

# TECHNOLOGY, EMPLOYEE REPLACEMENT, AND THE FUTURE OF WORK

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## I. INTRODUCTION

At least since the invention of the wheel, technology has been a boon to humanity, in large part by complementing and replacing human labor.<sup>1</sup> With the Industrial Revolution and the explosion of productivity it brought about, many late-19th and early-20th century observers foresaw, as Marx had, the emergence of a technologically-advanced economy that could meet the material needs of the citizenry with only a small fraction of the human labor that was then employed.<sup>2</sup> Indeed, if the fruits of a highly automated and productive economy could be fairly distributed, then humanity could transcend the enduring economic problem of scarcity and democratize the pursuit of humanistic and artistic aims that Walt Whitman called “higher progress.”<sup>3</sup> In 1930, John Maynard Keynes famously predicted that “our grandchildren” a century hence (that is, in 2030) would need to work no more than *fifteen hours per week* to meet their material needs. Then, “for the first time since his creation man will be faced with his real, his permanent problem—how to use his freedom from pressing economic cares, how to occupy the leisure, which science and compound interest will have won for him, to live wisely and agreeably and well.”<sup>4</sup>

That isn’t quite how things have turned out, of course. Some visionaries still dream of a more automated future of much less toil and widely distributed abundance, while others fear a future in

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1. See, e.g., BETH KANTER & ALLISON H. FINE, *THE SMART NONPROFIT: STAYING HUMAN-CENTERED IN AN AUTOMATED WORLD* 10–12 (2022) (describing how automation can free up non-profit staff time for engagement with clients and donors).

2. See generally BENJAMIN K. HUNNICUTT, *FREE TIME: THE FORGOTTEN AMERICAN DREAM* 1–12 (2013) (describing the historical development of the movement for shorter working hours among intellectuals and workers).

3. *Id.* at 48–69; see also Robert T. Rhode, *Culture Followed the Plow, However Slowly*, 15 KY. PHILOLOGICAL REV. 49 (2001).

4. JOHN MAYNARD KEYNES, *Possibilities for Our Grandchildren*, in *ESSAYS IN PERSUASION* 321, 328 (Palgrave Macmillan 2010).

which demand for human labor, wages, and wealth are even more unequally distributed than they are now.<sup>5</sup> In the meantime, technology is already taking a toll on work and workers in various ways. “Algorithmic management,” including tracking of workers’ movements, keystrokes, attentiveness, and emotional states, threatens to render human work itself increasingly robotic while undercutting existing strategies for constraining managerial overreach.<sup>6</sup> Technologies that quantify human performance are changing and sometimes skewing decisions about hiring, promotions, and discipline in ways that anti-discrimination laws might fail to address.<sup>7</sup> Managers also use technology to enhance their power over workers directly and to squelch collective action, with or without improvements in productivity.<sup>8</sup> In a number of ways, workplace technologies exacerbate problems of “subordination and submission” at work,<sup>9</sup> and shift risk from firms to workers.<sup>10</sup>

Here, I want to focus instead on an underappreciated role that technology is playing in the field of work by enhancing employers’ arsenal of employee replacement options and consequently depressing workers’ bargaining power. That is true most obviously in the case of automation, or replacement of human workers with machines, but it is also true in relation to organizational techniques of “fissuring,” or contracting out work to individuals or supplier firms, whether domestic or overseas. Part II of this Article will sketch current debates about workers’ relative bargaining power and its determinants. Part III will explore trends in the organization and technology of work that are making it easier for private sector em-

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5. I survey the spectrum of views on a future of less work in CYNTHIA ESTLUND, *AUTOMATION ANXIETY: WHY AND HOW TO SAVE WORK* 36–39 (2021).

6. See JEREMIAS PRASSL, *HUMANS AS A SERVICE: THE PROMISE AND PERILS OF WORK IN THE GIG ECONOMY* 55–58 (2018); Jeremias Adams-Prassl, *What If Your Boss Was an Algorithm? Economic Incentives, Legal Challenges, and the Rise of Artificial Intelligence at Work*, 41 *COMP. LAB. L. & POL’Y J.* 123 (2019).

7. See IFEOMA AJUNWA, *THE QUANTIFIED WORKER: LAW AND TECHNOLOGY IN THE MODERN WORKPLACE* (2023). But see ORLY LOBEL, *THE EQUALITY MACHINE* (2022) (arguing that technology might also facilitate the detection of discrimination and help to counter historical exclusions).

8. See BRISHEN ROGERS, *DATA AND DEMOCRACY AT WORK* (2023); Brishen Rogers, *The Law and Political Economy of Workplace Technological Change*, 55 *HARV. C.R.-C.L. L. REV.* 531 (2020).

9. See Valerio De Stefano, *‘Masters and Servants’: Collective Labour Rights and Private Government in the Contemporary World of Work*, 36 *INT’L J. COMPAR. LAB. L. & INDUS. RELS.* 425 (2020).

10. See Pegah Moradi & Karen Levy, *The Future of Work in the Age of AI: Displacement or Risk-Shifting?*, in *OXFORD HANDBOOK OF ETHICS OF AI* 270–88 (Markus D. Dubber et al. eds., 2020).

ployers to replace employees, and that are depressing most workers' labor market power.<sup>11</sup> Part IV will suggest some ways in which the law of work could respond to these trends, either by supplementing workers' bargaining power with public regulatory power or by intervening to rebalance bargaining power.

## II. THE RETURN OF "UNEQUAL BARGAINING POWER" IN U.S. LABOR POLICY

After a long period of exile in the intellectual wilderness, the concept of unequal bargaining power is back at the center of scholarly and public discourse about labor law and policy. That is a welcome development to those who believe that U.S. workers have taken an economic beating since the 1970s, and that workers' lives at work and beyond are profoundly affected by their bargaining power. Employees with little bargaining power—or leverage—experience lower wages and benefits, less opportunity for advancement, worse schedules, less job security, less access to paid leaves or vacations, less privacy on and off the job, and greater vulnerability to workplace hazards and abuse. They will often feel compelled to tolerate violations of their legal rights, such as discriminatory harassment or demands for unpaid, off-the-clock work. Many workers, especially those without higher education or advanced skills, find themselves in that position most of the time. This Article explores the role that technology has played in exacerbating asymmetries of labor market power in recent decades, along with some ways in which the law could respond to those asymmetries.

The concept of unequal bargaining power was once-dominant, long-disdained, and now-resurgent within U.S. labor policy. The basic template for that policy was constructed during the New Deal era, when there was a widespread consensus that workers—or at least most workers most of the time—suffered from a deficit of bargaining power. The first pillar of U.S. labor policy, the National Labor Relations Act of 1935 (NLRA), expressly aimed to redress the “inequality of bargaining power between employees who do not possess full freedom of association or actual liberty of contract and employers who are organized in the corporate or other forms of ownership association.”<sup>12</sup> The law sought to do that by enabling

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11. I explore these trends in Cynthia Estlund, *Losing Leverage: Employee Replaceability and Labor Market Power*, U. CHI. L. REV. (forthcoming 2023), from which this section borrows.

12. National Labor Relations Act § 1, 29 U.S.C. § 151 (1935) (amended 1947).

workers to aggregate and amplify their own bargaining power through union organizing and collective bargaining. The second founding pillar of U.S. labor and employment law, the Fair Labor Standards Act of 1938 (FLSA),<sup>13</sup> established a national minimum wage and mandatory overtime premium for most of the private sector labor market. The idea behind the FLSA was that, while collective bargaining would enable workers in leading industries to improve their wages and working conditions, many workers outside those industries simply had too little bargaining power for that strategy to succeed; they needed direct government intervention to put a floor on basic terms and conditions of work.<sup>14</sup>

The NLRA has failed to enable workers to organize and bargain collectively (and there is no shortage of analysis of the reasons for that failure). That is seen in the fall of union density to about six percent of the private sector labor force.<sup>15</sup> But the problem is deeper: workers can amplify their bargaining power by aggregating it, but only by so much. If workers have too little individual bargaining power, then aggregating it might still leave them unable to exact meaningful concessions from employers. In other words, what had been the back-up regulatory strategy of minimum labor standards—meant to protect workers at the economy’s margins with too little market power to protect themselves through unionization—now stands for most workers as the primary buffer against labor market dynamics that are skewed against most workers most of the time. To make matters worse, those basic labor standards have not kept up with either inflation or productivity improvements.<sup>16</sup>

Both the failings of collective labor law and the stagnation of minimum labor standards are among the reasons why workers’ economic fortunes—as represented by labor’s share of income and of productivity gains—have stagnated or deteriorated since the

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13. Fair Labor Standards Act of 1938, 29 U.S.C. §§ 201–19.

14. See Seth D. Harris, *Conceptions of Fairness and the Fair Labor Standards Act*, 18 HOFSTRA LAB. & EMP. L.J. 19, 22–24 (2000) (describing how the FLSA codifies assumptions about insufficient worker bargaining power into its statutory language).

15. Press Release, Bureau of Lab. Stats., Union Members Summary (Jan. 20, 2022), <https://www.bls.gov/news.release/union2.nr0.htm> [<https://perma.cc/R4HL-LEWX>].

16. David Cooper, Sebastian Martinez Hickey & Ben Zipperer, *The Value of the Federal Minimum Wage is at Its Lowest Point in 66 Years*, ECON. POL’Y INST. (July 14, 2022), <https://www.epi.org/blog/the-value-of-the-federal-minimum-wage-is-at-its-lowest-point-in-66-years/> [<https://perma.cc/8LXV-YY5B>].

1970s.<sup>17</sup> During most of that period, conventional economic wisdom was that unequal bargaining power was an incoherent trope, and that labor markets, if not perfectly competitive, were competitive enough to ensure that workers got their fair share of economic output. The mismatch between economic reality and theory is more than ironic, for ideas affect policy. Neoliberal ideas about the superiority of markets and private ordering, and the retrograde impact of both regulatory intervention and labor unions, contributed to both the failure of proposals to reform and revitalize the federal labor laws and the stagnation of labor standards.<sup>18</sup>

The last decade or so has seen a resurgence of scholarly attention to asymmetries of power in the labor market, as already noted.<sup>19</sup> To be sure, workers' labor market power is variable, contingent, and not easily measured.<sup>20</sup> Still, we can fairly say that incumbent employees' bargaining power on the job depends on how costly their departure—whether by quitting or dismissal—would be both to their employer and to themselves. That is, employees have more bargaining power if they could easily find another comparable job in case they quit or were fired, *and* if their departure would be costly to their employer (given both replacement costs and any liabilities or dispute-resolution costs in case of dismissal). Both sides of the equation depend to a great extent on the demand for and supply of workers' particular skills. It seems fair to say, however, that there is a systematic “inequality of bargaining power” if most workers in most labor market conditions would find it harder or more

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17. U.S. DEP'T OF THE TREASURY, *THE STATE OF LABOR MARKET COMPETITION* 39 (2022), <https://home.treasury.gov/system/files/136/State-of-Labor-Market-Competition-2022.pdf> [<https://perma.cc/9W75-8R2P>].

18. See, e.g., Richard A. Epstein, *A Common Law for Labor Relations: A Critique of the New Deal Labor Legislation*, 92 *YALE L.J.* 1357 (1983); Richard A. Epstein, *In Defense of the Contract at Will*, 51 *U. CHI. L. REV.* 947 (1984); Richard A. Posner, *Some Economics of Labor Law*, 51 *U. CHI. L. REV.* 988 (1984).

19. See Lawrence Mishel, *The Goliath in the Room: How the False Assumption of Equal Worker-Employer Power Undercuts Workplace Protections*, 3 *U.C. BERKELEY J. L. & POL. ECON.* 3, 4 (2022). This entire special issue, entitled “Not So Free to Contract: How Unequal Workplace Power Undercuts the ‘Freedom of Contract’ Framework,” explores unequal bargaining power, its determinants, and its consequences. For another recent overview of contemporary interdisciplinary scholarship on the determinants of workers' versus employers' bargaining power, see Hiba Hafiz, *Structural Labor Rights*, 119 *MICH. L. REV.* 651, 688–97 (2021).

20. See Brishen Rogers, *Employment Rights in the Platform Economy: Getting Back to Basics*, 10 *HARV. L. & POL'Y REV.* 479, 496 (2016). (“The notions of ‘unequal bargaining power’ and ‘economic dependence’ . . . do not explain when bargaining power is sufficiently unequal or dependence sufficiently grave to warrant employment duties.”).

costly to replace one job with another than employers would find it to replace one worker with another.<sup>21</sup> And if all that is so, then changes in the economy and in labor markets may degrade workers' relative labor market power by making it either harder for workers to switch jobs or easier for employers to replace them.

Problems of monopsony and growing concentration of product markets, which make it harder for workers to switch jobs or employers, are getting renewed attention.<sup>22</sup> Here I will focus on the other side of the equation: firms' growing ability to replace workers, and especially the role of technology in those developments, including but not only through automation. The proliferation of firms' employee replacement options undermines workers' labor market power and, with it, the viability of collective bargaining as a strategy for improving wages and working conditions, given the unavoidable dependence of workers' *collective* bargaining power on their *individual* bargaining power. For one thing, union density takes a hit, and the domain of collective bargaining shrinks, whenever employers replace union-represented workers, whether with machines or with other workers who are not (and often cannot be) represented by a union. In other words, employee replacement often means union avoidance, whether incidentally or by design. For several reasons, employees' growing replaceability thus raises hard questions about the future of collective bargaining.

### III. AUTOMATION, FISSURING, AND OTHER EMPLOYEE REPLACEMENT OPTIONS

Several important labor market trends in recent decades have expanded firms' ability to replace employees either with other workers or with machines. Those trends contribute to workers' shrinking market power, labor's declining share of income, and growing economic inequality. Nearly all of them are enabled or amplified by technology.

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21. This approach broadly aligns with that of microeconomic game and bargaining theorists, who assess bargaining power through parties' ability to delay action without cost, make credible threats, and incur risk. See Hafiz, *supra* note 19, at 688–97.

22. See, e.g., ERIC A. POSNER, HOW ANTITRUST FAILED WORKERS (2021); see also Eric Posner, *Antitrust's Labor Market Problem*, PROMARKET (Nov. 8, 2021), <https://www.promarket.org/2021/11/08/antitrust-labor-market-concentration-problem/> [<https://perma.cc/9QEQ-TT4K>] (summarizing the results of several studies looking at monopsony); Hafiz, *supra* note 19, at 654 (describing the failures of antitrust law to protect worker bargaining power).

A. *The Automation Option*<sup>23</sup>

Predictions of a jobless future have come in waves throughout the history of capitalism, only to recede as new jobs—usually better jobs—replace those lost to machines. But the pace and distinctive nature of recent innovations in artificial intelligence, machine learning, and robotics have led some contemporary observers to believe that this time will be different.<sup>24</sup> With advances in both hard and soft forms of technology (robots and algorithms, for example), machines are replicating a wider range of human capabilities and weaving together those distinct capabilities more seamlessly than ever before. The very terms “artificial intelligence” and “machine learning” hint at what is new: technology is acquiring and refining cognitive and sensory capabilities that were long thought to be uniquely human.

To be sure, the reality does not always live up to the Silicon Valley hype, which portrays the disruptive potential of technological breakthroughs while downplaying their shortcomings and underestimating the human and institutional frictions that slow implementation. So, we should not swallow whole tales from the tech world about the imminent end of work. But neither should we ignore the fact that as machines replicate an ever-wider range of human capabilities, and outpace and surpass humans at increasingly complex tasks, they are putting a growing range of jobs at risk.<sup>25</sup>

A future of less work could obviously be good or bad, depending on how society manages and responds to it. Most workers would welcome a more automated future of less work if the dividends in both prosperity and more time for the rest of life were widely shared.<sup>26</sup> But without a much larger public role in labor markets, job losses may fall heavily and painfully on those without specialized

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23. This section borrows liberally from my recent book on automation. See generally ESTLUND, *supra* note 5.

24. See *id.* at 1–40.

25. Two widely cited studies using different methodologies reach the same bottom line: nearly half of the work that humans perform in the current U.S. economy is “automatable,” and potentially at risk over the next few decades. See Carl Benedikt Frey & Michael A. Osborne, *The Future of Employment: How Susceptible Are Jobs to Computerisation?*, 114 *TECH. FORECASTING & SOC. CHANGE* 254 (2017); MCKINSEY GLOB. INST., *A FUTURE THAT WORKS: AUTOMATION, EMPLOYMENT, AND PRODUCTIVITY* 109 (2017), [https://www.mckinsey.com/~/media/mckinsey/featured%20insights/digital%20disruption/harnessing%20automation%20for%20a%20future%20that%20works/mgi-a-future-that-works\\_full-report.pdf](https://www.mckinsey.com/~/media/mckinsey/featured%20insights/digital%20disruption/harnessing%20automation%20for%20a%20future%20that%20works/mgi-a-future-that-works_full-report.pdf) [https://perma.cc/7AA7-WU3W].

26. For my own policy suggestions, see ESTLUND, *supra* note 5, at 105–48.

skills or advanced education, producing growing pockets of unemployment, underemployment, or retreat from the active labor market.

Job destruction is only half the picture, of course. Machines also create new jobs—especially, but not only, skilled jobs working with technology. The history of automation’s impact on the labor market has been one of “creative destruction.”<sup>27</sup> Here, we can sidestep the vigorous debate over whether new job creation will keep up numerically with job losses or not.<sup>28</sup> For the incontestable fact is that job losses may be devastating to workers and their families and communities even if they are numerically offset by new job opportunities elsewhere in the economy. Apart from geographic mismatches between jobs lost and jobs gained, job losers might have neither the skills needed in new jobs nor a realistic shot at acquiring those skills. Moreover, workers whose jobs *could be* automated suffer a loss of labor market power even if their jobs are not yet automated, and even if other jobs are being created elsewhere. That is, the proliferation and growing cost-effectiveness of technological substitutes for human labor translates into a powerful employee replacement strategy that undermines many workers’ market power vis-à-vis employers even before those workers are actually displaced.

### B. *Fissuring as Employee Replacement and the Role of Technology*

The field of labor and employment law, while largely neglecting the automation question, has been thoroughly preoccupied with what David Weil has called “fissuring.”<sup>29</sup> “Fissuring” describes the processes by which major branded firms in the past several decades have been systematically shedding workers and labor functions (especially manufacturing, maintenance, logistics, cleaning, security, and food services) and contracting them out to other entities or to individuals. Fissuring includes domestic outsourcing as well as offshoring of jobs to overseas suppliers (think China) and splintering of jobs into gigs that are or purport to be beyond the

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27. See David H. Autor, *Why Are There Still So Many Jobs? The History and Future of Workplace Automation*, 29 J. ECON. PERSPS. 3 (2015).

28. That debate occupies most of Chapter 2 of my book on automation. See ESTLUND, *supra* note 5, at 21–40.

29. See generally DAVID WEIL, *THE FISSURED WORKPLACE* (2014). For a concise summary, see Heather Boushey, *Equitable Growth in Conversation: In Conversation with David Weil*, WASH. CTR. FOR EQUITABLE GROWTH (June 22, 2017), <https://equitablegrowth.org/equitable-growth-in-conversation-david-weil/> [<https://perma.cc/CA6L-TYKU>].

employment nexus (think Uber). The latter forms of fissuring replace domestic employees with workers who are beyond the reach of domestic labor and employment law by virtue of their location or their legal classification or misclassification; they enable firms not merely to pass the burdens of employer status down to less visible, profitable, and capable supplier firms, but to eliminate those burdens altogether, along with the corresponding employee protections.

All kinds of fissuring tend to leave workers worse off—without the decent wages, generous benefits, and paths to advancement that their predecessors enjoyed inside the “internal labor markets” of vertically-integrated lead firms.<sup>30</sup> Intense cost-based competition among relatively low-visibility and less capitalized supplier firms squeezes profit margins and puts downward pressure on wages and labor standards, and many supplier firms have little tangible or reputational capital to lose if they break the law or go under. Fissuring allows lead firms to reduce costs, and sometimes to shed or avoid union entanglements, while avoiding direct accountability for the lawless practices that sometimes underlie those lower costs.

Fissuring replaces employees with other workers who are almost always in a weaker market position, whether because they occupy a lower-profit sector of the economy, a poorer or less regulated jurisdiction, or a less protected legal status within the jurisdiction (as with independent contractors). Importantly, the ability of firms to fissure or contract out work undercuts the bargaining power or leverage of incumbent employees even before their jobs are fissured away. Just as with employees whose jobs could be automated, employees who could be replaced with lower-wage workers of a supplier firm suffer a loss of bargaining leverage. But what does the latter have to do with technology?

Technology has facilitated fissuring at every turn, from outsourcing to poorer countries to the growth of platform work, and it has done so by lowering the costs associated with firms’ explicit contracting for goods and services that they need for their business.<sup>31</sup>

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30. See David Weil, *Income Inequality, Wage Determination, and the Fissured Workplace*, in *AFTER PIKETTY: THE AGENDA FOR ECONOMICS AND INEQUALITY* 209, 224–27 (Heather Boushey, J. Bradford DeLong & Marshall Steinbaum eds., 2017).

31. See WEIL, *supra* note 29, at 54–58, 60–63, 167–74. This relates to the “theory of the firm,” and the recurring “make-or-buy” decisions that define the boundaries of the firm. Firms can more readily “buy” labor inputs from outside contractors, and avoid some of the costs associated with “making” those labor inputs through their own employees, when technology reduces the substantial transaction costs associated with making and enforcing explicit contracts over what is needed. *Id.* at 30–31, 60–63.

Technology enables lead firms to break down products and processes into component parts, to identify and contract out the least profitable of those parts, to set standards and specifications by contract, and to monitor performance and outputs of outside suppliers across organizational and geographic boundaries.<sup>32</sup> Technology in the form of container ships and bar-coding allowed Walmart to track goods from Chinese and Vietnamese factories to U.S. retail outlets;<sup>33</sup> technology allows Apple to scrupulously monitor the quality of iPhones while tapping into much cheaper overseas labor markets;<sup>34</sup> and technology enables Uber to monitor drivers, connect them with customers, and capture a large share of the resulting fares, without directly supervising the drivers.<sup>35</sup>

Similarly, technology can facilitate firms' replacement of full-time employees with part-time or temporary workers—precarious or contingent workers—with much the same consequences as fissuring for labor conditions and wages. In particular, “just-in-time” scheduling software enables firms to match staffing levels to fluctuating customer demand through shorter and more intensive on-demand shifts. The impact of both growing precarity and fissuring on labor markets is thus traceable in some significant measure to technology—not disembodied technology, of course, but technology in the hands of profit-seeking firms.

Crucially, all of these employee-replacement strategies—contracting out work to domestic or overseas suppliers or individual contractors or converting full-time jobs into part-time or contingent jobs—tend to undercut workers' bargaining power *even if they are not exercised*. A firm's realistic, cost-effective option to replace a given group of employees will tend to dampen those employees' market power even while it remains just an option. The labor mar-

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32. See Abraham Seidmann & Arun Sundararajan, *Sharing Logistics Information Across Organizations: Technology, Competition, and Contracting*, in INFORMATION TECHNOLOGY AND INDUSTRIAL COMPETITIVENESS 107 (Chris F. Kemerer ed., 1998).

33. On the transformative impact of container ships and bar codes on global supply chains, see Witold Rybczynski, *Shipping News*, N.Y. REV. BOOKS (Aug. 10, 2006), <https://www.nybooks.com/articles/2006/08/10/shipping-news/> [<https://perma.cc/NV87-F8RV>].

34. See Sissi Cao, *Apple Struggles with High Defect Rates as it Shifts Manufacturing from China to India*, OBSERVER (Feb. 14, 2023), <https://observer.com/2023/02/apple-india-manufacturing-defect-rate/> [<https://perma.cc/YL7G-4QLG>].

35. Whether Uber can do so without being the legal employer of those drivers is a hotly contested issue. For a helpful overview of the wide array of classification tests out there, see Robert Sprague, *Using the ABC Test to Classify Workers: End of the Platform-Based Business Model or Status Quo Ante?*, 11 WM. & MARY BUS. L. REV. 733, 740–50 (2020); see also Pamela A. Izvanariu, *Matters Settled But Not Resolved: Worker Misclassification in the Rideshare Sector*, 66 DEPAUL L. REV. 133, 141–46 (2017).

ket impact of employee-replacement options parallels that of higher unemployment on wages. Workers with skills that are in ample supply on the external labor market, as with most workers in times of high unemployment, have less bargaining power because they are relatively interchangeable with other available job candidates. Similarly, the easier it is for a firm to replace workers through outsourcing or automation, the less bargaining power those replaceable workers have. Either way, workers with scarce skills will be harder to replace at any given level of overall unemployment, whether by hiring a new employee or by contracting out or relocating work. The impact of both high unemployment and greater employee replacement options falls most heavily on workers without advanced education or training.

Automation is thus part of a larger menu of options by which owners and managers of capital seek to grow their returns by securing labor inputs more cheaply than by directly employing people. Fissuring in all its forms accounts for a big section of that menu of options. But if robots or algorithms can supply those inputs more reliably or more cheaply, then firms will turn to them instead of human labor. According to investment banker Steven Berkenfeld, “some CEOs . . . will do anything possible, they’ll explore all other alternatives so as not to hire another full-time employee.”<sup>36</sup> The alternatives are ever more abundant in the era of fissuring and automation; that depresses the labor market power of the workers for whom fissuring or automation provides a ready substitute.

#### IV.

#### LESSONS FOR LABOR: SUPPLEMENTING AND REBALANCING WORKERS’ BARGAINING POWER

In principle, and to some degree in fact, workers could improve their bargaining power—their ability to advocate for and advance their own interests—by organizing and bargaining collectively. There is little doubt that the collapse of collective bargaining accounts for some part of the decline in labor’s share of income and the rise in economic inequality. And our labor laws undoubtedly should be reformed to make it more feasible for workers to form unions and pursue collective bargaining (and harder

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36. Steven Berkenfeld, Presentation at U.S. Dep’t of Lab. Conf. on the Future of Work (Dec. 10, 2015) (transcript on file with author). See also Olivier Garret & Stephen McBride, *How the Coming Wave of Job Automation Will Affect You and the U.S.*, FORBES (Feb. 23, 2017), <https://www.forbes.com/sites/oliviergarret/2017/02/23/how-the-coming-wave-of-job-automation-will-affect-you-and-the-us/?sh=5f8c530d3fd7> [<https://perma.cc/BG6T-EAQM>].

for employers to escape them). But we also need to reckon with the fact that our labor laws were designed to fortify workers' bargaining power chiefly by enabling them to collectivize that power.<sup>37</sup> Labor law reform, as it has long been pursued in the United States, aims to make good on that crucial commitment. But, even if workers had a fair opportunity to collectivize their market power, most workers today just do not have enough of it; that is, they do not have enough of it to make up the ground they have lost in today's globalized, fissured, and increasingly automated economy.

So, while we should reform labor law to facilitate unionization and collective bargaining, the path to a better future of work may require investing in other strategies for improving wages and working conditions, especially for workers without specialized skills or higher education. We should pursue strategies that promise not merely to *aggregate* the diminishing labor market power that workers can bring to the bargaining table, but also to *bolster* and *supplement* that power through the use of state regulatory power. In particular, the story told here suggests a shift toward greater reliance on state power to make up for workers' loss of market power, and more emphasis on political organizing with the aim of raising minimum labor standards. The story might point as well toward particular regulatory interventions that both directly protect workers and simultaneously bolster their bargaining power, individual and collective, by constraining employers' ability to replace employees.

#### A. *Regulating Labor Standards (With a Sectoral and Tripartite Twist)*

Labor and employment law in the United States basically consists of a framework for enterprise-based collective bargaining and a patchwork of employee rights and labor standards that operate at the jurisdiction-wide level: national, state, or local. Other possibilities, including sectoral bargaining, have recently risen to the fore in public and scholarly debates.<sup>38</sup> The advantages of sectoral versus enterprise-based bargaining are indeed becoming increasingly

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37. The introduction of mandatory interest arbitration would change that; but that has thus far been proposed, as in the Employee Free Choice Act (EFCA) and the Protecting the Right to Organize (PRO) Act, only for initial contracts in new collective bargaining relationships. See Employee Free Choice Act of 2009, H.R. 1409, 111th Cong. § 3 (1st Sess. 2009); Protecting the Right to Organize Act of 2021, H.R. 842, 117th Cong. § 104 (1st Sess. 2021).

38. See Kate Andrias, *The New Labor Law*, 126 YALE L.J. 2 (2016); SHARON BLOCK & BENJAMIN SACHS, CLEAN SLATE FOR WORKER POWER: BUILDING A JUST ECONOMY AND DEMOCRACY 37–45 (2021), <https://www.cleanslateworkerpower.org/clean-slate-agenda> [<https://perma.cc/B39X-C3PT>].

clear. But genuine sectoral bargaining is still about aggregating and deploying bargaining power, which is what most employees have been losing in today's economy. (Moreover, sectoral bargaining normally requires much greater union density than exists today in the United States.) The thrust of the argument so far is that *regulatory* solutions versus *bargaining* solutions must play a bigger role in the law of work going forward.

Does the turn toward regulatory strategies mean sidelining workers' organizations, or reducing their role to political agitation? Not necessarily. Some public regulatory strategies give stakeholders (here, workers) an institutionalized voice, often through tripartite regulatory bodies. The idea of what I have elsewhere called "co-regulation" is to inject some of the strengths of union representation and collective bargaining into the regulatory process.<sup>39</sup> It is a hybrid of collective bargaining and regulation, and of labor law and employment law as those fields are conventionally understood. Still, co-regulatory strategies as such promise little by way of raising wages or other crucial economic terms above the publicly-prescribed, jurisdiction-wide floor. As long as that floor applies across a whole jurisdiction—federal, state, or local—it is constrained by what is thought to be sustainable in its least productive sectors. Call it the *least-common-denominator problem*.

The various concerns with both enterprise-based collective bargaining and jurisdiction-wide minimum standards point toward a relatively novel regulatory strategy that we might call *sectoral co-regulation*.<sup>40</sup> Sectoral co-regulation would operate at the intersection of both mid-points identified above—that is, at the sectoral level (versus either the jurisdictional or the enterprise level), and in the co-regulatory middle-ground between collective bargaining and conventional regulation. Sectoral co-regulatory approaches could afford workers and their organizations a meaningful role in devising and enforcing sectoral standards that exceed jurisdiction-wide minimum standards. Two examples, both in the fast-food sector, may be found in the tripartite New York State Wage Board, convened 2015, which raised wages for workers in that sector,<sup>41</sup> and California's re-

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39. See CYNTHIA ESTLUND, *REGOVERNING THE WORKPLACE: FROM SELF-REGULATION TO CO-REGULATION* 22 (2010).

40. See Cynthia Estlund, *Sectoral Solutions That Work: The Case for Sectoral Co-Regulation*, 98 CHI.-KENT L. REV. (forthcoming 2023).

41. See Patrick McGeehan, *New York Plans \$15-an-Hour Minimum Wage for Fast Food Workers*, N.Y. TIMES (July 22, 2015), <https://www.nytimes.com/2015/07/23/nyregion/new-york-minimum-wage-fast-food-workers.html> [https://perma.cc/4BW6-CXYV].

cent FAST legislation, which would create a similar tripartite board to address a range of terms and conditions of employment within the sector (subject to a state referendum on the ballot in November 2023).<sup>42</sup>

Co-regulation has some advantages relative to both collective bargaining and conventional forms of state regulation, and sectoral-based approaches to raising labor standards have advantages relative to both enterprise-based and jurisdiction-wide approaches. Sectoral co-regulation should not replace either enterprise-based bargaining or across-the-board rights and standards; both need to be fortified. But, alongside those approaches, sectoral co-regulatory reforms could bolster wages and working conditions for many workers and fill part of the gap left by the decline of enterprise-based bargaining. I explore the idea more fully elsewhere,<sup>43</sup> but I raise it here to make the point that shifting from a bargaining to a regulatory frame does not necessarily require settling for least-common-denominator minimum standards, nor does it necessarily cut workers and their organizations out of the process of raising standards. Sectoral regulatory approaches, and especially those with a tripartite or co-regulatory character, can be a focal point for political and workplace-based organizing.

### B. *Regulating in Pursuit of Rebalancing Bargaining Power*

Part III argues that many of the trends and tactics that are depressing workers' relative market power can be seen as employee-replacement or employment-avoidance options. That suggests a regulatory strategy that could compliment collective (and individual) bargaining by constraining employee-replacement techniques and thus boosting employees' labor market power. We can readily imagine several such regulatory strategies apart from outright banning any of the employee-replacement strategies we have discussed.<sup>44</sup> The law could interpose *procedural* duties of notice, consultation, or bargaining with affected employees or their representatives before replacing them; it could condemn certain *motives* for replacing or displacing employees; or it could require some level of *justification* for such decisions, with procedures for judicial

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42. See Kurtis Lee, *California Voters to Decide on Regulating Fast Food Industry*, N.Y. TIMES (Jan. 25, 2023), <https://www.nytimes.com/2023/01/25/business/economy/california-fast-food-workers.html> [<https://perma.cc/P47J-2JLB>].

43. Estlund, *supra* note 40.

44. Such moves would be difficult to implement politically and, moreover, might have significant unintended consequences to firm productivity and employer decisions on how and who to hire. See Estlund, *supra* note 11, at 9–12.

or administrative review. Each of those three types of constraints could be imposed on individual discharge or layoff decisions—for example, through a “just cause” requirement for dismissals—or on decisions affecting groups of employees. (In addition, the law could *muffle the impact* and defeat the employment-avoidance aims of some fissuring options by treating putative independent contractors or the employees of a contractor as the lead firms’ employees for some purposes; I will leave that aside here.) As it turns out, the U.S. law of work already does several of these things to some degree.<sup>45</sup>

One crucial thing that U.S. law does not do: protect employees’ job security against unjustified dismissal. Under the prevailing U.S. rule of employment-at-will, employees can lawfully be fired, laid off, or replaced at any time for any reason (absent some contractual guarantee of job security, like a union contract with a “just cause” requirement). The modern version of employment-at-will allows dismissal without a demonstrably good reason, though not for reasons or motives that are singled out for legal condemnation, including status- and identity-based discrimination or retaliation against protected activity like union organizing or “whistleblowing.”<sup>46</sup> But those laws generally require a fired employee to bear the burden of proving the unlawful motive through the rigors of litigation (where that has not been foreclosed by mandatory arbitration). The United States stands virtually alone in the world in failing to require any *justification* for dismissals or layoffs from employment.<sup>47</sup>

At the risk of belaboring the point: employment-at-will, by making it easier and cheaper to dismiss most workers,<sup>48</sup> effectively depresses the market power of *incumbent* employees who are replaceable, whether by a new hire or by any of the employee-replacement devices discussed above, and who would have difficulty replacing their jobs. More concretely, such workers will be hard-pressed to push back against abusive treatment or obnoxious demands, lest they be fired. That undermines their power to contest employers’ high-handed or arbitrary exercises of authority, to de-

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45. For a review of existing constraints on employee replacement in U.S. law see Estlund, *supra* note 11, at 12–18.

46. For a recent overview, see Cynthia Estlund, *Employment-at-Will: Too Simple for a Complex World*, TEX. A&M L. REV. (forthcoming 2023).

47. *Id.*

48. I will put aside here the possibility that the aggregate costs associated with the many motive-based restraints on dismissal might be comparable to or even greater than the costs of dismissal under a moderately-protective unjust dismissal regime. See Cynthia Estlund, *Wrongful Discharge Law in the Land of Employment-At-Will: A US Perspective on Unjust Dismissal*, 33 KING’S L.J. 298 (2022).

mand better conditions than the law requires, or even to demand compliance with the law, given the rigors and risks of contesting a dismissal.

The second big deficit in the existing U.S. law of work is the lack of mechanisms for collective voice, especially given the failure of the collective bargaining model. Under U.S. law, collective bargaining through a union is the one lawful mechanism by which employees can *participate* collectively in employer decisions that threaten to replace them. Moreover, since the U.S. law of work leaves job security wholly to contract, the path to job security—or “just cause” protection—for the vast majority of private sector workers requires running the gauntlet of unionization. Both deficits—lack of job security and lack of structures of collective participation—could theoretically be addressed through conventional labor law reforms, like those in the proposed Protecting the Right to Organize (PRO) Act,<sup>49</sup> which would make it easier for workers to gain union representation and the right to bargain for both job security and a say in employee-replacement decisions. But even if we imagine away the stubborn political barriers to reforming the basic NLRA model, those reforms would come nowhere close to enabling most workers to secure either job security or a collective voice at work. That is partly because of the hardwired link between collective bargaining power and individual bargaining power that I have already noted.

If we look abroad, as many U.S. worker advocates have done for decades, we would find that employment protection laws—which require employers to justify dismissals or else compensate workers—are nearly ubiquitous in the industrial world outside the United States. And, in some European countries with a strong social democratic tradition and lower levels of income and wealth inequality than in the United States,<sup>50</sup> we would also find laws establishing elected “works councils” in enterprises of a certain scale, with legal entitlements to consultation and co-determination, including over decisions that displace workers.<sup>51</sup> Those institutions

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49. Protecting the Right to Organize Act of 2021, H.R. 842, 117th Cong. (2021).

50. See *Income Inequality*, OECD, <https://data.oecd.org/inequality/income-inequality.htm> [<https://perma.cc/5MJ3-DWS5>]; OECD, *Income and Wealth, in How's LIFE? MEASURING WELL-BEING*, (2020), <https://www.oecd-ilibrary.org/sites/2e9dd941-en/index.html?itemId=/Content/component/2e9dd941-en> [<https://perma.cc/H4K9-USJQ>].

51. For several illuminating studies, see Carola M. Frege, *A Critical Assessment of the Theoretical and Empirical Research on German Works Councils*, 40 BRIT. J. INDUS. RELS. 221 (2002); Walther Müller-Jentsch, *Germany: From Collective Voice to Co-man-*

would enhance both workers' job security and their ability to participate collectively in workplace governance. But they would do double duty, for both would also tend to boost workers' labor market power by constraining employers' ability to replace them.

Among the many hurdles to adopting such ambitious reforms are concerns about their economic impact. Both unjust dismissal laws and works councils would encumber firms' flexibility. That is precisely the point here. Moreover, both operate in favor of *incumbent* employees, and at least potentially to the detriment of would-be employees, especially new entrants to the labor market. That, in turn, might increase unemployment, especially among young people, and impair overall economic performance. By now, however, both employment protections and employee participation structures have been operating in various forms across much of the world for decades and have been subjected to extensive empirical research, which I review elsewhere.<sup>52</sup> In this Article, I will simply jump to the bottom line: the most comprehensive and careful studies to date find that employment protection laws (including those protecting employee voice) were associated with small but mostly *positive* long-term net effects on national economic performance, including modestly *lower* unemployment levels in the longer run and a higher labor share of national income.<sup>53</sup> The impact on labor's share underscores the relationship posited here between workers' labor market power and their job security.<sup>54</sup>

One possible source of positive economic effects is that employment protections and mandatory participation structures ap-

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*agement*, in *WORKS COUNCILS: CONSULTATION, REPRESENTATION, AND COOPERATION IN INDUSTRIAL RELATIONS* 53–78 (Joel Rogers and Wolfgang Streek eds., 1995); Joel Rogers and Wolfgang Streek, *The Study of Works Councils: Concepts and Problems*, in *WORKS COUNCILS: CONSULTATION, REPRESENTATION, AND COOPERATION IN INDUSTRIAL RELATIONS*, *supra*, at 3–26; Wolfgang Streek, *Works Councils in Western Europe: From Consultation to Participation*, in *WORKS COUNCILS: CONSULTATION, REPRESENTATION, AND COOPERATION IN INDUSTRIAL RELATIONS*, *supra*, at 313–14.

52. See Estlund, *supra* note 11, at 20 n.90.

53. Zoe Adams et al., *The Economic Significance of Laws Relating to Employment Protection and Different Forms of Employment: Analysis of a Panel of 117 Countries, 1990–2013*, 158 *Int'l Lab. Rev.* 1, 20 (2019). Some scholars criticize the CBR Labour Regulation Index (CBR-LRI) for not including social security regulations and for focusing on formal law versus coverage or effectiveness. See Petra Mahy et al., *Measuring Worker Protection Using Leximetrics: Illustrating a New Approach in Four Asia-Pacific Countries*, 67 *Am. J. Compar. L.* 515, 523 (2019). But they recognize the CBR-LRI as essentially the state of the art in this field. *Id.*

54. The Cambridge study found no significant correlation with measures of overall economic inequality across all 117 countries, though it did within several OECD countries. Adams et al., *supra* note 53, at 18.

pear to be associated with higher public and private investments in worker training that mitigate the costs and mine the benefits of job security, at least at the societal level.<sup>55</sup> And indeed, greater public and private investments in worker training might be necessary to capture the potential benefits and mitigate the costs of job security protections. Happily, job-security protections themselves should tend to encourage employers to invest in incumbent workers' skills, and to cultivate their ability to switch to new tasks, instead of treating them as disposable. Any shift from replacement to retraining boosts both workers' labor market power and their productivity.<sup>56</sup>

These studies are the latest word on what kinds of employment laws are good for society as a whole, and especially for those who have been on the losing end of labor market trends for the past several decades. My main point here, again, is that those laws do double duty: they protect employees' economic security and enhance their collective voice at work while also bolstering their market power by constraining employers' employee-replacement options.

## V. CONCLUSION

Technology, among its other consequences for work and workers, has greatly amplified firms' ability to replace employees. That, in turn, has undermined workers' bargaining power and very likely contributed to the well-documented decline in workers' share of income and productivity gains. I have suggested two kinds of responses within the law of work. First, we need more and better regulatory strategies—such as sectoral regulatory and co-regulatory structures for setting labor standards—that reduce workers' reliance on (and perhaps also support) collective bargaining strategies for raising workers' wages and working conditions. Second, we should impose reasonable constraints on firms' ability to replace workers, such as those that have a good track record elsewhere in the developed world: job security protections and structures of co-determination that give workers a voice in workplace decisions, including those that threaten to displace workers.

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55. See Simon Deakin et al., *How Do Labour Laws Affect Unemployment and the Labour Share of National Income? The Experience of Six OECD Countries, 1970–2010*, 153 *Int'l Lab. Rev.* 1, 5–6 (2014).

56. *Id.* at 17. Those productivity benefits of employment protections might offset other negative effects; the Cambridge study found no overall impact of employment protections on productivity. Adams et al., *supra* note 53, at 19.

Another strategy for responding to the depletion of workers' bargaining power, the proliferation of contingent and fissured work, and the prospect of automation-based job losses lies at the margins of labor and employment law as the field is normally conceived. That is to shift away from our reliance on employment as the dominant platform for delivering many of the material requisites of a decent life. That would require building up more universal rights of access to health care and retirement income, and expanding social entitlements to basic and higher education, vocational training, housing, and more.<sup>57</sup> And that in turn would require a dramatic political shift toward redistributive modes of raising and spending public revenues. The latter might currently seem every bit as fantastical as the prospect of robots wholly replacing human labor, but one task of legal scholars is to help lay the intellectual foundations and envision the potential architecture of a better future. As things stand, all of the above—enterprise-level collective bargaining, jurisdiction-wide minimum standards, new structures of sectoral co-regulation, and new entitlements to job security and co-determination—could contribute to that better future.

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57. I develop proposals along these lines in Estlund, *supra* note 5, at 105–56, and in Cynthia Estlund, *What Should We Do After Work? Automation and Employment Law*, 128 *YALE L.J.* 254, 301–24 (2018).

