁷ This allows lead businesses to shed the employment relationship with workers providing services or producing goods, shifting the responsibility to comply with labor and employment laws onto other lower-level businesses that typically operate in more competitive markets.¹⁸ But, while shedding the employment relationship with these workers, lead businesses still seek to preserve quality standards by maintaining and enforcing strict standards to which the lower-level businesses that employ these workers must adhere.¹⁹ A highly visible example of the fissured workplace can be found in the digital gig economy in which workers perform technology-mediated work.²⁰ Here, lead businesses often engage workers who are treated (and often misclassified) as independent contractors to outsource their core functions while using technology to maintain control over work.²¹

The fissured workplace has eroded the social contract for work: that workers would have their productivity rewarded with fair wages, hours, and benefits; an opportunity to bargain for better working conditions; and safe workplaces. Dr. Weil conservatively estimates that approximately 19 percent of the private U.S. workforce are in industries predominated with fissured workplaces.²² On their own, digital gig economy workers comprise a small percentage of the total U.S. workforce: less than 1 percent of workers, according to academic, government, and industry surveys.²³

Women, people of color, and immigrants are most likely to work in highly fissured industries, such as construction, janitorial services, landscaping, home health care, hotels, food and grocery services, and warehouses. For example, Hispanic workers are overrepresented in the service industry, and women constitute the majority of the low-wage workforce.²⁴ Thus, the fissuring in their workplaces can compound, rather than reverse, the deleterious effects of the historical exclusion of these workers from labor and employment laws.²⁵

Many of the negative consequences of workplace fissuring are exacerbated by the COVID-19 pandemic and recession. Much of the union organizing during the pandemic has focused on safer working conditions and paid leave.²⁶ "For example, even as Instacart announced it was hiring 300,000 new shoppers to meet increased demand at the end of March, workers there and at other grocery delivery platforms went on strike to demand protective gear and hazard pay."²⁷

Lower Pay and Wage Theft

Workers in the fissured workplace often experience lower pay, whether treated as employees or misclassified as independent contractors. In the fissured workplace, lead businesses that might have once shared economic gains directly with their internal workforces through higher wages now shift wage-setting decisions to lower-level businesses that compete to provide services to lead businesses.²⁸ "Earnings fall significantly when a job is contracted out—even for identical kinds of work and workers."²⁹ For example, in May 2017, the median usual weekly earnings for full-time temporary help agency workers was \$521, compared to \$884 for workers in traditional arrangements.³⁰ Workers misclassified as independent contractors, rather than employees, also experience lower pay. For example, a 2014 survey found port truck drivers paid as independent contractors earned a median annual gross salary of \$28,783 compared to the \$35,000 median annual gross salary paid to port truck drivers classified as employees.³¹ Research indicates wages for misclassified app workers can be significantly lower than their counterparts.³²

The fissured workplace also incentivizes lower-level businesses to skirt basic wage and hours standards.³³ For instance, businesses that misclassify workers as independent contractors may deny these workers the right to

minimum wage and overtime. During a September 2019 Workforce Protections Subcommittee hearing, Ms. Maria Crawford, a misclassified gig worker from Altadena, California who worked for Instacart, Postmates, Door Dash, and Uber Eats explained: “sometimes my pay is so low it often dips below the minimum wage in my state, which is \$12 an hour. . . . Most apps do not reimburse me for expenses, so when you factor in car maintenance costs I might be making less than minimum wage.”³⁴

Less Access to Employer-Sponsored Benefits

Workers in the fissured workplace may also have limited access to employer-sponsored benefits. According to survey data from the Bureau of Labor Statistics (BLS), workers with traditional employment relationships are the most likely to have access to employer-provided health benefits and retirement savings.³⁵ Workers in alternative employment arrangements are substantially less likely to have health insurance or be eligible for or included in an employer-provided pension or retirement plan.³⁶ About 54.2 percent of traditional workers are covered through a group health plan sponsored by their employer, whereas only 9.7 percent of independent contractors and 13.4 percent of workers at temporary help agencies receive employment-based health coverage.³⁷ In the fissured workplace, workers misclassified as independent contractors are on their own when it comes to finding and financing crucial benefits. For instance, it is up to misclassified workers to save for a secure retirement, purchase life insurance on the commercial market, and obtain health coverage. The combination of lower pay and limited benefits can exacerbate income inequality.

Greater Obstacles to Unionizing

Workers in the fissured workplace also face greater obstacles to union organizing. The rights under the *National Labor Relations Act* (NLRA) to form, join, or assist a labor union only apply to employees who have an employment relationship with the business with which they seek to collectively bargain.³⁸ If a lead business controls any of the workers’ terms and conditions of employment, but is not deemed an employer of those workers, then those workers cannot engage in collective bargaining with the lead business to improve the terms and conditions that are within the lead business’s control. This means workers misclassified as independent contractors and workers employed by a subcontracted firm or a franchisee often lack the NLRA’s protections, even where the lead business controls the terms and conditions of employment. As Professor Rogers stated in testimony before the Committee: “[The lead business] rather than the workers’ legal employer may control their wages, benefits, and other working conditions, and yet the workers have no rights to strike against, picket, or bargain with the [lead business].”³⁹

Workers who are employed by a subcontractor may face retaliation even when they attempt to organize a union and collectively bargain with the subcontractor, alone. If the lead business is not recognized as the employer of the subcontractor’s employees, then the lead business can terminate a subcontractor because its employees have organized a union.⁴⁰ Similarly, independent contractors have no protections under federal labor law, and are, thus, subject to retaliation if they engage in concerted activity to organize a union or otherwise improve working conditions.⁴¹

In addition to facing barriers to organizing and collective bargaining in the fissured workplace, workers also face limitations on their ability to engage in peaceful protest against any companies that are not their direct employer. The NLRA prohibits workers from picketing a “secondary” employer to cease doing business with the workers’ direct employer.⁴² This prohibition frequently includes peaceful picketing that seeks to dissuade passersby from patronizing the secondary business.⁴³ This prohibition can restrict workers in the fissured workplace from engaging in peaceful expression to improve their terms and conditions of work.⁴⁴ The fissuring

of the workplace, combined with the prohibition on peaceful picketing activity, has chilled the mechanism through which the most vulnerable workers can improve their working conditions.⁴⁵

Less Safe Workplaces

The fissured workplace also undermines workplace health and safety. During the October 2019 hearing, Dr. Weil pointed out that multiple workers have been seriously injured and killed in fissured workplaces—some on their first day on the job—because of the lack of clarity about who is responsible for supplying safety equipment and providing needed safety training.⁴⁶ According to the BLS, workers engaged in “finite [work] that encompasses a single-task, short-term contract, or freelance work” are twice as likely to die from falls than workers in traditional employment.⁴⁷ Because coverage under the *Occupational Safety and Health Act* (OSHAct) depends on an employer-employee relationship, workers in the fissured workplace who are misclassified as independent contractors do not have protections under the law’s safety provisions. These workers also lack anti-retaliation protections under the OSHAct or other federal whistleblower laws overseen by the Occupational Safety and Health Administration (OSHA).

Section II: The Employment Relationship and Strong Employment Standards Are Key to Upholding Workplace Protections and Benefits

For decades, the fundamental right to fair wages, safe workplaces, and an opportunity to bargain for better working conditions has stemmed from the employment relationship. Protections under the *Fair Labor Standards Act* (FLSA), the *National Labor Relations Act* (NLRA), and the OSHAct only extend to workers who are determined to be employees under the respective law.⁴⁸ Access to benefits, including voluntary employer-sponsored benefit structures like pensions, depends on the employment relationship. Also, publicly administered programs funded by payroll taxes, such as Social Security, Medicare, and Unemployment Insurance, are linked to employment.

Given the role the employment relationship plays in workers’ rights and employers’ responsibilities, standards for defining employment under labor and employment laws have garnered great attention over the last several years. To justify their efforts to narrow employment definitions, thus limiting employers’ responsibility and undermining workers’ rights, business interests have largely claimed they are seeking flexible working conditions for workers and uniformity in how “employment” is defined across statutes. In contrast, labor rights advocates and numerous state officials have focused on ensuring that definitions of employment reflect the realities of work and that all employees have the rights and protections afforded to them under the law.

Various Multifactor Tests for Employment Create Uncertainty for Workers and Employers

Employment standards should provide clarity and predictability for both workers and employers, and both Republican and Democratic Members of the Committee have voiced concerns about a lack of certainty in defining the employment relationship.⁴⁹ In a 2020 paper, Tanya Goldman and Dr. Weil argue for a rebuttable presumption of employment status, meaning that “unless employment is disproven for a particular set of workers, this set of workplace policies would apply.”⁵⁰ They argue this would “help provide predictability around the legal test, benefiting businesses, workers, and enforcement agencies.”⁵¹ Federal labor and employment laws lack a statutory rebuttable presumption of employee classification used in other countries (e.g., Mexico, The Netherlands, France).⁵² Ms. Goldman and Dr. Weil also explain that a “rebuttable presumption will help re-balance the power dynamics between workers and employers and rightfully place the burden of proof on the only entity—or entities—in the fissured workplace who might have access to the necessary evidence to establish the existence or lack of an employment relationship.”⁵³

Ms. Goldman and Dr. Weil argue that this rebuttable presumption “should be coupled with a strong, predictive test that must be met for an employer to rebut the presumption”⁵⁴ and that “such a test must address deficiencies of the status quo: lack of clarity of the boundaries of employment that reflects underlying economic realities.”⁵⁵

Courts often use various multifactor tests to determine whether an employment relationship exists across key federal labor and employment laws. For instance, when applying the FLSA, courts have used the “economic realities” test to determine whether a worker is economically dependent on a potential employer or is in business for himself or herself. However, courts have used the narrower common law test, which turns on the degree to which the employer has control over an employee, when applying the NLRA or OSHA Act.⁵⁶ The articulation of specific factors and the number of factors used for these tests can vary by jurisdiction.

Republican efforts to address uncertainty with employment tests have largely centered on ways to narrow the employment relationship. For instance, a Republican-introduced bill, the *Modern Worker Empowerment Act*,⁵⁷ would roll back the FLSA’s broad “suffer or permit” definition of employment and codify the more restrictive common law control test in its place. While efforts to use the common law test across all labor and employment statutes could arguably improve uniformity, any increased uniformity would not necessarily improve certainty or predictability for employers or workers. For example, the NLRA’s common law standard involves ten non-exhaustive factors, with no single factor weighing more than any other, viewed through the prism of whether the worker has “entrepreneurial opportunity.”⁵⁸ This standard has produced inconsistent results.⁵⁹

More importantly, the common law control test “was not designed to protect workers’ rights.”⁶⁰ The common law control test originates from vicarious liability, which is used to hold a “master” accountable for a “servant’s” actions where the “master” exercised sufficient control.⁶¹ Thus, often the common law control test fails to uphold the “protective and social” purposes of the applicable labor and employment law.⁶² For example, one of the FLSA’s purposes—“to eliminate, as rapidly as practicable, substandard labor conditions throughout the nation...”⁶³—cannot be achieved with a narrow common law test that would leave out significant portions of the workforce. Likewise, a major goal of the NLRA is to resolve the “inequality of bargaining power” between employees who lack “actual liberty of contract” and employers. However, the common law test also fails to advance this purpose because it fails to distinguish between true independent contractors, who have bargaining power with contracting partners, and those who are employees in all but name.⁶⁴

Ms. Goldman and Dr. Weil offer three options for establishing a more predictive test: (1) the FLSA’s “economic realities” test, (2) the “ABC” test, or (3) the “ABC” test modified to focus on factors “most indicative of the types of workers who are economically independent or in need of workplace protections.”⁶⁵

The “Economic Realities” Test Under the FLSA

Under the multifactor “economic realities” test, courts look at the totality of circumstances to determine whether the worker is economically dependent on the potential employer.⁶⁶ The following six factors are typically used as indicators of economic dependence:

- “(A) the extent to which the work performed is an integral part of the employer’s business;
- (B) the worker’s opportunity for profit or loss depending on his or her managerial skill;
- (C) the extent of the relative investments of the employer and the worker;
- (D) whether the work performed requires special skills and initiative;
- (E) the permanency of the relationship; and,

(F) the degree of control exercised or retained by the employer.”⁶⁷

While the articulation of specific factors and the number of factors used varies by court, ultimately, “[t]he application of the economic realities factors is guided by the overarching principle that the FLSA should be liberally construed to provide broad coverage for workers” under the “to suffer or permit to work” standard.⁶⁸

But there remain drawbacks to the “economic realities” test as a multifactor test. “[A] multifactor, ‘all the circumstances’ standard makes it difficult for both hiring businesses and workers to determine in advance how a particular category of workers will be classified, frequently leaving the ultimate employee or independent contractor determination to a subsequent and often considerably delayed judicial decision.”⁶⁹ Additionally, a multifactor test “invites employers to structure their relationships with employees in whatever manner best evades liability”⁷⁰—a relevant concern to the fissured workplace.

The “ABC” Test

In contrast to the multifactor, “all of the circumstances” approach used in the common law test and the “economic realities” test, the “ABC” test uses clear thresholds for determining employee status. Under the “ABC” test, a worker is presumed to be an employee unless the potential employer can prove all three of the following elements:

- “(A) the individual is free from control and direction in connection with the performance of the service, both under his [or her] contract for the performance of service and in fact; and
- (B) the service is performed outside the usual course of the business of the employer; and,
- (C) the individual is customarily engaged in an independently established trade, occupation, profession or business of the same nature in the service performed.”⁷¹

Applied correctly, the “ABC” test should cover the same range of workers covered under the “economic realities” test since both effectuate the broad “suffer or permit” standard.⁷²

This test has received increased attention after, in 2018, the California Supreme Court adopted the “ABC” test for the “suffer or permit” standard under California wage law in *Dynamex Operations West, Inc. v. Superior Court of Los Angeles*.⁷³ The state subsequently codified the standard in Assembly Bill 5 (“AB5”) in 2019. However, on November 3, 2020, California voters passed Proposition 22, a ballot question funded by Lyft, Uber, Postmates, and Instacart, which defined app-based drivers as independent contractors, essentially carving them out from AB5. In the days following the vote on the ballot initiative, reporting described how voters felt “deceived” by the “Yes on 22” campaign’s aggressive and often misleading tactics.⁷⁴ The “Yes on 22” campaign, which outspent its opponents \$10 to \$1, “bombarded gig workers and customers alike with in-app notifications and emails suggesting that drivers wanted to remain independent contractors and that a yes vote would be best for them.”⁷⁵ According to reporting, voters believed passing Proposition 22 would provide workers with protections they were not already entitled to, rather than carve them out of basic employment protections under AB5.⁷⁶

The “ABC” test has been adopted in some form in over 20 states.⁷⁷ This includes five states (California,⁷⁸ Connecticut,⁷⁹ Illinois,⁸⁰ New Jersey,⁸¹ and Massachusetts⁸²) that have adopted the “ABC” test to effectuate the “suffer or permit” standard under state wage and hour laws. The *Protecting the Right to Organize (PRO) Act*, a bill to strengthen the federal laws that protect workers’ right to join a union, passed by the U.S. House of Representatives on February 5, 2020, would amend the NLRA to include the “ABC” test.⁸³

The “ABC” Test with Specific Rules of Construction

As a third option, Ms. Goldman and Dr. Weil recommend that policymakers adopt the “ABC” test but incorporate elements of the “economic realities” test that relate to an individual operating a business. For example, prongs A and C of the “ABC” test would focus on activities that meaningfully impact an individual’s opportunity to make a profit or suffer a loss, such as setting prices, establishing product or service standards, or developing products or services.⁸⁴ This could be effectuated similarly to how Congress, in response to courts limiting the scope of protections under the *Americans with Disabilities Act* (ADA), amended the ADA in 2008 to include rules of construction for the definition of “disability.”⁸⁵

Section III: Employee Status Is Not Incompatible with Workplace Flexibility

During discussions on the future of work, opponents of strong employment standards often argue that employee status is incompatible with allowing workers—particularly gig economy workers—to have flexibility in how and when work is performed. During the October 2019 hearing, Ms. Rachel Greszler made such an argument when predicting the consequences of the proper classification of gig workers as employees: “[T]he company would have to take away the very autonomy and flexibility that draws drivers to the platform. Instead, drivers would have to follow Uber’s prescribe[d] shifts...and they may no longer be able to work for another company besides Uber.”⁸⁶

In stakeholder meetings, representatives of rideshare and other gig companies contended that maintaining their workers’ independent contractor status was necessary to ensure that those workers had flexibility in pay and scheduling, among other terms and conditions of work.⁸⁷ Such arguments falsely imply that federal law requires employers to utilize specific business models for how to arrange work for its employees. In reality, the FLSA does not require scheduled shifts or set minimum or maximum hours of work, nor does it prohibit split shifts, intermittent work, or piece work payment schemes. Similarly, the NLRA does not prohibit employers from bargaining with employees over terms or conditions of employment related to flexibility.

For instance, during a July 2019 legislative hearing on the PRO Act, University of Seattle Law School Professor Charlotte Garden noted employers can easily pursue flexible scheduling through collective bargaining with a union representing the workers: “There is no such thing as a one-size-fits-all collective bargaining agreement. That is the nice thing about a system of private ordering like bargaining.”⁸⁸ This has proven true as workers have successfully organized unions in the gig economy, including at a company maintaining app-based scooters⁸⁹ and at the bikeshare company Motivate.⁹⁰ Lyft acquired Motivate in 2018, and Lyft stated that the acquisition “resulted in an increase of approximately 200 additional employees.”⁹¹

In contrast, Jessica Beck, co-founder and Chief Operating Officer of Hello Alfred, a gig company that classifies its workers as employees, pointed out during the October 2019 hearing that workplace flexibility is possible, irrespective of employee status: “The current debate sometimes creates a false dichotomy of flexibility (found via 1099 worker positions) vs stability (the W-2 model). In reality, W-2 workers can also work for more than one company, have flexible work hours, and be ensured stability in their income and benefits.”⁹²

Arguments that work arrangements outside the employment relationship provide for greater flexibility may ultimately be a guise to justify allowing employers to maintain control but externalize the costs and responsibilities usually associated with this control. As evidence indicates, gig companies often manage work in a way that may not actually provide workers with meaningful flexibility. While gig companies have stated that one of their primary goals is to provide workers with flexibility,⁹³ platforms often utilize incentives, “nudges,” and penalties to manage work and maintain significant control over work, limiting true flexibility.

Traditional models of scheduled work stem from the desire of businesses to have a dependable workforce in a particular place at a particular time, not constraints in the law. Many platforms use similar, albeit technology-enabled, approaches to achieve similar results.

During a September 2019 hearing, Maria Crawford, a gig worker from Altadena, California, who is misclassified as an independent contractor, made this point:

“I am told that the advantage to my type of work is the flexibility and freedom to set my own schedule. I, in theory, can work any time and any day....[I] do not have the flexibility to pick and schedule these lucrative shifts, or even stay on the app, unless I meet unreasonable standards....I feel as though I have less control over my work now, than in my previous job when my employer rightly classified me as an employee!”⁹⁴

As further evidence that arguments around worker flexibility are merely a guise, gig companies have undertaken multi-jurisdictional efforts to exempt themselves from labor and employment laws.⁹⁵ Most notably in California, Uber, DoorDash, Lyft, InstaCart, and Postmates spent nearly \$190 million in support of Proposition 22 to make app-based drivers independent contractors under state law.⁹⁶ This campaign succeeded,⁹⁷ and now the gig companies are weighing similar attempts in other states.⁹⁸ The chief political strategist for Uber and Handy is on record saying, “What is ultimately a better business decision? To try to change the law in a way that you think works for your platform, or to make sure your platform fits into the existing law?”⁹⁹

“What is ultimately a better business decision? To try to change the law in a way that you think works for your platform, or to make sure your platform fits into the existing law?”

-Bradley Tusk, Chief Political Strategist, Uber and Handy

Policies that promote workplace flexibility are vital components of a fair future of work. However, arguments that workplace flexibility only exists where businesses have relinquished their responsibilities to workers, despite maintaining control over work, can rob workers of fundamental protections and leave them no closer to true workplace flexibility.

Section IV: Employee Misclassification and Weak Joint Employment Standards Undermine Workers’ Rights

As discussed above, strong employment standards ensure that workers are afforded the full scope of employment and labor protections to which they are entitled. Misclassification and weak joint employment standards can undermine workers’ protections where lead businesses assert control over the work but reject the employment relationship.

Rooting Out Employee Misclassification

Over the last several years, there has been increased attention to the pervasive business practice of misclassifying employees as independent contractors.¹⁰⁰ As mentioned, in the fissured workplace, labor costs are often the main costs within the lower-level business’s control, because lower-level businesses engaged by lead businesses generally operate in competitive markets and are subject to strict quality control standards set by lead businesses.¹⁰¹ While misclassification can be inadvertent, it is very often intentional, with employers adopting misclassification as a business model to cut labor costs.¹⁰² During a September 2019 Workforce

Protections Subcommittee hearing on misclassification, Matt Townsend, Chief Executive Officer of a construction company in Ohio and President of the Signatory Wall and Ceiling Contractors Alliance, a national association representing construction company owners, illustrated this point: “In [the construction] industry, misclassification is a choice to disregard the legal responsibilities of being an employer. It provides a competitive advantage by transferring—to workers and taxpayers—the financial obligations and risks that honest business owners accept.”¹⁰³

As a result, misclassification is most prevalent in industries where employers have a greater financial incentive to shift costs onto workers. This includes high-injury-rate industries, such as construction, where avoiding high-cost workers’ compensation premiums can lead to significant savings. Misclassification is also prevalent in industries in which employers have a greater ability to conceal misclassification practices or employer responsibility is more difficult to determine. For instance, rates of misclassification are high in the trucking, home health care, and construction industries, where work is performed at isolated, small, or scattered sites. Work is also often temporary and there may be multiple layers of contractors and subcontractors.¹⁰⁴ Industries employing large numbers of undocumented workers also tend to have high misclassification rates because employers are required to comply with the *Immigration Reform and Control Act’s* immigration status verification provisions for employees, but not for independent contractors.¹⁰⁵

The U.S. lacks authoritative, up-to-date data on the number of firms that misclassify workers and the number of workers who are misclassified. The limited data available does, however, suggest a significant portion of the U.S. workforce may be affected.¹⁰⁶ A 2000 study commissioned by the DOL found 10 percent to 30 percent of firms audited in nine states¹⁰⁷ misclassified at least one of their workers.¹⁰⁸ According to a 1984 estimate from the Internal Revenue Service (IRS), the most recent comprehensive misclassification estimate, 15 percent of employers misclassified their employees.¹⁰⁹ As Sally Dwokar-Fisher recommended in the September 2019 hearing, “data collection and research on misclassification should be conducted regularly and inform future policy efforts.”¹¹⁰

Employers that misclassify their employees disadvantage competitors that properly classify their workers as employees and comply with labor and employment standards. Misclassification also imposes a significant financial burden on state and federal governments due to billions of dollars in lost tax revenues. The 1984 IRS estimated that 3.4 million workers were misclassified, costing the federal government \$1.6 billion per year in lost revenue¹¹¹—equivalent to \$3.7 billion in 2019 dollars.¹¹² This loss of revenue also negatively impacts key social insurance programs for workers, such as the Unemployment Insurance (UI), workers’ compensation, and disability insurance systems, and enables misclassifying employers to gain a competitive advantage over law-abiding companies by avoiding paying taxes. For example, a 2000 DOL-commissioned study found nearly \$200 million in lost UI tax revenue per year through the 1990s due to misclassification at a time when, annually, an estimated 80,000 workers entitled to UI benefits were not receiving them.¹¹³ (In response to the COVID-19 crisis, Congress created Pandemic Unemployment Assistance [PUA] in the *CARES Act* to offer unemployment assistance to workers who are ineligible for UI. However, PUA is a temporary program and is funded through general federal revenues rather than taxes on employers whose workers it serves.)

Ms. Jessica Beck, a co-founder of Hello Alfred, noted the higher costs associated with the employment relationship and called on business leaders to rethink their role: “Employees shouldn’t be seen as cost centers, but instead as human beings who are delivering real work and value and deserve the same in return. The result will be good for business, good for the worker, and good for our workforce at large.”¹¹⁴

“Employees shouldn’t be seen as cost centers, but instead as human beings who are delivering real work and value and deserve the same in return.”

-Jessica Beck, Co-Founder of Hello Alfred

Misclassification Under the FLSA

Our nation’s wage and hour laws protect workers from substandard wages and oppressive hours. The FLSA is the cornerstone of wage and hour protections, ensuring that employees earn a minimum wage, receive premium pay for overtime work, and are protected from child labor. Although misclassification strips workers of their rights, the act of misclassifying, itself, does not currently violate the FLSA, undermining enforcement efforts to combat misclassification. Rather, it is the failure to comply with overtime, minimum wage, recordkeeping, or child labor requirements that violates the law.

In September 2020, the Trump DOL proposed a rule that conflicts with congressional intent, the FLSA’s text, and decades-long judicial precedent to improperly narrow its interpretation of employee status under the FLSA. The Department proposed a new five-factor test that would give undue weight to the control factor, effectively creating a test akin to the common-law control test.¹¹⁵ The Economic Policy Institute estimates that, if finalized, this proposal could cost workers at least \$3.7 billion annually and cause at least \$750 million in transfers from social insurance funds to employers each year.¹¹⁶

This proposal came more than a year after the DOL’s Wage and Hour Division (WHD) issued an opinion letter concluding that workers at an unnamed “virtual marketplace company” are independent contractors.¹¹⁷ In addition to undermining proper classification of employees through the regulatory process, it is unclear whether or to what extent the Trump DOL is continuing Obama-era efforts to combat misclassification.¹¹⁸

Misclassification Under the NLRA

The NLRA protects workers’ rights to organize and collectively bargain only if those workers are employees; independent contractors are not protected by federal labor law.¹¹⁹ Ambiguities in the NLRA create powerful incentives for employers seeking to avoid union organizing to misclassify their employees as independent contractors.

During the Trump Administration, the NLRB enabled employers to misclassify employees as independent contractors in order to evade their obligations under the NLRA. The question of whether a worker is an employee or independent contractor has historically been governed by the common law of agency,¹²⁰ which involves weighing ten non-exhaustive factors.¹²¹ In the NLRB’s *SuperShuttle* decision on January 25, 2019, the Republican Board Members held that they would apply those ten factors “through the prism” of whether the worker has “entrepreneurial opportunity.”¹²² In doing so, the NLRB interpreted “entrepreneurial opportunity” so loosely that they denied SuperShuttle drivers employee status—and thus protection under the NLRA—even though those drivers were prohibited from driving for any of SuperShuttle’s competitors.¹²³

On April 16, 2019, the General Counsel of the NLRB issued a memorandum finding that Uber drivers are independent contractors and not employees under the NLRA.¹²⁴ Consistent with the decision in *SuperShuttle*, the General Counsel examined whether the drivers were afforded significant entrepreneurial opportunity and found that they had sufficient opportunities to be considered independent contractors. The General Counsel found that “drivers had significant entrepreneurial opportunity by virtue of their near complete control of their

cars and work schedules, together with freedom to choose log-in locations and to work for competitors of Uber.”¹²⁵ However, this analysis ignored Uber’s control over the rate a driver can charge a passenger.¹²⁶ Further, in finding that Uber drivers controlled how their work is performed, the General Counsel ignored that, when a driver chooses to accept a ride, Uber withholds from the driver the rider’s destination and the amount the driver can earn from the ride.¹²⁷ However, in finding that Uber drivers have entrepreneurial opportunity, the General Counsel concluded that they are independent contractors and, as such, have no rights under the NLRA.

This memorandum is not binding on the NLRB, and the next General Counsel can argue that gig company workers are employees under the NLRA. If the NLRB agrees with that argument, such workers would have the right to organize unions and collectively bargain with the gig companies. Even if California’s Proposition 22 stated that gig workers did not have the right to unionize, which it did not, the NLRB’s decision would preempt that and any state law that addresses the collective bargaining rights of gig workers.¹²⁸

When employers misclassify their employees as independent contractors, they incorrectly tell employees that they do not have rights under the NLRA, and thus any exercise of the right to organize is futile and subject to retaliation by the employer.¹²⁹ However, in 2019, the NLRB held in *Velox Express, Inc.* that misclassification did not independently violate the NLRA despite the chilling effect it has on workers’ organizing rights.¹³⁰ The PRO Act would take steps to deter the misclassification of employees by specifying that an employer commits an unfair labor practice when it communicates to workers who are employees under the NLRA that they are not employees.¹³¹ The PRO Act also creates civil penalties for this unfair labor practice and all unfair labor practices that an employer may commit.

Strengthening Joint Employment Under Key Labor Statutes

Labor and employment laws have long held that an employee may have more than one employer responsible for compliance with the applicable law. In the fissured workplace, as lead businesses engage lower-level businesses, such as subcontractors or temporary agencies, the relationship between the lead business and the lower-level business’s employees may necessitate both companies to be jointly and severally responsible for compliance with the law. For example, this shared responsibility is especially imperative when a specific employer is needed to change pay practices that result in wage violations to be present at the table for meaningful collective bargaining.

Previous administrations have prioritized the issue of joint employment, “with the Obama administration having tried to ensure workers would receive the full scope of statutory protections to which they are entitled, and the Trump administration seeking to limit employer liability under the relevant statutes.”¹³²

Joint Employment Under the FLSA

The FLSA’s broad “to suffer or permit to work” definition of employment was adopted specifically to prevent employers from using “middlemen” to shirk responsibility for compliance with the law. In January 2016, the DOL’s WHD under the Obama Administration issued an Administrator’s Interpretation (AI) that made clear that, while factors used under the “economic realities” test differ somewhat based on the court, “any formulation must address the ‘ultimate inquiry’ of economic dependence.” The AI also states that “[t]he FLSA rejected control as the standard for determining employment, and any vertical joint employment analysis must look at more than the potential joint employer’s control over the employee.” In June 2017, WHD, under the leadership of Secretary Acosta, rescinded the 2016 AI on joint employment.

In January 2020, the WHD under Secretary Scalia issued a final rule narrowing the DOL’s interpretation of joint employer status under the FLSA.¹³³ Under this rule, the DOL rejects the “economic realities test” and an economic dependence inquiry and, instead, narrowly restricts joint employment to circumstances in which a potential employer actually *exercises* control.¹³⁴ On September 8, 2020, a New York federal district court judge invalidated most of the final rule, concluding the rule contradicts the FLSA’s text, prior Department interpretations, and federal and Supreme Court precedent. The court also found that the DOL improperly ignored estimates from the Economic Policy Institute that the rule would cost workers more than \$1.0 billion each year.¹³⁵ The Trump Administration is appealing the ruling.¹³⁶

Joint Employment Under the NLRA

Under the NLRA, the joint employment standard determines when two entities exercise sufficient control over the terms and conditions of work such that both entities have a responsibility to collectively bargain with a union and share liability for unfair labor practices. If multiple entities control workers’ terms and conditions of employment, the right to collectively bargain under the NLRA is rendered futile if workers cannot bargain with all companies that actually control—directly or through a contract—those wages and working conditions. As Professor Rogers explained at the October 2019 hearing, “workers’ primary employer may not actually have any economic power over their working conditions. The company that actually has that power may be a third party. But the workers cannot get that third party to the table. That means that meaningful collective bargaining is effectively impossible.”¹³⁷

Since the NLRA was enacted in 1935, the NLRB had mostly found that an entity may be liable to bargain with the employees of a subcontractor as a joint employer even if its control over terms and conditions of employment was indirect, such as exercised through the intermediary, or reserved in its contract with the intermediary. In 1984, the NLRB began relieving employers of their responsibility to bargain in those cases where its control over their subcontractors’ employees was not direct and immediate.¹³⁸ In its 2015 *Browning-Ferris* decision, the NLRB returned to the original, pre-1984 standard, which determined that employers are responsible under the NLRA when they exercise control indirectly or reserve control through an intermediary, in addition to through direct and immediate control. The U.S. Court of Appeals for the D.C. Circuit explicitly affirmed the *Browning-Ferris* standard in December 2018 as consistent with the NLRA and common law of agency.¹³⁹

In February 2020, the NLRB issued a final rule that again narrowed the joint employer standard by requiring that an “entity must possess and exercise such substantial direct and immediate control over one or more essential terms or conditions of their employment as would warrant finding that the entity meaningfully affects matters relating to the employment relationship with those employees.”¹⁴⁰ In doing so, the final rule permits a company to evade any legal obligation to collectively bargain with the employees of a subcontractor, even if the company exercises indirect or reserved control over the essential terms and conditions of employment.

The NLRB’s final rule went a step further and did not include safety and health measures as among the “essential” terms and conditions of employment that a company must control in order to be a joint employer.¹⁴¹ The final rule did not specifically justify the exclusion of safety and health from the list of essential terms and conditions of work. Two weeks after the final rule was issued, the World Health Organization announced that the COVID-19 outbreak could be characterized as a pandemic.¹⁴² As a result, even a company’s direct control over subcontracted employees’ safety and health will not be sufficient to render it a joint employer unless it also exercises direct control over the essential terms and conditions of employment. For subcontracted essential workers organizing to bargain over safety, personal protective equipment, and paid leave, the question

of whether the principal company is a joint employer of the subcontractor's employees is a matter of life and death.

Joint Employment Under the OSHAct

OSHA has long required employers to protect the health and safety of all workers under their supervision and control. Employers who expose workers to a hazard and can control and abate it are generally deemed to be liable under the OSHAct, even if they do not directly employ the individuals at risk.

Under the Obama Administration, in 2013, "OSHA developed a policy to hold responsible not just the direct employer, but what is called the controlling employer, which can be the company hiring the staffing agency or temporary working agency also responsible for complying with laws."¹⁴³ In 2014, OSHA and National Institute for Occupational Safety and Health (NIOSH) issued recommended practices for protecting temporary workers. Under this guidance, employers that retain and supervise temporary workers supplied by staffing agencies are liable for compliance with OSHA standards as a joint employer, unless the employer contracted such responsibility away and ensured that the labor supplier complies with OSHA requirements. This guidance stated, "[t]he staffing agency and the staffing agency's client (the host employer) are joint employers of temporary workers and, therefore, both are responsible for providing and maintaining a safe work environment for those workers."¹⁴⁴ This would include ensuring that OSHA's training, hazard communication, and recordkeeping requirements are fulfilled. OSHA also issued a policy memo for its inspectors in 2014 that stated that "[t]he extent of the obligations each employer has will vary depending on workplace conditions and may be clarified by their agreement or contract."¹⁴⁵ In 2016, OSHA also issued recommended practices for improving communication and coordination among host employers, contractors, and staffing agencies."¹⁴⁶

This guidance has remained in effect under the Trump Administration. Although OSHA operates under a policy to hold controlling employers responsible for compliance, no such policy is codified in federal statute. Current law only covers employees of employers covered under the OSHAct. There are some limited exceptions that make employers responsible for protecting employees of other employers that they may expose to hazards on certain multiemployer worksites.¹⁴⁷

The ability to protect temporary workers against retaliation or whistleblowing is also a concern in the fissured workplace. This is particularly problematic in temporary staffing firms where retaliation may take the form of a temporary staffing agency opting to not send a temporary worker back to the same host employer or failing to place the temporary worker at another worksite.

Section V: Beyond the Employee/Independent Contractor Framework: Guaranteeing Rights and Responsibilities Regardless of Classification

As discussed above, the fundamental right to fair wages, safe workplaces, and an opportunity to bargain for better working conditions has stemmed from the employment relationship for decades. In recent years, however, experts have urged policymakers to rethink the concept of employee classification and the rights and responsibilities tied to worker classifications.

A Third Category of Worker Would Erode Basic Labor Protections

Perhaps the most widely discussed proposal to "reimagine" the rights and responsibilities tied to worker classification is the proposal to create a "third category" of worker in addition to the employee and the independent contractor classifications.¹⁴⁸ In a 2015 paper, scholars Seth Harris and Alan Krueger argued some workers, namely gig workers, "satisfy different factors of both the employee and independent contractor tests

under most labor, tax, and employment laws,” and thus do not fit well within either classification.¹⁴⁹ They argued that the employee/independent contractor dichotomy incentivizes misclassification, creating an unfair competitive advantage, and creates barriers for independent contractors to secure basic protections or pool together for greater bargaining power.¹⁵⁰ Harris and Krueger instead proposed creating a third category of workers—called independent workers—who would have a mix of rights. For example, independent workers would have access to collective bargaining and civil rights protections and their employers would have to contribute to payroll taxes.¹⁵¹ Independent workers would not, however, qualify for labor protections, such as minimum wage and overtime, that are based on the number of hours worked.¹⁵²

At the heart of this proposal is the argument that work in the digital gig economy is so different that the traditional employee or independent contractor model cannot apply. Specifically, Harris and Krueger claimed work hours for gig workers are immeasurable, and thus hour-based minimum wage and overtime requirements of the FLSA cannot be applied to these workers. Additionally, they argued that determining the number of hours spent working for a particular employer (to determine the question of whether that employer must pay for “waiting time” between gigs, for example) is impossible because the worker may be doing personal tasks or also engaged on another app at the same time.¹⁵³

A 2016 report by the Economic Policy Institute (EPI) used Uber as an example to analyze these claims and concluded that the arguments made for a third worker category are not justified.¹⁵⁴ First, the claim that work hours for gig workers are immeasurable is empirically flawed as app-based gig companies can and do measure workers’ use of their platforms down to the minute. Second, gig companies often have systems that make it difficult to perform personal tasks, meaning the worker is likely “engaged to wait” and should be compensated for waiting time. For example, when an Uber driver’s app is open, he or she must respond to ride requests within a very short amount of time (e.g., 15 seconds). A low acceptance rate will result in the worker being kicked off the app. This means, when the app is on, the driver cannot “go to her traditional job, undertake another moneymaking activity, drive her children to school, or park by the side of the road and take a nap.”¹⁵⁵ According to guidance from the WHD, “[i]f the calls are so frequent or the on-call time conditions so restrictive that the employee cannot effectively use the on-call time for his or her own purposes, the on-call waiting time would constitute hours worked.”¹⁵⁶

Third, the question of which employer is responsible for paying for waiting time when two apps are open simultaneously is answerable: “Both employers want the driver to be waiting for their ping, and the one that should pay is the one that will benefit—the company whose app provides the first accepted rider.” As EPI also points out, any complexity in parsing out what hours of work are attributable to an employer is “not central to determining whether there is an employment relationship.”¹⁵⁷ Arguments from gig companies that complexity in applying the law necessitates complete exclusion from compliance may belie true motives.

In his testimony, Dr. Weil stated, “[w]hile there may be some instances where app-based companies have characteristics that do not match neatly with one or the other of the models we discuss, this ambiguity is not distinctive to the on-demand sector but can be found in the wider economy.”¹⁵⁸

The likely impact of creating a third category of worker (and perhaps the underlying goal of some proponents of this approach) would be to take workers who should currently be classified as employees and relegate them to a status that has fewer labor and employment protections.¹⁵⁹ “Rideshare drivers, who have driven much of the ‘independent worker’ conversations in the United States, are a perfect example. Under our existing law,

many have persuasively argued they are employees. Third-way classifications would decrease their employment rights, including rights to a minimum wage and access to workers' compensation."¹⁶⁰

Workers Should Have Certain Guaranteed Workplace Rights, Regardless of Employee Classification

Efforts to strengthen employment standards are not intended to, nor will they in practice, eliminate the independent contractor classification. As such, the obstacles to securing fundamental rights for workers outside the employment relationship, as highlighted by Harris and Krueger, are legitimate concerns worth addressing.

Ms. Goldman and Dr. Weil propose “structuring rights, protections, and responsibilities around a framework of concentric circles. . . .The concentric circles emanate outward from a core set of protections that are linked to *work* and not to legal definitions of *employment*.”¹⁶¹ At the core are universal, basic rights that should be available regardless of employee classification, and “recognize the inherent imbalance of leverage in the work relationship”:¹⁶² The right to be paid for work at a minimum wage, the right to a safe workplace, and protection against retaliation and discrimination from exercising rights.¹⁶³ The middle ring includes rights and protections that are tethered to the employment relationship, including overtime and the right to organize and collectively bargain.¹⁶⁴ These sets of rights are coupled with a presumption of employment status and a clear test of employment,¹⁶⁵ as discussed above.

The outer ring recognizes the volatility of the length, tenure, and nature of work relationships by including workplace benefits that guarantee portability for both employees and independent contractors.¹⁶⁶ The outer ring would include non-mandatory benefits for employees and independent contractors, such as retirement savings and skills development. This outer ring would also include “better financing mechanisms to ensure...workers' compensation and unemployment insurance systems could more closely resemble the kind of multiemployer risk pooling systems long associated with collectively bargained benefits systems in construction, transportation, and garment industry.”¹⁶⁷ Independent contractors “could also be provided mechanisms to pay into such risk pools either through their own direct contributions or those of their customers.”¹⁶⁸ The COVID-19 pandemic has underscored the need for true independent contractors to have access to these benefits, especially Unemployment Insurance, and the need to re-examine systems that facilitate permanent access to such protections (see COVID-19 Supplement on page 3).

Section VI: Emerging Issues

In addition to strengthening employment standards or ensuring universal rights, regardless of employee status, several emerging issues require further examination from policymakers and experts in the future.

Sectoral Bargaining

Collective bargaining in the United States is limited by the fact that it typically occurs only at the level of individual firms of employers, and not across industries or sectors.¹⁶⁹ As Professor Rogers explained in testimony, “The NLRB has. . . interpreted [the NLRA] to prohibit it from mandating ‘multi-employer’ bargaining units. While multi-employer bargaining has been common at various times and in various industries, it ‘is and always has been consensual in nature.’”¹⁷⁰

Firm-level bargaining amidst low union density can undermine workers' ability to form a union. Only 6.2 percent of private-sector workers are union members¹⁷¹—the lowest level of union density since the NLRA was passed in 1935.¹⁷² Low union density limits the sector-wide wage-boosting effects associated with unionization because nonunionized companies lack an incentive to raise wages to compete with unionized employers. In this environment, firm-level collective bargaining means unionized employers experience a competitive

disadvantage because they face higher labor costs compared to their nonunionized competitors. This incentivizes employers to evade liability under the NLRA by engaging in anti-union activity and workplace fissuring through subcontracting and digital gig work.

Centralized bargaining benefits employers and employees by removing wages from competition, enabling employers to compete over the quality of their products or services. Employers can compete, for example, by focusing more on training their employees, and benefitting workers by preventing wage stagnation.¹⁷³ As Professor Rogers testified, “There is powerful evidence, across countries and time periods, that bargaining centralization correlates with higher wages for low-skill workers and greater income equality overall.”¹⁷⁴

Many countries¹⁷⁵ have facilitated collective bargaining on the sectoral level where representatives of workers and employers in a given industry bargain over wages and standards throughout that industry.¹⁷⁶ This process pairs firm-level collective bargaining agreements with industry- or sector-wide collective bargaining agreements. There is also precedent for setting industry-wide workplace standards in the United States. The DOL exercised authority under the FLSA to use this process in the late 1930s, but such authority was revoked in 1949.¹⁷⁷ Some states have also enacted limited versions of wage boards. For example, New York’s wage board increased wages for fast-food workers throughout the state, and Seattle has enacted a standards board specifically for domestic workers.

Unions in the United States have built some collective bargaining structures above the firm level within the limitations of current labor law. For example, the Service Employees International Union (SEIU) and UNITE HERE have successfully used multiemployer and multi-worksites frameworks in cities where they have organized and achieved high membership density among janitorial and hotel workers, respectively.¹⁷⁸ This has played a role in eliminating the perceived competitive disadvantage from unionization in those locations.¹⁷⁹ As another example, through “pattern bargaining,” the United Auto Workers (UAW) “has negotiated an agreement with one of the ‘big three’ automakers (GM, Ford, and Chrysler) and then pushed the other two to match terms...[so] none of them is put at a competitive disadvantage.”¹⁸⁰

Crucial to this emerging issue is promoting high union membership density to protect the effectiveness of sector-wide bargaining and prevent a free-rider problem from emerging. Countries with sectoral bargaining address this problem in various ways, including a “Ghent system,” which permits unions to administer governmental benefits or aid workers in receiving benefits such as Unemployment Insurance or workplace training.¹⁸¹

Any system to bolster workers’ power, at the workplace or throughout a sector, must protect workers’ rights to organize and engage in concerted activity for mutual aid and protection. Although Uber and Lyft have purported to support sectoral bargaining with their workers, they have not publicly supported the enforcement of any mechanisms that could be used to guarantee good-faith bargaining by the companies, let alone any protections for workers organizing or engaging in concerted activity to improve working conditions.¹⁸² Moreover, when the gig companies drafted California’s Proposition 22 to carve out loopholes from state employment laws, they failed to include any form of collective bargaining, much less sectoral bargaining, in the text of the new law.¹⁸³

Portable Benefits

Legislators and think tanks have had ongoing discussions regarding whether and how to ensure access to benefits outside of the traditional employment model for workers in digital gig economy companies and highly fissured industries. Steps taken through the *Affordable Care Act* (ACA) have expanded opportunities to obtain

health coverage outside of the employer-sponsored system, including through Exchanges where consumers can enroll in plans that meet certain affordability and benefit requirements. Some have also proposed developing a “portable benefit” structure in which employees could take certain benefits from job to job. Precedent exists for such models, including through collectively bargained multiemployer pension plans that are common in certain industries, such as construction and music, as well as publicly administered programs, such as Social Security and Medicare.¹⁸⁴

Some of the digital gig economy companies that classify their workers as independent contractors have begun advocating for a system of portable benefits. These firms argue that, as workers often work across multiple platforms simultaneously and many workers remain engaged with an individual platform for only a short time, it is impractical to provide traditional benefits, regardless of the employment classification implications. The proposals supported by these digital gig economy companies include legislation in both Washington and New York that would require gig economy companies to set aside a portion of the fee collected from customers to be paid to a third-party benefits administrator.¹⁸⁵ The administrator then provides benefits in line with state regulations and input from covered workers. The Aspen Institute Future of Work Initiative laid out the positive elements of these models, describing them as “portable, prorated, and universal.” This means that workers could maintain continuous access to benefits, companies could pay proportionately to the work done on their platform, and all workers engaged with the platform could access benefits.¹⁸⁶

However, recent proposals to establish “portable benefit” structures in the fissured workplace have also raised concerns about whether such models are designed to operate in the interest of workers. For example, Professor Rogers noted in testimony that proposals for a “safe harbor,” such that an employer’s offer of benefits would not be treated as evidence of an employment relationship with its workers, would allow companies to evade their legal duty to provide benefits to workers misclassified as independent contractors.¹⁸⁷ Similarly, Sharon Block, who served as the Assistant Secretary of Policy at the DOL during the Obama Administration, notes that the current portable benefits legislation “constitutes a path to nothing more than a minimum safety net. We should aspire to more than this. We need to do more than stopping the free fall to destitution that workers outside of traditional employment face as a result of their legal outsider status.”¹⁸⁸ In his testimony, Dr. Weil outlined a concept of “providing social safety net and benefit protections to both [employees and independent contractors] via multi-party financing mechanisms.”¹⁸⁹

Time Sovereignty and Excessive Work Hours

Discussions of the future of work invariably include discussions of increased workplace flexibility, including flexibility in determining when, where, and for how long to work. This is especially salient as lead businesses employ business models (e.g., digital gig economy work) that promise workplace flexibility for workers, but often only provide employers with flexibility in managing labor costs.

Early 20th century predictions of a 15-hour workweek based on improvements in worker productivity are far from realized today.¹⁹⁰ While productivity levels have dramatically increased, workers have yet to reap the benefits of this growth. “From 1979 to 2018, net productivity rose 69.6 percent.”¹⁹¹ If workers were capturing the benefits of this improved productivity, they would see reduced working hours, higher pay, or both. However, over the past few decades, the average number of hours worked has increased¹⁹² and wages have largely been stagnant.¹⁹³

The negative physical and mental consequences of excessive working hours are well documented¹⁹⁴ and long recognized by labor law. In fact, internationally, “[t]he reduction of working hours was one of the original

objectives of labour law.”¹⁹⁵ In the United States, the FLSA prohibits certain employees from working more than 40 hours in a workweek unless paid one and a half times their regular rate of pay.¹⁹⁶ In addition to recently increased attention on the number of workers who are inappropriately excluded from overtime protections,¹⁹⁷ there have been calls to enact policies that further reduce the number of working hours. This includes calls to implement a four-day workweek or institute daily overtime standards.¹⁹⁸ Relatedly, increased use of communication technologies, such as e-mail and mobile phones, has allowed workers to stay connected to work outside the traditional office setting and perform work after hours, further blurring the line between work and life¹⁹⁹—a trend that has accelerated for many workers amid the COVID-19 pandemic.

Any improvements in standards for working hours must be accompanied by policies that increase workers’ pay, such as increasing the federal minimum wage, so “workers can sustain or increase their incomes, while reducing their hours.”²⁰⁰ As the International Labour Organization (ILO) notes, “[m]any workers have to work long hours because their household is poor or would risk falling into poverty were their hours reduced.”²⁰¹ This is imperative as the fissured workplace continues to produce low-wage jobs.

During the COVID-19 pandemic, employers have been forced to rethink workplace flexibility as employees have been required to telework or have needed more flexible work hours to care for children. The ILO also notes that “[f]or many [workers], working hours can be highly variable and unpredictable, without a guaranteed number of paid working hours or income per week and with little or no say about the timing of their work.”²⁰²

True workplace flexibility requires standards that both discourage excessive hours of work and give workers greater control over their time. As the ILO has stated, “[i]n a digital age, governments and employers’ and workers’ organizations will need to find new ways to effectively apply nationally defined maximum limits on hours of work [including] establishing a right to digitally disconnect.”²⁰³ Additionally, “[w]orkers need greater time sovereignty. The capacity to exercise greater choice and control over their working hours will improve their health and well-being, as well as individual and firm performance.”²⁰⁴

Section VII: Policy Recommendations to Preserve Worker Protections in the Modern Economy

Strengthen the tests for employment under labor and employment laws. For decades, fundamental labor and employment rights have stemmed from the employment relationship, making standards for determining whether such a relationship exists critical. Unfortunately, current employment standards can lack predictability and clarity, place workers at a disadvantage for demonstrating an employment relationship exists, and fail to fully advance the purposes of the applicable law.

***Recommendation 1.1:** To ensure clarity and predictability for workers, employers, and enforcement agencies, and to address power imbalances in demonstrating an employment relationship, establish employment tests that create a rebuttable presumption of employee status and include clear requirements that an employer must demonstrate to overcome this presumption, such as the “ABC” test used in the Protecting the Right to Organize (PRO) Act.*

Provide policymakers, workers, and enforcement agencies better tools to combat employee misclassification.

Employee misclassification is a pervasive, persistent problem that strips workers of their rights, penalizes law-abiding businesses, and costs taxpayers billions of dollars in lost revenue. Data on the scope and breadth of misclassification is limited and dated, and workers and enforcement agencies lack the statutory penalties to more effectively deter the harmful practice.

Recommendation 1.2: *To ensure policymakers and enforcement agencies have relevant information in order to direct resources, the DOL should regularly collect data on the prevalence and impact of employee misclassification.*

Recommendation 1.3: *To deter misclassification and strengthen enforcement, Congress should enact legislation, such as the PRO Act, that makes misclassification itself a violation of federal labor and employment laws enforceable through a private right of action and backed by civil monetary penalties.*

Strengthen joint employment standards that ensure all relevant employers are responsible for compliance with labor and employment laws. Labor and employment laws have long held that an employee may have more than one employer responsible for compliance with the applicable law. Without strong standards to ensure shared responsibility for employers, the increased use of subcontractors, franchising, and temporary agencies in the fissured workplace can leave workers without the protections to which they are entitled.

Recommendation 1.4: *To uphold strong joint employment standards, the DOL’s Wage and Hour Division should withdraw—or Congress should invalidate—the 2020 final interpretive rule on joint employment under the FLSA that unlawfully narrows joint employment liability, and instead reinstate the 2017 Administrator’s Interpretation on Joint Employment that provides workers and employers with clarity on their rights.*

Recommendation 1.5: *To uphold strong joint employment standards, Congress should codify the Browning-Ferris standard to ensure that, when subcontracted workers organize a union, all the entities that control the terms and conditions of work will be at the bargaining table. The PRO Act does this by stating that an employee has multiple employers if each employer exercises direct or indirect control, or reserves control, over the terms and conditions of employment.*

Recommendation 1.6: *To ensure the safety of all workers, Congress should enact legislation to implement a federal requirement that employers have a broad “duty of care” to comply with health and safety standards with respect to all employees working for their enterprise who may be harmed by an unsafe workplace or hazardous conditions, not just employees of employers covered under the OSHAct.*

Explore policy options for emerging issues to ensure the future of work is centered on workers. While current labor and employment laws provide a foundation of key protections that promote economic security, policymakers must explore ways to help workers receive an opportunity to bargain for better working conditions, increased access to benefits, and more reasonable work hours.

Recommendation 1.7: *To promote collective bargaining beyond the firm level, Congress should explore policy options for encouraging and promoting sectoral bargaining.*

Recommendation 1.8: *To address the negative health, economic, and social impacts of modern work demands, Congress should explore policy options that discourage excessive hours of work and give workers greater control over their time.*

Recommendation 1.9: *To promote greater economic security, Congress should (1) ensure the interests of workers are central to any efforts to develop portable benefit programs; workers’ voices are central in the negotiation, development, and administration of private portable benefits; and state and federal*

portable benefits legislation does not allow companies to evade their duties towards workers through the misclassification of employees as independent contractors under federal labor and employment laws; and (2) strengthen social insurance and public programs, including Medicare, Social Security, and the Affordable Care Act, to ensure access to health and retirement benefits for all workers.

Conclusion

Changes in business models have led to fissured workplaces where lead businesses shed their employment relationships with workers while still maintaining control over work. The fissured workplace has left workers with lower wages, fewer benefits, less safe workplaces, and less opportunity to bargain for better working conditions. Policymakers can respond to these changes with policies that preserve foundational worker protections and ensure the future of work centers on the future of *workers*.

Chapter 2: Ensuring Workers Are Competitive in a Rapidly Changing Economy

Even when the economy is deemed strong, some workers face involuntary job loss or have their skills rendered obsolete by changes to their industries. The U.S. policy response to worker displacement, whether driven by trade policy, corporate restructuring, or natural disaster, is haphazard and inconsistent. Our nation's thin patchwork of programs and services for displaced workers is poorly integrated, inequitably targeted, and increasingly underfunded. What's more, a large and growing share of the workforce is permanently dislocated from opportunity—stuck in low-paid, low-opportunity jobs with little shot at upward mobility.

To ensure workers can remain competitive and upwardly mobile in the decades to come, policymakers must strengthen our patchwork of programs into a robust system that supports *any* worker who risks becoming dislocated in today's or tomorrow's economy. Whether they are displaced due to climate change, automation or innovation, breaks from the labor market, or otherwise, all American workers should be able to access the services they need to remain in or reenter the labor market, including supportive services, retraining, or upskilling. Furthermore, since reskilling, alone, cannot protect and strengthen the American workforce in the face of intense headwinds, the U.S. response must include policies to help prevent displacement before it happens, enhance worker assistance, and promote lifelong learning.

Following extensive stakeholder discussions and convenings, the Subcommittee on Higher Education and Workforce Investment held a hearing called “The Future of Work: Ensuring Workers are Competitive in a Rapidly Changing Economy” on December 18, 2019. The Committee heard expert testimony from Seth Harris, former Acting U.S. Secretary and Deputy U.S. Secretary of Labor; Nova Gattman, Deputy Director for External Affairs, Washington State Workforce Training and Education Coordinating Board; Brad Markell, Executive Director of the American Federation of Labor and Congress of Industrial Organizations (AFL-CIO) Working for America Institute and Executive Director of the Industrial Union Council at AFL-CIO; and James A. Paretto, Jr., Shareholder at Littler Mendelson P.C. and Treasurer of the Emma Coalition.

Since the Committee's December 2019 hearing, the COVID-19 crisis has led to a dramatic spike in worker displacement (see COVID-19 Supplement on page 3). Between February and April 2020, the United States lost 22 million payroll jobs, and, while employment has since partially rebounded, this “jobs gap” remained greater than 10 million as of October.²⁰⁵ Researchers estimate that more than 7 million of the job losses from the pandemic recession will be permanent.²⁰⁶ The most vulnerable workers, including low-paid workers of color and women, have been hardest hit by job losses as the crisis has dragged on. Tens of thousands of small businesses—which employ nearly half of American workers—have shuttered.²⁰⁷ Entire sectors of our economy may permanently shift, foreclosing some types of jobs and newly creating others. Now more than ever, it is critical that policymakers invest in the nation's workforce system to ensure jobseekers and employers are positioned to participate fully in the recovery.

Informed by the Committee's December 2019 hearing and extensive stakeholder engagement, this chapter gives background on the common causes of worker displacement in the modern labor economy, presents evidence on which workers are most at risk, and recounts displacement's negative consequences (Section I); introduces the promise and challenges of the lifelong learning model (Section II); overviews the current U.S. policy landscape (Section III); and presents policy recommendations to address and avoid displacement and support lifelong learning (Section IV).

Section I: Worker Displacement in the Modern Economy

Displaced workers, also called dislocated workers, are those who experience involuntary loss of work and are unlikely to return to adequate employment, in terms of wages or hours, in their previous job or industry. Not all job separations result in displacement: In any given month, millions of workers are laid off or discharged, or voluntarily quit or retire, but do not become displaced.²⁰⁸ However, displacement merits special attention from policymakers because of its heavy costs to workers and the economy. Displacement often permanently alters workers' job prospects and may be indicative of a structural shift in production patterns or a downturn in the economy.²⁰⁹

However, in addition to traditional displacement, an important and growing reality in the modern U.S. labor market is one of permanent dislocation from opportunity: Far too many workers are permanently stuck in low-paying, low-mobility jobs.

Recent Trends in Displacement

The Bureau of Labor Statistics (BLS) tracks a key measure of displacement every two years: the number of workers age 20 or older who lost or left jobs "because their plant or company closed or moved, there was insufficient work for them to do, or their position or shift was abolished."²¹⁰ The BLS and other experts tend to focus on "long-tenured" workers, who held their current job for three years or longer before they were displaced. In many cases, displacement among these workers suggests deeper patterns of change than does the routine labor-market "churn" among less experienced or entry-level workers. Long-tenured workers also tend to have invested in job- or employer-specific skills that do not fully transfer to new settings, and thus may not help them find a new job opportunity and command higher wages.²¹¹

Prior to the COVID-19 crisis, the typical American worker experienced a relatively modest risk of displacement following the decade-long recovery from the Great Recession. From 2017 to 2019, about 2.7 million long-tenured workers were displaced,²¹² a number that had dropped by well over half compared to the 6.9 million workers displaced at the height Great Recession, and was even lower than the pre-Great Recession period of 2005 to 2007.²¹³ What's more, 70 percent of the 2017-2019 cohort were reemployed by January 2020, compared to a reemployment rate of less than 50 percent for the Great Recession cohort over the same amount of time.²¹⁴

While useful, this conventional measure does not paint the full picture of worker displacement in the United States. For instance, between 2017 and 2019, the BLS also identified an additional 3.7 million "short-tenured" workers who had held their job for less than three years before being displaced.²¹⁵ Furthermore, it does not take into account involuntary part-time workers (the underemployed) who would prefer a full-time job with full-time wages. Even before the COVID-19 crisis, this group remained highly elevated as a share of the workforce compared to before the Great Recession, according to Federal Reserve researchers,²¹⁶ and it now includes nearly 6.9 million workers as of October 2020.²¹⁷ Nor does the conventional measure capture workers who experience frequent "churning" between jobs.²¹⁸

Finally, the conventional measure omits the dislocation from labor-market *opportunity* that many workers experience. Even before the COVID-19 pandemic and ensuing recession, far too many workers were stuck in low-paid, low-opportunity jobs with little shot at upward mobility: According to research from the Brookings Institution, approximately 53 million workers ages 18 to 64 (44 percent) earned low wages in recent years, with median hourly pay of \$10.22.²¹⁹ Despite switching jobs frequently, these workers tended to churn within low-

paid, low-quality occupations. Without help to adjust, such workers may continue to see their wages stagnate, their chance at upward mobility wane, and their job quality decline.²²⁰

Today, researchers estimate that 7 million of the jobs lost in the pandemic will not be coming back.²²¹ With COVID-19-related job losses heavily concentrated among low-paid workers²²² and the number of jobless workers who become “long-term unemployed” rising sharply,²²³ the U.S. is on track for a historically large spike in worker displacement.

Common Causes of Displacement

This section discusses several common causes of worker displacement in today’s economy, an understanding of which is critical to crafting a strong policy response. As the economy changes, the causes of displacement change as well, and the list below is far from exhaustive. Most importantly, in the coming years, the COVID-19 pandemic is expected to lead to widespread worker displacement given business closures, outsized harm to certain sectors, and risks to workers’ health. Other important contributors to displacement in today’s economy include firm mismanagement, takeovers by private equity, insufficient public investment in rural areas and distressed communities, and barriers such as incarceration or drug testing policies.

Trade and Globalization

U.S. policy has failed to adequately ensure that the benefits of trade are being felt by all workers. Research demonstrates that trade-affected workers and their communities are much slower to adjust to trade shocks than expected, with wages and workforce participation rates remaining depressed for the subsequent decade.²²⁴ While American consumers (a group that includes American workers) have greatly benefited from lower-cost goods due to trade, which makes a higher standard of living more affordable and accessible, compensation for workers who lose their jobs as a result of new trade relationships is far from automatic. Research by David Autor, David Dorn, and Gordon Hanson found that liberalization of trade with China was not only responsible for one-sixth of the decline in manufacturing employment in the United States, but that affected displaced workers and their communities were much slower to adjust than expected.²²⁵

Climate Change, Natural Disasters, and Clean Energy

Scientists agree that climate change will seriously and increasingly affect employment across geographic regions and industries, whether due to natural disasters, landscape transformations, or industry transitions.²²⁶ While in some cases this may create new job opportunities, the Blue-Green Alliance acknowledges, “not enough of the new jobs that have been created or promised in the clean energy economy are high-quality, family-sustaining jobs, nor are these jobs in the same communities that have seen the loss of good-paying, union jobs.”²²⁷

Technological Change and Automation

In every era dating back to the Industrial Revolution, technological improvements, including automation, have made their way into the workplace. The evidence on automation points largely to transformation—not wholesale destruction—of jobs, specifically occurring at the task (i.e., within-job) level.²²⁸ This means most workers will not be replaced entirely due to automation, but the nature of their job may dramatically change as automation complements some tasks and substitutes for others.²²⁹ It also means workers may require some training or upskilling to successfully adjust. Additional evidence suggests that automation has created, and will create, new jobs, as did previous technological advances such as the introduction of the internet to the workplace.²³⁰ However, the impact of automation will not be evenly felt. Automation will likely most negatively affect workers who can least afford to adjust, including lower-wage workers, as discussed below. But

technology “does not fall from the sky,” as Brad Markell stated in testimony before the Committee.²³¹ Rather, “[p]ublic policy decisions and public funding drive U.S. innovation policy, and there are multiple choices involved in the design and deployment of technological applications by companies.”²³²

Breaks from the Labor Market

Over the course of their working lives, a large share of American workers will need to take a break from the labor market for reasons such as caregiving obligations, a prolonged illness or injury, or the need to relocate for a spouse’s job. Many will be unable to remain in or return to their job after such a break, in part because the U.S. lacks comprehensive federal policies, such as paid family and medical leave and Unemployment Insurance (UI) compensation for spousal relocation. Workers who wish to reattach to the labor market after an absence often face significant challenges: They may encounter employer bias based on the “gap” in their résumé; their skills may no longer be up to date; and they will generally be ineligible for assistance such as unemployment benefits to help them afford child care, transportation, or interview clothes while searching for a new job.

Injury and Disability

One in four adults in the U.S. has a disability, according to the Centers for Disease Control and Prevention (CDC).²³³ Civil rights legislation, such as the *Americans with Disabilities Act* (ADA), guarantees people with disabilities access to education, training, and employment opportunities on an equal basis with their non-disabled peers, and workforce policies focus on competitive integrated employment for disabled workers. As a result, youth with disabilities are increasingly expecting that they will join the workforce. What’s more, millions of workers experience injury each year, including an estimated 3 million workers who are seriously injured while on the job,²³⁴ sometimes resulting in temporary or permanent disabilities. Workers with disabilities and serious injuries face unique challenges to employment and financial security²³⁵ and are often said to be among the “last hired, first fired.”²³⁶ These workers may be more likely to experience displacement during a recession or may simply struggle get a foot in the door of the labor market in the first place. Finally, the incidence of disability also increases substantially with age—and with Americans living and working longer than ever, the risk of disability-related displacement will continue to rise without appropriate policy supports in place.

Recessions

The rate of worker displacement increases substantially during a downturn in the economy, while the pace of reemployment falls. As noted above, the BLS reported that the national number of displaced workers nearly doubled, from 3.6 million to 6.9 million, between its surveys in 2005-2007 (pre-Great Recession) and 2007-2009 (during the Great Recession).²³⁷ Similar patterns hold true for regions or local areas experiencing sluggish or shrinking economies. Workers displaced due to recessions often face different challenges than other displaced workers. For example, while these workers are less likely to need reskilling or training in the short term, research shows they incur significantly reduced lifetime earnings²³⁸ and are at greater risk for longer-term unemployment relative to workers displaced in healthier economic times. The fact that worker displacement rises substantially during recessions—destabilizing not only working families but also the broader economy—has led experts to embrace countercyclical policies and programs, which are designed to expand when the economy turns down, often on an automatic basis. As discussed in the COVID-19 Supplement (see page 3), the economic crisis caused by COVID-19—which has led to the largest spike in the unemployment rate since the Great Depression as well as severe financial challenges for state and local governments and small- and medium-sized businesses—is putting millions of workers risk of displacement.

Workers Most at Risk of Displacement

Displacement is unevenly distributed by income, industry, region, race, and other characteristics, as are the gains and losses from the forces that cause displacement.²³⁹ Research shows that the most vulnerable workers—including workers of color,²⁴⁰ women,²⁴¹ and workers with low pay or relatively little education—are disproportionately likely to experience displacement. These disparities have been exacerbated by the COVID-19 public health and economic crises, which has hit many of the same groups hardest.²⁴²

Race and Ethnicity

Many workers of color face a disproportionate risk of—as well as disproportionate harm from—displacement. As Seth Harris testified in December 2019, “involuntary job displacement tends to fall most heavily on already vulnerable workers and, as a result, contributes to significant racial disparities in unemployment.”²⁴³ According to one study, for example, 31 percent of Latino workers and 27 percent of African American workers work in 30 major occupations identified as at high risk of automation—such as in brick-and-mortar retail, food preparation, and transportation—compared to 24 percent of white workers and 20 percent of Asian American workers.²⁴⁴ While research shows forces such as technological change and automation can yield gains in productivity and create new jobs, they can also undermine vulnerable occupations and communities, particularly younger, less-educated manufacturing workers and workers of color in the Midwest.²⁴⁵ Communities of color are also more concentrated in areas prone to extreme weather events, placing them in the path of potential future displacement due to climate change.²⁴⁶ The Joint Center for Political and Economic Studies notes that when displacement occurs, several factors leave African American communities particularly endangered, including “an average household net worth that is one tenth that of Whites (making periods without income particularly difficult); implicit bias in hiring and evaluation; residential and educational segregation; transportation challenges; lower rates of digital readiness; and limitations in social networks.”²⁴⁷

Age

The likelihood and consequences of displacement vary by age. According to the Urban Institute, older workers are less likely to lose their jobs compared to their younger counterparts. However, when they do, they have more trouble finding new work and are more likely to experience sharp wage declines.²⁴⁸ More than half of all workers over age 50 in the U.S. eventually experience involuntarily employer-related job loss, and 90 percent of those workers are consigned to lower-paying work for the rest of their careers.²⁴⁹ Moreover, the protective effects of age are driven solely by older workers’ longer tenure with their employers, suggesting that as employment relationships become less common (see Chapter 1) this advantage may erode. Younger workers, for their part, often face heightened challenges with displacement in times of economic downturn. During the Great Recession, for example, nearly 1 million young Americans experienced long-term unemployment and lower earnings that resulted in an estimated loss of \$20 billion in earnings over the next 10 years.²⁵⁰

Gender

While men made up a larger share of long-tenured displaced workers than women leading up to the COVID-19 crisis (55 percent compared to 45 percent),²⁵¹ women are more likely to be concentrated in roles where they are exposed to technological change.²⁵² Occupational segregation is one key driver of disparities in exposure to displacement by gender. For example, since 2000, the U.S. economy has shed 2.9 million jobs in production occupations, which predominately affects men, and 2.1 million jobs in administrative and office-support roles, which predominately affects women.²⁵³ In both cases, however, such jobs—which are now largely outsourced or automated—had long provided workers who had not earned a college degree with a reliable career and economic security. In another example, women have been highly susceptible to dislocation as the COVID-19 pandemic forces schools and care facilities to close, because they tend to bear a disproportionate share of care

work in the home. Between February and October 2020, more than 2.2 million women left the labor force,²⁵⁴ bringing women’s workforce participation back to a rate last seen in 1988.²⁵⁵

Skill Level

Research by the Kansas City Federal Reserve finds that the percentage of total employment in middle-skill occupations in the United States dropped from nearly 55 percent in 1994 to just over 43 percent in 2017. Over this same period, employment in high-skill occupations rose from 30.4 percent to 39.2 percent, and employment in low-skill occupations rose from 14.7 percent to 17.7 percent.²⁵⁶ This rise in job polarization of the U.S. labor market, among other factors, has led to many workers becoming stuck in low-mobility, low-paying jobs without career advancement pathways. As a result, these workers have been left vulnerable to displacement without reemployment in a higher-quality job.²⁵⁷ As Mr. Harris summarized in testimony, “workers’ challenge of making progress to remain secure in the middle class has been made much more difficult as middle-class jobs have become harder to find. They face a meaningful risk of slipping into low-wage low-skill employment if they cannot acquire the skills and knowledge needed to keep them in the remaining middle-wage middle-skill jobs or to propel them into the growing number of high-wage high-skill jobs.”²⁵⁸

However, as Brookings Institution scholars point out, reskilling—while integral—is not enough to combat increasing inequality, particularly as lower-tier jobs become characterized by precarious schedules, stagnant wages, and few benefits and protections (see Chapters 1 and 3).²⁵⁹ Indeed, racial disparities in unemployment clearly show that skills and education are not silver bullets to job opportunities: Black workers, for example, experienced unemployment rates twice as high as white workers at nearly every education level in 2019.²⁶⁰ Only a few years earlier, Black workers with a college degree were just as likely to be unemployed as white workers who had not completed high school.²⁶¹

Consequences of Displacement

Worker displacement can carry severe negative consequences for individuals, families, communities, and the broader economy. For individual workers, displacement can permanently damage employment prospects and lifetime earnings, and may eventually lead these workers’ skills to erode. For families, a family member’s displacement can have long-lasting negative impacts not only on economic security and wealth, but also on mental health and wellbeing. For communities, a local plant closure or other large-scale cause of displacement can have a negative ripple effect on local businesses and depress tax revenues that fund local services. Finally, for our national economy, periods of elevated unemployment can lead to what the Economic Policy Institute terms “macroeconomic scarring,” or the damage done to the economy’s long-term potential output.²⁶² These high human and economic costs underscore the need for proactive policies to address and avoid worker displacement.

Section II: The Promises and Challenges of Lifelong Learning

While workers of past generations often had just one job for their entire career, today’s workers can expect to have multiple different jobs and employers over the course of their working lives. In fact, the World Economic Forum estimates that 65 percent of the jobs today’s kindergarteners will hold when they become adults do not yet exist today.²⁶³

The World Economic Forum estimates that 65 percent of the jobs today’s kindergarteners will hold when they become adults do not yet exist today.

The Lifelong Learning Model

Experts strongly embrace *lifelong learning*—the idea that workers will need to develop new skills and competencies throughout their whole career, not simply at its start—as a key strategy to proactively address and avoid displacement in the modern economy. At the Committee’s December 2019 hearing, Nova Gattman testified on the importance of the lifelong learning model to Washington state’s approach: “Given the disruption today’s workers are likely to encounter throughout their careers given our rapidly changing economy, it’s critical that we are preparing our young people with the capacity for critical thinking, creative problem solving, and experience applying what they learn from a workplace setting in their education.”²⁶⁴ Many workers are already engaging in lifelong learning, as evidenced by the composition of today’s college students: 37 percent of students are older than 25, 64 percent are working while in college, and 24 percent are parenting while enrolled.²⁶⁵

Lifelong learning has gained traction internationally. The International Labour Organization (ILO) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) have called for a universal right to lifelong learning through the creation of a lifelong learning entitlement, drawing from models in countries like France and Singapore.²⁶⁶

While the most commonly cited examples of lifelong learning are post-secondary degrees (such as an associate, bachelor’s, or postgraduate degree) and certificates, the full spectrum of lifelong learning options is far more complex and difficult for workers and students to navigate. A study by Credential Engine indicates there are at least 730,000 unique credentials across 17 separate subcategories offered across the United States, including at least 475,000 non-degree credentials.²⁶⁷ These non-degree credentials include industry-recognized credentials and micro-credentials, which are often poorly articulated or mass proliferated. Lifelong learning can also include so-called “bootcamps” that often promise improved employment outcomes, but less frequently provide student outcome data. Lifelong learning can include employer-sponsored training or on-the-job training, although, as discussed below, such training rarely results in credentials that will be recognized outside of the worker’s immediate employer. Finally, lifelong learning includes a range of other work-based learning opportunities beyond on-the-job training, such as Registered Apprenticeships, internships, or externships.

Challenges with Engaging in Lifelong Learning

Despite the diverse and growing number of options for engaging in lifelong learning, students, workers, and other individuals considering enrolling in additional education and training face a number of barriers. Several of these barriers are discussed below.

Financing Lifelong Learning

Accessing the financial support or having the financial means to participate in lifelong learning is not a given for most Americans—and, taken together, the costs of living plus costs of education often put quality lifelong learning opportunities out of reach for many poor, working-class, and even middle-class individuals. For example, a Federal Reserve survey found that nearly 40 percent of U.S. adults in 2018 would have had difficulty handling a \$400 emergency expense.²⁶⁸ Additional survey data shows that, at the end of 2019, 70 percent of Americans indicated they had less than \$1,000 in savings, and 45 percent said they had \$0 in savings.²⁶⁹ Many workforce training programs are offered on a non-credit basis or are part of non-degree programs, meaning that students are generally not eligible for federal financial aid. Consequentially, participants must be self-funded, sponsored by an employer or union, or supported by individual training account (ITA). The public workforce system provides ITAs to workers who are approved to receive training, and ITAs are in turn used to

pay the eligible training provider the worker selects. However, resources for training are far from adequate to provide an ITA to all workers who are interested in or would benefit from training.²⁷⁰

Access to Supportive Services

For many individuals, access to supportive services, also called wraparound supports, is critical to successfully participating in lifelong learning. According to a 2017 study by the Institute for Women’s Policy Research, “[r]eceiving transportation assistance, child care, and other supportive services improves the chances of completing workforce development programs and finding a job. Supportive services can be the difference between whether job training success is possible or impossible for its participants.”²⁷¹

Opportunities for Employer-Sponsored Training

A shrinking share of workers has access to employer-sponsored training opportunities for reasons that include shorter job tenures, greater use of contract workers, and the declining bargaining power of unions.²⁷² Furthermore, as Brad Markell testified, “[w]hen businesses do train their workers, they tend to invest in those with the most education or the highest pay.” This decline in investment by employers shifts the burden of financing education and skill development purely onto workers, including those who can least afford it.

Credential Attainment and Transferability

Credentials often lack transparency, making it difficult for individuals to navigate their lifelong learning options. Factors that are frequently unclear include the labor market value of the credential, total cost of attainment, and skills and competencies to be gained. What’s more, many credential programs fail to provide valid employment outcomes. Individuals who pursue credentials, especially from workforce programs or career and technical education-related programs, may also find that the credits or credential they have earned are not *portable* (meaning recognized and trusted by a wide variety of employers and institutions)²⁷³ or *stackable* (meaning “part of a sequence of credentials that can be accumulated over time and move an individual along a career pathway or up a career ladder”).²⁷⁴ Often, even when students earn academic credit, those credits do not transfer between higher education institutions—or, if they do, they do not easily apply toward a credential or degree (for example, they may only count as electives). A recent study estimated that only 3 percent of Americans receiving some type of education or training award were building stackable skills and credentials that included a non-degree certificate or credential.²⁷⁵

Access to Prior Learning Assessments

Prior learning assessments (PLAs), which award postsecondary credit for knowledge gained outside the classroom, such as during a previous job or military service, can substantially reduce the cost and time to complete a degree or certification for adult learners.²⁷⁶ Yet, despite being an allowable use of funds under WIOA—and, in some cases, under the *Higher Education Act*—PLAs remain underutilized, and rules and practices vary significantly by state.

Section III: Current Federal Policies to Address Displacement and Promote Reemployment and Lifelong Learning

Currently, the U.S. has a thin patchwork of policies that treats workers very differently according to how they become displaced. The most adequate resources are afforded to workers displaced by trade, followed by mass layoffs and natural disasters. But the benefits and services available to workers displaced for other reasons are less clear, less adequate, and less accessible. What’s more, eligibility for and access to supports for reemployment and lifelong learning depend heavily on individuals’ ability to demonstrate their need and eligibility. The burden generally falls on the worker to “prove” the cause of their displacement and navigate the

large number of existing programs, many of which are geared toward narrowly defined categories of workers.²⁷⁷ Furthermore, federal workforce programs tend to focus on moving workers into *immediate* reemployment, rather than helping workers find *better* employment, such as by improving the quality of their match with an employer or connecting them with lifelong learning opportunities to obtain a credential in an in-demand field.

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While the U.S. has dozens of programs to support displaced workers across multiple agencies, most are small in size and very narrowly targeted to specific populations of workers, industries, or communities. For example, the U.S. has multiple programs devoted to displaced workers in the coal industry—an industry that employs fewer workers than Arby’s, a single fast-food chain—yet no program for the millions of workers who have been displaced due to workplace fissuring. A 2019 Government Accountability Office (GAO) report identified 16 federal “economic adjustment assistance initiatives” designed to help workers, businesses, and communities prepare for and respond to economic disruption.²⁷⁸ Far from being housed under one roof, these programs were administered by one of six different agencies or commissions—the Departments of Agriculture, Commerce, Defense, Labor, and Treasury, as well as the Appalachian Regional Commission. While the Department of Labor operates several programs that are more broadly available, as discussed below, most existing programs are narrowly targeted toward specific industries, communities, or worker populations such as trade-affected workers, coal workers, and communities affected by military base closures. GAO’s review excluded many additional programs with a workforce development component, but whose primary purpose was to address other issues, such as low-income assistance (i.e. the Supplemental Nutrition Assistance Program Employment and Training Program, or SNAP ETA) or assisting unemployed workers who are not required to retrain for new industries or acquire new skills to participate in the program (such as the Unemployment Insurance, or UI, program).

Federal Support for Reemployment and Lifelong Learning

It has been generations since Congress passed an ambitious workforce development effort of the scale of the Works Progress Administration (WPA; 1933-43), GI Bill (1944-56; see text box on page 33), and *Comprehensive Employment and Training Act* (CETA; 1973-82). International investment in workforce skills is rapidly outpacing U.S. investments: Currently, the U.S. spends only about 0.1 percent of gross domestic product (GDP) on policies that promote labor-force participation and help workers match to employment opportunities, compared to an average of 0.6 percent of GDP in our peer developed nations.²⁷⁹ The White House Council of Economic Advisors estimated that the U.S. would have to spend an additional \$80.4 billion per year to match average spending on employment and training programs as a share of GDP in other Organisation for Economic Co-operation and Development (OECD) countries.²⁸⁰

Federal investment has fallen markedly over time: While the U.S. labor force has grown by roughly half over the past four decades, federal spending on workforce development has fallen by two-thirds.²⁸¹ Funding for the nation’s cornerstone workforce development statute, the *Workforce Investment and Opportunity Act* (WIOA), has never reached its authorized levels. Between 2001 and 2019, funding for WIOA was cut by 40 percent, Career and Technical Education by 29 percent, and Adult Basic Education by nearly 15 percent.²⁸² Unlike some other nations, the U.S. does not supplement its federal investments in workforce development with

contributions from employers who benefit from the system,²⁸³ nor does it facilitate close coordination between the public workforce system and unions, which play a powerful role in worker training.²⁸⁴

Federal funding declines have real impacts on the number of individuals eligible to participate in these programs. Training resources are extremely limited, with less than 19 percent of overall WIOA participants and 18 percent of eligible incumbent worker participants receiving training services in the third quarter of 2018.²⁹¹ If Congress had funded WIOA at 2001 levels in 2018, 540,000 more workers or jobseekers could have received training in 2018.²⁹² However, the needs of the individuals interacting with the workforce system have grown over time: In 2017, nearly three-quarters of WIOA participants had no post-secondary education or training and 43 percent were low-income, a 20 percent increase since 2014.²⁹³ According to 2017-18 data from the Office of Career, Technical, and Adult Education, WIOA adult education programs reach only about 1.5 million people annually due to funding restraints,²⁹⁴ with many states maintaining waitlists for adult education programs. By comparison, an estimated 43 million U.S. adults possess low literacy skills.²⁹⁵

The GI Bill, in its latest form,²⁸⁵ remains a well-resourced workforce development program, helping veterans enroll in a wide variety of educational and training programs. In 2018, the Department of Veterans Affairs (VA) spent about \$10.7 billion, roughly evenly split between education costs and housing costs, to cover 700,000 beneficiaries.²⁸⁶ (By comparison, WIOA training funds—which are intended to serve all workers across the country—amount to only about one-third as much, or \$3.6 billion.²⁸⁷) Veterans are eligible to receive up to 36 months of education benefits at an institution of their choice—whether full tuition and fees at the in-state rate at any public institution, or up to a capped amount toward tuition and fees at private schools (nearly \$23,700 in the 2018–2019 academic year)—in addition to a housing allowance, textbooks and supplies, and related expenses.²⁸⁸ Benefits may also be used toward non-degree and Registered Apprenticeship programs. However, unlike its World War II-era predecessor,²⁸⁹ the most recent GI bill does not provide income support for out-of-work veterans, and veterans may not receive its benefits concurrently with unemployment compensation.²⁹⁰

The decline in federal investment comes at the same time as employer-provided training has also substantially decreased, leaving a growing share of the workforce with little support to engage in lifelong learning. From 1996 to 2008, the percentage of workers receiving employer-sponsored and on-the-job training fell 42 percent and 36 percent, respectively. As noted above, employers increasingly direct their remaining investments toward workers who already hold high-skilled and managerial positions.²⁹⁶

Federal Programs and Policies

The following subsections describe several major U.S. workforce development programs, but do not constitute an exhaustive list of current programs and policies. As Nova Gattman stated in her testimony before the Committee, “these programs are particularly important to mitigate adverse impacts, such as eviction, loss of health insurance and food insecurity, that workers are at higher risk for when experiencing layoffs or dislocation from work for other reasons, and connect them with sustainable career opportunities.”²⁹⁷

Workforce Innovation and Opportunity Act (WIOA)

Although the workforce system is available to adults, dislocated workers, and WIOA-designated youth populations, the individual career services and training services it offers—such as staff-assisted reemployment or career planning services, workshops, and referrals to training programs—are less widely available due to inadequate funding, and priority for those services goes to workers with barriers to employment.²⁹⁸ Increased access would benefit workers: WIOA’s Individual Career Services have been shown to increase earnings over a

30-month follow-up period by between \$3,300 and \$7,100, anywhere from 7 percent to 20 percent per WIOA participant.²⁹⁹ WIOA also provides funding for employment and training assistance through state and local workforce agencies and boards for workers dislocated due to national emergencies and natural disasters. Additionally, WIOA funds “rapid response activities” to assist both workers and employers in the event of layoffs or business closures, as well as to help avert layoffs in the first place.³⁰⁰

Worker Adjustment and Retraining Notification (WARN) Act

The WARN Act requires employers to provide 60 days’ advance notice of a mass layoff or plant closing to each affected worker. These notices initiate several actions, including rapid response activities carried out by the public workforce system to try to help prevent the layoff or support the displaced workers in finding new employment opportunities. When these notices are not provided, employers are required to pay 60 days’ wages and benefits in lieu of providing notice to each affected employee. However, a number of exceptions—both statutory and court-interpreted—undermine the protections provided to workers in practice. Ms. Gattman underscored the importance of the early warning in testimony, stating that “[w]e have found we are most successful in supporting the needs of our customers in the workforce system when we can begin working with them as early as possible—long before a business shuts its doors or an individual seeks Unemployment Insurance.”³⁰¹

Trade Adjustment Assistance (TAA)

TAA is designed to help workers dislocated by foreign trade become reemployed in an in-demand industry. TAA provides access to training, employment and case-management services, allowances for job search and relocation, and wage insurance for workers age 50 and older. Furthermore, unlike most other programs, dislocated workers receive income support payments for up to two years (after they have exhausted UI) and are participating in full-time training.³⁰² However, most TAA benefits and services have specific individual criteria that workers must meet. Due to funding challenges, these benefits and services are often limited in availability to individuals whose firm can be shown to have been directly impacted by trade. Thus, despite the strong ripple effects of trade impacts, individuals employed by firms in the surrounding area of the trade-impacted firm are frequently not able to access TAA benefits.

Unemployment Insurance (UI) Program Initiatives

The federal-state UI system provides income support to workers who lose a job through no fault of their own while they seek reemployment. UI serves as a gateway to the nation’s workforce system, as workers must show they are “actively seeking work” each week as a condition of receiving UI’s benefits.³⁰³ In recent decades, many states have severely tightened eligibility for their UI programs. As a result, a record-low one in four unemployed workers received UI in recent years nationwide.³⁰⁴ (In the early months of the COVID-19 pandemic, low reciprocity and inadequate benefit levels forced Congress to pass temporary emergency enhancements to unemployment compensation.) In a step forward, however, the successful Reemployment Services and Eligibility Assessment (RESEA) program under UI was recently expanded.³⁰⁵ The RESEA model combines early provision of re-employment eligibility assessments with individualized reemployment services, such as help developing a work-search plan and drafting a résumé. Separately funded Disaster Unemployment Assistance (DUA) benefits support workers who are unemployed due to a natural disaster, including self-employed and other workers who are not eligible for regular UI benefits.³⁰⁶

Education and Work-Based Learning Programs

Although not specifically targeted toward dislocated workers, programs like Career and Technical Education (CTE), Adult Education and Literacy, and work-based learning programs provide education, training, and lifelong

learning opportunities to prepare individuals for future employment. CTE programs in community colleges, which complement students' degree programs by providing classes responsive to industry needs, saw funding fall by roughly 30 percent between 2001 and 2018.³⁰⁷ Adult education programs, which help adults become literate and obtain the knowledge and skills necessary for employment and economic self-sufficiency, fall short of providing equitable opportunities to immigrants, individuals in correctional facilities, and individuals who could benefit from digital literacy. Access to community college, including through free community college initiatives that are increasingly common throughout the U.S., provides more opportunity for individuals to engage in lifelong learning, yet federal financial aid does not cover all individuals or all programs. Pell Grant funding fails to reach incarcerated students, undocumented students, and students enrolled in non-credit courses. Work-based learning programs include Registered Apprenticeships (RAs), which are, by many measures, the U.S.'s most successful job training program. Apprentices earn an average starting salary of \$70,000 per year upon completion, and 94 percent retain employment at the end of their program. RA participants earn wages while they train, allowing RAs to provide an ideal pathway for adult workers seeking to change careers or gain higher-quality employment. Yet, as of 2020, federal investment in RAs is only \$175 million per year, supporting just over 250,000 new apprenticeships.³⁰⁸

COVID-19 Response

Diminished federal investments in the public workforce system over the past decade have shrunk formula grants directed toward states, leaving states with woefully inadequate resources to respond to the pandemic-induced recession. For example, as part of its annual appropriations process, Congress provided approximately \$6.7 billion in nominal dollars in fiscal year 2010 compared with approximately \$6.6 billion in fiscal year 2020 for youth, adult education, and national workforce programs.³⁰⁹ When adjusted for inflation, this represents a nearly 18 percent decrease.

The *CARES Act* appropriated \$345 million for National Dislocated Worker Grants, which are now being distributed to the states by the DOL through a rating system.³¹⁰ By contrast, during the Great Recession, Congress invested nearly \$3.9 billion into the public workforce system as part of the *American Recovery and Reinvestment Act of 2009* (ARRA). At the time, the average number of unemployed workers was between 14 million and 15 million in 2009 and 2010. In the current crisis, the number of unemployed workers shot up to 23.1 million in April 2020 before gradually decreasing to 11 million in October 2020.³¹¹ During the Great Recession, the workforce system experienced a 234 percent increase in the number of Americans seeking reemployment and training services, and even the significantly greater level of resources was inadequate to address long-term unemployed workers' needs.³¹² The Great Recession experience suggests the current level of resources for pandemic-related displacement will fall far short in the coming months and years.

Section IV: Policy Recommendations to Address and Avoid Displacement and Support Lifelong Learning

Multiple federal policy changes—both large and small—have the potential to significantly strengthen, expand, and improve the efficiency of resources aimed at preventing and addressing displacement and promoting lifelong learning. Stronger investments in our nation's existing workforce programs could open up access to millions of displaced and underemployed American workers who are seeking a meaningful career trajectory and a pathway to upward mobility. New, innovative approaches could help workers better navigate the wide and growing array of lifelong learning opportunities. Of course, any such policy changes must be made through the lens of creating a more equitable and just future for all American workers, with special attention paid to supporting those who have been negatively impacted by policy, left behind or left out of policy benefits, or marginalized by policy implementation in the past.

Create universal displacement assistance. Within the patchwork of programs for displaced workers, TAA currently provides the most adequate and comprehensive assistance, including income support for workers engaged in full-time education or training, as well as wage insurance for older workers. Some experts have proposed dramatically expanding TAA as the foundation for a universal program for permanently displaced workers³¹³ by expanding eligibility beyond trade-affected workers to those displaced by technology, policy changes, and other forces. In addition, TAA needs certain reforms, such as reducing burdensome certification requirements. Access to these skilling and income support programs could also be provided preemptively to individuals currently employed in industries or geographic areas where they are most at risk of displacement.

***Recommendation 2.1:** Congress should create a universal displacement assistance program by expanding the TAA model—including income support during full-time education and training, and wage insurance for older workers—to all displaced workers. Further, TAA should be reformed to reduce burdensome certification requirements for proving layoffs are trade related.*

Significantly increase funding for key WIOA services. Congress should increase resources for our nation’s chronically underfunded public workforce system and make its key services more widely accessible. While existing workforce services are proven to improve outcomes for students and workers—including intensive services for jobseekers,³¹⁴ expanded digital literacy training, and supportive services such as child care and transportation—only a limited subset of workers can access them.³¹⁵ Furthermore, while WIOA has multiple programs to support youth,³¹⁶ it places only modest emphasis on youth employment and training, as well as coaching and mentoring services to support success in these activities. As discussed in Section III, far too few workers who need WIOA training resources receive them, including workers seeking high-quality, short-term training opportunities³¹⁷ and incumbent workers who need additional skills to remain in their existing jobs. Re-entry programs, which prepare incarcerated individuals for meaningful jobs post-incarceration, are not currently fully authorized program in WIOA and receive very limited funding. Finally, WIOA’s effective rapid response services could be used to avert and address a greater number of layoffs and business closures.

***Recommendation 2.2:** Congress should significantly increase WIOA funding, prioritizing the following: expanding workforce services to all workers facing displacement or underemployment; supporting greater access to high-quality training,³¹⁸ including short-term, non-credit training and incumbent-worker training;³¹⁹ expanding youth employment programs;³²⁰ expanding access to re-entry programs; and expanding rapid response services.*

Authorize and support the use of Lifelong Learning Accounts (LiLAs). LiLAs are portable, worker-owned accounts designed to help pay for education and training expenses, including tuition, child care, textbooks, and admission fees.³²¹ Workers, employers, and government all contribute to these 401(k)-type accounts,³²² which are linked to the public workforce system to ensure that (1) programs workers attend are in in-demand industry sectors and occupations, (2) the uses of funds support credential attainment and completion, and (3) attendance can be paired with counseling and career navigation services.³²³ Maine implemented LiLAs in 2005, and Washington state, as well as multiple cities, have since piloted them.³²⁴

***Recommendation 2.3:** Congress should authorize LiLAs under WIOA and provide funding to make LiLAs widely available.*

Improve the quality and transparency of data and information. Lack of transparent, useful, up-to-date information is a major challenge for the U.S. workforce system. Workforce system actors—including employers, jobseekers, community colleges, training providers, and workforce investment boards—need high-frequency, timely, highly localized data to match local labor supply and demand, inform career pathways and career navigation services, and help workers find quality opportunities with family-supporting wages. Yet, available data, such as employment projections from the BLS, often lags by a year or more, and some useful federal data collection efforts have been abandoned due to a lack of adequate funding. In another example, WIOA’s eligible training provider list, which is meant to identify high-quality training programs for WIOA participants, too often includes programs that do not provide the level of detail or transparency that is needed to serve WIOA participants well. Finally, employers lack standardized information about which competencies and skills are conferred by the more than 730,000 credentials across the U.S.,³²⁵ while workers lack information about which credentials, competencies, and skills employers value.

***Recommendation 2.4:** Congress should provide funding for the BLS to modernize and reinstate the Survey of Employer-Provided Training and the Mass Layoff Statistics program.*

***Recommendation 2.5:** Congress should provide funding to upgrade the Employment Service data system, improve BLS and O*Net data, and better capture labor-market changes.*

***Recommendation 2.6:** Congress should require any training provider receiving public money to disclose—publicly and in detail—the competencies their credentials certify and the list of employers with which they have placed graduates of their programs.³²⁶*

***Recommendation 2.7:** Congress should require relevant agencies to collaborate to match workers’ wage records to their credentials and degrees, and to analyze and publicly report on wage and employment outcomes associated with credential and degree programs in an accessible format.³²⁷*

Scale up Registered Apprenticeship (RA) opportunities. RAs are the U.S.’s most successful job training program—embraced by workers and employers alike—yet the apprenticeship model is underutilized, and federal support remains modest. The *National Apprenticeship Act of 2020*, which was passed by the U.S. House of Representatives in November 2020, would help create nearly one million new RA, pre-apprenticeship, and youth apprenticeship opportunities over the next five years, with a focus on increasing diversity in apprenticeship populations and program offerings.

***Recommendation 2.8:** Congress should expand Registered Apprenticeship opportunities as proposed in the National Apprenticeship Act of 2020.*

Expand access to affordable postsecondary opportunities. Postsecondary opportunities are financially out of reach for too many would-be lifelong learners. The *College Affordability Act of 2019* would support lower-income students by increasing the maximum Pell Grant award and expanding eligibility for Pell Grants to incarcerated students, undocumented students, and students enrolled in qualifying short-term training programs. The legislation would additionally create a federal-state partnership to protect state investments in public higher education and offer tuition- and fee-free community college—including at qualifying technical college and adult education programs³²⁸—to all students regardless of family income.

***Recommendation 2.9:** Congress should pass the College Affordability Act of 2019 to expand access to affordable postsecondary opportunities.*

Strengthen the Worker Adjustment and Retraining Notification (WARN) Act. Congress could make a number of improvements to ensure the WARN Act better serves American workers, such as those proposed in the *Justice for Dislocated Workers Act*³²⁹ and by Brad Markell in testimony.³³⁰ These include implementing stronger WARN Act enforcement; increasing federal funding for rapid response activities; and requiring companies to report the cause of layoffs, such as a shift to overseas production or implementation of a new technology. Improvements also include lengthening the 60-day notice period, increasing penalties for failure to give advance notice, boosting damages, and reducing the 50-employee minimum for single-worksites coverage. Updates to the WARN Act should also focus on averting long-term displacement by incentivizing employers to engage early with the workforce systems when they face financial challenges.

***Recommendation 2.10:** Congress should update and strengthen the WARN Act to better serve American workers.*

Conclusion

Worker displacement has been a feature of every modern labor market, even in strong economies. Today, the risk and burden of displacement in the U.S. falls too often upon our most vulnerable workers. Yet, research shows that well-designed policies can address the pain displacement causes working families and communities—and even proactively prevent displacement in the first place—while easing the path to reemployment and lifelong learning. To ensure that American workers remain competitive in the decades to come and the U.S. labor market becomes more equitable and inclusive, policymakers must weave a comprehensive fabric out of our nation’s existing patchwork of federal programs and services. This requires filling gaps, providing adequate funding, and giving workers a voice to ensure that *all* displaced workers—regardless of the cause or nature of their displacement—can access pathways to success and upward mobility.

Chapter 3: Protecting Workers' Civil Rights in the Digital Age

Automated technologies such as hiring algorithms and productivity tracking devices are increasingly deployed in the workplace. Employers and labor-market intermediaries may adopt these technologies with the goal of improving efficiency or reducing human bias, but—intentionally or unintentionally—these tools may promote discrimination and threaten workers' civil rights. Automated tools increasingly control access to employment opportunities and may systematically lock certain workers out of jobs.

Most of our nation's key workplace antidiscrimination protections, which date as far back as 1866, were developed well before the advent of automated technologies. The rights guaranteed to workers under our laws, including Title VII of the *Civil Rights Act of 1964*, Title I of the *Americans with Disabilities Act (ADA)*, Title II of the *Genetic Information Nondiscrimination Act (GINA)*, and the *Age Discrimination in Employment Act (ADEA)*, remain as critical as ever in modern workplaces. However, digital-era changes such as the widespread use of computer-analyzed video interviews, algorithmic targeting of online job advertisements, and extensive employer data collection are testing the boundaries of the protections our existing equal employment opportunity laws can provide.

Following months of listening sessions with experts and stakeholders, the Committee held a hearing on February 5, 2020, entitled "The Future of Work: Protecting Workers' Civil Rights in the Digital Age."³³¹ Committee Members heard expert testimony from Jenny Yang, Senior Fellow at the Urban Institute and former chair of the U.S. Equal Employment Opportunity Commission (EEOC); Dr. Ifeoma Ajunwa, Assistant Professor of Employment and Labor Law at Cornell University; Peter Romer-Friedman, Principal and Head of the Civil Rights and Class Actions Practice at Gupta Wessler PLLC; and Esther Lander, partner at Akin Gump Strauss Hauer & Feld LLP.

In the months since the February 2020 hearing, the COVID-19 pandemic has exposed and exacerbated pre-existing labor-market inequalities—from disparate unemployment rates, to health and safety concerns, to unequal access to jobless assistance—with outsized negative impacts on workers of color, women, older workers, and workers with disabilities (see COVID-19 Supplement on page 3). At the same time, widespread protests in response to the killing of George Floyd in Minneapolis, Breonna Taylor in Louisville, and too many others have called attention to the deeply entrenched racism that pervades American systems and institutions, including our nation's labor market and workplaces. These events lend even greater urgency to the task of uncovering and eliminating discriminatory employment practices, wherever and however they occur.

This chapter provides a brief overview of our nation's key federal workplace antidiscrimination protections (Section I); discusses new and emerging technologies that pose challenges to equal employment access, as well as present novel opportunities to improve workers' civil rights protections (Section II); identifies key gaps and enforcement challenges in our existing civil rights laws that often enable digital discrimination to proceed unchecked (Section III); briefly discusses the landscape of protections beyond federal policy (Section IV); and, finally, offers policy recommendations to strengthen workplace antidiscrimination laws and better safeguard workers' civil rights in the rapidly changing American labor market (Section V).

Section I: Current Federal Antidiscrimination Protections for Workers

The five statutes described below govern the key civil rights protections afforded to workers and job applicants by current federal law (also shown in the appendix). These laws are generally enforced in the private sector by

the Equal Employment Opportunity Commission (EEOC), although other federal agencies also share enforcement duties.³³²

Title VII of the Civil Rights Act of 1964

Title VII³³³ makes it unlawful for any employer with at least 15 employees to discriminate or retaliate against an employee or job applicant on the basis of any protected characteristic: race, ethnicity, color, national origin, sex (including gender identity, sexual orientation, and pregnancy),³³⁴ or religion.³³⁵ Title VII also makes it illegal for an employer to publish a job advertisement that shows a preference for or discourages someone from applying for a job because of their protected class status. Under Title VII, a covered employee or job applicant may bring a claim against an employer for either intentional discrimination (“disparate treatment”) or unintentional discrimination (“disparate impact”). Disparate impact occurs when a facially neutral employment practice disproportionately excludes or disadvantages individuals based on their protected class status. Title VII also prohibits the use of discriminatory employment tests and selection procedures.

Uniform Guidelines on Employee Selection Procedures (UGESP)

As discussed in Section II, many of the digital and algorithmic tools used by employers in today’s hiring processes could be considered employment tests or selection procedures.³³⁶ Title VII permits employment tests as long as they are not designed, intended, or used to discriminate on the basis of protected class.³³⁷ In 1978, the EEOC issued the UGESP to help employers determine if their employment tests are discriminatory and provide a proper framework for the use of such tests and other selection procedures.³³⁸ The UGESP made clear that the use of employment tests that had an adverse impact on members of a protected class violated Title VII.³³⁹ According to the UGESP, when the selection rate for any Title VII protected class “is less than four-fifths (4/5) (or eighty percent) of the rate for the group with the highest rate [of selection],” an adverse impact occurs.³⁴⁰

Section 1981 of the Civil Rights Act of 1866 (Section 1981)

Section 1981 covers all workers and job applicants, including independent contractors; it protects *only* against intentional discrimination based on race and ethnicity.³⁴¹ Unlike under Title VII, workers cannot bring unintentional discrimination (disparate impact) claims under Section 1981, and must prove that this discrimination was *the* decisive and determinative reason for the contracting party’s adverse action.³⁴² Critically, independent contractors, who lack Title VII protections, are covered under Section 1981; however, their protections are limited to race- or ethnicity-based claims.

The Age Discrimination in Employment Act of 1967 (ADEA)

The ADEA protects employees and job applicants age 40 and older against discrimination by an employer with at least 20 employees.³⁴³ The ADEA also prohibits age discrimination in job advertisements.³⁴⁴ However, older job applicants are barred from bringing unintentional discrimination claims under the ADEA.³⁴⁵ In 2009, the U.S. Supreme Court held that older employees and job applicants must prove that age discrimination was *the* decisive and determinative reason for an employer’s adverse action, such as firing a worker or failing to hire an applicant.³⁴⁶ Like Title VII, the ADEA also prohibits the use of discriminatory employment tests and selection procedures.

Title I of the Americans with Disabilities Act of 1990 (ADA)

Title I of the ADA prohibits employment discrimination against qualified individuals with disabilities by employers with at least 15 employees.³⁴⁷ The ADA expressly prohibits certain disability-related pre-employment inquiries.³⁴⁸ The ADA also restricts the medical information employers may obtain from employees by generally prohibiting them from requiring medical examinations unless they are job-related and consistent with business necessity. However, the statute provides an exception to this rule for certain voluntary employee health programs such as employer-sponsored workplace wellness programs.³⁴⁹

Title II of the Genetic Information Nondiscrimination Act (GINA) of 2008

Title II of GINA prohibits the use of genetic information in employment decisions.³⁵⁰ It protects job applicants, current and former employees, labor union members, and apprentices and trainees from employment discrimination based on their genetic information, enabling covered individuals to bring disparate treatment (intentional discrimination) claims. GINA restricts an employer from requesting, requiring, or purchasing the genetic information of an employee or a family member of an employee.³⁵¹ GINA contains an exception to this prohibition for workplace wellness programs. However, the regulations implementing GINA “make clear that one of the requirements is that the employer-sponsored wellness program cannot condition inducements to employees on the provision of genetic information.”³⁵²

Section II: New Technologies with Implications for Workplace Civil Rights Protections

This section discusses two broad categories of technologies and their implications for workers’ civil rights: First, algorithms in the employment process, and second, tools for worker surveillance, monitoring, and algorithmic management. Employers often adopt automated technologies to reduce the time and cost of human resources processes, increase workers’ efficiency and output, or even attempt to mitigate human bias in internal decision-making. But, whether by design or not, new technologies can give rise to discrimination against protected classes. For instance, a hiring algorithm may exclude graduates of historically black colleges by preferring graduates who do not hail from minority serving institutions (MSIs), a computerized video interview analysis may penalize a job candidate because of her accent, or a productivity tracking device may reveal a worker’s pregnancy to her employer against her will. Since workplace technologies are often proprietary, non-transparent, and unregulated, workers, researchers and even the government are frequently unable to uncover the extent to which technologies are producing discriminatory outcomes.³⁵³ However, a large and growing body of studies indicates that, when researchers pull back the curtain, evidence abounds of adverse impacts by race, ethnicity, gender, age, disability status, and other dimensions.³⁵⁴

Notably, many digital tools described in this section pose ongoing challenges to individuals’ civil rights in a broad array of areas beyond employment—from housing to credit, education, criminal justice, and more.³⁵⁵ Whether applied to jobseekers, renters, or loan applicants, the threats posed by these technologies typically emerge for similar reasons, such as a lack of individual privacy or large information asymmetries between the individual subjects and the employers, landlords, or lenders who exercise control. Thus, while this report focuses specifically on the employment context, the Committee has much to learn from and offer to the struggle to protect civil rights in other contexts.

Algorithms in the Employment Process

“Automated hiring is increasingly the gatekeeper to employment in the United States,” Dr. Ifeoma Ajunwa testified at the Committee’s February 2020 hearing. Among recent jobseekers, eight in ten reported using online resources in their search.³⁵⁶ Among employers, a majority use digital technology in at least one stage of the hiring process.³⁵⁷

“Automated hiring is increasingly the gatekeeper to employment in the United States.”
-Dr. Ifeoma Ajunwa, Assistant Professor of Employment and Labor Law at Cornell University

In a seminal 2018 report entitled “Help Wanted,” researchers at Upturn observed that hiring is “rarely a single decision, but rather a funnel: a series of decisions that culminate in a job offer or a rejection.”³⁵⁸ At every level in the funnel, reproduced in Figure 1, automated predictive technologies may play a role—from recruiting and screening to interviewing and candidate selection. Even after a candidate has been hired, similar technologies may be used to inform performance evaluation and even firing.³⁵⁹

Underlying these predictive technologies are formulas, or *algorithms*, which are used to make automated predictions, often aided by machine-learning techniques.³⁶⁰ Algorithms are not neutral. Rather, they often codify, replicate, and even amplify existing biases, leading to *algorithmic bias*.

To be clear, bias or discrimination in *any* kind of hiring process will produce inequitable outcomes for workers. Decades of evidence demonstrates that human-led hiring processes are plagued by bias and discrimination,³⁶¹ and that these patterns have proven stubbornly persistent over time.³⁶² However, automating hiring decisions using algorithms does not necessarily engender neutrality. Rather, because algorithmic technologies may absorb our human, structural, and institutional biases,³⁶³ algorithms that control access to employment opportunities may replicate these biases on a wide scale, leading to systematically inequitable employment outcomes and exacerbating historical disparities.

Given the long history of discrimination and prejudice against members of protected classes and other underrepresented groups of workers in the American labor market, it is unsurprising that research finds these same underrepresented groups tend to be further disadvantaged by predictive technologies in hiring.

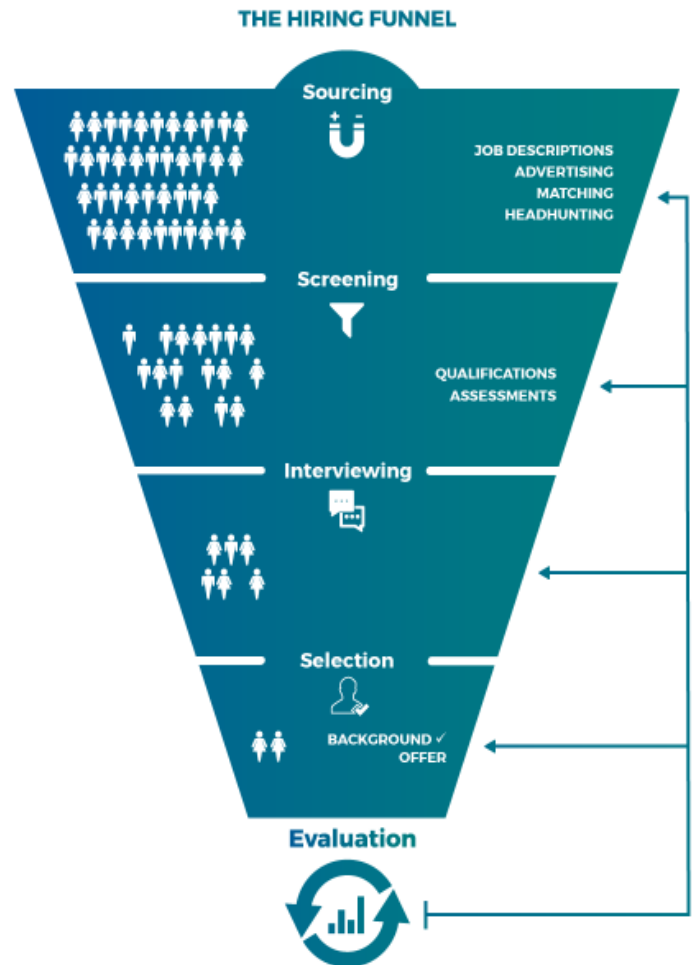


Figure 1

Source: Miranda Bogen & Aaron Rieke, *Help Wanted: An Examination of Hiring Algorithms, Equity, and Bias*, Upturn (Dec. 2018)

Sources of Algorithmic Bias

In her testimony, Jenny Yang described three main channels through which algorithmic bias may arise.³⁶⁴ First, algorithms may be developed (or “trained”) based on a dataset that is, itself, biased or non-representative, a channel Ms. Yang termed “bias in the training data.”³⁶⁵ For example, hiring algorithms are frequently built using data on an employer’s existing workforce, with an emphasis on workers the employer has designated as “high performers.”³⁶⁶ But such a dataset may reflect earlier biased hiring practices or skewed evaluation processes; it may also lack diversity or be non-representative of the field of potential job candidates. This is particularly concerning in the high-tech sector where the lack of diversity across race, gender, and other dimensions is well documented.³⁶⁷ Algorithms may also mistake correlation for causation in the training data: If the workers identified as high performers at Firm X all happen to be named Jared and play lacrosse, a hiring algorithm based on Firm X’s existing workforce may seek out other lacrosse-playing Jareds, even though being a “lacrosse-playing Jared” does not *cause* strong job performance.³⁶⁸

Second, algorithms can absorb the prejudices and preconceptions of the people who design them, such as designers’ decisions about which variables to include or omit, which Ms. Yang termed “bias in model development.”³⁶⁹ For instance, an engineer may include job candidates’ zip codes in her model because she is aware that living close to the worksite is correlated with employee retention. But, because “zip codes are a long-recognized proxy for race given historical neighborhood segregation,” such a model may produce discriminatory outcomes by race.³⁷⁰

Finally, bias may arise through humans’ misinterpretation or misuse of algorithmic findings, which Ms. Yang called “improper use of algorithmic prediction.” For example, humans have a well-studied tendency to place trust in machines over human decision-making;³⁷¹ that trust may lead us to overweight small or meaningless differences in algorithmic rankings, believing these differences to be objective and precise.³⁷²

How Algorithmic Bias Operates at Each Stage of the Hiring Process

During the February 2020 hearing, Democratic witnesses discussed the stages of the hiring funnel in Figure 1—sourcing, screening, interviewing, and selection—providing evidence of how biased algorithms in technologies used by employers affect job candidates.

Stage 1: Sourcing

Since the creation of the first online job board, Monster.com, in 1994, job recruiting and advertising have shifted overwhelmingly into digital spaces.³⁷³ Today, the largest sources of information about employment opportunities are not only job boards, such as ZipRecruiter and Indeed, but also advertisements from platforms, such as Google, Facebook, LinkedIn, and Twitter.

As Peter Romer-Friedman testified before the Committee, the shift online has the potential to democratize the labor market, improving the efficiency with which workers learn about jobs and employers process applications.³⁷⁴ But, he continued, the availability of targeting tools “has also created an unprecedented opportunity for employers to discriminate” by directing job advertisements exclusively “towards people who match the demographic profile—including age, gender, race, and location—that employers want to recruit.”³⁷⁵

Mr. Romer-Friedman provided examples based on litigation against Facebook—a platform used by seven in ten Americans—which, until recently, enabled employers (its clients) to target job ads directly based on users’ age and gender, among other characteristics. For example, Defenders, a leading home security installation

company, sent job ads only to men ages 20 to 40, excluding all women and individuals older than 40 (see Figure 2).³⁷⁶ T-Mobile targeted individuals ages 18 to 38, excluding all workers older than 38 (see Figure 3).³⁷⁷

While a settlement agreement required Facebook to disallow these and other explicit targeting practices, recent evidence indicates the effects of algorithmic bias continue on the platform: “Facebook’s own ad delivery algorithm may be replicating the same discrimination problems that were caused by employers who expressly excluded workers from getting their job ads based on age, gender, or other protected classes.”³⁷⁸

“Not informing people of a job opportunity is a highly effective barrier” when it comes to equal employment opportunities, according to legal scholar Pauline Kim.³⁷⁹ Excluding workers from the chance to fully engage in the hiring process based on their personal characteristics constitutes illegal discrimination,³⁸⁰ and perpetuates long-standing inequities in the labor market that negatively affect vulnerable groups, from occupational segregation to race, gender, and other pay gaps.

Stage 2: Screening

An estimated 65 percent to 75 percent of job applications are screened by a machine before being seen by a human.³⁸¹ Discriminatory practices can appear in such automated screens in a variety of forms. For example, an online application platform may overtly include built-in restrictions on applicants’ age or school graduation year (a proxy for age).³⁸² A résumé-screening tool may scan résumés for keywords that include proxies for gender. Or an application-ranking algorithm may give white candidates higher scores because the dataset used to develop it favored colleges with disproportionately white student bodies, even though there are equally qualified applicants from institutions with diverse student populations.³⁸³

A type of screening tool that has long raised civil rights concerns is the pre-employment test.³⁸⁴ Such a test may be designed to attempt to assess an applicant’s cognitive abilities, aptitude, or even personality, sometimes in

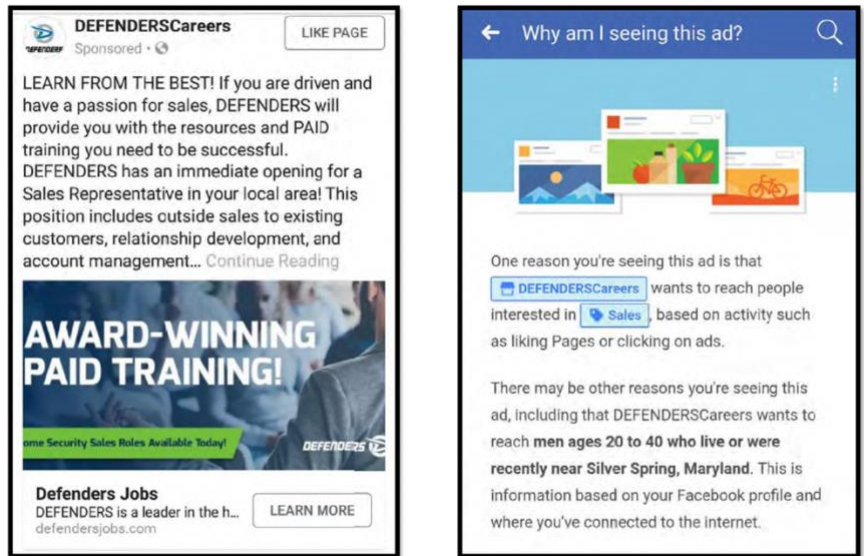


Figure 2

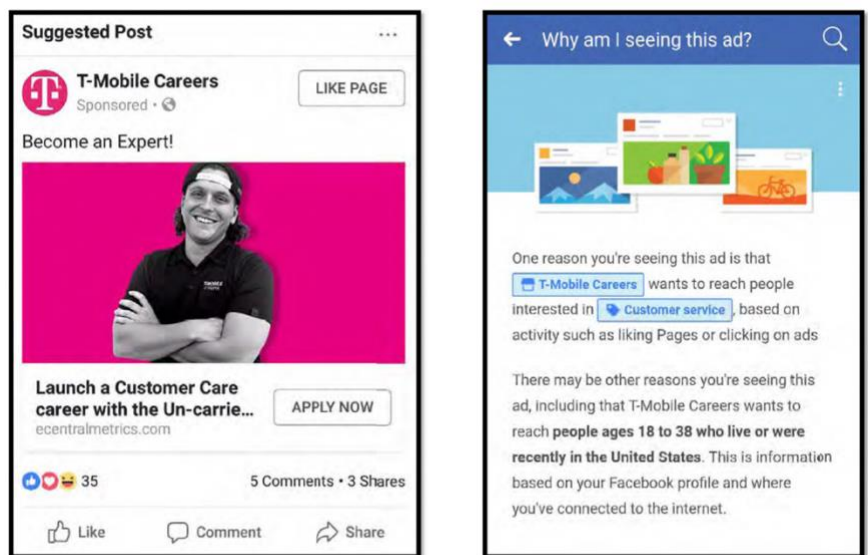


Figure 3

Source for Figures 2 and 3: Testimony of Peter Romer-Friedman Before the Subcommittee on Civil Rights and Human Services

the form of an online “game.”³⁸⁵ According to Upturn, “[p]re-employment tests have a deeply troubled history, and have long been decried as being inherently discriminatory against both people of color and people with disabilities.”³⁸⁶ Pre-employment tests are often calibrated based on the characteristics of a employers’ internally designated “high performers.” As discussed at the beginning of this section, this group’s characteristics may be *correlated* with job performance or perceived job performance, yet not required for the job nor even necessarily work-related.

In her testimony, Jenny Yang highlighted the story of Kyle Behm to illustrate how such tests may unfairly and systematically screen out people with mental health disorders, potentially in violation of the ADA. Kyle was a young engineering student with bipolar disorder who filed a complaint with the EEOC in 2012 after being rejected from seven jobs because of a failed pre-interview personality test. Kyle recognized that the personality test asked very similar questions to the test used to screen him for mental illness,³⁸⁷ and thus would likely reject applicants who were mentally ill, even though his diagnosis was unrelated to the essential functions of the job and his past work experience made him very well qualified.³⁸⁸ To prevent such discriminatory outcomes, Ms. Yang testified, “[t]ailoring questions that are focused more closely on job behaviors rather than abstract personality characteristics is a critical step.”

Stage 3: Interviewing

According to testimony from Dr. Ifeoma Ajunwa, the “newest trend in automated hiring” is automated video interviews,³⁸⁹ which combine analysis from speech and facial recognition software to evaluate job candidates’ responses to automated interview questions. With remote interviews likely to proliferate as the COVID-19 crisis continues and the number of jobseekers spikes amid high unemployment, the share of employers turning to automated video interviews to screen candidates may rise sharply.

While automated interviews may remove one source of unfairness by standardizing the set of interview questions, Dr. Ajunwa and others identified multiple reasons automated video interviews are likely to produce biased results, starting with the performance of the underlying technologies. Several studies find that speech recognition software can exhibit poor performance, particularly when analyzing non-native or regional accents.³⁹⁰ Facial recognition software has been even more widely studied, and has demonstrated to high error rates, particularly for people of color and women.³⁹¹ A key reason is that these technologies tend to be designed by white men, who hold the vast majority of technology-sector jobs, and “trained” on datasets that disproportionately include white faces. For example, in 2019, the National Institute of Standards and Technology (NIST) tested nearly 200 facial recognition algorithms submitted by nearly 100 companies.³⁹² NIST found that performance differed substantially according to the subject’s race, gender, and age—even finding that Asian and African American subjects were up to 100 times more likely to be misidentified than white men. Famously, Amazon’s face recognition software matched 28 Members of Congress, 40 percent of whom were lawmakers of color, with mugshots.³⁹³

Despite their increasing use in the job interview process, facial and speech recognition technologies have received less public attention in the employment context than in other contexts such as law enforcement.³⁹⁴ Firms like HireVue and Modern Hire market their automated video interviewing systems to employers as ways to save time and money when screening candidates, identify “higher quality” candidates, diversify the talent pool, and reduce the human bias associated with human resources departments. These firms’ products generate rankings or “employability scores” for each candidate, which the candidates themselves cannot access, after analyzing the interview using a proprietary algorithm. HireVue, for example, claims its analysis of a video interview can predict job candidates’ competency and performance potential based on tens of thousands of

characteristics—including facial “micro-expressions,” word choice, and tone of voice.³⁹⁵ But experts say this type of analysis, called *affect recognition*,³⁹⁶ has no scientific relationship to a candidate’s job fitness or performance.³⁹⁷ As a report from Upturn discusses, critiques of affect recognition methods run far deeper than algorithmic bias, raising questions about “the legitimacy of using physical features and facial expressions that have no credible, causal link with workplace success, to make or inform hiring decisions.”³⁹⁸ In late 2019, technology policy watchdog Electronic Privacy Information Center (EPIC) filed a complaint urging the Federal Trade Commission to investigate HireVue for producing “biased, unprovable and not replicable” results.³⁹⁹ Yet HireVue reports a customer base of more than 700 companies and has analyzed more than 5 million video interviews.⁴⁰⁰

Meanwhile, job candidates typically have little or no information on how their performance is evaluated, nor can they meaningfully challenge the methods or results.⁴⁰¹ Furthermore, candidates generally have no control over the video itself nor the wide array of personal data gleaned during the interview process. As Dr. Ajunwa testified, “to date, there are no federal regulations as to the collection, storage, or use of data from automated hiring platforms, including video interviewing.”⁴⁰²

Stage 4: Selection and Offer

While automated technologies typically play less of a role beyond the interview stage, algorithmic bias may affect candidate selection and evaluation as well. As Jenny Yang testified, humans selecting among candidates may utilize rankings, scores, or flags generated by automated tools in the screening or interview phases.⁴⁰³ Although limited by several state laws and individual platforms’ policies, multiple vendors offer services to automatically scan social media and other online content, purporting to assess candidates’ risk of engaging in behaviors like bullying, sexual harassment, or other undesirable behaviors in the workplace.⁴⁰⁴ Finally, some employers use predictive tools to forecast the likelihood that a candidate will accept an offer with a given salary, bonus, and benefits, which may exacerbate the pay gaps women, workers of color, and workers with disabilities have historically faced.⁴⁰⁵

With Careful Design, Predictive Technologies Have Potential to Help Counter Workplace Discrimination

Despite the deep challenges described above, some predictive technologies hold the potential to help detect and prevent bias and discrimination in employment processes when carefully designed and tested. For example, predictive analytics can help an employer or auditor identify underrepresentation in an existing workforce, uncover the disparate effects of a hiring practice such as a pre-interview screen, or hire more underrepresented job candidates. In another example, companies like Textio help employers develop more inclusive job postings by using machine learning⁴⁰⁶ to detect “hidden signifier” words that can dissuade a diverse set of candidates from applying to a position.⁴⁰⁷

To address racial and gender discrimination in existing predictive tools, Upturn reports that some hiring technology vendors are touting “de-biasing methods,” such as testing tools’ outputs for disparate impact and adjusting the tool’s behavior accordingly.⁴⁰⁸ While this is to be celebrated and encouraged, the authors note that research on de-biasing methods is in early stages, and best practices have yet to emerge. Moreover, Upturn “did not identify any vendor that appeared to assess adverse impact based on other sensitive features, like religion, national origin, disability, or sexual orientation, which could just as easily emerge when predictive tools are used.”⁴⁰⁹

Worker Surveillance, Monitoring, and Algorithmic Management

Employers are using automated technologies to surveil, monitor, and remotely manage workers to an unprecedented degree, part of a phenomenon Dr. Ifeoma Ajunwa termed “the quantified worker”: “a worker experience in which the worker is subjected to minute quantifications of worker fit [within the workplace culture], worker productivity, and worker wellness, all aided by new and emerging work technologies.”⁴¹⁰

While deployed in the name of speed, efficiency, and interconnectedness, new technologies can create an imbalance in information, power, and control that advantages employers while putting workers at heightened risk of privacy violations. And because privacy invasions can serve as vehicles for unlawful discrimination, Dr. Ajunwa and other experts argue that protection of workers’ privacy is a civil rights issue.⁴¹¹ The rise in fissured and precarious work arrangements described in Chapter 1—where workers of color, women, immigrants, and workers with disabilities are disproportionately represented—has further fueled this imbalance. As Jenny Yang elaborated in testimony, “[s]urveillance of workers increases the amount of data available to employers (including potentially sensitive data), and it could contribute to discrimination, collection of sensitive disability or genetic information, retaliatory measures, termination, and suppression of the right to organize around civil rights concerns.”⁴¹²

Furthermore, workers may not be aware of what data their employers are collecting, when they are collecting it (including outside of business hours), and how this data is used or stored. According to Gaurav Laroia of Free Press Action and David Brody of the Lawyers’ Committee for Civil Rights Under Law, “no law requires companies to be sufficiently transparent about how they use our personal information. Without that transparency, it’s almost impossible to figure out which specific practices are causing unlawful discrimination.”⁴¹³

Surveillance and Monitoring

Devices that can track and trace workers, from smart phones and Global Positioning System (GPS) trackers to Radio Frequency Identification Device (RFID) security badges, have proliferated in modern work environments. According to Data & Society Research Institute, workplace monitoring and surveillance “can feed automated decision-making and inform predictions about workers’ future behaviors, their skills or qualities, and their fitness for employment.”⁴¹⁴ Employers may encourage or require workers to carry or wear instruments (called *wearable devices*) or download applications—sometimes on their own personal devices—that collect and relay data on their location, activities, interactions, and even biometrics. Examples include the wristbands Amazon has patented for its warehouse workers⁴¹⁵ and the StrongArm worker tracking device being tested by Walmart.⁴¹⁶ Somewhat alarmingly, one employer offered employees the option to have an RFID chip implanted in their hands to log into computers, access the office building, and purchase cafeteria food.⁴¹⁷

A common usage for these devices is productivity tracking, which may in turn determine pay, promotions, or even firing. Moreover, as Jenny Yang testified before the Committee, “once a system is activated for one purpose, employers can use it to capture data for other purposes, such as monitoring the time employees spend at lunch or on bathroom breaks and tracking who employees interact with throughout the day.”⁴¹⁸ Employers’ use of this data raises serious civil rights and privacy concerns. For example, Ms. Yang testified: “Over the past four years, Amazon has faced wrongful termination lawsuits from pregnant workers who took additional bathroom breaks. The aggressive productivity targets could also operate to disproportionately exclude individuals based on protected characteristics such as older workers, people with disabilities, or those needing religious prayer breaks.”⁴¹⁹

Another troubling potential application of tools that monitor workers' movements and communications is to illegally suppress or retaliate against workers' efforts to collectively organize, bargain, or dissent, including in response to civil rights concerns such as harassment.⁴²⁰

New digital tools for COVID-19 contact tracing are being offered by employers, bringing new attention to worker surveillance.⁴²¹ While digital contract tracing apps and wearables have the potential to help slow viral spread, experts and lawmakers have expressed concerns about workers being forced or coerced into using such tools—and employer discrimination or retaliation against those who do not.⁴²² Once in use, these tools may provide employers with potentially sensitive information about workers' interactions, activities, and health.

The sharp increase in remote work brought about by the pandemic has also led to a spike in employers' use of computerized productivity tracking software. Companies like Hubstaff and Time Doctor monitor workers' keystrokes, mouse movements, and program usage; track the websites they visit; or even periodically relay images of workers' screens.⁴²³ They generate automated "productivity scores" or use webcams to inform employers when workers step away from their computer. Beyond eroding morale and trust among workers, intensive monitoring raises questions about potential civil rights violations, from viewing sensitive health information on workers' screens to punitive measures against workers who must get up from their computer more often for a health-related reason.

Workplace Wellness Programs

Employer-sponsored *workplace wellness programs* are another context in which surveillance and monitoring technologies may be used.⁴²⁴ Under the ADA and GINA, participation in wellness programs must be voluntary. However, the *Affordable Care Act* (ACA) allows employers to offer financial incentives for employees' participation in wellness programs,⁴²⁵ and experts disagree on whether these incentives meet the standard for voluntariness under the ADA and GINA,⁴²⁶ since refusal to participate could result in thousands of dollars of penalties.⁴²⁷ Wellness programs may raise privacy and security concerns for workers: Participation may require workers to disclose medical or genetic information that is otherwise protected by antidiscrimination law through the use of wearable technologies or questionnaires.⁴²⁸ For example, Go365, an app used to track workers' daily steps, played a role in spurring the 2018 West Virginia teacher strikes. Teachers who chose not to download the app or were deemed not to have taken enough steps faced a \$500 health insurance penalty at the end of the year.⁴²⁹ Despite these concerns, the EEOC has looked favorably upon financial inducements in workplace wellness programs in the past.⁴³⁰

Algorithmic Management

Employers may use surveillance and monitoring tools, as well as other techniques, for *algorithmic management*, meaning remote management of the workforce using real-time data collection that feeds into automated or semi-automated decision-making.⁴³¹ For example, a rideshare driver may receive her next task from an automated dispatcher; a barista may receive his next shift only hours in advance via a real-time scheduling app; a delivery worker's pay may fluctuate automatically from hour to hour based on an unseen algorithm; or a warehouse worker may face automated disciplinary action if she does not meet hourly productivity targets.

While algorithmic management may lower costs for firms and enable them to manage a large, decentralized workforce, workers may find these practices lead to unfair evaluation of their performance. Algorithmic management systems make pay and access to ongoing work opportunities contingent on customer ratings, particularly for the growing number of workers engaged in platform or app-based work for whom customer feedback can be delivered automatically and on a wide scale. Long before algorithmic management

technologies emerged, evidence showed customers' assessments exhibit deep biases based on workers' race, gender, and other characteristics. Studying taxi drivers and restaurant workers, for example, researchers documented that workers of color receive significantly lower tips than white workers and are more likely to receive no tip at all. Similarly, as Jenny Yang testified, research on automated platforms, such as Fiverr, TaskRabbit, eBay, and AirBnB, indicates that platform clients display bias against workers of color and women through lower ratings, fewer reviews, and decreased response rates compared to white male workers.⁴³² Thus, although customer feedback is a relevant factor for evaluating worker performance, automating its use in determining workers' performance, pay, and access to further work will likely lead to biased decision-making on the part of the employer.

Using Workplace Technology to Enhance Worker Protections

While many new technologies merit caution, others present opportunities to better protect workers against discrimination. In her testimony, Jenny Yang explained, “[o]nline platforms and tech-enhanced tools are helping workers connect to share workplace concerns and to organize around civil rights concerns, including sexual harassment, equal pay, barriers to promotion, and restrictive employment contracts,”⁴³³ or even employer adoption of technologies to monitor, surveil, or manage workers. UNITE HERE, for example, successfully bargained for “panic buttons” to protect hotel employees from sexual assault and harassment on the job.⁴³⁴ In other instances, some employers offer workers a way to safely and anonymously report sexual harassment or discrimination through third-party technology platforms.

Section III: Gaps in Existing Law That Allow Digital Discrimination to Proceed Unchecked

Because our nation's existing legal framework does not adequately address the complexities of new and emerging technologies, proving discrimination and enforcing existing antidiscrimination laws is extremely difficult in the digital era. First, when complex digital tools play a strong role in decision-making processes, workers and job applicants are at a severe disadvantage when it comes to understanding whether they have been unlawfully discriminated against, much less gathering the evidence necessary to substantiate a discrimination claim. Second, the existing legal framework under which workers and job applicants may bring intentional and unintentional discrimination claims is insufficient to capture discrimination resulting from algorithmic or other data-reliant tools. Third, an entire class of workers—namely, those deemed (either correctly or incorrectly) to be independent contractors—are excluded from nearly all the limited protections that do exist under civil rights statutes. Finally, in some circumstances, the law is unclear about which party should be held liable for a digital tool that produces discriminatory outcomes: the employer that purchased and used the tool, the vendor that developed and sold the tool, or both. Despite the critical role of civil rights laws in protecting workers, these laws fail to adequately protect workers from algorithmic bias or digital discrimination in many respects.

Digital Tools Often Lack Transparency and Explainability

Digital technologies deployed in today's workplaces and hiring processes tend to be strongly characterized by a lack of transparency and *explainability*. (Explainability refers to the extent to which the inner working of a predictive model such as an algorithm can be understood and explained in “human terms.”) First, employers often do not disclose which digital tools they use, or in some cases do not disclose that they are using digital tools at all. Jobseekers may not realize when they have been excluded from seeing targeted job ads or been evaluated by a predictive technology, much less whether they have been discriminated against by that technology.⁴³⁵ As Mr. Romer-Friedman testified before the Committee, “[i]t is likely that there have been hundreds of millions of incidents of digital discrimination. And in most cases, workers and consumers have had no idea that they were denied equal opportunity.”⁴³⁶

Second, predictive tools—particularly those developed using machine-learning techniques—are often not transparent in their inputs and methods, nor are their results necessarily explainable. According to legal scholar Pauline Kim, “[a]n algorithm can be so complex that its decision process is completely opaque—even to the programmers who created it.”⁴³⁷ Furthermore, “when such a model is relied on to screen or rank applicants, it obscures the basis on which employers are making ultimate employment decisions. This lack of transparency makes it difficult to know if any observed bias is simply a byproduct of justifiable business considerations or the result of flaws in the model’s construction.”⁴³⁸

Additionally, many employers purchase proprietary hiring technologies from third-party vendors rather than developing tools in-house, so employers themselves may not have the expertise or information to evaluate whether or why these products’ outcomes are discriminatory.

Proving Intentional or Unintentional Discrimination Is Even More Difficult Amid Digital Technologies

Lack of transparency and explainability in automated systems means workers have little or no insight into how, for example, their job application is sorted, scored, ranked, and evaluated. Thus, workers “face substantial challenges in bringing discrimination lawsuits to challenge algorithmic systems” as plaintiffs.⁴³⁹ The use of opaque automated technologies “leaves workers unable to obtain sufficient information about the operation of the [employment] screen to file a case that would entitle them to discover the inner workings of the system.”⁴⁴⁰ If workers cannot access the full underlying data or determine how an algorithm came to its decision, then it will be difficult for them to assert in court that the algorithm produces a discriminatory result. Current law does not require that employers keep records of the characteristics of both successful and unsuccessful applicants that would be necessary to substantiate an unintentional discrimination claim.

Additionally, an employer can defend against an unintentional discrimination claim by demonstrating that the alleged discriminatory practice was job-related and consistent with a “business necessity.” According to researchers Solon Barocas and Andrew Selbst, this means that an employer can defend the use of an algorithm against claims of discrimination by simply demonstrating that the algorithm is *predictive* of a sought-after job trait and that the “sought-after trait—the target variable—is job related.”⁴⁴¹ However, according to Barocas and Selbst, most algorithms can easily be trained to predict sought-after job traits, which can support a business necessity defense even when the results disproportionately harm individuals of a protected class.⁴⁴² For example, an algorithm that Amazon built to hire engineers was scrapped after it was found to penalize graduates of women’s colleges. The algorithm had discerned that *being male* was a reliable predictor of holding a position in engineering—a male-dominated field—even though maleness does not cause one to be a good engineer and sex is a protected class.⁴⁴³

The Uniform Guidelines Are Overdue for an Update

Employers and developers of digital hiring tools rely upon the EEOC’s Uniform Guidelines for guidance to determine whether an employment test is discriminatory. However, these guidelines, which have not been updated since 1978, are overdue for modernization to account for ways in which the digital era has changed hiring practices. For example, as Upturn researchers note, “[t]he [UGESP] framework relies heavily on the notion of ‘validity studies’ to demonstrate that a procedure is sufficiently related to or ‘significantly correlated with important elements of job performance.’ Unfortunately, showing correlation does little to help assess whether a machine learning model is surfacing biases or not.”⁴⁴⁴

Current Law Lacks Clarity on Employers', Vendors', and Platforms' Liability

When an employer discriminates against a job applicant or employee based on a protected characteristic, the employer or the employment agency is liable for discrimination under the various antidiscrimination laws discussed above. However, when an employer engages a third-party vendor such as Facebook, ZipRecruiter, or LinkedIn to help the employer advertise jobs, recruit, analyze, and hire, the vendor or platform's liability for discrimination is unclear. Current antidiscrimination statutes do not specify whether "vendors who create these models and sell or license them to employers bear any legal responsibility" for discriminatory effects of those products.⁴⁴⁵

Technology platforms argue that they are neither employers nor employment agencies under civil rights statutes.⁴⁴⁶ As Peter Romer-Friedman testified before the Committee, "technology platforms like Facebook claim that they are not employment agencies when they advertise jobs to workers on behalf of employers and then connect workers to employers' careers web sites via links in job ads."⁴⁴⁷ But, Mr. Romer-Friedman continued, some of these vendors and platforms fit Title VII's definition of "employment agency" because "through their advertising and recruiting services they 'procure employees for an employer' (the standard for being an 'employment agency')." ⁴⁴⁸

As noted above, employers also have used Facebook and other vendors to target job ads to exclude women and older workers.⁴⁴⁹ But Title VII and the ADEA bar discriminatory job advertisements. In 2019, the EEOC issued findings of discrimination against seven companies for excluding women and older workers in targeted job advertisements they placed on Facebook.⁴⁵⁰ Nonetheless, "companies like T-Mobile and Amazon are taking the position that federal employment discrimination law does not prohibit exclusionary advertising."⁴⁵¹

Platforms Claim Broad Immunity Under the Communications Decency Act

To fend off responsibility for discriminatory advertising on their platforms, technology companies frequently invoke Section 230(c) of the *Communications Decency Act of 1996* (CDA), which immunizes websites from legal liability for the content created by their users. As Peter Romer-Friedman testified before the Committee, Section 230(c) was intended to "protect web sites from liability when the users of those web sites [such as chat-room users] violate laws or harm other users without the web sites creating or developing the offending material."⁴⁵² However, today "Section 230(c) has been interpreted to override or nullify federal civil rights laws and to preempt state and local civil rights laws"⁴⁵³ and some platforms, such as Facebook, have asserted that the law provides them with blanket immunity to engage in discriminatory job advertising practices.⁴⁵⁴ In this regard, employment advertising stands in sharp contrast to the housing and credit contexts, in which the federal government has actively countered discriminatory online advertising practices through laws such as the *Fair Housing Act* and the *Equal Credit Opportunity Act*.⁴⁵⁵

Current Law Does Not Guarantee Basic Privacy Rights to Workers and Jobseekers

The new and emerging technologies described above give employers unprecedented abilities to monitor and collect data on their workers. Although employers may have a legitimate reason to monitor an employee's work, the *Electronic Communications Privacy Act of 1986* (ECPA) prohibits an employer from monitoring an employee's oral, wire, and electronic communications.⁴⁵⁶ However, the statute contains broad exceptions if the employer has a "legitimate business purpose" for monitoring or if the employer obtains consent to monitor from the employee.⁴⁵⁷ It is also unlikely that some of the technologies described in Section II, such as wristbands worn by warehouse workers, would fall under the ECPA's definition of "electronic communications."

On the whole, there is no general prohibition against employers collecting, using, selling, or exchanging workers' private information on protected class status for discriminatory purposes.⁴⁵⁸ Although the ADA and GINA protect workers' and job applicants' right to keep medical and genetic information private, some voluntary workplace wellness programs may undermine this right through the use of wearable technologies that may relay disability-related and other health-related information to employers.⁴⁵⁹

Independent Contractors Have Very Limited Antidiscrimination Protections

True independent contractors (ICs)—that is, ICs who are *not* misclassified employees, as described in Chapter 1 of this report—do not have an employment relationship: The entity with which they contract to provide their labor is not their employer. Nonetheless, discrimination based on protected-class status may occur when that entity determines which IC or ICs to hire or during the course of the contractual relationship. Yet, most major civil rights statutes solely protect workers who are classified as employees or job applicants for employment; only Section 1981 of the *Civil Rights Act of 1866* provides antidiscrimination protections to independent contractors, and as Section I describes, its protections are limited to intentional discrimination based on race or ethnicity.

Misclassification Strips Employees of Their Civil Rights Protections

As Chapter 1 of this report discusses in detail, the so-called fissuring of the workplace has led to a rise in misclassification of workers who should be deemed employees. This trend has been particularly prevalent in new technology-mediated work such as in the digital gig economy. Because major civil rights statutes afford very limited protections to workers who are not employees, workers who are improperly classified as ICs have few legal options for redress if they experience discrimination—including sexual harassment—on the job.⁴⁶⁰ This lack of protection under workplace antidiscrimination laws may provide a perverse “incentive for employers to misclassify workers as independent contractors to avoid liability under Title VII, and to evade other employment-related legal duties (e.g., tax and benefit obligations).”⁴⁶¹ However, if a worker can prove that she was misclassified as an IC when she was in fact an employee, then she can avail herself of federal or state antidiscrimination laws.⁴⁶²

Section IV: The Landscape Beyond Federal Policy

While U.S. federal policy action at the intersection of technology, employment, and civil rights has been very limited to date,⁴⁶³ a handful of international, state, and local governments have tackled the specific employment-related issues discussed above. Meanwhile, many research organizations, standards bodies, and private companies have produced extensive work on related topics including data privacy and protection; ethical artificial intelligence; and algorithmic accountability, transparency, and explainability.⁴⁶⁴ However, “despite all these efforts,” according to an Upturn and Omidyar Network report, “the use of automated decisions is far outpacing the evolution of frameworks to understand and govern them.”⁴⁶⁵

“The use of automated decisions is far outpacing the evolution of frameworks to understand and govern them.”

-Aaron Rieke, Miranda Bogen, and David G. Robinson, “Public Scrutiny of Automated Decisions”

More than 130 countries have passed comprehensive data protection laws,⁴⁶⁶ perhaps the most significant of which is the European Union's General Data Protection Regulation (GDPR), which took effect in 2018. The GDPR places stringent transparency, accountability, and data minimization requirements on firms that collect or

process data belonging to EU residents.⁴⁶⁷ Notably, the regulation requires that individuals be informed of any decisions made on a solely algorithmic basis and gives them the right to contest such decisions.⁴⁶⁸ It also requires subjects' affirmative consent for collection of their biometric data, including the "physical, physiological or behavioural characteristics" typically collected during automated video interviews and through wearable devices.⁴⁶⁹ Shortly after the GDPR went into effect, California passed the *California Consumer Privacy Act* (CCPA), which offers California residents many similar protections, but is narrower in scope and does not adopt the GDPR's treatment of algorithmic decisions or biometric data.⁴⁷⁰

To date, Illinois is the sole U.S. state to pass a law combatting non-transparency in automated hiring technologies. The *Artificial Intelligence Video Interview Act*, which took effect in January 2020, requires employers using automated video interview analysis to provide applicants with notice and explanation, obtain their consent, limit sharing of the video, and give applicants the option to have their video deleted.⁴⁷¹ However, some experts say the law falls short of meaningful policy, because it covers only one type of technology, fails to provide an alternative for candidates who wish to opt out of video interviews, and contains no specific consequences for non-compliance.⁴⁷²

Several additional states and localities are considering proposed legislation to address the use of automation and artificial intelligence in employment processes.⁴⁷³ For example, New York City is considering legislation that requires job candidates to be informed within 30 days if automated employment decision tools were used to assess their candidacy; it also restricts the sale of such tools if they have not been subject to an impartial audit for bias within the prior year and do not include an annual bias audit service at no additional cost.⁴⁷⁴

Only a few states have placed limited restrictions on employers' use of surveillance and monitoring technologies; employers generally have broad discretion, particularly for business-related reasons.⁴⁷⁵

Section V: Policy Improvements to Strengthen Workers' Antidiscrimination Protections

Federal policymakers will need to take multiple steps to close the gaps in our nation's employment antidiscrimination laws and strengthen workers' protections in the face of new workplace technologies. While not an exhaustive list, this section provides a discussion of policy improvements with an emphasis on those that fall partially or fully in the jurisdiction of the Committee on Education and Labor. Some solutions can be administratively implemented, while others will require further discussion and refinement in consultation with technical experts and civil rights advocates. To be sure, these recommendations are only a starting place; much greater attention will be needed from policymakers and expert stakeholders to develop a full suite of solutions that adequately shields workers from technology-related discrimination.

Modernize our first line of defense against employment discrimination. Between 1980 and 2018, inflation-adjusted funding for the EEOC, our nation's first line of defense against employment discrimination, fell by 8 percent, despite growth in the civilian labor force of more than 50 percent.⁴⁷⁶ As a result, the EEOC has struggled to adequately address and investigate existing complaints,⁴⁷⁷ much less acquire and develop the expertise needed to tackle new and complex responsibilities for policing algorithmic discrimination.

Recommendation 3.1: *To effectuate equal employment opportunity into the twenty-first century, Congress should direct the EEOC to establish a new division devoted to digital discrimination, including hiring technical experts and data analysts and dramatically increasing enforcement efforts. Congress should provide appropriated funds commensurate with this new responsibility.*

Require independent audits of predictive hiring tools. Without federal requirements around transparency and accountability for the tools they develop and deploy, third-party vendors and other entities who develop predictive hiring tools—as well as employers who purchase them—face little or no incentive to ensure these tools are carefully designed and adequately tested for bias. Although doing so could require redesigning so-called “black box” models whose decisions cannot be interpreted or explained, Jenny Yang testified that in order to ensure equal employment opportunity, “explainability should be prioritized even where it leads to a reduction in the predictive power of the model.”⁴⁷⁸

***Recommendation 3.2:** Congress should direct the EEOC to periodically require vendors of predictive hiring tools to identify and remove biases in their tools, as well as document the steps they have taken to do so.*⁴⁷⁹

***Recommendation 3.3:** Employers should be required by Congress to disclose to federal and state enforcement agencies which vendors they purchase predictive hiring tools from and which predictive variables they use in their hiring processes. Congress should evaluate whether such disclosures should be required routinely or solely upon request of enforcement agencies.*

***Recommendation 3.4:** Both vendors and employers should be required to open their processes to independent audits, conducted by or developed in conjunction with government regulators, the outcomes of which should be made public.*

Hold technology vendors as well as employers accountable. Technology platforms and vendors who sell products to employers, or help employers advertise, recruit, and hire workers should be held liable for either aiding and abetting or facilitating employers’ engagement in civil rights violations.⁴⁸⁰ In written testimony before the Committee, Peter Romer-Friedman recommended two options to hold vendors accountable.

***Recommendation 3.5:** Congress should evaluate creation of an “aiding and abetting” liability standard under Title VII and other civil rights laws, which would ensure that entities that knowingly assist employers or employment agencies in violating workplace antidiscrimination laws are held accountable. Alternatively, Congress could hold vendors liable for discrimination by expanding the definition of an “employment agency” under Title VII, the ADEA, and the ADA to include technology platforms and vendors.*⁴⁸¹

Require employers and employment agencies to retain data. Without data on both an employer’s successful and unsuccessful job applicants, insufficient information exists to evaluate claims of disparate impact in the employment process. As Dr. Ifeoma Ajunwa testified, “[d]ata-retention mechanisms will ensure that data from failed job applicants are preserved to be later compared against the successful job applicants, with the aim of discovering whether the data evinces disparate impact.”⁴⁸²

***Recommendation 3.6:** Employers and employment agencies should be required by Congress to follow appropriate record-keeping and data-retention procedures at each stage of the employment process.*

Clarify Section 230(c) of the Communications Decency Act of 1996 (CDA). Paid online ads account for a large and growing share of employment advertisements, and multiple technology companies have built a business model around delivering these ads, including actively enabling employers to target job ads to specific groups of users—and exclude others—through their websites. Technology companies have argued that, unlike non-digital

publishers such as newspapers, they are immune from liability for discriminatory advertising under Section 230(c) of the CDA.

Recommendation 3.7: *Congress should end Section 230(c) immunity for websites in the case of paid advertisements for employment, as well as in situations in which a website operator knows or should reasonably know about violations of antidiscrimination law but fails to take reasonably affirmative and timely action to stop these violations.*⁴⁸³

Update the Uniform Guidelines on Employee Selection Procedures. The UGESP has not been updated since 1978 and most algorithmic tools, even those that produce discriminatory outcomes, likely easily meet the UGESP’s validation requirements for employment tests. As Jenny Yang suggests in written testimony, the UGESP should be modernized according to “the latest scientific knowledge regarding industrial and organization psychology and computer science” and to “provide greater clarity on the validation standards for algorithmic screens.”⁴⁸⁴

Recommendation 3.8: *The EEOC should update the UGESP to reflect modern technology and tools used by employers to hire and screen prospective workers.*

Engage in basic fact-finding. Policymakers have very little data on employers’ use of automated hiring tools developed by third-party technology vendors and digital sourcing platforms, even though these tools are increasingly acting as silent gatekeepers to employment opportunities. However, the agency best-suited to conducting such fact-finding—the independent, bipartisan Office of Technology Assessment (OTA)—was defunded in 1995, just as the nation entered the digital age.⁴⁸⁵

Recommendation 3.9: *Congress should restore funding for OTA and enhance its mandate to be more responsive to Members’ needs, as proposed in the Office of Technology Assessment Improvement and Enhancement Act of 2019⁴⁸⁶ and by the Select Committee on the Modernization of Congress.*⁴⁸⁷

Recommendation 3.10: *Congress should engage OTA to gather basic information on how many employers use third-party tools to automate the hiring process—such as job candidate advertising, selection, screening, and video interview analysis—as well as which vendors employers utilize.*

Recommendation 3.11: *In the longer term, lawmakers should engage OTA in a deeper exploration that includes which types of employers tend to rely most heavily on third-party vendors, which types of job opportunities are most likely to be controlled by these technologies and platforms, whether and how vendors’ products are customized or tailored by employers, and whether and how employers ensure the tools they purchase from third parties are unbiased and prevent discriminatory outcomes.*

Extend additional civil rights protections to true independent contractors. True independent contractors (ICs)—that is, ICs who are *not* simply misclassified employees—have very limited protections against discrimination when contracting to provide their labor. Specifically, true ICs are currently protected only from intentional discrimination on the basis of race or ethnicity under Section 1981.

Recommendation 3.12: *Congress should explore ways to extend additional civil rights protections to true independent contractors when they contract to provide labor, as proposed in Section 301 of the Bringing*

*an End to Harassment by Enhancing Accountability and Rejecting Discrimination (BE HEARD) in the Workplace Act.*⁴⁸⁸

Entitle jobseekers to an explanation for rejection. In the credit context, applicants who are turned down for a loan are entitled to an explanation from the potential lender under the *Equal Credit Opportunity Act* (ECOA), a requirement designed to both increase transparency and prevent discriminatory decision-making.⁴⁸⁹ An analogous right to receive an explanation could not only grant jobseekers greater insight into how they are evaluated and deterring knowingly discriminatory practices, but also effectively prevent employers from relying solely on uninterpretable, unexplainable “black box” digital tools that may pick up on candidates’ protected characteristics without employers’ or even developers’ knowledge. However, policymakers would need to explore whether and how such a right to request could be constructed without placing an overwhelming administrative burden on employers.

Recommendation 3.13: *Congress should explore granting jobseekers the right to receive a plain-language explanation of why they were turned away from an employment opportunity, modeled on the requirements in ECOA.*

Bolster workers’ voice to ensure technology helps rather than harms workers. As described in detail in Chapter 1 of this report, unions play a critical role in ensuring workers’ rights are protected, both by helping workers seek recourse when technologies have discriminatory impacts as well as by bargaining for the adoption of new technologies that better protect workers against discrimination and harassment. Yet only 10 percent of American workers are unionized today.⁴⁹⁰

Recommendation 3.14: *Congress should remove barriers to organizing and bargaining collectively, ensuring that more workers can benefit from the enhanced protections, representation, and voice afforded by unions. The Protecting the Right to Organize (PRO) Act would ensure these changes.*⁴⁹¹

Develop a base set of workers’ rights in the face of algorithmic decision-making. Lack of transparency and accountability requirements mean jobseekers have no way to understand how predictive hiring tools evaluate their candidacy, much less seek protection or recourse against biased or inaccurate decisions. To complement a third-party auditing system for such tools, as described in Recommendations 3.2-3.4 above, policymakers should accord workers a basic set of rights, building on ideas encompassed in the *Fair Credit Reporting Act* (FCRA), the *Equal Credit Opportunity Act* (ECOA), and the European Union’s General Data Protection Regulation (GDPR).

Recommendation 3.15: *Congress should accord workers a basic set of rights in the face of algorithmic decision-making that includes four critical areas: notice and consent, including sufficient information for the jobseeker to determine whether to request reasonable accommodation or an alternative process during hiring; the right to an explanation for decisions (see Recommendation 3.13 above); a process for redress, including the right to view the data collected about them and an opportunity to correct errors; and accountability for employers and vendors (see Recommendation 3.5 above).*⁴⁹² *As has been the case with most civil rights laws, these worker rights should be preserved and protected not only by empowering government with rulemaking authority and adequate enforcement resources, but also through a private right of action.*⁴⁹³

Ensure workers have control over their private personal data. Many experts argue that privacy rights *are* civil rights, since invasions of privacy can act as vehicles for illegal discrimination.⁴⁹⁴ Yet, unlike many other nations, the United States lacks general federal data privacy laws to protect individuals, including workers.

Recommendation 3.16: *To prevent discriminatory use of workers' private information, Congress should expressly prohibit the collection, use, sale, or exchange of workers' protected status data for discriminatory purposes.*⁴⁹⁵

Recommendation 3.17: *Congress should ensure that workers have ownership and control over personal data collected from tracking, monitoring, and other devices or applications their employers require or encourage. For example, workers should have the right to be notified of the specific data elements employers are collecting and how these data are being stored; the right to prevent these data from being shared with or sold to other parties; and the right to access and delete certain personal information.*

Recommendation 3.18: *Congress should place reasonable limits on the extent of personal data collection by employers, such as by prohibiting surveillance and data-collection practices that extend outside of work-related activities or locations.*⁴⁹⁶

Conclusion

Employers' widespread use of new, often non-transparent technologies in the hiring process and the workplace raises concerns about discrimination against protected classes. These technologies may entrench and exacerbate existing societal biases and inequalities, and even systematically lock some workers out of employment opportunities altogether. Yet, with millions of jobless workers—disproportionately workers of color and women—searching for jobs amid the COVID-19 crisis, and employers seeking to reduce the time and cost of remote hiring processes, predictive technologies are likely to play a larger role in our labor market than ever before. At the same time, changing work arrangements and widespread employer misclassification have left many workers without protection from key civil rights laws. Policymakers must take steps to close the gaps in our nation's foundational antidiscrimination laws and policies—most of which were formed before the advent of the internet—so that with greater transparency, adequate accountability, and responsible design, we can preserve and even strengthen workplace antidiscrimination laws in the face of new technologies and evolving work arrangements.

Appendix: Workplace Antidiscrimination Protections Under Select Current Statutes

Federal Statute	Protected Class(es)	Minimum Employer Size	Protection for Independent Contractors	Disparate Treatment	Disparate Impact
Title VII of the <i>Civil Rights Act of 1964</i> 42 U.S.C. §§ 2000e-2000e-17	Race, ethnicity, color, national origin, sex (including pregnancy, sexual orientation, and gender identity), and religion	15 Employees	No	Yes	Yes
Section 1981 of the <i>Civil Rights Act of 1866</i> 42 U.S.C. § 1981	Race and ethnicity	(N/A)	Yes	Yes	No
<i>Age Discrimination in Employment Act</i> 29 U.S.C. §§ 621-34	Age	20 Employees	No	Yes	Yes ⁴⁹⁷
Title I of the <i>Americans with Disabilities Act</i> 42 U.S.C. §§ 12101-12213	Disability	15 Employees	No	Yes	Yes
<i>Genetic Information Nondiscrimination Act</i> 42 U.S.C. §§ 21F	Genetic information	15 Employees	No	Yes	No

¹ Centers for Disease Control and Prevention, “CDC COVID Data Tracker,” https://covid.cdc.gov/covid-data-tracker/#cases_casesper100klast7days (last accessed Dec. 2, 2020).

² Calculations based on Bureau of Labor Statistics, Unemployment Level [UNEMPLOY], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/UNEMPLOY> (Nov. 19, 2020).

³ Bureau of Economic Analysis, *Gross Domestic Product, 2nd Quarter 2020 (Second Estimate); Corporate Profits, 2nd Quarter 2020 (Preliminary Estimate)* (Aug. 27, 2020), <https://www.bea.gov/news/2020/gross-domestic-product-2nd-quarter-2020-second-estimate-corporate-profits-2nd-quarter>.

⁴ U.S. Employment and Training Administration, Initial Claims [ICSA], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/ICSA> (Nov. 19, 2020). The Department of Labor revised its method for calculating seasonal adjustment factors starting on September 3, 2020, making it difficult to compare numbers during and prior to the crisis. However, the picture is almost as dramatic when comparing non-seasonally adjusted claims. What’s more, these numbers do not include initial applications for Pandemic Unemployment Assistance—the program for self-employed, gig workers, and others deemed ineligible for UI—created under the *Coronavirus Aid, Relief, and Economic Security (CARES) Act*. Department of Labor, “News Release” (September 3, 2020), <https://www.dol.gov/sites/dolgov/files/OPA/newsreleases/ui-claims/20201671.pdf>.

⁵ Chuck Jones, “Three Charts Show A K-Shaped Recovery,” *Forbes* (Oct. 24, 2020), <https://www.forbes.com/sites/chuckjones/2020/10/24/three-charts-show-a-k-shaped-recovery/?sh=42f38afa305f>.

⁶ The most recent available data from Opportunity Insights shows employment down 0.3 percent for the highest-earning quartile between February 1, 2020 and September 24, 2020, but 19 percent for the lowest-earning quartile. Opportunity Insights Economic Tracker, <https://www.tracktherecovery.org/> (last accessed November 19, 2020).

⁷ Gabriel Chodorow-Reich & John Coglianesi, *Projecting Unemployment Durations: A Factor-Flows Simulation Approach With Application to the COVID-19 Recession*, (Journal of Public Economics, Working Paper, 2020), <https://scholar.harvard.edu/chodorow-reich/publications/projecting-unemployment-durations-factor-flows-simulation-approach>; Andrew Van Dunn, *As permanent economic damage piles up, the Covid Crisis is looking more like the Great Recession*, *The Washington Post* (Aug. 25, 2020), <https://www.washingtonpost.com/business/2020/08/25/permanent-economic-damage-piles-up-covid-crisis-is-looking-more-like-great-recession/>.

⁸ Jason DeParle, “Vast Federal Aid Has Capped Rise in Poverty, Studies Find,” *New York Times* (June 21, 2020), <https://www.nytimes.com/2020/06/21/us/politics/coronavirus-poverty.html>.

⁹ The House passed two versions of the *Heroes Act* on May 15, 2020 (H.R. 6800) and October 1, 2020 (H.R. 8406).

¹⁰ See, for example, Sylvan Lane, “Powell says 'concerning' rise in COVID-19 cases could hinder economic recovery,” *The Hill* (Nov. 5, 2020), <https://thehill.com/policy/finance/524678-powell-says-concerning-rise-in-covid-19-cases-could-hinder-economic-recovery>; Chair Jerome H. Powell, “Recent Economic Developments and the Challenges Ahead,” Remarks at the National Association for Business Economics Virtual Annual Meeting (October 06, 2020), <https://www.federalreserve.gov/newsevents/speech/powell20201006a.htm>.

¹¹ *The Future of Work: Preserving Worker Protections in the Modern Economy: Hearing Before the Subcomm. on Workforce Protections and the Subcomm. on Health, Employment, Labor, and Pensions of the H. Comm. on Education and Labor*, 116th Cong. (2019) (written testimony of Hon. David Weil, Ph.D., Dean and Professor Heller School for Social Policy and Management, Brandeis University, at 2) [hereinafter Weil Testimony].

¹² David Weil, *The Fissured Workplace: Why Work Became So Bad for So Many and What Can Be Done to Improve It* 8 (2014).

¹³ Weil Testimony at 7.

¹⁴ Weil, *The Fissured Workplace*, *supra* note 11, at 8.

¹⁵ Weil Testimony at 2.

¹⁶ Weil Testimony at 2.

¹⁷ Weil, *The Fissured Workplace*, *supra* note 11, at 11.

¹⁸ Weil, *The Fissured Workplace*, *supra* note 11, at 11.

¹⁹ Thus, the fissured workplace allows lead businesses to “embrace and institute standards and exert enormous control over the activities of subsidiary bodies. But they can also eschew any responsibility for the consequences of that control.” Weil, *The Fissured Workplace*, *supra* note 11, at 14.

²⁰ Business models in the digital gig economy differ, however. As the term is used by Dr. Weil, *digitally enabled market platforms* offer consumers specific information about individuals who provide services, such as customer ratings and levels of experience, that can be used to select a particular provider and facilitate business transactions. Service providers on these platforms set their own prices, compete for customers based on individual characteristics, and provide services that are not a key element of the platform. Examples include HomeAdvisor and Upwork. *Digitally enabled branded platforms*, however, provide consumers with a specific service with prices and other characteristics of services, such as timing and service quality, set by the platform. Examples include ride-hailing providers (such as Uber and Lyft), food delivery services (such as Postmates and DoorDash), and home service providers (such as Handy). Digitally enabled branded platforms are more often at the center of debates regarding the future of work and the fissured workplace. David Weil & Tanya Goldman, *Labor Standards, the Fissured Workplace, and the On-Demand Economy*, *Perspectives on Work* 28 (2016), http://www.fissuredworkplace.net/assets/Weil_Goldman.pdf.

²¹ Rather than representing an entirely new form of business, as is often asserted by those companies and other commentators, many platform business models can be understood as digital fissured workplaces where adherence to core competencies is assured through software algorithms that create strong incentives, disincentives, and monitoring mechanisms that operate in many respects as a management system. Weil Testimony at 6.

²² The “fissured workplace describes a business strategy rather than the adoption of individual work practices or arrangements,” thus “[t]he different formats that fissured workplaces take create challenges to measuring its size in the workforce.” Weil Testimony at 7. To estimate the size of the fissured workplace, Weil uses “a combination of approaches that look at the relationship of the party directly compensating the worker (who may or may not be an employer) with other business entities as well as with the work.” David Weil, *Understanding the Present and Future of Work*, *The Russell Sage Foundation Journal of the Social Sciences* (December 2019), at 151, <https://www.rsfjournal.org/content/rsfjss/5/5/147.full.pdf>. Available federal data may not capture the full extent of fissuring. Specifically, according to the 2018 Bureau of Labor Statistics Contingent Worker Survey (CWS), workers in “alternative employment arrangements” accounted for 10.1 percent of all employment in May 2017.^c The CWS measures the number of workers

in “alternative employment arrangements” as the number of workers who self-report being independent contractors, on-call workers, temporary help agency workers, or workers provided by contract firms. Press Release, Bureau of Labor Statistics, Economic News Release: Contingent and Alternative Employment Arrangements Summary (June 7, 2018), <https://www.bls.gov/news.release/conemp.nr0.htm>. However, workers in certain workplace settings may not be aware of any intermediary, such as a staffing agency or franchisee, especially where the lead business is prominent and is setting work standards. Additionally, “[f]issured workplace arrangements can exist even though employment itself might be traditional (that is, ongoing and full time) when the worker is employed by a subcontractor, franchisee, or other business organization undertaking the work of a lead business.” This type of employment would not be fully captured by CWS data. David Weil, *Understanding the Present and Future of Work in the Fissured Workplace Context*, 5(5) *The Russell Sage Foundation Journal of the Social Sciences*, 5 (5) 147, 149-150 (Dec. 2019). Furthermore, the Government Accountability Office (GAO) identified significant measurement limitations with the CWS. For example, the BLS only asks respondents about work *in the past week* and their *main jobs*. Letter from the U.S. Government Accountability Office to Chairman Robert C. Scott (January 29, 2019), <https://www.gao.gov/assets/700/696643.pdf>. Additionally, the BLS 2017 data are incongruent with March 2016 findings from economists Lawrence F. Katz and Alan B. Krueger that the percentage of alternative work arrangement rose to 15.8 percent in late 2015. However, Katz and Krueger have since published working papers that suggests their 2015 estimates were too high as a result of the recession and problematic data. Lawrence F. Katz & Alan B. Krueger, *The Rise and Nature of Alternative Work Arrangements in the United States, 1995-2015* (NBER Working Paper No. 22667, 2016), https://krueger.princeton.edu/sites/default/files/akrueger/files/katz_krueger_cws_-_march_29_20165.pdf; Lawrence F. Katz & Alan B. Krueger, *Understanding Trends in Alternative Work Arrangements in the United States*, (National Bureau of Economic Research Working Paper no. 25425, 2019), <https://www.nber.org/papers/w25425.pdf>.

²³ A December 2015 paper by scholars Alan Krueger and Seth Harris estimated about 600,000 workers, or 0.4 percent of the total U.S. workforce, are in the digital gig economy. Seth Harris & Alan Krueger, *A Proposal for Modernizing Labor Laws for Twenty-First-Century Work: The “Independent Worker”* 2 (December 2015), http://www.hamiltonproject.org/assets/files/modernizing_labor_laws_for_twenty_first_century_work_krueger_harris.pdf. A June 2015 study conducted by the McKinsey Global Institute estimated that “less than 1 percent” of the U.S. working age population are workers operating through “digital marketplaces for services.” James Manyika, Susan Lund, Kelsey Robinson, John Valentino, and Richard Dobbs, *Connecting Talent with Opportunity in the Digital Age* 5 (June 1, 2015), <http://www.mckinsey.com/global-themes/employment-and-growth/connecting-talent-with-opportunity-in-the-digital-age>.

²⁴ Weil Testimony at 5.

²⁵ Weil Testimony at 5.

²⁶ Dave Jamieson, *The Coronavirus Worker Revolt is Just Beginning*, Huffington Post (Apr. 1 2020), https://www.huffpost.com/entry/the-coronavirus-worker-revolt-is-just-beginning_n_5e84e57bc5b60bbd734e3fa0.

²⁷ Sharon Block, Suzanne Kahn, Brishen Rogers & Benjamin I. Sachs, *How and Why to Empower Workers in the COVID-19 Response*, Roosevelt Institute (April 2020), https://rooseveltinstitute.org/wp-content/uploads/2020/04/RI_COVID19SectoralBargaining_IssueBrief_202004.pdf (internal citations omitted).

²⁸ Weil & Goldman, *supra* note 20, at 27. According to Dr. Weil, “[b]ecause each level of business in a fissured workplace structure requires a financial return for their work, the further down one goes, the slimmer are the remaining profit margins.” Weil Testimony at 3.

²⁹ Weil Testimony at 5.

³⁰ Bureau of Labor Statistics, *Table 13. Median usual weekly earnings of full- and part-time contingent and noncontingent wage and salary workers and those with alternative work arrangements by sex, race, and Hispanic or Latino ethnicity, May 2017* (June 7, 2018), <https://www.bls.gov/news.release/conemp.t13.htm>.

³¹ Rebecca Smith, Paul Alexander Marv and Jon Zerolnick, *The Big Rig Overhaul: Restoring Middle-Class Jobs at America’s Ports through Labor Law Enforcement* (February 2014) 12, <http://www.nelp.org/page/-/Justice/2014/Big-Rig-Overhaul-Misclassification-Port-Truck-Drivers-Labor-LawEnforcement.pdf?nocdn=1>.

³² See, e.g., Lawrence Mishel, *Uber and the labor market: Uber drivers’ compensation, wages, and the scale of Uber and the gig economy*, Economic Policy Institute (May 2018), <https://www.epi.org/publication/uber-and-the-labor-market-uber-drivers-compensation-wages-and-the-scale-of-uber-and-the-gig-economy/>.

³³ Weil Testimony at 3.

³⁴ *Misclassification of Employees: Examining the Costs to Workers, Businesses, and the Economy Before the Subcomm. on Workforce Protections*, 116th Cong. (2019) (written testimony of Ms. Maria Crawford, Gig Worker, Altadena, California, at 3) [hereinafter Crawford Testimony].

³⁵ Bureau of Labor Statistics, *Table 9. Employed contingent and noncontingent workers and those with alternative and traditional work arrangements by health insurance coverage and eligibility for employer-provided pension or retirement plans, May 2017* (June 7, 2020), <https://www.bls.gov/news.release/conemp.t09.htm>.

- ³⁶ *Id.*
- ³⁷ Ryan Nunn and Jimmy O'Donnell, *Unpredictable and Uninsured: The Challenging Labor Market Experience of Nontraditional Workers*, Brookings Institution (May 2, 2020), <https://www.brookings.edu/blog/up-front/2020/05/07/unpredictable-and-uninsured-the-challenging-labor-market-experiences-of-nontraditional-workers/>.
- ³⁸ 29 U.S.C. § 152, 157.
- ³⁹ *The Future of Work: Preserving Worker Protections in the Modern Economy: Hearing Before the Subcomm. on Workforce Protections and the Subcomm. on Health, Employment, Labor, and Pensions of the H. Comm. on Education and Labor*, 116th Cong. (2019) (written testimony of Brishen Rogers, Professor at Temple School of Law, at 9) [hereinafter Rogers Testimony].
- ⁴⁰ *Id.* at 10.
- ⁴¹ *Id.*
- ⁴² Pub. L. No. 80-101, 61 Stat. 136 (1947). 29 U.S.C. § 158(b)(4).
- ⁴³ Charlotte Garden, *The PRO Act and Workplace Fissuring*, The Century Foundation (Nov. 25, 2019), <https://tcf.org/content/commentary/pro-act-workplace-fissuring/>.
- ⁴⁴ In one case considered by the National Labor Relations Board (NLRB), subcontracted janitors picketed the building where they worked to protest sexual harassment by their supervisor. The janitors engaged in this protest to encourage the building manager (which contracted with the company that retained the janitors' employer) and the building tenants to urge the employer to end sexual harassment. After the janitorial company fired the workers, the NLRB held that the termination was not unlawful because the workers lost the protection of the NLRA when they engaged in secondary picketing. *Preferred Building Services*, 366 NLRB No. 159 (2018).
- ⁴⁵ Charlotte Garden, *supra* note 43.
- ⁴⁶ Weil Testimony at 4.
- ⁴⁷ Stephen Pegula & Matt Gunter, *Fatal occupational injuries to independent workers*, Bureau of Labor Statistics (August 2019), <https://www.bls.gov/opub/btn/volume-8/pdf/fatal-occupational-injuries-to-independent-workers.pdf>.
- ⁴⁸ Francois Carré, *(In)dependent Contractor Misclassification 1* (2015), <https://www.epi.org/files/pdf/87595.pdf>.
- ⁴⁹ See, e.g., Subcomm. on Health, Employment, Labor, and Pensions of the H. Comm. on Educ. and Labor, *Protecting the Right to Organize Act: Modernizing America's Labor Laws*, YouTube (July 25, 2019) https://www.youtube.com/watch?v=UA3vxNxKi_c (opening statement of Chair Frederica Wilson at 12:36) (“Employers exploit ambiguities and loopholes” in the standards for determining employee status and a joint employer relationship “to prevent their employees from organizing unions.”); H. Comm. on Educ. and the Workforce, *Redefining Joint Employer Standards: Barriers to Job Creation and Entrepreneurship*, YouTube (Jul. 12, 2017) <https://www.youtube.com/watch?v=12XX54KJYOw&feature=youtu.be> (opening statement of Chairwoman Virginia Foxx at 23:39) (arguing that employers need a “clear, straightforward test” for determining joint employer status). The Trump Administration’s Wage and Hour Division also recently lamented the “legal uncertainty that obscures workers' and businesses' respective rights and obligations under the FLSA.” *Independent Contractor Status Under the Fair Labor Standards Act*, 85 Fed. Reg. 60600, 60609 (proposed Sept. 25, 2020) (to be codified at 29 C.F.R. pt. 780, 788, 795).
- ⁵⁰ Tanya Goldman & David Weil, *Who's Responsible Here? Establishing Legal Responsibility in the Fissured Workplace* 42 (Institute for New Economic Thinking Working Paper Series No. 114, 2020).
- ⁵¹ *Id.*
- ⁵² Harris & Krueger, *supra* note 22, at 6.
- ⁵³ Goldman & Weil, *supra* note 50, at 42.
- ⁵⁴ Goldman & Weil, *supra* note 50, at 42.
- ⁵⁵ Goldman & Weil, *supra* note 50, at 43.
- ⁵⁶ Charles J. Muhl, *What is an employee? The answer depends on the Federal law*, *Monthly Labor Review* (2002), <http://www.bls.gov/opub/mlr/2002/01/art1full.pdf>.
- ⁵⁷ H.R. 4069, 116th Cong. (2019).
- ⁵⁸ *SuperShuttle*, 367 NLRB No. 75 (2019).
- ⁵⁹ *Compare SuperShuttle*, 367 NLRB No. 75 (finding SuperShuttle drivers to be independent contractors even though they do business in the company's name and are prohibited from using their vehicles for any purpose other than SuperShuttle) with *Roadway Package System, Inc.*, 326 NLRB 842 (1998) (finding drivers to be employees where “the drivers here...do business in the company's name with assistance and guidance from it; they do not ordinarily engage in outside business...[and] they have no substantial proprietary interest beyond their investment in their trucks”).
- ⁶⁰ Goldman & Weil, *supra* note 50, at 17. “Determinations of vicarious liability relate to preventing future injuries, assuring compensation to victims, and spreading losses equitably. That makes sense under tort law, where you want to hold liable the entity in the best position to foresee and prevent certain conduct, which often correlates with retaining control. On the other hand, it may not make sense in protecting labor and employment rights, encouraging collective bargaining and equal employment opportunity and creating incentives for economic entities to internalize the costs of underpaying [or otherwise harming] workers—costs that

would otherwise be borne by society.” *Id.* (quoting *Vazquez v. Jan-Pro Franchising International, Inc.*, 923 F.3d 575, 594–95 (9th Cir. 2019) (internal citations and quotations omitted)).

⁶¹ Goldman & Weil, *supra* note 50, at 18.

⁶² *Id.*

⁶³ *Powell v. United States Cartridge Co.*, 339 U.S. 497, 510-11.

⁶⁴ *Id.* (quoting 29 U.S.C. § 151).

⁶⁵ Goldman and Weil, *supra* note 50, at 43.

⁶⁶ *Tony & Susan Alamo Found. v. Sec’y of Labor*, 471 U.S. 290, 301 (1985) (the test of employment under the FLSA is economic reality); *Goldberg v. Whitaker House Co-op, Inc.*, 366 U.S. 28, 33 (1961).

⁶⁷ Administrator David Weil, *Administrator’s Interpretation No. 2015-1 SUBJECT: The Application of the Fair Labor Standards Act’s “Suffer or Permit” Standard in the Identification of Employees Who Are Misclassified as Independent Contractors* 3 (July 15, 2015).

⁶⁸ *Id.* at 4.

⁶⁹ *Dynamex Operations W. v. Superior Court*, 4 Cal.5th 903, 954 (Cal. 2018).

⁷⁰ *Id.* at 955.

⁷¹ Mass. Gen. Laws Ann. ch. 149, § 148B(a)(1)-(3) (West 2014) (emphasis added).

⁷² *Misclassification of Employees: Examining the Costs to Workers, Businesses, and the Economy: Hearing Before the Subcomm. on Workforce Protections of the H. Comm. on Education and Labor*, 116th Cong. (2019) (written testimony of Ms. Sally Dwokar-Fisher, Attorney, Public Justice Center, at 14) [hereinafter Dwokar-Fisher Testimony].

⁷³ 416 P.3d 1 (Cal. 2018).

⁷⁴ Faiz Siddiqui and Nitasha Tiku, *Uber and Lyft used sneaky tactics to avoid making drivers employees in California, voters say. Now, they’re going national*, Washington Post (Nov. 17, 2020), <https://www.washingtonpost.com/technology/2020/11/17/uber-lyft-prop22-misinformation/>.

⁷⁵ Suhauna Hussain, Johana Bhuiyan, and Ryan Menezes, *How Uber and Lyft persuaded California to vote their way*, Los Angeles Times (Nov. 13, 2020), <https://www.latimes.com/business/technology/story/2020-11-13/how-uber-lyft-doordash-won-proposition-22>.

⁷⁶ *Supra* note 74.

⁷⁷ Rebecca Smith, *Washington State Considers ABC Test for Employee Status*, Nat’l Emp’t Law Project (Jan. 28, 2019), <https://www.nelp.org/blog/washington-state-considers-abc-test-employee-status>.

⁷⁸ *Dynamex Operations W. Inc. v. Superior Court*, 4 Cal. 5th 903 (2018).

⁷⁹ *In re FedEx Ground Package Sys., Inc., Employment Practices Litig.*, 662 F. Supp. 2d 1069, 1079-80 (N.D. Ind. 2009) (extending the “ABC” test in state statute to wage-and-hour context).

⁸⁰ 820 I.L.C.S. 115/2 (2015).

⁸¹ *Hargrove v. Sleepy’s, LLC*, 220 N.J. 289 (2015) (extending the “ABC” test in state statute to wage-and-hour context).

⁸² M.G.L.A. 149 § 148B (1)-(3) (2015).

⁸³ H.R. 2474, Sec. 2(a)(2) (2019); *see also*, *Protecting the Right to Organize Act: Modernizing America’s Labor Laws: Hearing Before the Subcomm. on Health, Employment, Labor, and Pensions of the H. Comm. on Education and Labor*, 116th Cong. (2019) (written testimony of Charlotte Garden, Professor at Seattle University School of Law, at 14).

⁸⁴ “[T]his option would focus for Prongs A and C on activities central to opportunities to make a profit or loss beyond the simple on/off decision of taking or rejecting work. These would include setting price and quality standards for goods or services provided; setting key product or service standards and characteristics; overseeing the marketing and development of products; making expansion and contraction decisions; and making decisions affecting the costs of service provision or production. Being able to directly affect profit or loss in meaningful ways implies that the party has some measure of bargaining power going beyond the decision to say ‘yes’ or ‘no’ to a job or gig. Incorporating that criteria into a modified ABC test more closely links the test to the basis of regulating work in the first place.” Goldman & Weil, *supra* note 50, at 50.

⁸⁵ Goldman & Weil, *supra* note 50, at 50; 42 USCA § 12102(4).

⁸⁶ *The Future of Work: Preserving Worker Protections in the Modern Economy: Hearing Before the Subcomm. on Health, Employment, Labor, and Pensions and the Subcomm. on Workforce Protections of the H. Comm. on Education and Labor*, 116th Cong. (2019) (written testimony of Ms. Rachel Greszler, Research Fellow in Economics, Budget, and Entitlements, The Heritage Foundation, at 2) [hereinafter Greszler Testimony].

⁸⁷ Weil Testimony at 2.

⁸⁸ Subcomm. on Health, Employment, Labor, and Pensions of the H. Comm. On Educ. And Labor, *The Protecting the Right to Organize Act: Modernizing America’s Labor Laws*, YouTube (July 25, 2019), https://www.youtube.com/watch?v=UA3vxNxKi_c&feature=emb_logo (answer from Professor Charlotte Garden at 2:24:33).

⁸⁹ Sarah Holder, *Micromobility, Meet the Teamsters*, Bloomberg CityLab (Dec. 27, 2019),

<https://www.bloomberg.com/news/articles/2019-12-27/why-spin-workers-in-san-francisco-have-unionized>.

⁹⁰ Katie Pyzyk, *San Francisco Area Bike-Share Employees Consider Unionizing*, SmartCities Dive (Mar. 22, 2019), <https://www.smartcitiesdive.com/news/san-francisco-area-bike-share-employees-consider-unionizing/551049/> (noting that the Transport Workers Union of America “unionized bike-share workers [employed by Motivate] in five cities” by the time of the article).

⁹¹ Lyft, Inc., Form S-1/A (filed with Securities and Exchange Commission Mar. 18, 2019)

<https://www.sec.gov/Archives/edgar/data/1759509/000119312519077391/d633517ds1a.htm> (stating that Lyft’s “recently completed acquisition of Motivate resulted in an increase of approximately 200 additional employees”).

⁹² *The Future of Work: Preserving Worker Protections in the Modern Economy: Hearing Before the Subcomm. on Health, Employment, Labor, and Pensions and the Subcomm. on Workforce Protections of the H. Comm. on Education and Labor*, 116th Cong. (2019) (written testimony of Ms. Jessica Beck, co-founder and Chief Operating Officer for Hello Alfred, at 2) [hereinafter Beck Testimony].

⁹³ See e.g., *Expanding Our Community of Household Heroes: A Thank You from Apoorva Mehta, Instacart Founder & CEO* (March 23, 2020), <https://news.instacart.com/expanding-our-community-of-household-heroes-a-thank-you-from-apoorva-mehta-instacart-ceo-3e596b5d05a9>.

⁹⁴ Crawford Testimony at 3.

⁹⁵ See Maya Pinto, Rebecca Smith, & Irene Tung, *Rights At Risk: Gig Companies’ Campaign To Upend Employment As We Know It*, National Employment Law Project (March 29, 2019), <https://www.nelp.org/publication/rights-at-risk-gig-companies-campaign-to-upend-employment-as-we-know-it/>.

⁹⁶ Danielle Leigh and Grace Manthey, *Prop. 22 Rideshare-Driver Measure is Most Expensive in California History*, ABC7 Investigations (Nov. 3, 2020), <https://abc7.com/22-california-prop-2020-ca-what-is/7585005/> (noting that the campaign in favor of the measure received \$188.9 million, while the campaign against the measure received only \$15.9 million); California Secretary of State - CalAccess - Campaign Finance YES ON 22 - Save App-Based Jobs And Services: A Coalition Of On-Demand Drivers And Platforms, Small Businesses, Public Safety And Community Organizations, <http://cal-access.sos.ca.gov/Campaign/Committees/Detail.aspx?id=1422181&session=2019&view=received> (accessed Nov. 12, 2020).

⁹⁷ *California: Prop 22 Strips Gig Workers of Minimum Wage*, Human Rights Watch (Nov. 9, 2020), <https://www.hrw.org/news/2020/11/09/california-prop-22-strips-gig-workers-minimum-wage#>.

⁹⁸ Faiz Siddiqui, *Uber Says It Wants to Bring Laws Like Prop 22 to Other States*, Washington Post (Nov. 5, 2020) <https://www.washingtonpost.com/technology/2020/11/05/uber-prop22/>.

⁹⁹ Lydia DePillis, *For gig economy workers in these states, rights are at risk*, CNN Money (Mar. 14, 2018), <https://money.cnn.com/2018/03/14/news/economy/handy-gig-economy-workers/index.html>.

¹⁰⁰ Employee misclassification occurs when an employer treats a worker who is an employee under a law as anything other than an employee. Because the definition of an employee varies across federal labor and employment laws, determining whether a worker is an employee is dependent on the applicable law. Misclassification takes various forms, including cash wage payments made outside the payroll system (“under the table”), the one-person “franchisee” model, or improper classification of an individual as an independent contractor rather than an employee. For example, janitorial services firms have come under scrutiny for utilizing a one-person franchise model that allows firms to retain control of employment conditions, decrease direct hiring, shift costs onto workers, and require costly franchise fees. See, e.g., Wendy N. Davis, *Do janitorial firms cash in by misclassifying workers as independent contractors?* (September 2014), http://www.abajournal.com/magazine/article/do_ABA_Journal_Article.

¹⁰¹ Weil, *The Fissured Workplace*, *supra* note 11, at 11.

¹⁰² David Weil, *Lots of Employees Get Misclassified as Contractors: Here’s Why It Matters*, Harvard Business Review (July 5, 2107), <https://hbr.org/2017/07/lots-of-employees-get-misclassified-as-contractors-heres-why-it-matters>

¹⁰³ *Misclassification of Employees: Examining the Costs to Workers, Businesses, and the Economy: Hearing Before the Subcomm. on Workforce Protections of the H. Comm. on Education and Labor*, 116th Cong. (2019) (written testimony of Mr. Matt Townsend, President, Signatory Wall and Ceiling Contractors Alliance (SWACCA); CEO of OCP Contractors, Inc., (Holland, OH), at 1) [hereinafter Townsend Testimony].

¹⁰⁴ Carré, *supra* note 48, at 4.

¹⁰⁵ *Id.*; see also, Franco Ordoñez & Mandy Locke, *Immigrants are most susceptible to worker misclassification*, McClatchy Washington Bureau (September 4, 2014), <http://media.mcclatchydc.com/static/features/Contract-to-cheat/Immigrants-most-susceptible-to-worker-misclassification.html?brand=mcd>.

¹⁰⁶ “Because independent contractor misclassification is fraud, its magnitude is not easily documented. Employers do not report workers they misclassify in national surveys, and misclassified workers who may not be aware of their status (until they file a claim for unemployment benefits or workers’ compensation insurance) also do not consistently report their independent contractor status.” Carré, *supra* note 48, at 6.

¹⁰⁷ California, Colorado, Connecticut, Maryland, Minnesota, Nebraska, New Jersey, Wisconsin, and Washington were audited.

¹⁰⁸ Lalith De Silva, et al., *Independent Contractors: Prevalence and Implications for Unemployment Insurance Programs*, Planmatics, Inc., Prepared for the U.S. Department of Labor Employment and Training Administration iii (2000), <http://wdr.doleta.gov/owsdrr/00-5/00-5.pdf>.

¹⁰⁹ Government Accountability Office, *Employee Misclassification: Improved Coordination, Outreach, and Targeting Could Better Ensure Detection and Prevention* 10 (August 2009), <http://www.gao.gov/assets/300/293679.pdf>.

¹¹⁰ Dwokar-Fisher Testimony at 17.

¹¹¹ U.S. GAO, *Employee Misclassification*, *supra* note 109, at 10.

¹¹² Nearly 60 percent of this lost revenue was attributable to misclassified workers failing to pay income taxes. The remainder of losses came from employers' and workers' failure to pay Social Security, Medicare and employers' failure to pay federal unemployment taxes. *Id.*

¹¹³ De Silva, et al., *supra* note 108, at 69.

¹¹⁴ Beck Testimony at 4.

¹¹⁵ Two factors, the nature and degree of the worker's control over the work and the worker's opportunity for profit or loss, are deemed core factors and given undue weight. According to the Department, where the two core factors point toward the same classification, the analysis is virtually complete; an individual who is determining status "may approach the remaining factors and circumstances with skepticism." Independent Contractor Status Under the Fair Labor Standards Act, 85 Fed. Reg. 60600, 60612 (proposed Sept. 25, 2020) (to be codified at 29 C.F.R. pt. 780, 788, 795). The remaining factors are the amount of skill required for the work, the degree of permanence of the working relationship between the worker and the potential employer, and whether the work is part of an integrated unit of production. *Id.* at 60639.

¹¹⁶ The Economic Policy Institutes estimates are based on the assumption that there will be a 5 percent increase in the number of workers who are independent contractors in their main job as a result of this rule, coupled with other conservative estimates regarding the number of independent contractors in their main job main and workers' pay levels. Economic Policy Institute, Comment Letter on Proposed Rule on Independent Contractor Status Under the Fair Labor Standards Act (Oct. 26, 2020).

¹¹⁷ WH Admin. Op., FLSA2019-6 (April 29, 2019), https://www.dol.gov/whd/opinion/FLSA/2019/2019_04_29_06_FLSA.pdf. From the facts presented, it appears to be a company like Handy, a platform that allows users to book workers for home cleanings, moving help, or other general handyman activities. Noam Scheiber, *Labor Dept. Says Workers at a Gig Company Are Contractors*, N.Y. Times, April 29, 2019, <https://www.nytimes.com/2019/04/29/business/economy/gig-economy-workers-contractors.html>. This opinion letter appears to be the DOL's first articulation of how it applies FLSA coverage to gig workers. The opinion letter reached a questionable conclusion based on the facts presented. Acknowledging the FLSA's broad definition of "employ," the opinion letter applied a six-factor test to determine whether a worker is economically dependent on a potential employer. The opinion letter acknowledges that other factors are often used in this determination but does not use any additional factors in its analysis. The opinion letter seemed to ignore relevant facts that demonstrate an employment relationship does in fact exist, including that the company sets workers' pay. While the opinion letter ostensibly just applied to the company seeking the opinion, the issuance of this "expansive" opinion letter that is unlike any "normal opinion letter" signaled to other gig companies how the Trump Administration's WHD would enforce key wage and hour laws against them.

¹¹⁸ In 2011, the DOL launched a Misclassification Initiative to expand enforcement through increased investigations and prosecutions, as well as by providing grants to state workforce agencies to increase their enforcement efforts. News Release, U.S. Department of Labor, *Secretary Hilda L. Solis presents US Department of Labor budget request for fiscal year 2011* (February 1, 2010), <https://www.dol.gov/newsroom/releases/oasam/oasam20100201>. The DOL also entered into memorandums of understanding (MOUs) with more than 40 states and the District of Columbia to facilitate the state-federal agency information sharing, training, and cooperative investigations needed to identify and detect firms misclassifying workers. U.S. Department of Labor, Wage and Hour Division, *State Enforcement and Outreach Coordination*, <https://www.dol.gov/whd/state/statecoordination.htm>.

¹¹⁹ 29 U.S.C. § 152(3).

¹²⁰ *NLRB v. United Insurance Co. of America*, 390 U.S. 254, 258 (1968).

¹²¹ See *FedEx Home Delivery v. NLRB*, 849 F.3d 1123, 1125 (D.C. Cir. 2017) ("The Restatement (Second) of Agency provides a non-exhaustive list of ten factors to consider in deciding whether a worker is an independent contractor: (1) the extent of control the employer has over the work; (2) whether the worker is engaged in a distinct occupation or business; (3) whether the kind of occupation is usually done under the direction of the employer or by a specialist without supervision; (4) the skill required in the particular occupation; (5) whether the employer or worker supplies the instrumentalities, tools, and the place of work for the person doing the work; (6) the length of time for which the person is employed; (7) whether the employer pays by the time or by the job; (8) whether the worker's work is a part of the regular business of the employer; (9) whether the employer and worker believe they are creating an employer-employee relationship; and (10) whether the employer is or is not in business.") (internal citations omitted).

¹²² 367 NLRB No. 75.

¹²³ *Id.*, slip op. 25 (McFerran, dissenting) ("It is hard to imagine, for example, a company engaging a skilled tradesman [like a plumber], with his own business, to make repairs—but only if he agrees not to do similar repair work for a competing company.")

¹²⁴ *Uber Technologies, Inc.*, NLRB Advice Memorandum, Cases 13-CA-163062 et al. (Apr. 16, 2019).

- ¹²⁵ *Id.*
- ¹²⁶ Lawrence Mishel and Celine McNicholas, *Uber Drivers Are Not Entrepreneurs*, Economic Policy Institute (Sept. 20, 2019) <https://www.epi.org/publication/uber-drivers-are-not-entrepreneurs-nlrb-general-counsel-ignores-the-realities-of-driving-for-uber/>.
- ¹²⁷ *Id.*
- ¹²⁸ See *San Diego Building Trades Council v. Garmon*, 359 U.S. 236 (1959).
- ¹²⁹ Subcomm. on Health, Employment, Labor, and Pensions of the H. Comm. on Educ. And Labor, *Protecting the Right to Organize Act: Modernizing America's Labor Laws*, YouTube (July 25, 2019) https://www.youtube.com/watch?v=UA3vxNxKi_c (answer of Richard Griffin at 52:03).
- ¹³⁰ *Velox Express, Inc.*, 368 NLRB No. 61 (2019).
- ¹³¹ H.R. 2474 Sec. 2(d)(2019).
- ¹³² Goldman and Weil, *supra* note 50, at 15.
- ¹³³ Joint Employer Status Under the Fair Labor Standards Act, 85 Fed. Reg. 2820 (Jan. 16, 2020) (to be codified at 29 C.F.R. §§ 791.1-791.3).
- ¹³⁴ The final rule states four factors that are relevant to the determination of joint employment status. Specifically, the employer must (1) hire and fire the employee, (2) supervise and control the employee's work schedules or conditions of employment, (3) determine the employee's rate and method of payment, and (4) maintain the employee's employment records. The DOL notes that additional factors may be considered but only if these factors are indicative of the employer exercising significant control over the terms and conditions of the employee's work or otherwise acting directly or indirectly in the interest of the employer in relation to the employee. Joint Employer Status Under the FLSA, 85 Fed. Reg. at 2859. The Department's proposed factors are similar, but not identical to, the four factors used in *Bonnette v. California Health & Welfare Agency*, 704 F.2d 1465 (9th Cir. 1983).
- ¹³⁵ *New York v. Scalia*, S.D.N.Y., No. 20-01689 (2020); Celine McNicholas and Heidi Shierholz, *EPI comments regarding the Department of Labor's proposed joint-employer standard*, Economic Policy Institute (June 25, 2019), <https://www.epi.org/publication/epi-comments-regarding-the-department-of-labors-proposed-joint-employer-standard/>
- ¹³⁶ Ben Penn, *Labor Department Appealing Decision Nixing Joint-Employer Test*, Bloomberg Law (Nov. 6, 2020), <https://news.bloomberglaw.com/daily-labor-report/labor-department-appealing-decision-nixing-joint-employer-test>
- ¹³⁷ Subcomms. on Workforce Protections and on Health, Employment, Labor, and Pensions of the H. Comm. On Educ. And Labor, *The Future of Work: Preserving Worker Protections in the Modern Economy*, YouTube (Oct. 23, 2019) (answer from Professor Brishen Rogers at 42:45).
- ¹³⁸ *TLI, Inc.*, 271 NLRB 748 (1984); *Laerco Transportation*, 269 NLRB 324 (1984).
- ¹³⁹ *Browning-Ferris Indus. v. NLRB*, 911 F.3d 1195 (D.C. Cir. 2018).
- ¹⁴⁰ *Joint Employer Status Under the National Labor Relations Act*, 85 Fed. Reg. 11184 (Feb. 26, 2020), *codified at* 29 C.F.R. Part 103.
- ¹⁴¹ *Id.* at 11,205 (limiting the essential terms and conditions of work to "wages, benefits, hours of work, hiring, discharge, discipline, supervision, and direction").
- ¹⁴² Bill Chappell, *Coronavirus: COVID-19 Is Now Officially a Pandemic, WHO Says*, NPR (Mar. 11, 2020) <https://www.npr.org/sections/goatsandsoda/2020/03/11/814474930/coronavirus-covid-19-is-now-officially-a-pandemic-who-says/>.
- ¹⁴³ Press Release, Occupational Safety and Health Administration, U.S. Department of Labor, OSHA launches initiative to protect temporary workers (Apr. 29, 2013), <https://www.osha.gov/news/newsreleases/national/04292013>.
- ¹⁴⁴ Occupational Safety and Health Administration, U.S. Department of Labor, Recommended Practices: Protecting Temporary Workers, <https://www.osha.gov/Publications/OSHA3735.pdf>.
- ¹⁴⁵ Occupational Safety and Health Administration, U.S. Department of Labor, Policy Background on the Temporary Worker Initiative (July 15, 2014), https://www.osha.gov/temp_workers/Policy_Background_on_the_Temporary_Worker_Initiative.html.
- ¹⁴⁶ Occupational Safety and Health Administration, U.S. Department of Labor, Recommended Practices for Safety and Health Programs (2014), <https://www.osha.gov/shpguidelines/communication.html>.
- ¹⁴⁷ Occupational Safety and Health Administration, U.S. Department of Labor, Directive CPL 2-0.124, Multi-Employer Citation Policy (1999), https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_id=2024&p_table=DIRECTIVES
- ¹⁴⁸ Harris & Krueger, *supra* note 22, at 5.
- ¹⁴⁹ *Id.* at 6.
- ¹⁵⁰ *Id.* at 6-7.
- ¹⁵¹ *Id.* at 2.
- ¹⁵² *Id.*
- ¹⁵³ *Id.* at 13.
- ¹⁵⁴ Ross Eisenbrey & Lawrence Mishel, *Uber business model does not justify a new 'independent worker' category*, Economic Policy Institute (March 17, 2016), <https://www.epi.org/publication/uber-business-model-does-not-justify-a-new-independent-worker-category/>.
- ¹⁵⁵ *Id.*

¹⁵⁶ WH Admin. Op., FLSA2008-8NA (May 23, 2008).

¹⁵⁷ Eisenbrey and Mishel, *Uber business model*, *supra* note 154.

¹⁵⁸ Weil Testimony at 10 n. 37.

¹⁵⁹ Goldman & Weil, *supra* note 50, at 29.

¹⁶⁰ *Id.*

¹⁶¹ *Id.* at 30.

¹⁶² *Id.*

¹⁶³ *Id.*

¹⁶⁴ *Id.*

¹⁶⁵ *Id.*

¹⁶⁶ *Id.* at 51.

¹⁶⁷ *Id.*

¹⁶⁸ *Id.*

¹⁶⁹ 29 U.S.C. § 159(b). Employees seek union representation through voluntary recognition by their employer or through elections conducted by the NLRB, and section 9(b) of the NLRA directs the NLRB to “decide in each case whether, in order to assure to employees the fullest freedom in exercising the rights guaranteed by this subchapter, the unit appropriate for the purposes of collective bargaining shall be the employer unit, craft unit, plant unit, or subdivision thereof.”

¹⁷⁰ Rogers Testimony at 2 (quoting *Kroger Co.*, 148 NLRB 569, 575 (1964) (Members Leedom and Jenkins, dissenting)).

¹⁷¹ Bureau of Labor Statistics, *Table 3. Union affiliation of employed wage and salary workers by occupation and industry* (Jan. 22, 2020), <https://www.bls.gov/news.release/union2.t03.htm>.

¹⁷² Thomas Kochan, Duanyi Yang, Erin Kelly, and Will Kimball, *Who Wants to Join a Union? A Growing Number of Americans*, MIT (Sept. 2, 2018), <https://gcgi.mit.edu/whats-new/blog/who-wants-join-union-growing-number-americans>.

¹⁷³ “One reason is that centralized bargaining takes wages out of competition. This inherently strengthens unions, since they are not constantly fighting to protect their gains. Another reason is that bargaining in such countries is often a tripartite or quasi-public process rather than a private ordering process. The government is sometimes involved in the negotiations; and therefore may press employers for generous wages during prosperous times and press unions to mitigate wage demands during downturns.” Rogers Testimony at 7.

¹⁷⁴ Rogers Testimony at 7 (citing Jelle Viser & Daniele Cecchi, *Inequality and the Labor Market: Unions*, in *The Oxford Handbook of Economic Inequality* (Nolan et al., eds., 2011); Peter A. Hall & David Soskice, *An Introduction to Varieties of Capitalism*, *Varieties of Capitalism* 21-22 (2001)). The *Clean Slate for Worker Power*, a 2020 report calling for a comprehensive restructuring of American labor law, proposes that the Secretary of Labor be empowered to enact panels in a given sector, represented by bargaining councils on behalf of both the workers and the employers. Sharon Block, Benjamin Sachs, et al., *Clean Slate for Worker Power: Building a Just Economy and Democracy*, Harvard Law School Labor and Worklife Program (Jan. 23, 2020), https://assets.website-files.com/5ddc262b91f2a95f326520bd/5e3096b9feb8524936752fe0_CleanSlate_SinglePages_ForWeb_noemptyspace.pdf. In this proposal, “any worker organization that meets the statutory threshold of 5,000 members of 10 percent of the sector...would be entitled to its proportional share of seats and votes on the council.” *Id.* at 41. “Any employer or employer association would be entitled to proportional representation on the employers’ bargaining counsel if it employs or represents employers with 5,000 workers in the sector or 10 percent of workers in the sector, whichever is lower.” *Id.* at 42. This proposal could dramatically expand the benefits of collective bargaining to millions of workers who struggle under current labor laws.

¹⁷⁵ For example, in Germany, agreements may be extended to cover a sector regionally or nationally, and in the Scandinavian countries, sectoral bargaining is achieved through negotiations between employer associations and representatives from labor. Rogers Testimony at 7 (internal citations omitted).

¹⁷⁶ See generally, Organisation for Economic Co-operation and Development, “Chapter 4: Collective bargaining in a changing world of work,” in *OECD Employment Outlook 2017* (Paris, France: 2017), https://www.oecd-ilibrary.org/sites/empl_outlook-2017-en/1/2/4/index.html?itemId=/content/publication/empl_outlook-2017-en&csp=55459d499ec59fbfddc806ba1252bdeb&itemIGO=oecd&itemContentType=book#chap00004. This memo discusses some of the most prominent types of sectoral bargaining but is not a comprehensive review of every available sectoral bargaining model.

¹⁷⁷ Rogers Testimony at 11-12; Kate Andrias & Brishen Rogers, *Rebuilding Worker Voice in Today’s Economy* 27 (2018), <https://rooseveltinstitute.org/wp-content/uploads/2018/07/Rebuilding-Worker-Voices-final-2.pdf>.

¹⁷⁸ Kate Andrias, *The New Labor Law*, 126 *Yale L. J.* 2, 47, 61 n.319 (2004).

¹⁷⁹ William E. Forbath & Brishen Rogers, *A New Type of Labor Law for a New Type of Worker*, *The New York Times* (Sept. 4, 2017), <https://www.nytimes.com/2017/09/04/opinion/labor-laws-workers.html>.

¹⁸⁰ Rogers Testimony at 7; Kate Andrias & Brishen Rogers, *Rebuilding Worker Voice in Today’s Economy* 27 (2018), <https://rooseveltinstitute.org/wp-content/uploads/2020/07/RI-Rebuilding-Worker-Voice-201808.pdf>.

¹⁸¹ Matthew Dimik, *Labor Law, New Governance, and the Ghent System*, 90 N.C. L. Rev. 319 (2012); see also David Madland & Malkie Wall, “American Ghent,” Center for American Progress (Sept. 18, 2019), <https://www.americanprogress.org/issues/economy/reports/2019/09/18/474690/american-ghent/>.

¹⁸² Josh Eidelson, *Election Day Gave Uber and Lyft a Whole New Road Map*, Bloomberg Law (Nov. 8, 2020), <https://news.bloomberglaw.com/daily-labor-report/election-day-gave-uber-and-lyft-a-whole-new-road-map>.

¹⁸³ “Protect App-Based Drivers and Services Ballot Initiative,” https://protectdriversandservices.com/wp-content/uploads/2020/02/Protect-App-Based-Drivers-Services-Act_Annotated.pdf.

¹⁸⁴ Rogers Testimony at 15.

¹⁸⁵ Ruth Berins Collier, V.B. Dubal, & Christopher Carter, *Labor Platforms and Gig Work: The Failure to Regulate* (IRLE Working Paper No. 106-17, 2017), <https://www.irle.berkeley.edu/files/2017/Labor-Platforms-and-Gig-Work.pdf>.

¹⁸⁶ David Rolf, Shelby Clark & Corrie Watterson Bryant, *Portable Benefits in the 21st Century*, Aspen Future of Work Initiative (2016), <https://www.aspeninstitute.org/publications/portable-benefits-21st-century/>.

¹⁸⁷ Rogers Testimony at 15.

¹⁸⁸ Sharon Block, *A Missed Opportunity: Worker Voice in Portable Benefits* (June 2017), <https://www.onlabor.org/a-missed-opportunity-worker-voice-in-portable-benefits/>.

¹⁸⁹ Weil Testimony at 10.

¹⁹⁰ See John Maynard Keynes, *Economic Possibilities for our Grandchildren*, in *Essays in Persuasion* 358-73 (1963), <http://www.econ.yale.edu/smith/econ116a/keynes1.pdf>

¹⁹¹ Economic Policy Institute, *The Productivity-Pay Gap* (July 2019), <https://www.epi.org/productivity-pay-gap/>.

¹⁹² Pew Research Center, *The State of American Jobs 19* (2016), <https://www.pewsocialtrends.org/2016/10/06/the-state-of-american-jobs/>

¹⁹³ Economic Policy Institute, *The Productivity-Pay Gap* (July 2019), <https://www.epi.org/productivity-pay-gap/>.

¹⁹⁴ See, Kapo Wong, Alan H. S. Chan, and S. C. Ngan, *The Effect of Long Working Hours and Overtime on Occupational Health: A Meta-Analysis of Evidence from 1998 to 2018*, 16(12) *Int J Environ Res Public Health* 2102 (June 2019), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6617405/>

¹⁹⁵ Sangheon Lee, Deirdre McCann and Jon C. Messenger, *Working time around the world: Trends in working hours, laws and policies in a global comparative perspective*, International Labour Organization (2007), https://www.ilo.org/wcmsp5/groups/public/@dgreports/@dcomm/@publ/documents/publication/wcms_104895.pdf

¹⁹⁶ 29 U.S.C. § 207(a).

¹⁹⁷ For example, *the Restoring Overtime Pay Act*, H.R. 3197, introduced by Representative Mark Takano, would restore the purpose of the “white collar” overtime exemption by strengthening the salary level under which most salaried workers are automatically eligible for overtime pay. *The Fairness for Farm Workers Act*, H.R. 1080, introduced by Representative Raul Grijalva, would eliminate the racist exclusion of agriculture workers from overtime protections.

¹⁹⁸ See, e.g., Alex Soojung-Kim Pang, *To Safely Reopen, Make the Workweek Shorter. Then Keep It Shorter*, *The Atlantic* (April 30, 2020),

<https://www.theatlantic.com/ideas/archive/2020/04/safely-reopen-make-workweek-shorter/610906/>; Yuki Noguchi, *Enjoy The Extra Day Off! More Bosses Give 4-Day Workweek A Try*, *Morning Edition, NPR* (February 21, 2020 5:52 AM ET),

<https://www.npr.org/2020/02/21/807133509/enjoy-the-extra-day-off-more-bosses-give-4-day-workweek-a-try>; Martha C. White, *A four-day work week might be exactly what the U.S. — and its economy — needs right now*, *NBC News* (June 12, 2020, 4:23 PM EDT), <https://www.nbcnews.com/business/business-news/four-day-work-week-might-be-exactly-what-u-s-n1229631>

¹⁹⁹ Wendy R. Boswell & Julie Olson-Buchanan, *The Use of Communication Technologies After Hours: The Role of Work Attitudes and Work-Life Conflict*, 33(4) *Journal of Management* 592, 593-594 (2007), https://www.researchgate.net/publication/247570231_The_Use_of_Communication_Technologies_After_Hours_The_Role_of_Work_Attitudes_and_Work-Life_Conflict

²⁰⁰ International Labour Organization, *Work for a brighter future – Global Commission on the Future of Work*, 40 (2019), https://www.ilo.org/global/topics/future-of-work/publications/WCMS_662410/lang--en/index.htm.

²⁰¹ According to the Federal Reserve, “One-quarter of employees have a varying work schedule, including 17 percent whose schedule varies based on their employer’s needs. Of the latter group of people who do not set their schedule, one-third say they are not doing okay financially...versus one-fifth of employees with stable schedules or varying schedules that they control.” International Labour Organization, *Work for a brighter future*, supra note 200, at 40.

²⁰² International Labour Organization, *Work for a brighter future*, supra note 200, at 40.

²⁰³ International Labour Organization, *Work for a brighter future*, supra note 200, at 40.

²⁰⁴ International Labour Organization, *Work for a brighter future*, supra note 200, at 40.

²⁰⁵ Bureau of Labor Statistics, supra note 2.

²⁰⁶ Gabriel Chodorow-Reich & John Coglianese; Andrew Van Dunn, supra note 7.

²⁰⁷ Madeline Ngo, *Small businesses are quietly dying by thousands during the coronavirus pandemic*, Chicago Tribune (Aug. 12, 2020), <https://www.chicagotribune.com/business/ct-biz-coronavirus-small-business-failure-20200812-6u5ju4hvcnhv3cbnvslesuvnq-story.html>.

²⁰⁸ For example, in the single month of September 2020, roughly 4.7 million workers quit, were laid off or discharged, or otherwise separated from their job. *Job Openings and Labor Turnover Summary*, Bureau of Labor Statistics (Nov. 10, 2020), <https://www.bls.gov/news.release/jolts.nr0.htm>.

²⁰⁹ Sarah A. Donovan & Marc Labonte, *Long-Tenured Displaced Workers*, Congressional Research Service (Sept. 19, 2018), <https://fas.org/sgp/crs/misc/IF10984.pdf>.

²¹⁰ *Displaced Workers Summary*, Bureau of Labor Statistics (Aug. 27, 2020), <https://www.bls.gov/news.release/disp.nr0.htm>.

²¹¹ Sarah A. Donovan & Marc Labonte, *supra* note 209.

²¹² Bureau of Labor Statistics, *supra* note 208.

²¹³ The 2007-2009 period saw the greatest number of displaced workers in recent history due to the Great Recession. Just prior to the Great Recession, the BLS reported that 3.6 million long-tenured workers were displaced between 2005 and 2007. Sarah A. Donovan & Marc Labonte, *supra* note 209.

²¹⁴ The 2007-2009 period saw the greatest number of displaced workers in recent history due to the Great Recession. Sarah A. Donovan & Marc Labonte, *supra* note 209.

²¹⁵ Bureau of Labor Statistics, *supra* note 208.

²¹⁶ Jim Edwards, *Unemployment is low only because 'involuntary' part-time work is high*, Business Insider (Jan. 27, 2019), <https://www.businessinsider.com/unemployment-vs-involuntary-part-time-work-underemployment-2019-1>; Rob Valletta, *Involuntary Part-Time Work: Yes, It's Here to Stay*, SF Fed Blog (Apr. 11, 2018), frbsf.org/our-district/about/sf-fed-blog/involuntary-part-time-work-here-to-stay/.

²¹⁷ U.S. Bureau of Labor Statistics, *Employment Level: Part-Time for Economic Reasons, All Industries [LNS12032194]*, retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/LNS12032194> (accessed November 14, 2020).

²¹⁸ Lower-paid workers tend to cycle in and out of employment at a much greater rate than other workers, and are less likely to be captured in BLS measurements of displaced workers. According to the Economic Policy Institute, “the monthly rate of churn into and out of employment for low-wage workers is roughly twice as high as it is for the typical worker in the middle of the wage distribution.” David Cooper, Lawrence Mishel, and Ben Zipperer, *Bold increases in the minimum wage should be evaluated for the benefits of raising low-wage workers' total earnings*, Economic Policy Institute (Apr. 18, 2018), <https://www.epi.org/publication/bold-increases-in-the-minimum-wage-should-be-evaluated-for-the-benefits-of-raising-low-wage-workers-total-earnings-critics-who-cite-claims-of-job-loss-are-using-a-distorted-frame/>.

²¹⁹ Marcela Escobari, Ian Seyal, and Michael J. Meaney, *Realism about Reskilling*, The Brookings Institution (Nov. 7, 2019), <https://www.brookings.edu/research/realism-about-reskilling/>.

²²⁰ Michele Chen, *“The Robots Are Coming for Our Jobs,”* The Nation (Nov. 27, 2019), <https://www.thenation.com/article/work-automation-jobs/>.

²²¹ Gabriel Chodorow-Reich & John Coglianesi; Andrew Van Dunn, *supra* note 206.

²²² Raj Chetty, John Friedman, Nathaniel Hendren, Michael Stepner, & The Opportunity Insights Team, *The Economic Impacts of COVID-19: Evidence from a New Public Database Built Using Private Sector Data* (Opportunity Insights, Working Paper, 2020), <https://opportunityinsights.org/paper/tracker/>.

²²³ Long-term unemployment is defined as unemployment longer than 26 weeks. U.S. Bureau of Labor Statistics, *Number Unemployed for 27 Weeks & Over [UEMP27OV]*, retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/UEMP27OV> (accessed November 14, 2020).

²²⁴ Trade produces “winners” and “losers.” Beneficial trade entails that the “winners” from trade be able to compensate the “losers” using part of the value of the benefits they receive. U.S. consumers have greatly benefited from lower-cost goods due to trade, which makes a higher standard of living more affordable and accessible. However, compensation of the “losers”—in this case, workers who lose their jobs as a result of new trade relationships—is far from automatic, and U.S. policy has failed to adequately ensure that this occurs. While the Trade Adjustment Assistance (TAA) Program for trade-affected workers is arguably the most adequate U.S. program displaced workers, it has significant shortcomings, including that it likely does not reach the vast majority of trade-affected workers, especially if counting those who are indirectly affected. See, for example, Jennifer Mason & Mireya Solís, *Globalization on the cheap: Why the U.S. lost its way on trade*, The Brookings Institution (Aug. 28, 2017), <https://www.brookings.edu/blog/order-from-chaos/2017/08/28/globalization-on-the-cheap-why-the-u-s-lost-its-way-on-trade/>.

²²⁵ David H. Autor, David Dorn, & Gordon H. Hanson, *The China Shock: Learning from Labor Market Adjustment to Large Changes in Trade*, Nat'l Bureau of Econ. Rsch., Working Paper No. 21906 (2016), <https://www.nber.org/papers/w21906>.

²²⁶ *Frequently Asked Questions on Climate Change and Jobs*, International Labor Organization, https://www.ilo.org/global/topics/green-jobs/WCMS_371589/lang--en/index.htm (last accessed Nov. 2019).

²²⁷ *Solidarity for Climate Action*, Blue-Green Alliance, <https://www.bluegreenalliance.org/work-issue/solidarity-for-climate-action/> (last accessed Nov. 2019).

²²⁸ Work by Massachusetts Institute of Technology and Carnegie Mellon researchers demonstrates that today's "jobs" are bundles of tasks, and that automation affects work at the individual task level, not the job level. Thus, the skills required to perform tasks that are "in demand" by employers will change in the future, but replacement of entire jobs will likely remain much less common. One often-cited historical example is that of bank tellers, whose ranks have doubled since the introduction of the automatic teller machine (ATM). Automation of more straightforward tasks enabled human tellers to take on more complex tasks; the resulting productivity gains helped the banking industry expand, increasing overall labor demand for tellers. See Erik Brynjolfsson, Tom Mitchell, & Daniel Rock, *What Can Machines Learn and What Does It Mean for Occupations and the Economy*, AEA Papers and Proceedings 108, 43 (2018); James Manyika et al., *Jobs lost, jobs gained: What the future of work will mean for jobs, skills, and wages*, McKinsey Global Institute (Nov. 28, 2017), <https://www.mckinsey.com/featured-insights/future-of-work/jobs-lost-jobs-gained-what-the-future-of-work-will-mean-for-jobs-skills-and-wages>; Mark MacCarthy, *Automation Often Creates Jobs — Just Ask Bank Tellers*, Medium (Jan. 5, 2017), <https://medium.com/@maccartm/automation-often-creates-jobs-just-ask-bank-tellers-ebd16acf3632>.

²²⁹ A 2017 McKinsey & Company study confirms that "[v]ery few occupations—less than 5 percent—consist of activities that can be fully automated," even though in about 6 in 10 jobs, "at least one-third of constituent activities could be automated." James Manyika et al., *supra* note 228.

²³⁰ See, for example, *The Future of Jobs Report 2018*, World Economic Forum (Sept. 2018), http://www3.weforum.org/docs/WEF_Future_of_Jobs_2018.pdf; William Rogers III & Richard Freeman, *How Robots Are Beginning to Affect Workers and Their Wages*, The Century Foundation (Oct. 17, 2019), <https://tcf.org/content/report/robots-beginning-affect-workers-wages/>; Daniel Susskind, *3 myths about the future of work (and why they're not true)*, TED Talks (Dec. 2017), https://www.ted.com/talks/daniel_susskind_3_myths_about_the_future_of_work_and_why_they_re_not_true?language=en.

²³¹ *The Future of Work: Ensuring Workers are Competitive in a Rapidly Changing Economy*: Before the H. Comm. on Educ. and Labor, 116th Cong. (2019) (written testimony of Brad Markell, Executive Director, AFL-CIO Working for America Institute at 5) [hereinafter Markell Testimony].

²³² *Id.*

²³³ *1 in 4 US adults live with a disability*, The Centers for Disease Control and Prevention (Aug. 16, 2018), <https://www.cdc.gov/media/releases/2018/p0816-disability.html>.

²³⁴ *Adding Inequality to Injury*, Occupational Safety and Health Administration (June 2015), https://www.osha.gov/Publications/inequality_michaels_june2015.pdf.

²³⁵ Azza Altiraifi, *Advancing Economic Security for People With Disabilities*, Center for American Progress (July 26, 2019), <https://www.americanprogress.org/issues/disability/reports/2019/07/26/472686/advancing-economic-security-people-disabilities/>.

²³⁶ See, for example, Mason Ameri, Mohammad Ali, Lisa Schur, & Douglas Kruse, *Disability and the Unionized Workplace* (IZA Institute of Labor Econ., Discussion Paper No. 12258, 2019), <http://ftp.iza.org/dp12258.pdf>.

²³⁷ Sarah A. Donovan & Marc Labonte, *supra* note 209.

²³⁸ Steven Davis and Till Von Wachter, *Recessions and the Costs of Job Loss* (2 Brookings Papers on Econ. Activity 1 (2011), https://www.brookings.edu/wp-content/uploads/2011/09/2011b_bpea_davis.pdf). The authors find that whereas displaced in mass-layoff events when the national unemployment rate is less than 6 percent lose an average of 1.4 years of predisplacement earnings, similar men displaced when the unemployment rate is greater than 8 percent lose 2.8 years of predisplacement earnings—twice as much.

²³⁹ See, for example, Susan Lund et al., *The future of work in America: People and places, today and tomorrow*, McKinsey Global Institute (July 2019), <https://www.mckinsey.com/featured-insights/future-of-work/the-future-of-work-in-america-people-and-places-today-and-tomorrow>.

²⁴⁰ For example, a 2019 Federal Reserve study showed Black workers were equally likely as white workers to have "voluntarily left a job" yet were two to three times more likely to have been "laid off or fired from a job." Research by the Joint Center for Political and Economic Studies and (separately) McKinsey Global Institute find that Latinx and Black workers are concentrated in occupations such as cashiers, cooks, and food preparation that are most likely to be disrupted by automation in the coming years. Heidi Kaplan, *Examining the Role of Job Separations in Black-White Labor Market Disparities*, 2019 Federal Reserve System (2019), <https://www.investinwork.org/-/media/Files/reports/examining-the-role-of-job-separations-in-black-white-labor-market-disparities.pdf?la=en&>; Kristen Broady, *Race & Jobs at High Risk to Automation*, Joint Center for Political and Economic Studies (Dec. 18, 2017), <https://jointcenter.org/blog/race-jobs-high-risk-automation>.

²⁴¹ The Institute for Women's Policy Research finds that women more likely than men to be concentrated in roles most exposed to technological change, such as cashiers, secretaries, and bookkeeping clerks. New America confirms that while public narrative has focused on men and male-dominated industries such as manufacturing and transportation, going forward automation will likely have greater impacts on women in the workplace. Ariane Hegewisch, Chandra Childers, & Heidi Hartmann, *Women, Automation*,

and the Future of Work, Institute for Women’s Policy Research (Mar. 13, 2019). Molly Kinder, *The Future of Work for Women, Technology, Automation & the Overlooked Workforce*, New America (Feb. 25, 2019), <https://www.newamerica.org/work-workers-technology/shiftlabs/blog/future-work-women/>.

²⁴² See, for example, Elise Gould & Valerie Wilson, *Black workers face two of the most lethal preexisting conditions for coronavirus – racism and economic inequality*, Economic Policy Institute (June 1, 2020), <https://www.epi.org/publication/black-workers-covid/>; Julie Kashen, Sarah Jane Glynn, & Amanda Novello, *How COVID-19 Sent Women’s Workforce Progress Backward, Congress’ \$64.5 Billion Mistake*, Center for American Progress (Oct. 30, 2020), <https://www.americanprogress.org/issues/women/reports/2020/10/30/492582/covid-19-sent-womens-workforce-progress-backward/>; Kim Parker, Rachel Minkin, & Jesse Bennett, *Economic Fallout From COVID-19 Continues To Hit Lower-Income Americans the Hardest*, Pew Research Center (Sept. 24, 2020), <https://www.pewsocialtrends.org/2020/09/24/economic-fallout-from-covid-19-continues-to-hit-lower-income-americans-the-hardest/>.

²⁴³ *The Future of Work: Ensuring Workers are Competitive in a Rapidly Changing Economy*: Before the H. Comm. on Educ. and Labor, 116th Cong. (2019) (written testimony of Seth D. Harris, Former Acting U.S. Secretary of Labor and Deputy U.S. Secretary of Labor at 3) [hereinafter Harris Testimony], citing Heidi Kaplan, “Examining the Role of Job Separations in Black-White Labor Market Disparities,” 2019 Federal Reserve System, available at <https://www.investinwork.org/-/media/Files/reports/examining-the-role-of-job-separations-in-black-white-labor-market-disparities.pdf?la=en&>.

²⁴⁴ Kristen Broady, *supra* note 240.

²⁴⁵ William Rogers III and Richard Freeman, *supra* note 230.

²⁴⁶ Cathleen Kelly, Kristina Costa, & Sarah Edelman, *Safe, Strong, and Just Rebuilding After Hurricanes Harvey, Irma, and Maria*, Center for American Progress (Oct. 3, 2017), <https://www.americanprogress.org/issues/green/reports/2017/10/03/440134/safe-strong-just-rebuilding-hurricanes-harvey-irma-maria/>.

²⁴⁷ Kristen Broady, *supra* note 240.

²⁴⁸ Richard W. Johnson & Corina Mommaerts, *Age Differences in Job Loss, Job Search, and Reemployment* (The Urban Institute Program on Retirement Policy, Discussion Paper 11-01, 2011), <https://www.urban.org/sites/default/files/publication/27086/412284-Age-Differences-in-Job-Loss-Job-Search-and-Reemployment.PDF>.

²⁴⁹ In fact, the Urban Institute continues, “[f]actoring in workers who separated because of poor health, family caregiving responsibilities, or other personal reasons, we find that about two thirds of workers involuntarily separated from their jobs at some point after age 50.” Richard W. Johnson & Peter Gosselin, *How Secure is Employment at Older Ages?*, The Urban Institute (Dec. 2018), https://www.urban.org/research/publication/how-secure-employment-older-ages/view/full_report/; Eric Levitz, *Jobs, Jobs Everywhere, But Most of Them Kind of Suck*, New York Magazine (Dec. 6, 2019), <https://nymag.com/intelligencer/2019/12/november-jobs-report-analysis-wage-growth-unemployment.html>.

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²⁵² See Institute for Women’s Policy Research, *supra* note 241.

²⁵³ Markell Testimony at 3.

²⁵⁴ Bureau of Labor Statistics, Civilian Labor Force Level - Women [LNS11000002], retrieved from FRED, Federal Reserve Bank of St. Louis, <https://fred.stlouisfed.org/series/LNS11000002> (Nov. 14, 2020).

²⁵⁵ *Id.*

²⁵⁶ Didem Tuzemen, *Job Polarization and the Natural Rate of Unemployment in the United States* (Kansas City Federal Reserve, Working Paper 18-03, 2018), <https://www.kansascityfed.org/~/media/files/publicat/reswkpap/pdf/rwp18-03.pdf>.

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²⁵⁸ Harris Testimony at 4.

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²⁶⁸ Board of Governors, *Report on the Economic Well-Being of U.S. Households in 2018*, Federal Reserve System (May 2019), <https://www.federalreserve.gov/publications/2019-economic-well-being-of-us-households-in-2018-preface.htm>.

²⁶⁹ Cameron Huddleston, *Survey: 69% of Americans Have Less Than \$1,000 in Savings*, Go Banking Rates (Dec. 16, 2019), <https://www.gobankingrates.com/saving-money/savings-advice/americans-have-less-than-1000-in-savings/>

²⁷⁰ Local workforce development boards may limit the amount of workers' ITAs, whether across the board or based on individual circumstances. David Bradley, *The Workforce Innovation and Opportunity Act and the One-Stop Delivery System*, Congressional Research Service (Oct. 27, 2015), <https://fas.org/sgp/crs/misc/R44252.pdf>. In 2018, WIOA expenditures on training—much of which was made through ITAs—totaled about \$306 million for adults, \$182 million for dislocated workers, and \$132 million for youth. U.S. Department of Labor, *Program Year 2018 WIOA Performance Report*, <https://www.doleta.gov/Performance/Results/AnnualReports/PY2018/PY-2018-WIOA-National-Performance-Summary-3.27.2020.pdf>.

²⁷¹ *Getting to the Finish Line: The Availability and Impact of Supportive Services in the Workforce Development System*, Institute for Women's Policy Research (Feb. 28, 2017), <https://iwpr.org/iwpr-general/getting-to-the-finish-line-the-availability-and-impact-of-supportive-services-in-the-workforce-development-system/>.

²⁷² "Between 1996 and 2008, the share of workers receiving employer-sponsored training fell by more than 40 percent, according to 2015 research by the president's Council of Economic Advisers." Angela Hanks & David Madland, *Better Training and Better Jobs*, Center for American Progress (Feb. 22, 2018), <https://www.americanprogress.org/issues/economy/reports/2018/02/22/447115/better-training-better-jobs/>.

²⁷³ James T. Austin, Gail O. Mellow, Mitch Rosin, & Marlene Seltzer, *Portable, Stackable Credentials, A New Education Model for Industry-Specific Career Pathways*, McGraw-Hill Research Foundation (Nov. 28, 2012), https://www.careerladdersproject.org/wp-content/uploads/2013/12/portable-stackable-credentials-white_paper1.pdf.

²⁷⁴ Training and Employment Guidance Letter No. 15-10 from Jane Oates, Assistant Secretary, Employment and Training Administration, U.S. Department of Labor (Dec. 15, 2010), <https://wdr.doleta.gov/directives/attach/TEGL15-10.pdf>.

²⁷⁵ Thomas Bailey and Clive R. Belfield, *Stackable Credentials: Awards for the Future?* (Community College Rsch. Ctr., Working Paper No. 92, 2017), <https://ccrc.tc.columbia.edu/media/k2/attachments/stackable-credentials-awards-for-future.pdf>.

²⁷⁶ Erin Whinnery, "Opening Credits: An Introduction to PLA Policies," Education Commission of the States (August 2018), <https://www.ecs.org/wp-content/uploads/Opening-Credits-An-Introduction-to-PLA-Policies.pdf>.

²⁷⁷ Government Accountability Office, *GAO-19-85R: Economic Adjustment Assistance: Federal Programs Intended to Help Beneficiaries Adjust to Economic Disruption* (March 2019), <https://www.gao.gov/assets/700/697222.pdf>.

²⁷⁸ *Id.*

²⁷⁹ Developed nations are considered those in the Organisation for Economic Cooperation and Development (OECD). *The Long-Term Decline in Prime-Age Male Labor Force Participation*, Executive Office of the President of the United States (June 2016), https://obamawhitehouse.archives.gov/sites/default/files/page/files/20160620_cea_primeage_male_lfp.pdf.

²⁸⁰ *Government Employment and Training Programs: Assessing the Evidence on their Performance*, Council of Economic Advisers (June 2019), <https://www.whitehouse.gov/wp-content/uploads/2019/06/Government-Employment-and-Training-Programs.pdf>.

²⁸¹ Harry J. Holzer, *The CEA Training Report: Very Wide of the Mark*, National Skills Coalition Blog (Aug. 13, 2019), <https://www.nationalskillscoalition.org/news/blog/the-cea-training-report-very-wide-of-the-mark>.

²⁸² *Investment in America's Workforce: A National Imperative for the 21st Century*, National Skills Coalition (Sept. 2019), <https://nationalskillscoalition.org/federal-policy/body/CIAW-Invest-in-AW.pdf>.

²⁸³ For example, in 2017, the United Kingdom established an "apprenticeship levy" on large employers with more than £3 million in annual payroll costs to support funding of the national apprenticeship system. This contribution goes into an account for each such employer to access when using the national apprenticeship system to help pay for costs related to apprentice training, training providers, and assessments, meaning the cost of the tax is effectively fully reimbursed for employers who utilize the apprenticeship system. U.K. Education and Skills Funding Agency, *Guidance, Apprenticeship funding: how it works*. Accessed December 14, 2019. Available at: <https://www.gov.uk/government/publications/apprenticeship-levy-how-it-will-work/apprenticeship-levy-how-it-will-work>.

²⁸⁴ Markell Testimony at 5. Strong union representation and worker voice can ensure that on-the-job training workers receive is portable, transferable, and provides a clear pathway to further employment. Research shows that workers are more likely to complete training programs when unions are involved. In addition, as Brad Markell pointed out in testimony, unions can also smooth the introduction of new workplace technologies. This benefits workers by ensuring they get advance notification of how their job will change, have a voice in implementation, and receive timely training or assistance if their job will be affected or eliminated. It also benefits employers by ensuring workers are prepared to make efficient and effective use of new workplace technologies. See also Angela Hanks and David Madland, *Better Training and Better Jobs*, Center for American Progress (2018), <https://www.americanprogress.org/issues/economy/reports/2018/02/22/447115/better-training-better-jobs>.

²⁸⁵ The latest version of the bill, whose benefits took effect starting August 1, 2009, is the *Post-9/11 Veterans Educational Assistance Act of 2008*. “The Post-9/11 GI Bill: Beneficiaries, Choices, and Cost,” Congressional Budget Office (May 2019), <https://www.cbo.gov/system/files/2019-05/55179-Post911GIBill.pdf>.

²⁸⁶ *Id.*

²⁸⁷ In 2020, combined funding for WIOA and the National Apprenticeship Act was about \$3.6 billion, of which about \$2.8 billion was devoted to WIOA’s three core programs—youth, dislocated workers, and adult programs—while the remainder went to programs serving reentering citizens, migrant and seasonal workers, and more.

²⁸⁸ *Id.*

²⁸⁹ Officially entitled *The Servicemen’s Readjustment Act of 1944*.

²⁹⁰ Specifically, the *National Defense Authorization Act for Fiscal Year 2016* prohibited most veterans from receiving Unemployment Compensation for Ex-Servicemembers (UCX) simultaneously with their Post-9/11 GI bill benefits. Cassandra Dortch, *The Post-9/11 GI Bill: A Primer*, Congressional Research Service (Aug. 1, 2018), <https://www.everycrsreport.com/reports/R44586.html>.

²⁹¹ Throughout the text, references to years under WIOA should be taken to mean “Program Year.” Calculations are for the third quarter of Program Year 2018, based on Employment and Training Administration, *U.S. Department of Labor, National Quarterly Report-WIOA Dislocated Worker, PY 2018 – Qtr 3/31/19*, https://www.doleta.gov/performance/results/Quarterly_Report/2018/Q3/WIOA_Dislocated_Worker3_31_2019Rolling_4_Quarters_NQR.pdf.

²⁹² National Skills Coalition, *supra* note 282.

²⁹³ WIOA Title I and III National Performance Summary Program Year 2017 (July 1, 2017 through June 30, 2018). Department of Labor. Available at: https://www.doleta.gov/Performance/Results/AnnualReports/PY2019/WIOA-PY2017-Performance-Narrative-3_15_19-REVISED-3_25_19.pdf.

²⁹⁴ U.S. Department of Education, Office of Career, Technical, and Adult Education. (February 2015). *WIOA Title II National Reporting System data, Program Year 2017-18*. Data viewable at: <https://wdcrobcolp01.ed.gov/CFAPPS/OVAE/NRS/login.cfm>.

²⁹⁵ National Center for Education Statistics [NCES]. (2019). Data Point: Adult Literacy in the United States. U.S. Department of Education. Retrieved from <https://nces.ed.gov/>.

²⁹⁶ Alastair Fitzpayne and Ethan Pollack, *Worker Training Tax Credit*, Aspen Institute Future of Work Initiative (August 2018), https://assets.aspeninstitute.org/content/uploads/2018/08/Worker-Training-Tax-Credit_August-2018_Aspen-Institute-Future-of-Work-Initiative.pdf.

²⁹⁷ Gattman Testimony at 4.

²⁹⁸ Individual career services include comprehensive assessments, job search assistance, development of career and service plans, one-on-one career counseling and case management, placement in work experience positions, and some short-term training.

²⁹⁹ Kenneth Fortson et al., *Providing Public Workforce Services to Job Seekers: 30-Month Impact Findings on the WIA Adult and Dislocated Worker Programs*, Mathematica Policy Research (May 30, 2017).

³⁰⁰ For example, rapid response service teams help workers understand their rights under the WARN Act, as well as connect to benefits, programs, and services to provide income support and reemployment services. Rapid response teams also assist employers, helping them plan for a plant or factory closure; navigate laws, regulations, and reporting requirements; and avert layoffs by accessing incumbent worker training programs and funds to upskill their existing workforce. U.S. Department of Labor, “Rapid Response Services,” <https://www.dol.gov/agencies/eta/layoffs> (last accessed November 2020).

³⁰¹ Gattman Testimony at 5.

³⁰² Benjamin Collins, “Trade Adjustment Assistance for Workers and the TAA Reauthorization Act of 2015,” Congressional Research Service (Aug. 14, 2018), <https://fas.org/sgp/crs/misc/R44153.pdf>.

³⁰³ Rachel West and others, “Strengthening Unemployment Protections in America,” Center for American Progress (June 2016), <https://www.americanprogress.org/issues/poverty/reports/2016/06/16/138492/strengthening-unemployment-protections-in-america/>.

³⁰⁴ *Id.* In states such as Florida, the share of unemployed workers receiving UI was less than 15 percent in recent years. The workers whom UI tends to exclude are disproportionately lower-wage or less experienced workers.

³⁰⁵ RESEAs were shown to be very successful in a 2009 demonstration project in Nevada, increasing participants' earnings while reducing the duration (and thus cost to government) of their UI claim. RESEAs were scaled up in all states in 2016 and received more adequate funding in the *Bipartisan Budget Act of 2018*. Rachel West and others, "Strengthening Unemployment Protections in America," *supra* note 303; George Wentworth, "Reemployment Services and Eligibility Assessments and the Bipartisan Budget Act of 2018," National Employment Law Project (July 20, 2018), <https://www.nelp.org/blog/reemployment-services-eligibility-assessments-bipartisan-budget-act-2018/>.

³⁰⁶ The Department of Labor oversees the DUA program in coordination with the Federal Emergency Management Agency (FEMA), and provides funds to state UI agencies to finance benefits and administration of DUA. U.S. Department of Labor, "Disaster Unemployment Assistance (DUA)," <https://oui.doleta.gov/unemploy/disaster.asp> (last accessed Dec. 14, 2019).

³⁰⁷ National Skills Coalition, "Investment in America's Workforce: A National Imperative for the 21st Century," <https://nationalskillscoalition.org/federal-policy/body/CIAW-Invest-in-AW.pdf>.

³⁰⁸ Department of Labor, "Frequently Asked Questions," Apprenticeship.gov, <https://www.dol.gov/featured/apprenticeship/faqs>; Department of Labor, *Registered Apprenticeship National Results Fiscal Year 2019*, <https://www.dol.gov/agencies/eta/apprenticeship/about/statistics>.

³⁰⁹ This includes state formula grant programs, Job Corps, National Programs, Adult Education, and Wagner-Peyser Employment Service.

³¹⁰ The *Coronavirus Aid, Relief, and Economic Security (CARES) Act* was signed into law on March 27, 2020. According to the DOL, "the amount initially provided is the lesser of 33% of the grant amount requested or a set initial award amount correlated to a severity rating. The rating is based on the following data points: COVID-19 cases per 10,000 people (reported daily by the CDC), Unemployment Insurance initial claims data (reported weekly by the Department), and population data (provided in the July 2019 Census estimate)." Available at: <https://www.dol.gov/agencies/eta/dislocated-workers/grants/covid-19>.

³¹¹ U.S. Bureau of Labor Statistics, Unemployment Level [UNEMPLOY], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/UNEMPLOY> (last accessed Nov. 19, 2020).

³¹² Campaign to Invest in America's Workforce, Letter to Speaker Pelosi, Majority Leader McConnell, Minority Leader Schumer, and Minority Leader McCarthy (March 21, 2020), <https://www.nationalskillscoalition.org/Campaign-to-Invest-in-Americas-Workforce-Letter-to-Congress.pdf>.

³¹³ See, e.g., Andrew Stettner, "Mounting a Response to Technological Unemployment," The Century Foundation (April 26, 2018), <https://tcf.org/content/report/mounting-response-technological-unemployment/>; Mark Muro and Joseph Parilla, "Maladjusted: It's time to reimagine economic 'adjustment' programs," Brookings Institution (Jan. 10, 2017), <https://www.brookings.edu/blog/the-avenue/2017/01/10/maladjusted-its-time-to-reimagine-economic-adjustment-programs/>.

³¹⁴ Existing examples include Individual Career Services under WIOA (*supra* note 298) and RESEAs under the Unemployment Insurance system (*supra* note 305); however, other developed nations invest much more heavily in these services than does the United States. Studies show intensive services are highly effective, getting workers back into jobs more quickly, reducing the amount of UI benefits collected, and increasing earnings by as much as 20 percent in the subsequent two years. Kenneth Fortson et al., "Providing Public Workforce Services to Job Seekers: 30-Month Impact Findings on the WIA Adult and Dislocated Worker Programs," Mathematica Policy Research (May 30, 2017); Marios Michaelides et al., "Impact of the Reemployment and Eligibility Assessment (REA) Initiative in Nevada," Impaq (January 2012); Eileen Poe-Yamagata et al., "Impact of the Reemployment and Eligibility Assessment (REA) Initiative," Impaq (June 2011); Jacob Benus et al., "Reemployment and Eligibility Assessment (REA) Study-FY 2005 Initiative-Final Report" (March 2008).

³¹⁵ Furthermore, access to workforce services typically ends when the worker becomes reemployed or enrolls in education, which undermines individuals' long-term success.

³¹⁶ WIOA youth programs include the core WIOA Youth Workforce Investment Activities, as well programs such as Job Corps and YouthBuild.

³¹⁷ Given chronic underfunding of the system, the business community and workforce groups have looked to Pell Grants as a potential pot of money to tap instead of advocating for funding expansion for the workforce system. The Committee recommends that the first step for ensuring access to high-quality, short-term training should be dramatically increasing funding for high-quality training through WIOA.

³¹⁸ This could include reauthorizing the DOL's Trade Adjustment Assistance Community College and Career Training (TAACCCT) Grants, which originated in the congressional response to the Great Recession. The grants served nearly 500,000 individuals who earned more than 350,000 credentials. U.S. Department of Labor, *TAACCCT Program Fact Sheet*, available at: <https://www.dol.gov/sites/dolgov/files/ETA/TAACCCT/pdfs/TAACCCT-Fact-Sheet-Program-Information.pdf>.

³¹⁹ Congress should ensure that these programs are industry-validated; that non-credit programs serve as pathways to credit; that credits are transferable; and that credentials are stackable so that students do not need to pay for learning twice—once while in training, and again later to obtain academic credit for the training.

³²⁰ Such as proposed in the *Opening Doors for Youth Act of 2017* (H.R. 1748).

³²¹ As Nova Gattman points out, “[t]his is a critical component of the program, as workers and students often are balancing family responsibilities at the same time as their education, and these costs can often be the deciding factor between finishing a credential or degree or dropping out.” Gattman Testimony at 10.

³²² “[LiLAs] are administered by private financial institutions, community-based non-profits, or other non-government entities, and function like 401(k) plans, with employees making regular contributions that are matched by their employer.” Gattman Testimony at 10.

³²³ Workforce Training and Education Coordinating Board, “Future of Work Task Force 2019 Policy Report” (December 2019), <https://www.wtb.wa.gov/wp-content/uploads/2019/12/Future-of-Work-2019-Final-Report.pdf>.

³²⁴ Gattman Testimony at 10.

³²⁵ Credential Engine, *supra* note 267.

³²⁶ As recommended by Seth Harris in testimony before the Committee. Mr. Harris further recommends: “If the providers’ lists are different from the employers’ lists, any agency providing government funding to those providers should launch an audit.” Harris Testimony at 13.

³²⁷ As Seth Harris recommended in his testimony before the Committee, Congress could require that “the federal departments that fund the largest public education and training systems—the U.S. Departments of Labor, Education, Veterans Affairs, and Defense—require every state to do what Washington state and several others have already done: match wage records to workers’ credentials and degrees, and then publicly report which credentials lead to good jobs and good wages.” Harris Testimony at 13. The *College Transparency Act* (H.R. 1766), introduced by Representative Paul Mitchell—which proposes similar information-sharing for the higher education system—provides a model.

³²⁸ A number of states have begun implementing some form of free community college, in some cases including technical college and adult education as part of this initiative, an inclusive practice that should continue as free college models are further expanded. To ensure program quality, the *College Affordability Act* would require that such programs be eligible for Title IV of the *Higher Education Act*.

³²⁹ *Justice for Dislocated Workers Act* (H.R. 8583), introduced by Representative Mark DeSaulnier.

³³⁰ Markell Testimony at 10. *See also* Mark DeSaulnier, Mark Pocan, Donald Norcross, and Debbie Dingell, *The Future of Work: Wages & Labor* (Sept. 5, 2018), <https://desaulnier.house.gov/sites/desaulnier.house.gov/files/REPORT%20-%20Future%20of%20Work%2C%20Wages%2C%20and%20Labor%20-%202018.09.05.pdf>.

³³¹ House Education and Labor Subcommittee on Civil Rights and Human Services, *The Future of Work: Protecting Workers’ Civil Rights in the Digital Age* (February 5, 2020), <https://edlabor.house.gov/hearings/the-future-of-work-protecting-workers-civil-rights-in-the-digital-age->.

³³² The Equal Employment Opportunity Commission (EEOC) and Department of Justice (DOJ) share responsibility for enforcing Title VII (the EEOC against private employers and the DOJ against public-sector employers). The Office of Federal Contractor Compliance Programs (OFCCP) enforces similar rights for federal contractors.

³³³ 42 U.S. Code §2000e, et. Seq.

³³⁴ Sex discrimination includes discrimination based on current, past, or potential pregnancy, and medical conditions related to pregnancy or childbirth. *See* Pregnancy Discrimination Act of 1978 (PDA) (Pub. L. No. 95-555, 92 Stat.). Sex also includes gender identity and sexual orientation. *See* *Bostock v. Clayton County*, 590 U.S. ____ 140 S. Ct. 1731 (2020).

³³⁵ *See* 42 U.S. Code §2000e, et. Seq. It is also unlawful to retaliate against an employee because they complained about discrimination, filed a charge of discrimination, or participated in an employment discrimination investigation or lawsuit.

³³⁶ U.S. Equal Employment Opportunity Comm’n, *Employment Tests and Selection Procedures* (Dec. 1, 2007), <https://www.eeoc.gov/laws/guidance/employment-tests-and-selection-procedures>. The EEOC provides examples of employment tests and selection procedures: cognitive tests; physical ability tests; tests assessing performance and aptitude on particular tasks; medical inquiries and physical examinations; personality tests and integrity tests; criminal background checks; credit; performance appraisals; and English proficiency tests.

³³⁷ 42 U.S.C. § 2000e-2(h).

³³⁸ 29 C.F.R. §1607.1(B) (2017).

³³⁹ 29 C.F.R. §1607.4(D) (2017).

³⁴⁰ *Id.*

³⁴¹ 42 U.S.C. §1981. Courts have interpreted race to include color, ancestry, and ethnicity. Courts have held that Section 1981 does not cover discrimination based solely on national origin; where national origin is a basis for a claim under Section 1981, race and/or ethnicity must also be a basis of the claim. *See Torgerson v. City of Rochester*, 643 F.3d 1031, 10532 (8th Cir. 2011).

³⁴² *See Comcast Corp. v. National Assoc. of African-American-Owned Media et. Al.*, 589 U. S. ____ (2020).

³⁴³ *The Age Discrimination in Employment Act of 1967*, 29 U.S.C. § 621(d) (1967).

³⁴⁴ *Id.*

³⁴⁵ U.S. Equal Employment Opportunity Commission, Questions and Answers on EEOC Final Rule on Disparate Impact and “Reasonable Factors Other Than Age” Under the Age Discrimination in Employment Act of 1967 (last visited January 27, 2020), https://www.eeoc.gov/laws/regulations/adea_rfoa_qa_final_rule.cfm. The Supreme Court has ruled that disparate impact claims are available under the ADEA. However, two appellate courts have concluded that disparate impact analysis does not apply to non-employees, and discrimination in hiring is only unlawful if it is intentional. See *Kleber v. CareFusion Corp.*, No. 17-1206 (7th Cir. 2019), and *Villarreal v. R.J. Reynolds Tobacco Co.*, 839 F.3d 958 (11th Cir. 2016).

³⁴⁶ See *Gross v. FBL Fin. Servs., Inc.*, 557 U.S. 167, 180 (2009).

³⁴⁷ 42 U.S.C. § 12112 (1994).

³⁴⁸ U.S. Equal Emp. Opportunity Comm’n, *Employment Tests and Selection Procedures* (Dec. 1, 2007), <https://www.eeoc.gov/laws/guidance/employment-tests-and-selection-procedures>.

³⁴⁹ Workplace wellness programs are health-promotion and disease-prevention activities offered by some employers that sponsor group health plans. See Regulations Under the Americans With Disabilities Act, 81 Fed. Reg. 31125 (May 17, 2016) (rescinded).

³⁵⁰ Paige Smith, *Genetic Bias Law Has Worked Perfectly, or Maybe Not at All*, Bloomberg Law (Jan. 15, 2020),

<https://news.bloomberglaw.com/daily-labor-report/genetic-bias-law-has-worked-perfectly-or-maybe-not-at-all>.

³⁵¹ The *Genetic Information Nondiscrimination Act of 2008*, 42 U.S.C. Ch. 21F (2008). Unlike the other statutes described in Section I of this chapter, GINA has been rarely invoked to date. “It was far enough ahead of its time, in fact, that there hasn’t been a single successful lawsuit alleging discrimination by an employer using genetic information in the more than 10 years since the law has been in effect, according to legal scholars. And only 12 GINA cases have been filed by the Equal Employment Opportunity Commission—none since 2017—according to a Bloomberg Law analysis of federal district court dockets.” Sonia M Suter, *GINA at 10 years: the battle over ‘genetic information’ continues in court*, Journal of Law and the Biosciences, 5: 495-526 (2019), <https://academic.oup.com/jlb/article/5/3/495/5498593>.

³⁵² The *Genetic Information Nondiscrimination Act*, 81 Fed. Reg. 31143 (May 17, 2016) (rescinded).

³⁵³ Mark MacCarthy, *Fairness in algorithmic decision-making*, Brookings Institution (December 6, 2019), <https://www.brookings.edu/research/fairness-in-algorithmic-decision-making/>.

³⁵⁴ For a non-exhaustive list of examples, see Nicol Turner Lee, Paul Resnick, & Genie Barton, *Algorithmic bias detection and mitigation: Best practices and policies to reduce consumer harms*, Brookings Institution (May 22, 2019),

<https://www.brookings.edu/research/algorithmic-bias-detection-and-mitigation-best-practices-and-policies-to-reduce-consumer-harms/>.

³⁵⁵ *The Future of Work: Protecting Workers’ Civil Rights in the Digital Age*: Before the Subcomm. on Civil Rights and Human Services of the H. Comm. on Educ. & Labor, 116th Cong. (2020) (written testimony of Jenny R. Yang, Senior Fellow, Urban Institute at 8) [hereinafter Yang Testimony].

³⁵⁶ Aaron Smith, *Searching for Work in the Digital Era*, Pew Research Center (Nov. 19, 2015),

<https://www.pewresearch.org/internet/2015/11/19/searching-for-work-in-the-digital-era/>.

³⁵⁷ The Society for Human Resource Management reported that in 2016, 53 percent of surveyed employers used big data to make strategic human resources decisions, with the most common application for “sourcing, recruitment and selection.” As Miranda Bogen and Aaron Rieke of Upturn note, the share has almost certainly grown since that time. Society for Human Resource Management, *Jobs of the Future: Data Analysis Skills* (Nov. 14, 2016), <https://www.shrm.org/hr-today/trends-and-forecasting/research-and-surveys/pages/data-analysis-skills.aspx>; Miranda Bogen & Aaron Rieke, *Help Wanted: An Examination of Hiring Algorithms, Equity, and Bias*, Upturn (Dec. 2018), <https://www.upturn.org/reports/2018/hiring-algorithms/>.

³⁵⁸ Miranda Bogen & Aaron Rieke, *supra* note 358.

³⁵⁹ Miranda Bogen & Aaron Rieke, *supra* note 357.

³⁶⁰ By one definition, “[m]achine learning algorithms use statistics to find patterns in massive amounts of data.” Karen Hao, *What is Machine Learning?*, MIT Technology Review (November 17, 2018), <https://www.technologyreview.com/2018/11/17/103781/what-is-machine-learning-we-drew-you-another-flowchart/>.

³⁶¹ This evidence includes gold-standard randomized experiments: so-called “blind résumé” tests in which pairs of fictionalized résumés are sent to employers, identical except for randomized assignment of names. Consistently, researchers find résumés bearing names typically associated with marginalized groups—people of color, women, and other groups—are substantially less likely to receive callbacks than otherwise-identical résumés bearing names associated with conventionally privileged groups, such as white or male names. For two of many examples, see Marianne Bertrand & Sendhil Mullainathan, *Are Emily and Greg more employable than Lakisha and Jamal? A field experiment on labor market discrimination*. Am Econ Rev 94 (2004): 991-1013, <https://www.aeaweb.org/articles?id=10.1257/0002828042002561>; and Katherine B. Coffman, Christine L. Exley, & Muriel Niederle, *When gender discrimination is not about gender*, Harvard Business School Working Paper No. 18-054 (August 1, 2018), https://web.stanford.edu/~niederle/CEN_discrimination.pdf. Research documents similar hiring discrimination based on age, disability status, sexual orientation and gender identity, and other characteristics. For non-exhaustive summaries of some of this extensive research, see Stijn Baert, *Hiring Discrimination: An Overview of (Almost) All Correspondence Experiments Since 2005*, IZA

Institute of Labor Economics, Discussion Paper No. 10738 (April 2017), <http://ftp.iza.org/dp10738.pdf>; and David Neumark, *Experimental Research on Labor Market Discrimination*, *J Econ Lit* 56(3) (2018): 799-866, <https://pubs.aeaweb.org/doi/pdfplus/10.1257/jel.20161309>.

³⁶² For example, a 2017 study found the large bias facing African American workers had not declined at all over the past quarter century, while bias against Hispanic workers has declined only modestly. Lincoln Quillian, Devah Pager, Ole Hexel, & Arnfinn H. Midtbøen, *Meta-analysis of field experiments shows no change in racial discrimination in hiring over time*, *Proceedings of the National Academy of Sciences* 114(41) (Oct. 10, 2017), <https://www.pnas.org/content/114/41/10870.full>.

³⁶³ Upturn distinguishes between the *interpersonal* bias displayed by a hiring manager—that is, prejudices held by an individual person, whether implicitly or explicitly—and *institutional, systemic (structural)*, and other forms of bias. Many technology vendors market their automated products as a solution to bias in human resources departments, but without careful design these tools may absorb and exacerbate other types of bias, and even reflect interpersonal bias of their designers. Miranda Bogen & Aaron Rieke, *supra* note 357.

³⁶⁴ Yang Testimony at 7-8.

³⁶⁵ *Id.* at 7.

³⁶⁶ Algorithms are typically developed using an initial set of data (called “training data”) that are intended to reflect past hiring successes, which may embody existing biases. Algorithms often use machine learning techniques to detect patterns in those data, and “[i]f the algorithm learns what a ‘good’ hire looks like based on that kind of biased data, it will make biased hiring decisions.” Gideon Mann & Cathy O’Neil, *Hiring Algorithms Are Not Neutral*, *Harvard Bus. Rev.* (Dec. 9, 2016), <https://hbr.org/2016/12/hiring-algorithms-are-not-neutral>.

³⁶⁷ See, for example, U.S. Equal Employment Opportunity Commission, *Diversity in High Tech* (May 18, 2016), <https://www.eeoc.gov/special-report/diversity-high-tech>; Patrick Thibodeau, *Workday admits to Black diversity problem, pledges to improve*, *Tech Target* (June 30, 2020), <https://searchhrsoftware.techtarget.com/news/252485468/Workday-admits-to-Black-diversity-problem-pledges-to-improve>.

³⁶⁸ This example comes directly from the results of an audit of a résumé-screening algorithm. Miranda Bogen & Aaron Rieke, *supra* note 357.

³⁶⁹ Yang Testimony at 7.

³⁷⁰ *Id.* at 7.

³⁷¹ This phenomenon is called “automation bias.” Kate Goddard, Abdul Roudsari, & Jeremy Wyatt, *Automation bias: a systematic review of frequency, effect mediators, and mitigators*, *J Am Med Inform Assoc.* 19(1) (2012): 121-7, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3240751/>.

³⁷² Yang Testimony at 7.

³⁷³ *The Future of Work: Protecting Workers’ Civil Rights in the Digital Age*: Before the Subcomm. on Civil Rights and Human Services of the H. Comm. on Educ. & Labor, 116th Cong. (2020) (written testimony of Dr. Ifeoma Ajunwa, Assistant Professor, Cornell University Industrial and Labor Relations School at 3) [hereinafter Ajunwa Testimony].

³⁷⁴ *The Future of Work: Protecting Workers’ Civil Rights in the Digital Age*: Before the Subcomm. on Civil Rights and Human Services of the H. Comm. on Educ. & Labor, 116th Cong. (2020) (written testimony of Peter Romer-Friedman, Principal, Gupta Wessler PLLC at 7) [hereinafter Romer-Friedman Testimony].

³⁷⁵ *Id.* at 7.

³⁷⁶ *Id.* at 2.

³⁷⁷ *Id.* at 2.

³⁷⁸ “We provide experimental proof that merely removing demographic features from a real-world algorithmic system’s inputs can fail to prevent biased outputs.” Romer-Friedman Testimony at 14, citing Ava Kofman & Ariana Tobin, *Facebook Ads Can Still Discriminate Against Women and Older Workers, Despite a Civil Rights Settlement*, *ProPublica* (Dec. 13, 2019); Piotr Sapiezynski, Avijit Ghosh, Levi Kaplan, Alan Mislove, & Aaron Rieke, *Algorithms that “Don’t See Color”: Comparing Biases in Lookalike and Special Ad Audiences* (Dec. 17, 2019), <https://arxiv.org/pdf/1912.07579.pdf>.

³⁷⁹ Pauline Kim & Sharion Scott, *Discrimination in Online Employment Recruiting*, *St. Louis University Law Journal* 63(1), 2019, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3214898.

³⁸⁰ Romer-Friedman asserts that many online targeted advertising practices violate current civil rights law, which prohibits job advertisements from discriminating against or indicating preference for members of protected classes. Romer-Friedman Testimony at 2.

³⁸¹ Dylan Walsh, *Don’t Let Artificial Intelligence Pick Your Employees*, *Insights by Stanford Business* (February 8, 2019), <https://www.gsb.stanford.edu/insights/dont-let-artificial-intelligence-pick-your-employees>. Another study finds that 72 percent of résumés are never seen by human eyes. Cathy O’Neil, *How algorithms rule our working lives*, *The Guardian* (Sept. 1, 2016), <https://www.theguardian.com/science/2016/sep/01/how-algorithms-rule-our-working-lives>.

³⁸² Ajunwa Testimony at 6.

³⁸³ Even if algorithmic tools do not expressly rely on protected characteristics such as race and ethnicity, gender, age, religion, or disability status, they may still produce discriminatory outcomes against a protected class. For example, myriad correlates can be used to infer membership in a protected class, such as attending a women’s college, living in a predominantly Black neighborhood, or having a traditionally Hispanic name.

³⁸⁴ Witness Jenny Yang describes her experience as a trial attorney at the U.S. Department of Justice Civil Rights Division, where she helped litigate challenges to pre-employment tests that were unrelated to applicants’ ability to succeed on the job, including cognitive tests that were found to disproportionately exclude African American and Latinx candidates, as well as physical ability tests that disproportionately screened out female candidates. Yang Testimony at 9.

³⁸⁵ Companies such as Pymetrics sell so-called “gamified hiring” tools, such as puzzles or other activities, and claim to evaluate a candidate’s suitability for a role based on their approach or performance. These companies market their tools as a way for employers to reduce the human bias in their hiring processes. But while Pymetrics claims to test for bias in its technology along certain dimensions such as race and ethnicity or gender, the company concedes that evaluating for fairness without regard to applicants’ disabilities—which can take many different forms—is more difficult.

³⁸⁶ Miranda Bogen & Aaron Rieke, *supra* note 357.

³⁸⁷ “In online assessments used by major companies, workers are asked if they agree with statements such as, ‘over the course of the day, I can experience many mood changes.’ Because Kyle had been diagnosed with bipolar disorder, these types of questions screened him out even though he was highly qualified for the job.” Yang Testimony at 11.

³⁸⁸ It is noteworthy that in most instances an applicant may never know that they were rejected based on a personality test. In Kyle’s case, a friend who worked at one company where he had applied let him know that this was the reason he didn’t get the job, despite being highly qualified. Cathy O’Neil, *Personality Tests Are Failing American Workers*, Bloomberg (January 18, 2018), <https://www.bloomberg.com/opinion/articles/2018-01-18/personality-tests-are-failing-american-workers>.

³⁸⁹ Ajunwa Testimony at 7.

³⁹⁰ Miranda Bogen & Aaron Rieke, *supra* note 357 at note 220.

³⁹¹ Two key reasons are that these technologies tend to be designed by white men, who hold the vast majority of technology-sector jobs, and tend to be “trained” on datasets that disproportionately include white faces. See Joy Buolamwini & Timnit Gebru, *Gender Shades: Intersectional Accuracy Disparities in Commercial Gender Classification*, Proceedings of the 1st Conference on Fairness, Accountability and Transparency, PMLR 81:77-91 (2018), <http://proceedings.mlr.press/v81/buolamwini18a.html>; Lauren Rhue, *Racial Influence on Automated Perceptions of Emotions*, SSRN (November 9, 2018), <https://ssrn.com/abstract=3281765>; Tom Simonite, *The Best Algorithms Struggle to Recognize Black Faces Equally*, Wired (August 22, 2019), <https://www.wired.com/story/best-algorithms-struggle-recognize-black-faces-equally/>; Joy Buolamwini, *Response: Racial and Gender bias in Amazon Rekognition — Commercial AI System for Analyzing Faces*, Medium (January 25, 2019), <https://medium.com/@Joy.Buolamwini/response-racial-and-gender-bias-in-amazon-rekognition-commercial-ai-system-for-analyzing-faces-a289222eeced>; Frank Pasquale, *The Second Wave of Algorithmic Accountability*, Law and Political Economy Blog (Nov. 25, 2019), <https://lpeblog.org/2019/11/25/the-second-wave-of-algorithmic-accountability/>.

³⁹² Patrick Grother, Mei Ngan, & Kayee Hanaoka, *Face Recognition Vendor Test (FRVT) Part 3: Demographic Effects*, National Institute for Standards and Technology, NISTIR 8280 (2019), <https://nvlpubs.nist.gov/nistpubs/ir/2019/NIST.IR.8280.pdf>.

³⁹³ Lawmakers of color made up only 20 percent of Congress at the time. Jacob Snow, *Amazon’s Face Recognition Falsely Matched 28 Members of Congress with Mugshots*, Free Future (July 26, 2018), <https://www.aclu.org/blog/privacy-technology/surveillance-technologies/amazons-face-recognition-falsely-matched-28>.

³⁹⁴ Facial recognition has received widespread attention for its use by law enforcement; at least one-quarter of state and local police departments have access to the technology. Concerns about potentially discriminatory impacts—as well as violations of privacy and data security—have led several states and localities to ban the technologies for law enforcement purposes. As scrutiny of biased policing practices increased in mid-2020, several large firms including IBM, Amazon, and Microsoft announced they would temporarily halt sales of such products to law enforcement. Claire Garvie, Alvaro Bedoya, & Jonathan Frankle, *The Perpetual Line-up*, Georgetown Law Center on Privacy and Technology (Oct. 18, 2016), <https://www.perpetuallineup.org/>; American Civil Liberty Union, *Face Recognition Technology*, <https://www.aclu.org/issues/privacy-technology/surveillance-technologies/face-recognition-technology> (last accessed July 2020); Evan Selinger & Woodrow Hartzog, *What Happens When Employers Can Read Your Facial Expressions?*, New York Times (Oct. 17, 2019), <https://www.nytimes.com/2019/10/17/opinion/facial-recognition-ban.html>; Rachel Metz, *California Lawmakers Ban Facial-Recognition Software from Police Body Cams*, CNN (Sept. 13, 2019), <https://www.cnn.com/2019/09/12/tech/california-body-cam-facial-recognition-ban/index.html>; *Face Recognition Technology DOJ and FBI Have Taken Some Actions in Response to GAO Recommendations to Ensure Privacy and Accuracy, But Additional Work Remains* (written testimony of Gretta L. Goodwin, Director Homeland Security and Justice), U.S. Gov. Accountability Office (2019), <https://www.gao.gov/assets/700/699489.pdf>; Naomi Nix & Rebecca Kern, *Facial-Recognition Backlash Brews After Fury Over Police*

Conduct, Bloomberg (June 26, 2020), <https://www.bloomberg.com/news/articles/2020-06-26/facial-recognition-backlash-brews-after-fury-over-police-conduct>.

³⁹⁵ Drew Harwell, *A Face-Scanning Algorithm Increasingly Decides Whether You Deserve the Job*, Wash. Post (Nov. 6, 2019), <https://www.washingtonpost.com/technology/2019/10/22/ai-hiring-face-scanning-algorithm-increasingly-decides-whether-you-deserve-job/>.

³⁹⁶ Joy Buolamwini, *supra* note 391.

³⁹⁷ Experts call HireVue's claims "pseudoscience" and "profoundly disturbing." Facial expressions, word choice, and so on differ across individuals and cultures, so biases may readily play out in the evaluation, leading to discrimination without candidates' or even employers' knowledge. Furthermore, this method may replicate and exacerbate firms' existing biases in hiring, evaluation, or promotion if technologies are trained to seek candidates like existing workers whom an employer has deemed "high performers." Meredith Whittaker et al., *Disability, Bias, and AI*, AI Now Institute (Nov. 2019), <https://ainowinstitute.org/disabilitybiasai-2019.pdf>.

³⁹⁸ Miranda Bogen & Aaron Rieke, *supra* note 357 at 37-38.

³⁹⁹ Drew Harwell, *Rights Group Files Federal Complaint Against AI-Hiring Firm HireVue, Citing 'Unfair and Deceptive' Practices*, Wash. Post (Nov. 6, 2019), <https://www.washingtonpost.com/technology/2019/11/06/prominent-rights-group-files-federal-complaint-against-ai-hiring-firm-hirevue-citing-unfair-deceptive-practices/>.

⁴⁰⁰ Ajunwa Testimony at 7; HireVue.com, (last accessed June 26, 2020), <https://www.hirevue.com/>.

⁴⁰¹ Drew Harwell, *supra* note 47.

⁴⁰² Ajunwa Testimony at 8.

⁴⁰³ Yang Testimony at 5.

⁴⁰⁴ Miranda Bogen & Aaron Rieke, *supra* note 357 at 39-40.

⁴⁰⁵ *Id.* at 41.

⁴⁰⁶ Machine learning, which is a type of artificial intelligence, refers to a process by which certain computer programs can modify themselves to better perform their assigned tasks.

⁴⁰⁷ For example, "In tech recruiting, snippets like 'coding ninja wanted' have a connotation that is likely to dampen the interest of older candidates and women." Gideon Mann & Cathy O'Neil, *Hiring Algorithms Are Not Neutral*, Harvard Bus. Rev. (Dec. 9, 2016), <https://hbr.org/2016/12/hiring-algorithms-are-not-neutral>; Miranda Bogen & Aaron Rieke, *supra* note 28.

⁴⁰⁸ Miranda Bogen & Aaron Rieke, *supra* note 357 at 38.

⁴⁰⁹ Miranda Bogen & Aaron Rieke, *supra* note 357 at 38-39.

⁴¹⁰ Ajunwa Testimony at 2.

⁴¹¹ Ifeoma Ajunwa, Kate Crawford, & Jason Schultz, *Limitless Worker Surveillance*, California Law Review 105(3) (2017), <https://lawcat.berkeley.edu/record/1127979>.

⁴¹² Yang Testimony at 16.

⁴¹³ Gaurav Laroia & David Brody, *Privacy Rights Are Civil Rights. We Need to Protect Them*, Free Press (Mar. 14, 2019), <https://www.freepress.net/our-response/expert-analysis/insights-opinions/privacy-rights-are-civil-rights-we-need-protect-them>.

⁴¹⁴ Alexandra Mateescu & Aiha Nguyen, *Workplace Monitoring & Surveillance*, Data&Society (Feb. 2019), https://datasociety.net/wp-content/uploads/2019/02/DS_Workplace_Monitoring_Surveillance_Explainer.pdf.

⁴¹⁵ Ceylan Yegimsu, *If Workers Slack Off, the Wristband Will Know (And Amazon has a Patent for it)*, New York Times (Feb. 1, 2018), <https://www.nytimes.com/2018/02/01/technology/amazon-wristband-tracking-privacy.html>.

⁴¹⁶ Rebecca Rainey, *Waiting for Wolf*, Politico (Nov. 6, 2019), <https://www.politico.com/newsletters/morning-shift/2019/11/06/waiting-for-wolf-782085>.

⁴¹⁷ Yang Testimony at 17.

⁴¹⁸ *Id.*

⁴¹⁹ *Id.*

⁴²⁰ As Yang points out, this raises concerns under the *National Labor Relations Act of 1935*. Yang Testimony at 17.

⁴²¹ Tony Romm, *Members of Congress to unveil bipartisan bill to regulate contact-tracing apps, fearing potential privacy abuses*, Washington Post (June 1, 2020), <https://www.washingtonpost.com/technology/2020/06/01/contact-tracing-congress-privacy/>.

⁴²² *Id.*; Natalie Chyi, *The Workplace-Surveillance Technology Boom*, Slate (May 12, 2020), <https://slate.com/technology/2020/05/workplace-surveillance-apps-coronavirus.html>; Caroline Haskins, *Workers Around The World Are Already Being Monitored By Digital Contact Tracing Apps*, BuzzFeed News (May 30, 2020), <https://www.buzzfeednews.com/article/carolinehaskins1/coronavirus-private-contact-tracing>.

⁴²³ Bobby Allyn, *Your Boss Is Watching You: Work-From-Home Boom Leads To More Surveillance*, NPR (May 13, 2020), <https://www.npr.org/2020/05/13/854014403/your-boss-is-watching-you-work-from-home-boom-leads-to-more-surveillance>.

⁴²⁴ There are generally two varieties of wellness programs: (1) participatory wellness programs, which either offer no rewards or do not condition rewards on the employee satisfying a health-related goal and (2) health-contingent wellness programs, which require an employee to satisfy a standard related to a health factor in order to obtain a reward. The *Affordable Care Act* (ACA) and the

Health Insurance Portability and Accountability Act (HIPAA) allow group health plans to condition rewards or penalties worth up to 30 percent of the total cost of health coverage on participation in health-contingent wellness programs (including both the employer and employee share of self-only group health plan coverage).

⁴²⁵ To achieve this, the ACA amended the *Health Insurance Portability and Accountability Act of 1996* (HIPAA).

⁴²⁶ Reed Abelson, *Employee Wellness Programs Use Carrots and, Increasingly, Sticks*, The New York Times (Jan. 24, 2016), <https://www.nytimes.com/2016/01/25/business/employee-wellness-programs-use-carrots-and-increasingly-sticks.html>.

⁴²⁷ See Regulations Under the *Americans With Disabilities Act*, 81 Fed. Reg. 31125, 31133 (May 17, 2016).

⁴²⁸ See Letter to Honorable Jenny R. Yang, Chair, U.S. Equal Employment Opportunity Commission (Feb. 2, 2016), <https://edlabor.house.gov/imo/media/doc/2016-02-11%20Letter%20to%20EEOC%20Chair%20Yang%20re.%20GINA%20Proposed%20Rule.pdf>.

⁴²⁹ The app was eventually thrown out. Jess Bidgood, *'I Live Paycheck to Paycheck': A West Virginia Teacher Explains Why She's on Strike*, N.Y. Times (Mar. 1, 2018) <https://www.nytimes.com/2018/03/01/us/west-virginia-teachers-strike.html>.

⁴³⁰ See e.g., *AARP v. United States EEOC*, 267 F. Supp. 3d 14, 19 (D.D.C. 2017).

⁴³¹ Alexandra Mateescu & Aiha Nguyen, *Explainer: Algorithmic Management in the Workplace*, Data&Society (2019), https://datasociety.net/wp-content/uploads/2019/02/DS_Algorithmic_Management_Explainer.pdf.

⁴³² Yang Testimony at 18-19.

⁴³³ Yang Testimony at 20.

⁴³⁴ *Id.* at 21.

⁴³⁵ *Id.* at 12.

⁴³⁶ Romer-Friedman Testimony at 4.

⁴³⁷ Pauline Kim, *Big Data and Artificial Intelligence: New Challenges for Workplace Equality*, 57 Univ. of Louis L. Rev. 313 (2019).

⁴³⁸ Pauline Kim, *Data-Driven Discrimination at Work*, 58 Wm. & Mary L. Rev 857, 881 (2017).

⁴³⁹ Yang Testimony at 10.

⁴⁴⁰ Yang Testimony at 10.

⁴⁴¹ Solon Barocas & Andrew D. Selbst, *Big Data's Disparate Impact*, 104 CALIF. L. REV. 671, 706-707 (2016).

⁴⁴² Pauline Kim, *Data-Driven Discrimination at Work*, 58 Wm. & Mary L. Rev 857, 574-875 (2017).

⁴⁴³ Jeffrey Dastin, *Amazon scraps secret AI recruiting tool that showed bias against women*, Reuters, October 9, 2018, <https://www.reuters.com/article/us-amazon-com-jobs-automation-insight/amazon-scraps-secret-ai-recruiting-tool-that-showed-bias-against-women-idUSKCN1MK08G>.

⁴⁴⁴ Miranda Bogen & Aaron Rieke, *supra* note 357.

⁴⁴⁵ Pauline Kim, *Data-Driven Discrimination at Work*, 58 Wm. & Mary L. Rev 857, 916 (2017).

⁴⁴⁶ Romer-Friedman Testimony at 15.

⁴⁴⁷ *Id.*

⁴⁴⁸ *Id.*

⁴⁴⁹ See e.g. Help Wanted Notices or Advertisements, 29 CFR § 1625.4: "Help wanted notices or advertisements may not contain terms and phrases that limit or deter the employment of older individuals."

⁴⁵⁰ Alexia Fernández Campbell, *Job ads on Facebook discriminated against women and older workers, EEOC says*, Vox, September 25, 2019, <https://www.vox.com/identities/2019/9/25/20883446/facebook-job-ads-discrimination>.

⁴⁵¹ See Romer-Friedman Testimony at 15. While Mr. Romer-Friedman testified that many online targeted advertising practices violate current civil rights law, he testified that Congress could consider making current law "even more clear, specific, and protective" so that employers fully understand their obligations in the context of digital discrimination.

⁴⁵² *Communications Decency Act of 1996*, 47 U.S.C. § 230(c); and Romer-Friedman Testimony at 21. As Peter Romer-Friedman pointed out, federal courts have held that a website does not have immunity under the *Communications Decency Act* if it plays any role in making discrimination possible or develops the discriminatory content *even in part*, which is arguably the case with practices employed by Facebook and other platforms (*Roommates.com*, 521 F.3d at 1166; 47 U.S.C. § 230(c)(1), (f)).

⁴⁵³ Romer-Friedman Testimony at 22.

⁴⁵⁴ *Id.*

⁴⁵⁵ Gillian B. White, *When Algorithms Don't Account for Civil Rights*, The Atlantic (March 7, 2017), <https://www.theatlantic.com/business/archive/2017/03/facebook-ad-discrimination/518718/>. As Peter Romer-Friedman explained in testimony before the Committee, "While the EEOC has not yet issued regulations expressly addressing the issue of exclusionary advertising campaigns (as opposed to ads with discriminatory words), [the Department of Housing and Urban Development] specifically addressed this issue 40 years ago and concluded that not sending people housing ads because of their race or sex is just as unlawful as publishing an ad that states a preference based on race or sex." Romer-Friedman Testimony at 12.

⁴⁵⁶ 18 U.S.C. § 2511.

⁴⁵⁷ *Managing and Monitoring Workplace Surveillance*, The Society for Human Resource Management (Mar. 13, 2019), <https://www.shrm.org/resourcesandtools/tools-and-samples/toolkits/pages/workplaceprivacy.aspx>.

⁴⁵⁸ Romer-Friedman Testimony at 12.

⁴⁵⁹ Richard M. Reice, *Wearables in the Workplace – A New Frontier*, Bloomberg Law News (May 24, 2018), <https://news.bloomberglaw.com/daily-labor-report/wearables-in-the-workplace-a-new-frontier>.

⁴⁶⁰ The statutes that provide protections subject to these limitations include Title VII of the Civil Rights Act of 1964, the *Age Discrimination in Employment Act (ADEA)*, the *Americans with Disabilities Act (ADA)*, and the *Genetic Information Nondiscrimination Act (GINA)*.

⁴⁶¹ Debra S. Katz, et al., Harassment, U.S. Equal Employment Opportunity Commission, https://www.eeoc.gov/eeoc/task_force/harassment/katz.cfm#_ftnref24.

⁴⁶² Most courts utilize the common control test to determine whether a plaintiff is an employee under Title VII. The factors considered among the various circuits vary but generally the courts place the greatest emphasis on whether the putative employer has the right to control the manner and means by which the work is accomplished. See Elizabeth C. Tippet, *Harassment*, U.S. Equal Opportunity Commission, https://www.eeoc.gov/eeoc/task_force/harassment/tippet.cfm#_ftnref53.

⁴⁶³ Several bills introduced in the 116th Congress, but not passed as of this report’s publication, also seek to address the nexus of technology and workplace antidiscrimination laws. For example, in the House of Representatives, the *Algorithmic Accountability Act of 2019* (H.R. 2231) instructs the Federal Trade Commission (FTC) to require certain employers and other entities that use “high-risk” automated decision-making systems (such as those that rely on sensitive personal data) to produce a detailed description of the system, regularly assess its effects, and present a plan to minimize any biases or other risks. Section 208 of the *Online Privacy Act of 2019* (H.R. 4978) would establish privacy and security requirements, enforced by a new U.S. Digital Privacy Agency, including a prohibition on processing of personal information and communications for purposes of employment in a manner that is discriminatory on the basis of protected class status, and would establish the right to request “a human review” of automated decisions. In the Senate, related efforts include the *Artificial Intelligence Initiative Act* (S. 1558), which Establishes a National Artificial Intelligence Research and Development Initiative overseen by an interagency committee appointed by the Director of the Office of Science and Technology Policy, whose mandates include research to support algorithmic accountability and identify and minimize inappropriate bias in data sets and algorithms. The *Privacy Bill of Rights Act* (S. 1214) charges the FTC with prohibiting the processing of personal information and communications for purposes of employment in a manner that is discriminatory on the basis of protected class status and other characteristics; and gives individuals the right to access, correct, and delete their personal data, including on employment and employment history. The *Consumer Online Privacy Rights Act* (S. 2968) requires certain entities engaged in algorithmic decision-making processes for purposes including employment to conduct an annual assessment that includes a description of design and training data and potential discriminatory impact; and instructs the FTC to publish a study on the use of algorithms for covered purposes.

⁴⁶⁴ Kate Crawford et al., *AI Now 2019 Report*, AI Now Institute (Dec. 2019), https://ainowinstitute.org/AI_Now_2019_Report.pdf.

⁴⁶⁵ Aaron Rieke, Miranda Bogen, and David G. Robinson, *Public Scrutiny of Automated Decisions: Early Lessons and Emerging Methods*, Upturn and Omidyar Network (February 27, 2018), <https://luminategroup.com/storage/231/Public-Scrutiny-of-Automated-Decisions.pdf>.

⁴⁶⁶ Kate Crawford et al., *supra* note 464 at 31.

⁴⁶⁷ As Jenny Yang explains in testimony, “For example, consent to data collection must follow an opt-in approach, and all data subjects have a right to be informed about the collection and use of their personal data in a precise, transparent, comprehensible and easily accessible form, the right to object to the collection and processing of personal data, the right to correct the information if its accuracy is contested, and the right to have all information erased from databases.” Yang Testimony at 14.

⁴⁶⁸ The GDPR allows for complaints to be lodged with a designated Data Protection Authority. See European Commission, *Principles of the GDPR: What information must be given to individuals whose data is collected?* (last accessed July 2020), https://ec.europa.eu/info/law/law-topic/data-protection/reform/rules-business-and-organisations/principles-gdpr/what-information-must-be-given-individuals-whose-data-collected_en.

⁴⁶⁹ Commission Regulation 2016/679, 2016 J.O. (L19)1.

<https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32016R0679&from=EN>; General Data Protection Regulation (GDPR), Article 4, <https://gdpr.eu/article-4-definitions/>.

⁴⁷⁰ DataGuidance and Future of Privacy Forum, *Comparing privacy laws: GDPR v. CCPA* (Nov. 2018), https://fpf.org/wp-content/uploads/2018/11/GDPR_CCPA_Comparison-Guide.pdf.

⁴⁷¹ Illinois General Assembly, Public Act 101-0260, *Artificial Intelligence Video Interview Act*, <http://www.ilga.gov/legislation/publicacts/fulltext.asp?Name=101-0260>.

⁴⁷² See, for example, Rebecca Heilweil, *Illinois says you should know if AI is grading your online job interviews*, Vox (January 1, 2020), <https://www.vox.com/recode/2020/1/1/21043000/artificial-intelligence-job-applications-illinois-video-interview-act>.

⁴⁷³ For example, a Maryland bill would the use of facial recognition technologies during job interviews without the applicant’s consent. Separately, a bill in California would give employers a presumption of non-discrimination if they utilize automated tools that have been pre-tested under the EEOC’s “four-fifths” rule. Such proposals are unlikely to result in meaningful changes for jobseekers since their requirements mirror current hiring guidelines, but instead may risk overprotecting specific automated tools or restricting jobseekers’ access to a fact-specific analysis produced by a court. See Adam Forman, Nathaniel Glasser, and Christopher Lech, *Insight: Covid-19 May Push More Companies to Use AI as Hiring Tool*, Bloomberg Law (May 2020), <https://news.bloomberglaw.com/daily-labor-report/insight-covid-19-may-push-more-companies-to-use-ai-as-hiring-tool>; and SB-1241, *Discrimination in employment: employment tests and selection procedures*, Ca. Leg. Reg. Sess. (Ca. 2020), http://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201920200SB1241.

⁴⁷⁴ Int. No. 1894, *Sale of automated employment decision tools*. City Council. (N.Y.C. 2020), <https://legistar.council.nyc.gov/LegislationDetail.aspx?ID=4344524&GUID=B051915D-A9AC-451E-81F8-6596032FA3F9&Options=Advanced&Search>

⁴⁷⁵ For example, Connecticut has somewhat more stringent laws to prevent overuse of video and audio recording in the workplace. Missouri, North Dakota, and Wisconsin have laws prohibiting employers from requiring workers to have a RFID-enabled microchip implanted in their body. Workplace Fairness, *Surveillance at Work* (last accessed July 2020), <https://www.workplacefairness.org/workplace-surveillance>.

⁴⁷⁶ Danyelle Solomon, Connor Maxwell, & Abril Castro, *Systematic Inequality and Economic Opportunity*, Center for American Progress (August 7, 2019), <https://www.americanprogress.org/issues/race/reports/2019/08/07/472910/systematic-inequality-economic-opportunity/>; Calculations based on U.S. Bureau of Labor Statistics, *Civilian Labor Force Level (CLF16OV)*, retrieved from FRED, Federal Reserve Bank of St. Louis (accessed July 2020), <https://fred.stlouisfed.org/series/CLF16OV>.

⁴⁷⁷ Maryam Jameel, *More and more workplace discrimination cases are being closed before they’re even investigated*, Vox (June 14, 2019), <https://www.vox.com/identities/2019/6/14/18663296/congress-eeoc-workplace-discrimination>.

⁴⁷⁸ Yang Testimony at 12.

⁴⁷⁹ One proposal, as witness Jenny Yang notes, is to develop a universal label, similar to a nutritional label, for rankings or scores generated by algorithms, which “incorporates research on fairness, stability, and transparency to assist users in understanding the appropriate use and limitations of algorithmic ranking systems.” Yang Testimony at 12; Ke Yang et al., *A nutritional label for rankings* (2018), In Proceedings of the 2018 international conference on management of data at 1773–76, <https://par.nsf.gov/servlets/purl/10074235>.

⁴⁸⁰ Romer-Friedman Testimony at 15.

⁴⁸¹ Romer-Friedman Testimony at 15-16.

⁴⁸² Ajunwa Testimony at 12.

⁴⁸³ Romer-Friedman Testimony at 22-23. While this report discusses discrimination in job advertising, Romer-Friedman’s testimony suggests Congress should scrutinize Section 230(c) immunity beyond its application to employment, as well.

⁴⁸⁴ Yang Testimony at 10.

⁴⁸⁵ David Malakoff, House Democrats move to resurrect Congress’s science advisory office, Science Magazine (Apr. 30, 2019), <https://www.sciencemag.org/news/2019/04/house-democrats-move-resurrect-congress-s-science-advisory-office>. Meanwhile, the Government Accountability Office (GAO), Congress’s primary independent, nonpartisan research and fact-finding organization, has limited authority to request information from private parties unless they are government contractors.

⁴⁸⁶ Office of Technology Assessment Improvement and Enhancement Act, H.R. 4426, 116th Cong. (2019).

⁴⁸⁷ Select Committee on the Modernization of Congress, *Final Report* (October 2020),

[https://modernizecongress.house.gov/imo/media/doc/ModernizationCommittee_10152020r1Compressed%20\(newest%20gpo%20report\).pdf](https://modernizecongress.house.gov/imo/media/doc/ModernizationCommittee_10152020r1Compressed%20(newest%20gpo%20report).pdf).

⁴⁸⁸ *Bringing an End to Harassment by Enhancing Accountability and Rejecting Discrimination (BE HEARD) in the Workplace Act*, H.R. 2148, 116th Cong. (2019).

⁴⁸⁹ See Yang Testimony at 14-15. Federal civil rights law has historically accorded an elevated level of protection in the context of credit, housing, and employment.

⁴⁹⁰ *Protecting the Right to Organize Fact Sheet*, U.S. House of Representatives Committee on Education and Labor, <https://edlabor.house.gov/imo/media/doc/PRO%20ACT%20-%20Fact%20Sheet.pdf> (last accessed July 2020).

⁴⁹¹ The *Protecting the Right to Organize (PRO) Act*, H.R. 2474, 116th Cong. (2019).

⁴⁹² Yang Testimony at 14-15.

⁴⁹³ According to a letter from leading civil rights groups to lawmakers in 2019, “Historically, marginalized communities could not rely on government actors to protect their rights; this is why most civil rights laws contain a private right of action.” Letter to Congress on Civil Rights and Privacy, (February 13, 2019)

<http://civilrightsdocs.info/pdf/policy/letters/2019/Roundtable-Letter-on-CRBig-Data-Privacy.pdf>. Furthermore, as witness Jenny Yang points out: “The Fair Credit Reporting Act (FCRA) and the Equal Credit Opportunity Act (ECOA) combine protections for

algorithmic decisionmaking in the credit and lending sector with private rights of action and government enforcement provisions to ensure accountability.” Yang Testimony at 14.

⁴⁹⁴ See Letter to Congress on Civil Rights and Privacy, *supra* note 493; Gaurav Laroia & David Brody, *supra* note 413; Becky Chao, Eric Null, Brandi Collins-Dexter, & Claire Park, *Centering Civil Rights in the Privacy Debate*, Open Technology Institute (last updated on Aug. 14, 2019), <https://www.newamerica.org/oti/reports/centering-civil-rights-privacy-debate/>.

⁴⁹⁵ Romer-Friedman Testimony at 12.

⁴⁹⁶ Ajunwa Testimony at 2.

⁴⁹⁷ *Supra* note 345.