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DO MORE POWERFUL UNIONS GENERATE BETTER PRO-WORKER OUTCOMES?

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ABSTRACT

Labor unions are often evaluated through the wage premiums they secure at the bargaining table. Our study finds that although US unions have historically secured short-run pay gains, these victories often come at the expense of slower employment growth, fewer future job opportunities, reduced investment and productivity, and diminished firm growth and viability. Yet downstream job losses and firm decline can be traced not to the collective voice itself but to the statutory monopoly structures that amplify aggressive bargaining tactics and block alternative channels for cooperation. These trade-offs arise not because unions are uniquely "aggressive," but because US labor laws promote a legally protected union monopoly that crowds out constructive representation and worker voice. Drawing on 147 studies, we find that when the monopoly face dominates and delivers seemingly "big wins" at the bargaining table, companies respond to wage pressure by trimming R&D, cutting capital, reducing company growth, and ultimately shrinking jobs for unionized workers—dynamics that explain roughly 55 percent of the decline in the Rust Belt's share of manufacturing employment between 1950 and 2000. Cross-country evidence shows that systems permitting multiple forms of representation, voluntary unions, and flexible agreements retain the benefits of worker voice without the high costs linked to the downsides of monopolies. These findings show no link between greater union power and increased worker welfare: It is the structure of representation—not the presence of a collective voice—that determines whether unions help or harm workers. Policy reforms that relax monopoly privileges for labor unions in the US and encourage pluralistic forms of worker voice and moderate demands could preserve the gains of collective bargaining while mitigating its unintended costs.

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Do More Powerful Unions Generate Better Pro-Worker Outcomes?

While labor union density—the share of workers who are unionized relative to the total labor force—is at an all-time low, public support for labor unions is at a 57-year high at 70 percent. Republicans are now joining Democrats in embracing the vital role of pro-union policies to support the US worker. This level of support has emboldened labor unions to bargain for unprecedented demands backed by major strikes or work stoppages. Faced with this pressure, companies such as Boeing, Ford, General Motors, Stellantis, and UPS have yielded to labor union demands and reached collective bargaining agreements with terms previously deemed unsustainable.

The question is, will these agreements lead to better outcomes for workers in the long-term? The answer is, not necessarily. When the monopoly face dominates, apparent "big wins" at the bargaining table often convert into slower employment growth, reduced investment, and fewer opportunities for both present and future workers. By "monopoly face," we mean the exclusive legal authority granted to a single certified union to represent all workers (even non-union members) in a bargaining unit—blocking other unions, alternative forms of representation, or individual negotiations. This legal exclusivity mirrors monopoly dynamics and can suppress more cooperative and diverse forms of worker voice.

Powerful labor unions that use aggressive negotiation tactics have historically secured higher wages for unionized workers, although recent studies suggest this wage advantage has declined or disappeared due to global competition and technological changes. The research shows that powerful labor unions acting through their monopoly face can limit job growth and employment opportunities. Excessive demands have led companies to cut investments—particularly in R&D and long-lived tangible capital—thereby reducing productivity, profitability, and long-term viability. As a result, these firms have been more likely to downsize or shut down, ultimately leading to job losses and lower overall employment for unionized workers. Therefore, our study finds that labor union power is not synonymous with being pro-worker.

Our conclusion is based on an exhaustive analysis of 147 studies, conducted over three decades, covering labor union power in the United States, the United Kingdom, and Europe. These studies were published in the top five economics journals, journals affiliated with the American Economic Association, and other reputable sources of seminal research.

We also look at an in-depth case study of the Rust Belt that illustrates how unions wielding monopoly privileges and fueling strikes and conflicts were responsible for 55 percent of the decline in the Rust Belt's share of US manufacturing employment. Moreover, powerful labor unions can also reduce labor turnover and mobility through job security clauses and seniority promotions, which help union "insiders"—usually longer-tenured or senior employees—but harm "outsiders" (e.g., younger or new workers) by discouraging hiring. The result is that insiders continue to benefit from the reduced labor turnover and stability, while outsiders face few openings and limited upward mobility.

Yet, downstream job losses and firm decline can be traced not to the collective voice itself but to the *statutory monopoly structures* that amplify aggressive bargaining tactics and block alternative channels for cooperation. The evidence suggests that moderate labor union power, characterized by balanced demands, greater worker representation, and increased flexibility, can better preserve the benefits of labor unions while avoiding the downsides associated with monopolistic unions. This moderation creates a balance between worker gains and company growth, benefiting both in the long run.

Unions in the United States, however, tend to be more powerful and adversarial than those in countries such as Germany and the United Kingdom, largely due to labor laws and bargaining structures that generate monopolistic characteristics for US unions. In contrast, unions in Germany and the United Kingdom exhibit less monopolistic characteristics because they operate within frameworks that encourage greater flexibility, worker representation, and collaboration with employers.

Overall, a union's monopoly power does not translate into better worker outcomes. We propose policy reforms that relax monopoly privileges for labor unions in the U.S. and encourage pluralistic forms of worker voice. These reforms aim for and balanced demands that can preserve the gains of collective bargaining while mitigating its unintended costs.

The following key points summarize the main findings of this paper:

- **Union power does not always benefit workers.** Research shows that while powerful unions with monopolistic characteristics can achieve significant gains at the bargaining table, these victories often come with trade-offs that can negatively impact unionized workers and the economy.
- **Labor unions have historically secured higher wages for unionized workers.** However, recent studies show that since the 1980s, the wage gap between unionized and non-unionized workers has narrowed, in large part because of global competition and technological changes.
- **Excessive union demands limit job growth and work opportunities.** Union power doesn't just boost wages indefinitely; in fact, when unions press for unsustainable terms, this backfires and results in slower employment growth and fewer job opportunities for unionized workers.
    - Companies facing excessive union demands often cut investments—particularly in R&D and long-term capital—reducing productivity and profitability. This weakens businesses over time, increasing the likelihood of downsizing or closure, which ultimately leads to job losses and a smaller unionized workforce.
- **The economic rise and fall of the Rust Belt serves as a cautionary tale for unions.** Powerful and adversarial unions and ensuing labor conflicts in the Rust Belt strangled productivity and investment in Rust Belt manufacturing. The result? A once-thriving industrial heartland hollowed out, leaving workers worse off and communities struggling to recover.
- **US laws create monopolistic union structures.** US labor laws and bargaining structures create more powerful and adversarial unions with monopolistic characteristics compared to those in Germany and the UK, where unions tend to be more cooperative, competitive, and balanced.
- **Moderate union power strikes a balance.** Unions that pursue balanced demands over time are more likely to sustain the long-term benefits for both workers and the companies.

Two Types of Labor Unions: Powerful vs. Moderate

Some economists, policymakers, and members of the American public have argued that the declining union density in the second half of the 20th century has led to the reduced middle class and the increased income inequality in the United States today. While in 1965 approximately 35 percent of the American workforce was unionized, this figure has steadily decreased over the

decades, reaching 20.1 percent in 1983.[1] As of 2024, union membership has further declined to a record low of 9.9 percent.[2] Some contend that powerful unions are good for workers because the unions can use their positions to make aggressive demands, invoking strikes as leverage, thereby increasing the likelihood of obtaining significantly higher pay, more benefits, and better working conditions. These advocates of powerful labor unions argue that an adversarial Big Labor movement is needed to contest the power of Big Corporations.

Recent examples show the extent of how powerful unions can use their positions to make more aggressive asks at the bargaining table. In 2024 the International Longshoremen Association (ILA), the only labor union controlling all major 36 ports on the East and Gulf Coasts, made demands on a "total ban of automation," threatening to "cripple the economy" and devastate other jobs with the closure of all its ports.[3] In 2023 the United Auto Workers (UAW) initiated a 46-day strike at Ford, General Motors, and Stellantis, where the labor union demanded its workers receive not only significantly higher pay and stronger compensation packages, but also a four-day work week. The strikes cost companies billions of dollars in lost production, ultimately pressuring them to concede to demands they had previously deemed unsustainable.[4]

Alternatively, others advocate for more moderate and cooperative labor unions, pointing to the large costs for workers—and the broader economy—when labor unions become too powerful and operate primarily through their monopoly face, making aggressive, often extortive, demands. Critics of powerful unions have argued that large bargaining agreements have cost workers job opportunities, slower employment growth, and even company relocations or shutdowns. These costs arise not from the presence of union voice itself, but from the legal structures that entrench a single union's exclusive control over representation—amplifying conflict and blocking more flexible or adaptive forms of worker engagement. Inherent to this argument is that excessive union demands have forced companies to reduce investments, including in R&D, leading to lower long-term profits and contributing to long-term decline and fewer jobs. The advocates of moderate labor unions acknowledge not only the benefits labor unions can bring to workers but also the perils labor unions bring when they become institutionally monopolistic and structurally insulated from competitive pressures.[5]

Historically, unionized workers have earned higher wages than nonunionized workers, a trend widely documented in earlier literature.[6] Recent studies, however, suggest that the labor union wage premium, which is the difference between the wages of unionized workers and nonunionized workers, has declined in recent years and may even be negligible or zero.[7] In other words, partly because of increased global competition and technology changes, the advantage in wages that unionized workers once held over nonunionized workers has diminished to the point

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[1] Bureau of Labor Statistics, news release, January 28, 2025.

[2] Bureau of Labor Statistics, news release, January 28, 2025.

[3] Bruce Gil, " 'I Will Cripple You,' Dockworkers Union Chief Said of Economy Before Massive Port Strike," *Quartz*, October 1, 2024.

[4] Natalie Sherman, "Car Workers' Strike Costing GM $200m a Week," *BBC*, October 24, 2023.

[5] There is a third group that advocates for no labor unions, which we do not address in this paper. Our analysis juxtaposes those who advocate powerful labor unions with those who advocate moderate labor unions.

[6] Richard B. Freeman and James L. Medoff, "What Do Unions Do?," *Industrial and Labor Relations Review* 38 (1984): 244.

[7] David Blanchflower and Alex Bryson, "What Effect Do Unions Have on Wages Now and Would Freeman and Medoff Be Surprised?," *Journal of Labor Research* 25, no. 3 (Summer 2004): 383–414; John DiNardo and David S. Lee, "Economic Impacts of New Unionization on Private Sector Employers: 1984–2001," *The Quarterly Journal of Economics* 119, no. 4 (2004): 1383–441.

where union membership may no longer guarantee higher earnings. The diminished union wage premium is also partly related to long-term rigid collective bargaining contracts that limit firms' ability to adjust wages to economic changes. While this rigidity helps stabilize unionized wages during downturns, it can also prevent them from rising during economic expansions, thereby leading to unionized wage stagnation and potentially compression compared to nonunionized wages.

Some evidence also suggests that declining labor union power (as measured by union density) in the 20th century has contributed, in part, to income inequality, although most economists attribute rising income equality to the primarily skill-based technological change that has led to job polarization in the United States.[8] Additionally, because of a lack of consensus on how to properly measure income inequality,[9] we can say that the effect of labor union power on income inequality is, at best, mixed.

Looking to the cost side of powerful labor unions, studies show that powerful labor unions can bring about slower employment growth and fewer jobs for unionized workers and can reduce company investments in R&D and long-lived tangible capital.[10] Research also shows that these effects slightly increase the likelihood of a company closing, further worsening the employment outlook for unionized workers.[11]

There is some recent anecdotal evidence supporting the negative impact of excessive union demands. For example, even during the current period of optimistic earnings reports with companies announcing new investments, UPS, instead, announced a "network reconfiguration" that "could result in the closure of up to 10 percent of our buildings, a reduction in the size of our vehicle and aircraft fleets, and a decrease in the size of our workforce."[12] This came directly on the heels of their new contract negotiations with the International Brotherhood of the Teamsters.[13] A few months ago in November 2024 Stellantis laid off 1,1000 employees at a plant in Ohio[14] just one year after the United Auto Workers, who represents Stellantis workers, initiated a 46-day strike with a lengthy list of demands including significantly higher pay, better compensation packages, and a four-day work week. A similar pattern emerged at Boeing, where aggressive union demands led to significant financial repercussions and subsequent job losses. The International Association of Machinists and Aerospace Workers (IAM) representing Boeing workers initiated a seven-week strike that halted most jet production, costing Boeing 9.7 billion dollars. Just a month later, Boeing announced that it was laying off 10 percent of its workforce.[15]

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[8] Lawrence F. Katz and Kevin M. Murphy, "Changes in Relative Wages, 1963–1987: Supply and Demand Factors," *The Quarterly Journal of Economics* 107, no. 1 (1992): 35–78; David H. Autor et al., "Computing Inequality: Have Computers Changed the Labor Market?," *The Quarterly Journal of Economics* 113, no. 4 (1998): 1169–213.

[9] Stephen J. Rose, "How Different Studies Measure Income Inequality in the US," (Urban Institute, December 2018).

[10] See, for example, Brigham R. Frandsen, "The Surprising Impacts of Unionization: Evidence from Matched Employer-Employee Data," *Journal of Labor Economics* 39, no. 4 (2021): 861–94; Simeon D. Alder et al., "Labor Market Conflict and the Decline of the Rust Belt," *Journal of Political Economy* 131, no. 10 (2023): 2780–824; Juan C. Botero et al., "The Regulation of Labor," *The Quarterly Journal of Economics* 119, no. 4 (2004): 1339–382.

[11] Frandsen, "The Surprising Impacts of Unionization."

[12] "Reality Bites UPS and the Teamsters," *The Wall Street Journal*, February 1, 2025.

[13] Michelle Chapman, "UPS to Cut 12,000 Jobs 5 Months After Reaching Union Deal as Revenue Outlook for Year Disappoints," *AP News*, January 30, 2024.

[14] "Stellantis to Lay Off 1,100 Workers at Ohio Jeep Plant," *Reuters*, November 6, 2024.

[15] "Boeing Starts Issuing Layoff Notices Starting This Week," *Reuters*, November 13, 2024; Sara Samora, *"Boeing Workers Vote to Ratify Contract, Ending Strike in Oregon and Washington," Manufacturing Dive*, November 4, 2024.

These examples reinforce the broader findings of our literature review: When powerful and adversarial unions operate with government-granted monopoly privileges and press for unsustainable terms, it can backfire and result in lost jobs and fewer opportunities for workers. We summarize the pros and cons of powerful unions in table 1.

TABLE 1. The pros and cons of powerful labor unions

Pros	Cons
+ Higher wages for the lowest skilled unionized workers (historically the case, but mixed evidence in recent years)	**-- Slower employment growth and fewer jobs**
+ Better benefits, working conditions, or both	**-- Reduction in capital and R&D investments**
+ Possible reduction of income inequality by narrowing wage gaps between high- and low-skill workers (mixed evidence)	**-- Mostly negative impact on firm survival with some exceptions**

Source: Authors' summary of findings based on their analysis of the literature on labor unions.

One of the most illustrative historical cases is the rise and decline of manufacturing in the Rust Belt, discussed in detail in a later section.[16] Powerful labor unions in the Rust Belt were able to negotiate higher compensation packages for their workers—in fact, during this time, the wages of unionized workers inside the Rust Belt were significantly higher than the wages of similar unionized workers outside the area. A recent study found that powerful labor union demands, which led to a high frequency of strikes and work stoppages between 1950 and 2020, were in large part responsible for the decline in the region's manufacturing jobs during that period.[17] Excessive demands, strikes, and major work stoppages led to lower average rates of investment and productivity growth by Rust Belt firms relative to those in the rest of the country. Over time, the increasing labor costs and reduced productivity forced many firms to either downsize or relocate to regions with less labor union influence and lower labor costs.

The story of the Rust Belt's decline captures the key pros and cons of powerful labor unions across all the studies: At first, unionized workers inside the Rust Belt, where labor unions were more powerful, had significantly higher wages and compensation packages than similar, unionized workers outside the Rust Belt, where labor unions were less powerful. However, over time, as the more adversarial nature of labor unions resulted in companies relocating to more favorable environments, the gains eventually led to worse outcomes for the workers. We see this pattern even today. Since 2010, the number of labor union members in manufacturing has declined by 16 percent, while nonunion manufacturing employment is up 11 percent.[18]

As we discuss later, the evidence suggests that labor unions that can moderate their demands and can prevent companies from having to reduce investments, go out of business, or

[16] Alder et al., "Labor Market Conflict and the Decline of the Rust Belt."

[17] Alder et al., "Labor Market Conflict and the Decline of the Rust Belt."

[18] August Benzow and Connor O'Brien, "Manufacturing Jobs Have Recovered, but Not Everywhere" (Economic Innovation Group, October 8, 2024).

reduce employment are more likely to persist over time. This moderation creates a balance between gains for workers and growth for firms, benefiting both parties in the long run. Therefore, it is not the case that large, unprecedented "union wins" at the bargaining table lead to better pro-worker outcomes *on all margins*. The majority of evidence indicates that moderate labor union power, characterized by balanced demands and a degree of flexibility and decentralization, can better preserve the benefits that labor unions create, while avoiding the downsides associated with monopolistic unions, such as those in the United States. US labor laws and bargaining structures institutionalize the monopoly face of unions, thereby allowing unions to consolidate their power within individual workplaces and prohibit the entrance of new competitors (other labor unions) to represent workers, while also making union membership compulsory. US labor laws also allow unions to control an entirety of an industry's workforce, further strengthening the monopoly power.

But this monopoly power does not translate into better worker outcomes. Instead, more balanced, moderate, and cooperative unions are able to achieve better long-term outcomes than powerful labor unions that force acquiescence to excessive bargaining table demands. The more moderate unions will often better preserve the benefits that labor unions can generate—a collective voice, higher wages, and better conditions—while minimizing the downside of extortive demands that can lead to fewer jobs, fewer investments, and reduced company growth. This moderation creates a balance between gains for workers and ensuring the firm's growth and survival, benefiting both parties in the long run.

Methodology

To answer the question as to whether labor union power generates better pro-worker outcomes, we do a systematic literature search covering the last three decades (1994–2024) in the top five economics journals: *The American Economic Review*, the *Journal of Political Economy*, the *Quarterly Journal of Economics*, *Econometrica*, and the *Review of Economic Studies*. We also include the journals associated with the American Economic Association: *AER: Insights; AEJ: Applied Economics; AEJ: Economic Policy; AEJ: Macroeconomics; AEJ: Microeconomics; Journal of Economic Literature; Journal of Economic Perspectives;* and *AEA Papers and Proceedings.*

Our literature review yielded 147 studies covering mostly the United States, the United Kingdom, and Europe. In this paper, we report the directional changes (positive or negative) of the effects that labor unions have on a variety of outcomes such as wages, employment, R&D investments, and other effects, rather than specific point estimates. This approach captures the consistent trends observed across various studies, allowing for conclusions that represent a general consensus, even if specific estimates differ due to variations in methodology or data sources.

As part of the discussion, we also include a handful of prominently cited studies published by the *Journal of Labor Economics, National Bureau of Economic Research,* and by *IZA–Institute of Labor Economics, Industrial and Labor Relations Review,* as well as several seminal papers and book reviews that were published prior to 1994. This broader selection is especially relevant in our discussion of the labor union wage premium, including its effects on nonunion workers, given the limited coverage of this topic in the top five economics journals and those affiliated with the American Economic Association. Finally, we include three seminal books (along with their book reviews): *What Do Unions Do* by Richard Freeman and James Medoff (1984), *What Workers Want* by Richard Freeman and Joel Rogers (2006), and *The*

Economics of Trade Unions: A Study of a Research Field and Its Findings (2020) by Hristos Doucouliagos, Richard Freeman, and Patrice Laroche. These additional studies and books provide the theoretical framing and meta-analysis discussions of the empirical literature.

The Apparent Benefits of Powerful Labor Unions

In the next two sections, we summarize the literature on the costs and benefits of powerful labor unions' impact on worker outcomes. While our costs-and-benefits discussion is framed in terms of outcomes that are measurable (e.g., wages and employment), it is also important to note that labor unions that are accountable and responsive to their members can provide a valuable avenue for workers to exercise a collective voice.[19] As a result of this collective voice, workers may be less inclined to quit their jobs, making unionized workforces more stable than nonunionized ones.[20] However, there is no evidence to suggest that labor unions that are more aggressive at the bargaining table provide greater worker representation and a more stable workforce than labor unions that have more moderate demands and more amicable relationships with management.

In fact, the evidence thus far points to the contrary.[21] Freeman and Rogers (2006) asked workers survey questions concerning these direct trade-offs and found that workers preferred a labor union that cooperated with management over one that had an acrimonious relationship with management, even if the latter was more powerful.[22] They also found that workers preferred to have the option to choose among multiple forms of representation instead of one overarching union that represents an entire company or industry. Freeman and Rogers concluded that the US labor union framework had not delivered the diverse set of institutions and representation that American workers sought in the workplace. Instead, the system offered a single choice—collective bargaining through the winner-takes-all labor union, or no independent representation or participation in the workplace.

Later we discuss necessary reforms to improve US labor union laws. These reforms may make labor unions less powerful, but they still enhance workers' collective voice while also minimizing the downsides from employment effects and raising a union's odds of survival. For the remainder of this section, we review the literature on the benefits that powerful labor unions can have on unionized worker wages and income equality.

Do more powerful labor unions increase wages for unionized workers?

The answer to this question would be an unequivocal "yes" if we were examining data the literature presents on most countries up to the 1980s. Historically, labor unions were effective at leveraging collective bargaining to achieve higher wages, improved benefits, and better working conditions for their members. This bargaining power translated into a well-documented labor union wage premium.[23] However, more recent evidence suggests a substantial decline in the labor union wage premium in the United States—to the point where today, union membership

[19] A collective voice may outperform individual voice as a means of bringing actual and desired conditions closer together, and it can often help with overall governance within a firm through these improved communication channels.

[20] Freeman and Medoff, "What Do Unions Do?," 244.

[21] Simon Jäger et al., "The German Model of Industrial Relations: Balancing Flexibility and Collective Action," *Journal of Economic Perspectives* 36, no. 4 (2022): 53–80; Freeman and Medoff, "What Do Unions Do?"

[22] Freeman and Medoff, "What Do Unions Do?"

[23] Freeman and Medoff, "What Do Unions Do?," 244.

may no longer guarantee higher earnings.[24] The factors driving this trend are varied and include intensified competition within the US economy, technological advancements, and structural shifts in the labor market. By the early 21st century, the wage advantage once enjoyed by unionized workers in the private sector had significantly diminished.

An added complexity to assessing the impact that labor unions have on wages is the variability in reported labor union wage premiums based on the type of data used. The literature is replete with inconsistencies;[25] some analyses, particularly those using establishment-level data, suggest a near-zero or negligible effect,[26] whereas older studies report some wage advantages.[27] One challenge to unpacking the relationship between labor unions and their effects on worker wages is whether an observed labor union wage premium truly reflects the union's positive impact on wages, or whether other factors are at play that make it appear as though unions have a stronger influence than they actually do. Importantly, selection for labor union membership is nonrandom. In other words, individuals who join labor unions are not selected by pure chance. This distinction matters because, to accurately assess the "true" effect of labor unions on wages, we would need a scenario where labor union members are, on average, comparable to nonunion members in terms of industry, skills, and experience. Not surprisingly, one study finds that about one-third of the estimated association between labor union density and the wage gap is due to occupational heterogeneity, meaning that unionized workers are often concentrated in higher-paying job titles within firms. This suggests that labor unions may raise wages not by broadly increasing pay but rather by placing workers in higher-paying roles.[28]

There is also evidence that after a certain point, increased labor union density can diminish the wage premium.[29] That is because, in fully unionized contexts, firms may face operational challenges, including reduced control over employment decisions, inflexible work rules, and restrictions on managing operations efficiently. For example, unionization in West Virginia's coal mining industry was associated with fewer days of operation, driven by labor union practices such as increased holidays, strikes, and additional shutdowns for various reasons (e.g., accidents and funerals). The study concludes that while unionization initially improves wages and conditions for workers, the marginal benefits tend to decrease as labor union density approaches 100 percent. This is due to diminishing returns from further labor union demands, which can lead to increased costs for firms and, ultimately, a reduction in employment opportunities or business sustainability. Therefore, contrary to the beliefs held by proponents of

[24] Blanchflower and Bryson, "What Effect Do Unions Have on Wages Now"; Bernt Bratsberg and James F. Ragan, Jr., "Changes in the Union Wage Premium by Industry," *ILR Review* 56, no. 1 (2002): 65–83; Anna Stansbury and Lawrence H. Summers, "The Declining Worker Power Hypothesis: An Explanation for the Recent Evolution of the American Economy" (NBER Working Paper 27193, National Bureau of Economic Research, 2020); and DiNardo and Lee, "Economic Impacts of New Unionization on Private Sector Employers: 1984–2001."

[25] Barry T. Hirsch et al., "Measuring Union and Nonunion Wage Growth: Puzzles in Search of Solutions," in *The Changing Role of Unions* (Routledge, 2016).

[26] DiNardo and Lee, "Economic Impacts of New Unionization on Private Sector Employers: 1984–2001."

[27] Richard B. Freeman and Morris M. Kleiner, "The Impact of New Unionization on Wages and Working Conditions," *Journal of Labor Economics* 8, no. 1 (1990): S8–S25.

[28] John T. Addison et al., "Union Membership Density and Wages: The Role of Worker, Firm, and Job-Title Heterogeneity," *Journal of Econometrics* 233, no. 2 (2023): 612–32.

[29] William M. Boal and John Pencavel, "The Effects of Labor Unions on Employment, Wages, and Days of Operation: Coal Mining in West Virginia," *The Quarterly Journal of Economics* 109, no. 1 (1994): 267–98.

the "powerful labor union" perspective, achieving 100 percent unionization could be counterproductive. [30]

Furthermore, in industries characterized by inelastic labor demand—where the quantity of labor demanded remains relatively stable even when wages rise—workers can secure higher wages without experiencing substantial reductions in employment. Although labor union membership in the United States has declined over the years, it appears that labor unions have remained more resilient in sectors where the long-term cost of unionization—such as job loss or the collapse of an entire industry due to wage demands—does not pose a substantial risk. For example, research on the mining industry showed that labor-union-driven wage demands only caused minor decreases in employment.[31] Public sector positions, such as those in police, fire, sanitation, and finance departments, have also exhibited relatively inelastic labor demand.[32] This characteristic enables public sector jobs to maintain unionization without the sector's experiencing substantial job losses or a decline in labor union membership.

One feature of collective bargaining contracts is that they are often rigid and extend over several years, limiting individual firms' ability to adjust wages in response to economic shocks. This rigidity means that unionized wages tend to decrease less rapidly compared to nonunionized wages, thereby helping stabilize incomes during economic downturns.[33] However, because wage reductions are constrained, unionized firms may resort to cutting employment more than wages in adverse economic conditions.[34] This employment adjustment can have long-term consequences, as displaced unionized workers often face significant wage declines in subsequent jobs.

These wage losses are particularly pronounced for senior unionized workers and are inversely related to their prior job tenure, meaning that senior unionized workers experience the steepest declines. In contrast, nonunion workers generally see a positive relationship between previous tenure and reemployment wages. The substantial wage losses among senior unionized workers are largely due to the limited transferability of their skills beyond the unionized sector. This issue may arise because predisplacement wages often reflect tenure rather than a true return to skills, given that labor union pay structures frequently prioritize seniority. Consequently, seniority-based wage schemes may reduce incentives for continuous skill development, leaving unionized workers less competitive and more susceptible to economic downturns or structural shifts in the labor market.[35]

Nonetheless, a consistent area of agreement persists: Unionization is generally associated with higher wages for lower-skilled unionized workers.[36] However, when unionized sectors set

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[30] Boal and Pencavel, "The Effects of Labor Unions on Employment, Wages, and Days of Operation."

[31] Boal and Pencavel, "The Effects of Labor Unions on Employment, Wages, and Days of Operation."

[32] Robert G. Valletta, "Union Effects on Municipal Employment and Wages: A Longitudinal Approach," *Journal of Labor Economics* 11, no. 3 (1993): 545–74.

[33] Stephen P. Sobotka, "Union Influence on Wages: The Construction Industry," *Journal of Political Economy* 61, no. 2 (1953): 127–43.

[34] Joseph Shister, "The Theory of Union Wage Rigidity," *The Quarterly Journal of Economics* 57, no. 4 (1943): 522–42; John Pencavel and Ben Craig, "The Empirical Performance of Orthodox Models of the Firm: Conventional Firms and Worker Cooperatives," *Journal of Political Economy* 102, no. 4 (1994): 718–44.

[35] Peter Kuhn and Arthur Sweetman, "Vulnerable Seniors: Unions, Tenure, and Wages Following Permanent Job Loss," *Journal of Labor Economics* 17, no. 4 (1999): 671–93.

[36] Stephen G. Donald et al., "Differences in Wage Distributions Between Canada and the United States: An Application of a Flexible Estimator of Distribution Functions in the Presence of Covariates," *The Review of Economic Studies* 67, no. 4 (2000):

higher wages, excess workers shift to nonunionized sectors, increasing the labor supply and lowering wages for lower-skilled nonunion workers.[37]

Has the decline in labor union power increased income inequality?

Several research studies have found that the decline in labor union power (as measured by reduction in union density) throughout the second half of the 20th century has been accompanied by a marked increase in income inequality, particularly in Anglo-Saxon countries such as the United States and the United Kingdom.[38] However, the connection between labor union power and income inequality is multifaceted.

First, there is a lack of consensus among economists about the decline in labor union power being the primary cause of income inequality. Most economists attribute the rising income equality to skill-biased technological change that has benefitted the most-skilled workers who tend to be nonunionized, while the demand for other, less-skilled workers stagnated leading to what is referred to as job polarization.[39] Since the 1980s, there has been a "hollowing out" of the middle of the jobs distribution: Computerization and other technological advancements increased the demand for college graduates, who are higher paid (resulting in higher wages for them), and decreased demand for less-educated workers in routine middle-skill jobs. For example, workers in computer-intensive industries, such as legal services, advertising, and finance, were in high demand, while secretaries, typists, and bookkeeping clerks were in low demand due to the automation of record-keeping and administrative tasks. At the same time, automated machinery and industrial robots contributed to a decline in demand for assembly-line and machine-operation jobs, also harming blue-collar workers.

The timing of key trends undermines the argument that de-unionization, rather than technological change, was the primary driver of rising wage inequality. In the UK, wage inequality began increasing in the mid-1970s even as union density continued to rise until 1980. In the US, de-unionization started in the 1950s, a period when wage inequality remained relatively stable.[40] Economist John Addison summarizes the literature on this relationship as follows: "Although unions may have played a material role in narrowing inequality at their peak or at times of strength both within and beyond the ranks of their members, any such role since the 1980s and 1990s seems unlikely against the more recent backdrop of job polarization."[41]

The second reason for the ambiguity of the income inequality narrative is the lack of consensus, particularly in the United States, on how to measure the income equality.[42] When

609–33; Naoki Aizawa et al., "Labor Unions and Social Insurance" (NBER Working Paper No. 32793, National Bureau of Economic Research, August 2024); Addison et al., "Union Membership Density and Wages."

[37] Lawrence M. Kahn, "The Effect of Unions on the Earnings of Nonunion Workers," *Industrial and Labor Relations Review* 31, no. 2 (1978): 205–16; Thomas Lemieux, "Estimating the Effects of Unions on Wage Inequality in a Panel Data Model with Comparative Advantage and Nonrandom Selection," *Journal of Labor Economics* 16, no. 2 (1998): 261–91.

[38] John T. Addison, "The Consequences of Trade Union Power Erosion," *IZA World of Labor* (2020); John M. Abowd et al., "High Wage Workers and High Wage Firms," *Econometric*a 67, no. 2 (1999): 251–333; Henry S. Farber et al., "Unions and Inequality over the Twentieth Century: New Evidence from Survey Data," *The Quarterly Journal of Economics* 136, no. 3 (2021): 1325–85; DiNardo and Lee, "Economic Impacts of New Unionization on Private Sector Employers: 1984–2001"; Frandsen, "The Surprising Impacts of Unionization."

[39] Addison, "The Consequences of Trade Union Power Erosion."

[40] Philippe Aghion, "Schumpeterian Growth Theory and the Dynamics of Income Inequality," *Econometrica* 70, no. 3 (2002): 855–82.

[41] Addison, "The Consequences of Trade Union Power Erosion."

[42] Rose, "How Different Studies Measure Income Inequality in the US."

economists first began to study income inequality, it gained significant political attention.[43] Later research by the same scholars has produced lower estimates of income inequality.[44] A common method for assessing income inequality trends is to track changes in median income, but the outcomes can differ dramatically. Depending on what is considered income and the type of price deflator used, median-income changes in the United States have been reported to range from an 8 percent decline to a 51 percent increase—a striking variation.[45] Some analyses also selectively omit fringe benefits, which have historically risen as a share of US compensation packages, as well as government transfers from income data.

Therefore, while labor unions may have historically played a role in reducing wage inequality, recent trends suggest that broader economic forces—such as technological change and shifting labor market demands—have been more significant drivers. The ongoing debate over how to measure income inequality further complicates efforts to pinpoint the exact impact of declining union power on wage disparities.

The Costs of Powerful Labor Unions

There is a perception that when companies are forced to acquiesce to demands they deem unsustainable, these collective bargaining wins should be celebrated as a victory for all workers. Empirically, it is not the case that all collective bargaining wins are a victory for all workers. The problem with this perception is that it considers the benefits (e.g., higher wages, better working conditions, and potentially reduced income inequality) but not the costs (e.g., reduced job opportunities, slower employment growth, potentially decreased survival of both the firm and labor union). These costs can negatively impact workers in the short and long run.

Economists have framed two competing functions of labor unions: their *voice face*, which channels worker concerns into more productive governance and workplace problem-solving; and their *monopoly face*, which reflects the legal protections that insulate unions from competition and give them exclusive control over worker representation. While the voice face can improve morale and firm coordination, the monopoly face can lead to adversarial demands, block competing viewpoints, and generate long-term economic costs. For example, because labor unions also exert control over the labor supply within a particular industry, they mirror the behavior of monopolies that control the supply of goods or services. As monopolists, labor unions threaten competition by creating barriers to entry into the workforce, for example, by setting strict membership rules, apprenticeship requirements, or certification standards that block new competitors (other workers) to keep the wages of current members artificially high. Moreover, US labor laws and bargaining structures allow unions to consolidate their power within individual workplaces and prohibit the entrance of new competitors (other labor unions) to represent workers, while also making union membership compulsory.

Bargaining power plays a central role in determining whether the labor union's voice face or monopoly face will prevail. A labor union's ability to extract monopolistic gains for its members is shaped by the degree of competition and constraints on substitution facing both the employer and the union. When a single union represents all workers in collective bargaining,

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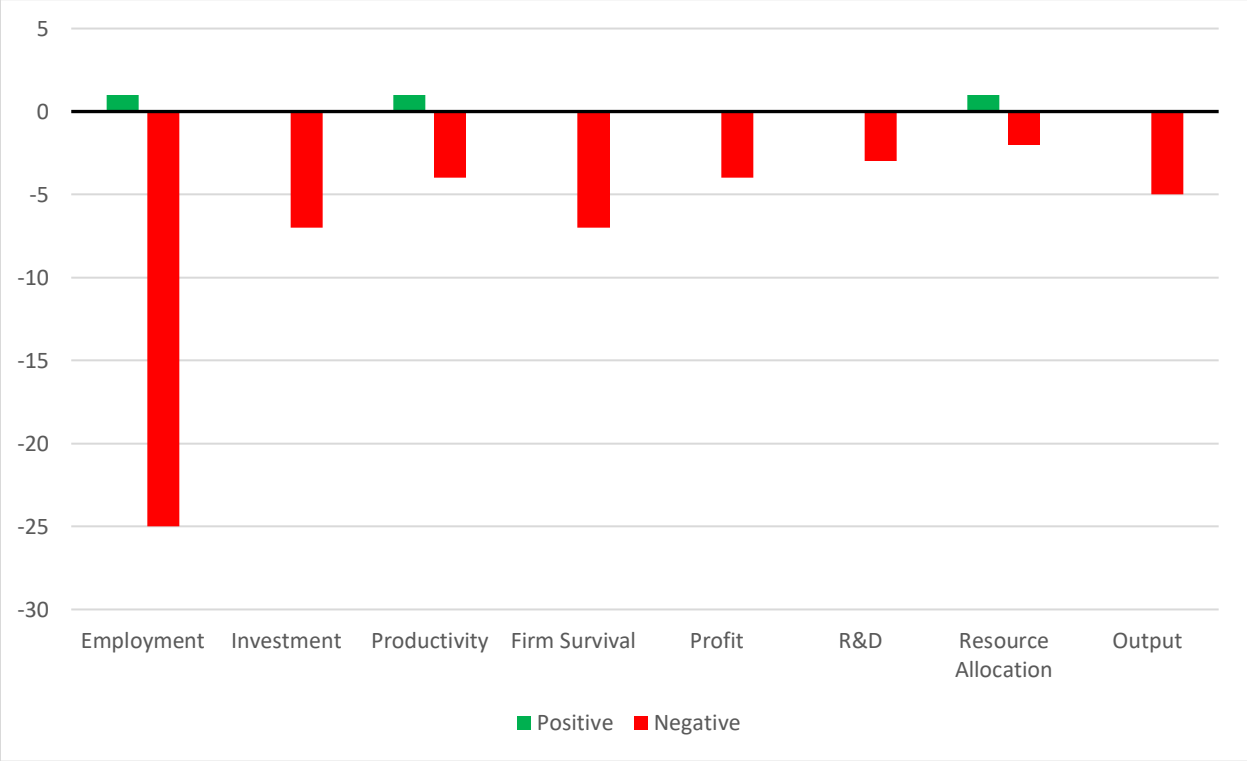
[43] Thomas Piketty and Emmanuel Saez, "Income Inequality in the United States, 1913–1998," *The Quarterly Journal of Economics* 118, no. 1 (2003): 1-41.

[44] Thomas Piketty et al., "Distributional National Accounts: Methods and Estimates for the United States," *The Quarterly Journal of Economics* 133, no. 2 (2018): 553–609.

[45] Piketty and Saez, "Income Inequality in the United States, 1913–1998"; Congressional Budget Office, *The Distribution of Household Income, 2014*, March 2018.

there is no competition from other unions, and the firm cannot bypass the union by negotiating directly with individuals. At the same time, workers also face constraints on substitution, as they cannot individually bargain for better terms or seek employment under a different union within the same firm or, in some cases, industry. This mutual lack of alternatives strengthens the union's monopolistic position and bargaining power, giving it significant leverage in negotiations. A labor union's ability to extract monopoly gains for its members is determined by the degree of competition and constraints on substitution facing both the employer and labor union. The monopolistic power of US labor unions is a legal construction that can be altered—we discuss this in more detail in the section on policy recommendations, where we suggest that limiting the legal monopoly status of labor unions could diminish their negative, monopolistic aspect while shrinking any short-lived wage premiums for unionized members. Theoretical models have long warned that union power doesn't just boost wages indefinitely; in fact, press for unsustainable terms, and it can backfire—reducing union income by stifling investment and worsening cost-price imbalances, ultimately driving investors away.[46]

FIGURE 1. Net number of studies reporting positive or negative effects (excluding wages)



Source: Authors' findings based on their analysis of the literature on labor unions.

Note: The variable Resource Allocation refers to the impact of unionization on how resources, such as labor and capital, are distributed within firms or across sectors. Studies included under this variable examine whether unionization enhances or hinders the efficient allocation of resources. Investment refers to long-lived tangible capital. Other variables on topics less central to the focus of this paper, such as Product Quality, Self-Employment, and Supply of High-Quality Labor, are omitted from the chart for clarity but included in table A1 in the appendix.

[46] Gordon F. Bloom and Nathan Belfer, "Unions and Real Labor Income," *Southern Economic Journal* (1948): 290–303; Paul A. Grout, "Investment and Wages in the Absence of Binding Contracts: A Nash Bargaining Approach," *Econometrica: Journal of the Econometric Society* (1984): 449–60.

Figure 1 provides a visual interpretation of the empirical effects that labor unions have on worker and firm-level outcomes beyond wages (which we covered in the previous section). The chart summarizes the directional effects of unionization based on the selection of papers included in our study. The values represent the net count of studies reporting either positive (green) or negative (red) effects for each outcome. For instance, the "Employment" variable reflects the number of studies finding either adverse (red) or favorable (green) employment effects due to unionization.

As shown in figure 1, most outcomes—including employment, investment, productivity, firm survival, profit, R&D, resource allocation, and output—exhibit predominantly negative effects (red bars), suggesting that most studies show adverse consequences of unionization in these areas. The chart visually emphasizes that unionization's impact is more often associated with negative outcomes than positive ones across these metrics.

In this section we focus on the costs of labor unions for (1) workers in terms of reduced employment and work opportunities and (2) firms in terms of reductions in investments (both R&D and tangible capital), productivity, and profitability. It is important to note that these outcomes are related: The literature tends to find that lower profits, productivity, and investment are manifested in slower employment growth and reduced work opportunities—and, occasionally, higher failure rates for firms. Finally, because the declining labor force participation and stagnating wages among young men have been the subjects of extensive scholarly research, we also explain how some collective bargaining agreements may inadvertently harm young men via reduced labor mobility and turnover.

Cost at the worker level: Do more powerful labor unions reduce employment and job opportunities?

Of all the variables in figure 1, employment is the most negatively affected outcome, with most studies indicating that unionization had a particularly significant adverse impact on work opportunities. Earlier studies focused on robust associations and descriptive patterns, while later studies teased out the causal relationships.

Research shows that labor unions that have substantial leverage—such as monopoly control over an industry—can extract victories that can reduce employment and job opportunities in both the short and long run. These impacts relate to effects on productivity, profits, and investment: The evidence indicates that firms that experience reduced investments and lower productivity growth, and that become less profitable over time from excessive labor union demands, will also experience slower growth—especially slower employment growth for unionized workers—and, occasionally, the firms will relocate or close entirely. Table A1 in the appendix summarizes these studies. Except for a few, the studies highlight the negative effects that powerful labor unions have on workers via reduced employment and job opportunities.

Using firm-level employment growth, some of the early evidence found that in the second half of the 20th century, unionized companies in California grew at significantly slower rates than nonunionized companies did and that 61 percent of the decline of current unionization may be due to slower employment growth in those unionized plants.[47] Another study utilizing longitudinal plant-level data (grouped by industry-by-size) found that there are more employment contractions, fewer expansions, and fewer plant "births" (which imply fewer new

[47] Barry T Hirsch, "What Do Unions Do for Economic Performance?," in *What Do Unions Do*? (Routledge, 2003).

employment opportunities) in more highly unionized industries.[48] A different early study that used narrowly defined manufacturing industries found that beginning in the 1980s, there was a substantial decrease in unionized manufacturing jobs along with an increase in nonunionized manufacturing jobs.[49]

One of the key limitations of the earlier studies is that they faced a potential endogeneity issue, partly because of the nature of the data and the methodological techniques used. For instance, research comparing unionized and nonunionized establishments found that those with successful unions experienced slower employment growth.[50] However, the authors note, "it is possible that our data are picking up a relation between employment patterns and the locus of organizing activity, rather than measuring the effect of collective bargaining on employment: Firms experiencing drops in employment may have the types of personnel problems that lead workers to seek union protection."[51] More recent studies using better data and causal inference techniques were able to establish causal effects on employment. One such study, by Brigham Frandsen, utilized the US Census Bureau's Longitudinal Employer-Household Dynamics Program, employing a regression discontinuity design to demonstrate that unionization significantly reduces both employment levels and the likelihood of firm survival.[52]

Both early and recent studies have also shown the trade-off between greater unionized wage premiums and decreased work opportunities. An early study by Barry Hirsch showed that the rate of decline in labor union employment was related to the magnitude of the labor union wage premium—meaning, the higher the wages of unionized workers compared to nonunionized workers, the more rapid the rate of decline in employment among those unionized firms.[53] The more recent study by Frandsen found that unionization led to lower wages and average worker earnings at unionized establishments. Indeed, the fact that *both* employment and wages declined following unionization is starkly counter to the conventional evidence that showed a trade-off between pay increases and reductions in employment.[54] However, Frandsen found that wage reductions were not due to wage cuts for existing workers but were driven by changes in the composition of the workforce, with older and higher-paid workers leaving unionizing establishments and younger workers joining or staying. Other studies show similar results in other countries. For example, a study in South Africa found that centralized bargaining agreements caused a decrease in employment in effected industries by 8–13 percent, with losses concentrated among smaller firms.[55]

As a case in point, in the next section we discuss a new study that found that significant labor union power and a high frequency of strikes and major work stoppages in the Rust Belt region between 1950 and 2020 led to the decline in manufacturing employment in the Rust Belt over that period. The case study highlights that as firms faced increasing labor costs and reduced productivity, many either downsized or relocated to regions with less labor union influence and

[48] Hirsch, "What Do Unions Do for Economic Performance?"

[49] Hirsch, "What Do Unions Do for Economic Performance?"

[50] Freeman and Kleiner, "The Impact of New Unionization on Wages and Working Conditions."

[51] Freeman and Kleiner, "The Impact of New Unionization on Wages and Working Conditions."

[52] Frandsen, "The Surprising Impacts of Unionization."

[53] Hirsch, "What Do Unions Do for Economic Performance?"

[54] Frandsen, "The Surprising Impacts of Unionization."

[55] Jeremy Magruder, "High Unemployment Yet Few Small Firms: The Role of Centralized Bargaining in South Africa," *American Economic Journal: Applied Economics* 4, no. 3 (July 2012): 138–66.

lower labor costs. These labor union conflicts account for 55 percent of the decline in the Rust Belt's share of US manufacturing employment.[56]

Another way that more powerful labor unions decrease work opportunities is through specific job security clauses in their bargaining agreements. This is one of the most prominent tensions in labor policy—policymakers must often make a choice between employment protections and employment opportunities; it is not possible to have both. Employment protections make it more costly and difficult to fire workers, thereby reducing the incentive for companies to hire workers, especially young, less-experienced workers, immigrants, or workers with fewer credentials and skills. This is because employers who are unable to fire workers will be reluctant to hire them, especially when where there is perceived uncertainty regarding their skills, productivity, or ability.[57]

We can see examples of this in other countries. Italy has some of the most powerful labor unions and strongest employment protection laws in the Western world, and yet a quarter of its youth is unemployed today. Ten years ago, Italy's youth unemployment rate was at a staggering 45 percent. Several studies found that over the last decade, as job security laws were even slightly loosened, Italy's economy saw increased employment and more jobs, especially for younger and inexperienced workers.[58] A prominent study on India found similar results, showing that states with stronger labor union power and more stringent employment protection laws experienced reduced job creation, particularly in large firms that were covered by these regulations. Employment declined in registered manufacturing companies in states with more stringent labor protections, while it grew in unregistered companies and informal sectors.[59] In a study of 85 countries, those with more powerful labor unions and more protective employment laws tended to have higher unemployment rates, especially among younger workers (aged 20–24). The study also found that more protective employment laws and collective relations laws are associated with lower male participation in the labor force.[60]

Another way to understand the trade-offs between wages and employment is through the framing of short-run vs. long-run effects. Powerful labor unions have increased the wages of unionized workers in the short run, but that has led to unemployment and reduced work opportunities for those workers in the long run (as the case studies of manufacturing and the Rust Belt demonstrate). In fact, one study found that where labor union power weakened, workers experienced a wage decrease in the short run, while unemployment remained unchanged. In the long run, however, firms experienced higher profits, leading to increased competition and entry of more new firms. This has resulted in lower unemployment and the return of wages to their initial levels.[61] To summarize, the research suggests that as labor unions become less powerful,

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[56] Alder et al., "Labor Market Conflict and the Decline of the Rust Belt."

[57] Joshua D. Angrist and Adriana D. Kugler, "Protective or Counter-Productive? Labour Market Institutions and the Effect of Immigration on EU Natives," *The Economic Journal* 113, no. 488 (2003): F302–F331.

[58] T. Boeri and P. Garibaldi, "A Tale of Comprehensive Labor Market Reforms: Evidence from the Italian Jobs Act," *Labour Economic, 59* (2019): 33–48; C. Pigini and S. Staffolani, "Firing Costs and Job Loss: The Case of the Italian Jobs Act," *Italian Economic Journal 8*, no. 1 (2022): 105–43.

[59] Timothy Besley and Robin Burgess, "Can Labor Regulation Hinder Economic Performance? Evidence from India," *The Quarterly Journal of Economics* 119, no. 1 (2004): 91–134.

[60] Botero et al., "The Regulation of Labor."

[61] Olivier Blanchard and Francesco Giavazzi, "Macroeconomic Effects of Regulation and Deregulation in Goods and Labor Markets," *The Quarterly Journal of Economics* 118, no. 3 (2003): 879–907.

workers can experience short-term wage reductions, but they can also experience improvements in job opportunities and potentially higher wages as the labor market becomes more competitive.

Cost at the firm level: productivity, profits, and investment

The costs unions impose on firms play out through three key channels: productivity, profitability, and investment. At their best, unions can boost productivity by fostering better communication between workers and management, reducing turnover, and creating incentives for efficiency. But more often, restrictive work rules and wage-setting above market rates stifle flexibility, dull incentives, and slow down adaptation. The result is lower profitability: Higher wages that don't come with matching productivity gains can squeeze margins, limit reinvestment, and weaken firms' ability to compete and grow. And when profits shrink, so does investment. Faced with rising labor costs, firms cut back on capital improvements, technology upgrades, and R&D, leaving them less competitive in the long run. In the end, while unions may secure short-term benefits for workers, their impact on firms often leads to the very job losses and stagnation they aim to prevent.

One of the key factors in assessing the overall cost of labor unions at the firm level is productivity. In their 1984 book Freeman and Medoff argue that labor unions tend to contribute to increased productivity, although the effect varies depending on the labor relations environment. Labor unions can raise productivity through an "employee morale channel," by providing workers with a means of expressing discontent as an alternative to "exiting." The labor unions open communication channels between workers and management, which induces managers to make changes to production methods and to adopt policies to improve efficiency. Open channels of communication also lower quit rates and improve labor relations within the firm. Freeman and Medoff argue that these productivity-enhancing effects can potentially offset the efficiency losses from greater unionization.

Recent research shows a different reality regarding how labor unions impact productivity. Aside from a few exceptions due to unique labor union arrangements, the impact of labor unions on productivity has been shown to be generally negative, mainly through the "investment channel." That is, when unions set wages above the market rate—where wage determination becomes uncertain and disconnected from actual market conditions—both tangible and intangible investments can be reduced, ultimately hindering firm productivity.[62] In line with Freeman and Medoff's findings, more recent research continues to provide strong evidence that labor unions reduce firm profitability.[63] This decline is largely driven by labor-union-negotiated higher wages, which often lack matching productivity gains. As a result, firms face reduced profits, which limit their ability to invest in capital and R&D, which ultimately hinders long-term productivity growth.[64]

This is the ultimate dilemma for labor unions: The more what the labor union secures at the bargaining table is beyond what is reasonably sustainable, the lower the surplus of profits will be. Therefore, the more the labor union wins at the bargaining table, the more vulnerable the

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[62] W. H. Hutt, *The Theory of Collective Bargaining* (P. S. King and Son, Ltd., 1930); Jesse T. Carpenter, *Employers' Associations and Collective Bargaining in New York City* (Cornell University Press, 1950); Hirsch, "What Do Unions Do for Economic Performance?"

[63] Hutt, *The Theory of Collective Bargaining*; Carpenter, *Employers' Associations and Collective Bargaining in New York City*; Hirsch, "What Do Unions Do for Economic Performance?"

[64] Addison, "The Consequences of Trade Union Power Erosion."

company is to long-term decline. As the company declines, there will be reduced work opportunities.

Besides increasing labor costs beyond what is reasonably justified, labor unions can also harm productivity through restrictive work rules, which include not only establishing inefficient staffing requirements ("featherbedding"), but also limiting incentives for worker effort and restricting management discretion on optimal staffing arrangements.[65] Negotiations over work intensity, or the pace of work, can further influence employment levels. Labor unions often press for reduced work intensity, which necessitates employing more workers but can also diminish overall productivity.[66]

Another example of how restrictive work rules can harm productivity is the case of the International Longshoremen's Association (ILA), which in 2024 pushed for a total ban on port automation. Their intention was to protect jobs, but their demand would block critical productivity gains and prevent the kind of technology-driven human capital accumulation that fuels economic growth. The economic consequences of such resistance are not just theoretical; they have played out before, most infamously in the mid-20th-century rubber tire industry. Back then, excessive labor costs driven by aggressive labor union bargaining forced companies to relocate to less unionized regions, destabilizing local economies and eroding industrial competitiveness.[67] Yet, to be fair, there are cases where labor unions have managed to boost productivity, as seen in the US and Canadian iron ore industries during the 1980s crisis. Back then, facing intense competition from Brazil and the real threat of permanent mine closures—25 percent of Minnesota mines had already shut down—labor unions made concessions that streamlined work practices. Machine operators were finally allowed to perform basic repairs, and overstaffed repair crews were cut from 50 to 25 percent at the largest mine. Unsurprisingly, the most substantial productivity gains came from mines where these rigid labor union rules were most significantly relaxed.[68]

Contrast this with unionized US school districts, which manage to extract more funding, raising per-pupil spending by about 12.3 percent and increasing teacher pay. Despite these higher inputs, school productivity did not improve. Dropout rates were actually higher, suggesting that while labor unions are adept at securing financial resources, they often miss the mark on effective resource allocation.[69]

The economics literature consistently shows that more powerful and aggressive labor unions with unsustainable demands also tend to reduce firm profitability, which in turn hurts worker-level outcomes. One way to understand this effect is to investigate how labor-market regulations shape the distribution of rents between firms and workers. One study showed that reducing labor union bargaining power—essentially a form of labor market deregulation—can lower real wages without impacting unemployment in the short term. However, over the long term, deregulation boosts firm profits, sparking greater market competition and new firm entry,

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[65] George E. Johnson, "Work Rules, Featherbedding, and Pareto-Optimal Union-Management Bargaining," *Journal of Labor Economics* 8, no. 1 (1990): S237–S259.

[66] Johnson, "Work Rules, Featherbedding, and Pareto-Optimal Union-Management Bargaining."

[67] Irvin Sobel, "Collective Bargaining and Decentralization in the Rubber-Tire Industry," *Journal of Political Economy* 62, no. 1 (1954): 12–25.

[68] James A. Schmitz, Jr., "What Determines Productivity? Lessons from the Dramatic Recovery of the US and Canadian Iron Ore Industries Following Their Early 1980s Crisis," *Journal of Political Economy* 113, no. 3 (2005): 582–625.

[69] Caroline Minter Hoxby, "How Teachers' Unions Affect Education Production," *The Quarterly Journal of Economics* 111, no. 3 (1996): 671–718.

which eventually drives down unemployment and restores wages to their previous levels. This dynamic illustrates how, in heavily unionized environments, the initial wage cuts from deregulation lead to broader economic benefits over time.[70] The direct and spillover effects of labor union organizing on firm profitability are particularly striking. For instance, companies facing labor union petitions see their stock prices drop by an average of 1.04 percent. This effect extends beyond the targeted firms: Nonunion firms in the same industry also experience market value declines—averaging 0.72 percent—as investors brace for potential spillover effects. In cases where labor unions win representation elections, the hit to market value is even steeper, suggesting that the financial markets view successful unionization as a substantial threat to profitability.[71]

Finally, institutional contexts can either mitigate or amplify the negative impact that labor unions have on employment, productivity, and investments. For example, a relatively more decentralized bargaining system—in which wage negotiations are organized at industry-region level—can sometimes alleviate negative effects, such as reduced employment or stagnated productivity. However, even under decentralized systems, labor unions' ability to capture quasi-rents remains a significant obstacle to firm reinvestment. Quasi-rents, which are the profits that could otherwise be reinvested into the company for future growth, often get diverted to satisfy labor union demands beyond what are reasonably sustainable, reducing the firm's capacity to innovate or expand.[72] Evidence from privatization cases in Mexico further supports this: State-owned enterprises (SOEs) with strong unions fetched lower auction prices. Potential buyers were deterred by the costly labor liabilities and the focus on employment rather than profitability, underscoring how union strength can directly impact firm valuation and economic performance.[73]

These findings underscore a recurring challenge: While unions can secure short-term gains for workers, their influence often complicates long-term investments and growth. Even when unions negotiate through structured bargaining, the diversion of profits away from reinvestment remains a concern. This not only hampers firm performance but also undermines future worker outcomes when demands are excessive, as reduced investment in innovation and expansion means fewer job opportunities and wage stagnation over time.

The impact of unionization on investment is overwhelmingly negative, particularly when it comes to capital and R&D.[74] There are rare exceptions, like in Germany, where unique institutional arrangements—such as worker councils working hand-in-hand with unions—have led to improved productivity and innovation.[75] Studies have long challenged the earlier rosy views of union benefits, arguing instead that unionization acts like a tax on capital returns, discourages investment in essential long-lived tangible and intangible assets, and slows both employment and productivity growth, especially in heavily unionized sectors.[76] The bottom line?

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[70] Blanchard and Giavazzi, "Macroeconomic Effects of Regulation and Deregulation in Goods and Labor Markets."

[71] Stephen G. Bronars and Donald R. Deere, "Unionization and Profitability: Evidence of Spillover Effects," *Journal of Political Economy* 102, no. 6 (1994): 1281–87.

[72] Addison, "The Consequences of Trade Union Power Erosion."

[73] F. López-de-Silanes, "Determinants of Privatization Prices," *The Quarterly Journal of Economics* 112, no. 4 (1997): 965–1025.

[74] See, for example, table A2 in the appendix and the literature summary in Addison, "The Consequences of Trade Union Power Erosion."

[75] Addison, "The Consequences of Trade Union Power Erosion."

[76] Hirsch, "What Do Unions Do for Economic Performance?"

Outside of the rare edge case of Germany, the effect of unionization on investment and R&D remains largely harmful.[77]

Another way to reconcile some of these findings on productivity is not through the absence or presence of unions, but through the lenses of bargaining weight. If unions are very powerful and have a strong bargaining weight, then the negative productivity channels (e.g., investment) may be greater than the positive productivity channels (e.g. employee morale). As discussed above, bargaining weight is a key determinant of whether the union's monopoly face or the collective voice face will prevail. If unions are overly powerful and make excessive demands, the negative effects through the investment channel will be greater than the positive effects of employee behavior.

Union Power and the Downside for Younger Workers' Mobility

There is broad consensus in the academic literature that unionization lowers labor turnover.[78] The benefits of reduced labor turnover are clear: more stable employment opportunities for existing workers and reduced costs for organizations in terms of recruitments, trainings, and loss of institutional knowledge.

However, there are significant drawbacks for younger workers in environments where there is very low labor turnover. As tenured employees remain in place longer, employment protection clauses and seniority rules often deter outside hiring or hamper promotions that might have otherwise gone to younger or newly entering workers—in other words, unions enforce hiring and layoff practices that favor senior workers, thereby restricting employment opportunities for newer entrants.[79] The result is fewer vacancies, which compresses the natural flow of job changes and slows the discovery of more suitable skill matches. Studies on hiring practices also show that when union contracts emphasize strict wage floors or rigid pay scales, firms may prefer to keep existing workers rather than bring in inexperienced individuals at a lower wage.[80] This is how the reduced turnover due to certain union collective bargaining agreements can, in practice, shrink the pool of opportunities for youth, limiting their career progression.

Drawing on a separate body of literature on job mobility, we find robust evidence that job mobility is especially pivotal for younger workers. Seminal work by Topel and Ward (1992) found that early-career job transitions account for a large fraction of wage growth among young men, as each new position often provides a substantial pay hike.[81] By moving up the ladder

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[77] Simon Jäger et al., "Labor in the Boardroom," *The Quarterly Journal of Economics* 136, no. 2 (2021): 669–725; Timothy Besley and Robin Burgess, "Can Labor Regulation Hinder Economic Performance? Evidence from India," *The Quarterly Journal of Economics* 119, no. 1 (2004): 91–134.

[78] Richard B. Freeman, and James L. Medoff, "What Do Unions Do?" Industrial and Labor Relations Review 38 (1984): 244; Hristos Doucouliagos et al., *The Economics of Trade Unions: A Study of a Research Field and Its Findings* (Routledge, 2020); Deidre Burns et al., "The Impact of Unionization on Employer and Employee Outcomes," *Applied Economics Letters* 27, no. 15 (2020): 1231–37.

[79] Peter Kuhn and Jacques Robert, "Seniority and Distribution in a Two-Worker Trade Union," *The Quarterly Journal of Economics* 104, no. 3 (1989): 485–505; Katharine G. Abraham and James L. Medoff, "Length of Service and Layoffs in Union and Nonunion Work Groups," *ILR Review* 38, no. 1 (1984): 87–97; David H. Autor et al., "Does Employment Protection Reduce Productivity? Evidence from US States," *The Economic Journal* 117, no. 521 (2007): F189–F217.

[80] Assar Lindbeck and Dennis J. Snower, "Insiders Versus Outsiders," *Journal of Economic Perspectives* 15, no. 1 (2001): 165–188; Daron Acemoglu and Jörn-Steffen Pischke, "Beyond Becker: Training in Imperfect Labour Markets," *The Economic Journal* 109, no. 453 (1999): F112–F142.

[81] Robert H. Topel and Michael P. Ward, "Job Mobility and the Careers of Young Men," *Quarterly Journal of Economics* 107, no. 2 (1992): 439–79.

through relatively frequent job changes, younger cohorts, especially younger men, acquire skills, increase their wage growth through outside offers, and ultimately optimize their career prospects.[82] After the Great Recession, however, rates of job-to-job transitions declined and hampered these early wage gains for young workers.[83] These findings highlight that a certain level of labor turnover is essential for younger workers to discover better job matches and enhance their earnings trajectories.

Yet powerful labor unions that prioritize strong job security provisions and structured promotion systems may inadvertently limit the availability of precisely those opportunities that facilitate upward mobility for younger workers. While job security provisions and seniority promotion systems have clear benefits for current members—especially older incumbents—this can slow the natural churn that opens doors for new entrants. Economist Fatih Guvenen and coauthors find that recent cohorts of young workers, especially men, are experiencing notably lower lifetime incomes because of the changes in labor market conditions for them—such as declining job mobility or constrained opportunities for job switching.[84] If workers are unable to switch jobs for better wages, their earnings stagnate, preventing them from making up for lower early-career earnings later in life. Thus, a younger person may find few positions opening up in heavily unionized settings that prioritize incumbents and rely on rigid seniority-based promotions.[85] The net effect is that younger workers see fewer paths to rapid advancement or bargaining leverage through competing job offers.

Moreover, while labor unions have historically advanced wages and working conditions overall, the insider-outsider problem reveals an important downside for younger workers.[86] The insider-outsider problem refers to how union insiders—usually longer-tenured or senior employees—enjoy heightened job security, structured promotion policies, and strong protections against layoffs. Because these workers rarely leave, and because high labor costs and seniority rules discourage outside hiring, outsiders (especially younger or newly entering workers) face major hurdles entering unionized jobs. The result is that insiders continue to benefit from stability and advantages, while outsiders find few openings and limited upward mobility.[87] This dynamic curtails the fluid reallocation of talent across firms that fosters both wage growth and labor market efficiency. Lateral mobility becomes more difficult because newly opened slots are scarce in a system that heavily rewards seniority.

In sum, both too little and too much labor turnover can be harmful for both workers and firms. A healthy amount of labor turnover is beneficial for younger workers who rely on job mobility to negotiate better compensation and accumulate relevant experience. It is worth noting that a union's main advantages that we highlight in this paper—such as voice and representation

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[82] Steven J. Davis and John Haltiwanger, "Labor Market Fluidity and Economic Performance," (NBER Working Paper No. 20479, National Bureau of Economic Research, 2014); Till von Wachter and Stefan Bender, "In the Right Place at the Wrong Time: The Role of Firms and Luck in Young Workers' Careers," *American Economic Review* 96, no. 5 (2006): 1679–705.

[83] Davis and Haltiwanger, "Labor Market Fluidity and Economic Performance"; John C. Haltiwanger et al., "Cyclical Job Ladders by Firm Size and Firm Wage," *American Economic Journal: Macroeconomics* 10, no. 2 (2018): 52–85.

[84] Fatih Guvenen et al., "Lifetime Earnings in the United States over Six Decades," *American Economic Journal: Applied Economics* 14, no. 4 (2022): 446–79.

[85] David G. Blanchflower and Richard B. Freeman, *Unionism in the United States and Other Advanced OECD Countries* (National Bureau of Economic Research, 1990).

[86] Assar Lindbeck and Dennis J. Snower, "Insiders Versus Outsiders," *Journal of Economic Perspectives* 15, no. 1 (2001): 165–88.

[87] Lindbeck and Snower, "Insiders versus Outsiders."

mechanisms—need not vanish in less-rigid bargaining arrangements or among less-monopolistic unions. A union's monopoly power does not translate into better worker outcomes.

Moderate union power—with fewer monopolistic characteristics and more balanced demands—can preserve the benefits for workers via voice and representation while mitigating the downsides of reduced labor mobility for younger workers.

In short, while strong unions yield gains for their senior members, they can inadvertently curtail early-career development for younger workers by limiting the very labor turnover that sustains wage progression and skills discovery.

The Rust Belt's Economic Deterioration: A Warning Against Excessive Labor Union Demands

We highlight the case of the Rust Belt because it showcases both the pros and cons of union power both in the short and the long run. Several studies have analyzed the decline of Rust Belt manufacturing, attributing it to factors such as rapid technological change, reduced transportation costs, the diminishing importance of knowledge spillovers, and declining communication costs.[88] A new study by economists Simeon D. Alder, David Lagakos, and Lee Ohanian on "Labor Market Conflict and the Decline of the Rust Belt," takes into account these various factors and finds that powerful labor unions and ensuing labor conflicts accounted for 55 percent of the decline in the Rust Belt's share of US manufacturing employment, contributing to the region's economic decline throughout the second half of the 20th century.[89] The study also accounts for increased globalization, but finds that trade had a secondary negative effect that came three decades later, in the 1980s. The study begins with a few essential facts about the Rust Belt:

1. The region's share of manufacturing employment declined from 51 percent in 1950 to 33 percent by 2000. This decline represented a shift in manufacturing employment from the Rust Belt to other parts of the United States, rather than a shift of employment from the manufacturing sector to the service sector.

2. In the post–World War II decades, labor market conflicts in the United States (such as major strikes and work stoppages) were largely concentrated in the Rust Belt manufacturing industries.[90]

3. Wages for Rust Belt manufacturing employees were substantially higher than wages in the rest of the country, even after controlling for other factors and characteristics.

4. Descriptive analysis shows that there was a strong negative association between rates of work stoppages and employment growth in the Rust Belt between 1950 and 2000.

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[88] Chamna Yoon, "Estimating a Dynamic Spatial Equilibrium Model to Evaluate the Welfare Implications of Regional Adjustment Processes: The Decline of the Rust Belt," *International Economic Review* 58, no. 2 (2017): 473–97; Edward L. Glaeser and Giacomo A. M. Ponzetto, "Did the Death of Distance Hurt Detroit and Help New York?," in *Agglomeration Economics*, ed. Edward L. Glaeser (University of Chicago Press (for NBER), 2007); Gilles Duranton and Diego Puga, "From Sectoral to Functional Urban Specialisation," *Journal of Urban Economics* 57, no. 2 (2009): 343–70.

[89] The study defines the Rust Belt as the states of Illinois, Indiana, Michigan, New York, Ohio, Pennsylvania, West Virginia and Wisconsin. This definition encompasses the heavy-manufacturing area bordering the Great Lakes. Alder et al., "Labor Market Conflict and the Decline of the Rust Belt."

[90] Major work stoppages were defined as those involving 1,000 or more workers.

5. Both work-stoppage rates and the Rust Belt manufacturing wage premium fell significantly during the 1980s, and this corresponded to a time when the Rust Belt's decline stabilized relative to previous years.

One of the key components of the Rust Belt's manufacturing history is that labor relations there were particularly fraught—more so than in any other US region starting in the 1950s. For example, the study finds that manufacturing industries in the region reported by far the highest rates of work stoppages in the United States—on average, 19.2 percent of calendar years involved a major work stoppage, which means there was roughly one strike every five years.[91] Union membership was also higher in the Rust Belt. Between 1973 and 1980, 48.1 percent of manufacturing workers in the Rust Belt were union members, compared to only 28.4 percent of manufacturing workers in the rest of the country. The authors of the study emphasize: "So while unionization rates in manufacturing were around twice as high in the Rust Belt as outside, rates of work stoppages were about seven times as high in the Rust Belt."[92]

At the same time, the region's manufacturing workers earned substantial wage premiums during this period. After accounting for the cost of living and demographic variables, including education, age, skills, and gender, it can be stated that manufacturing wages inside the Rust Belt were significantly higher than those outside. The fact that for several decades the Rust Belt's manufacturing workers, who were represented by powerful unions, received substantially higher wages compared to nonunion manufacturing workers outside the region showcases a key benefit that powerful unions can have for workers: Powerful unions have greater leverage and can negotiate better compensation packages for their workers.

But that is not the end of the Rust Belt story. The same study found that, after some time, more adversarial unions and the ensuing labor conflicts led to lower average rates of investment and productivity growth by Rust Belt firms relative to firms in the rest of the country. Over time, manufacturers sought out lower-cost alternatives and started to shift their operations to regions where productivity was higher or where manufacturing costs were lower. This means the Rust Belt, with slower productivity growth, lost jobs because manufacturers moved their production to regions that were not prone to frequent and major work stoppages and could produce goods more efficiently or more cheaply. The largest declines in the region's employment share occurred in the first three decades after the end of World War II.

Several other studies also found that beginning in the 1980s, there was a substantial decrease in unionized manufacturing jobs and a simultaneous increase in nonunionized manufacturing jobs. As we discussed previously, another study found that the greater the difference between unionized and nonunionized manufacturing wages, the higher the rate of decline in employment among those unionized firms. During the 1980s there was a significant change to the Rust Belt story. As more cooperative labor management relations emerged and labor conflicts and work stoppages subsided, the wage premiums fell, and the region's decline began to slow. Additionally, the authors found that greater openness to trade had a secondary effect on the Rust Belt: "Rising imports have virtually no employment effect until the mid-1970s, and the losses are concentrated in the 1980s and 1990s. This suggests that international forces at best played a supporting role in the Rust Belt's decline in the latter part of the time period."[93]

[91] Alder et al., "Labor Market Conflict and the Decline of the Rust Belt."

[92] Alder et al., "Labor Market Conflict and the Decline of the Rust Belt."

[93] Alder et al., "Labor Market Conflict and the Decline of the Rust Belt."

The Rust Belt case study is a perfect example of unions going too far, leading to worse worker outcomes in the long run. It serves as a cautionary tale: Unions, while boosting wages in the short term, inflicted long-term economic damage. Bloated labor costs and relentless strikes strangled productivity and investment, prompting manufacturers to flee to more business-friendly regions. The result? A once-thriving industrial heartland hollowed out, leaving workers worse off and communities struggling to recover.

Policy Recommendations: Making Labor Unions Work

While stronger union power can bring long-term drawbacks—such as reduced economic efficiency, lower firm output, and decreased employment—these effects are often tied to union models built around exclusive representation and limited competition. Research suggests that unions can have more positive long-term impacts in systems that allow increased flexibility in collective bargaining agreements, greater worker choice and representation, and more balanced union demands. However, the institutional framework of US labor law tends to reinforce a more monopolistic model of unionism, which can constrain worker choice and voice, limit adaptability in bargaining and ultimately curtail the potential benefits that greater flexibility could offer.

Examples of more effective unions from abroad: greater worker voice, balanced demands, and increased flexibility

Decentralized wage bargaining occurs where multiple smaller unions operate independently and has been shown to increase employment and reduce inflation. A decentralized structure provides firms with more flexibility in managing labor costs because firms can substitute workers across unions, thereby weakening the output-restricting effects often linked with centralized wage negotiations.[94] The examples of Germany and Portugal illustrate the institutional features that can replace rigid rules that have led to higher unemployment and lower economic growth across the European continent.

In Germany, a decentralized labor union system allows for flexibility in union negotiations, so wages can align well with regional productivity, and employment is high even in low-productivity regions.[95] Flexibility also benefits negotiations on working hours. A study on union-driven reductions in working hours in western Germany shows that unions with flexible working-hour arrangements enabled firms to manage costs more effectively.[96] In this case, flexibility in how standard hours were distributed across workers allowed firms to adjust more nimbly, which minimized the rigidities associated with unionized labor. These findings suggest that decentralized, adaptable union arrangements can help firms navigate wage and hour reductions more efficiently.[97] In contrast, rigid systems like Italy's have uniform wage floors across regions and have led to higher unemployment in less-productive areas.

In Portugal, the "wage cushion"—a gap between collective bargaining agreements and the actual wages paid by firms—demonstrates how wage flexibility can coexist with collective bargaining. The wage cushion allows firms to deviate from set wages and to consider individual workers' attributes, such as education, experience, and productivity, when determining wages,

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[94] Francesco Lippi, "Strategic Monetary Policy with Non-Atomistic Wage Setters." *The Review of Economic Studies* 70, no. 4 (2003): 909–19.

[95] Simon Jäger et al., "The German Model of Industrial Relations."

[96] Jennifer Hunt, "Has Work-Sharing Worked in Germany?," *The Quarterly Journal of Economics* 114, no. 1 (1999): 117–48.

[97] Hunt, "Has Work-Sharing Worked in Germany?"

effectively offsetting the rigidities typically imposed by collective bargaining. While union bargaining power may compress wage differentials, the wage cushion moderates these effects, helping maintain low unemployment and illustrating how firm-level adjustments can balance collective agreements to achieve positive outcomes.[98]

Research shows that decentralized, wage-moderating unions—unions that temper their wage demands—can reduce firm closures and ensure the long-term survival of both the firm and the union.[99] Unions structured within a more decentralized governance model are more capable of promoting positive economic outcomes for both workers and firms, minimizing the negative impacts often associated with greater union power.[100]

In the United Kingdom, labor laws allow multiple unions to represent workers in the same workplace—an arrangement not permitted in the United States. As a result, UK unions tend to be less monopolistic, and it is less common for a single union to dominate an entire industry, unlike in the US. Although certain unions in the UK may still be very influential within specific sectors, they do not enjoy the legal-exclusivity characteristic of US unions.[101]

By allowing for localized decision-making and adaptability within broader economic systems, moderate unions can avoid the detrimental effects more powerful unions can have on firm output, employment, and productivity.

US policy recommendations

We focus on two policy paths to union reform in the United States, both of which address two key concerns: (1) worker choices and (2) union diversity and competitiveness.

The first policy path involves modernizing labor laws to increase worker choice and voice. Currently, the National Labor Relations Act (NLRA) prohibits *almost any* formal cooperation between workers and the employer outside of the designated majority-supported union (the union that won the majority of the vote), even for workers who do not want to be represented by that union. This institutional setup entrenches a single-union monopoly over voice, reducing workers' ability to access alternative or complementary forms of representation—hallmarks of the monopoly face. At the same time, the NLRA requires unions at a unionized workplace to commit resources to represent *all* workers, even nonunion ones.

A simple legislative reform could solve limited representation and benefit both the workers and the unions. Congress could allow employees who opt out of union membership to negotiate directly with their employers, which is what most workers do at nonunion companies. Employees of unionized companies could still become union members who are covered by collective bargaining agreements and pay dues. At the same time, the unions would be exempt from having to represent—and spend resources on—nonunion members. This reform would also solve the key concern that labor unions have with right-to-work laws, which prohibit labor unions from requiring workers to join the union, pay dues, or both, as a condition of employment. Right-to-work laws, currently in effect in 26 states, were designed to give employees the choice not to become a union member, even if the union is negotiating on their

[98] Ana Rute Cardoso and Pedro Portugal, "Contractual Wages and the Wage Cushion Under Different Bargaining Settings," *Journal of Labor Economics* 23, no. 4 (2005): 875–902.

[99] Michael Kremer and Benjamin A. Olken, "A Biological Model of Unions," *American Economic Journal: Applied Economics* 1, no. 2 (2009): 150–75.

[100] Kremer and Olken, "A Biological Model of Unions."

[101] M. Freedland and N. Kountouris, *The Legal Construction of Personal Work Relations* (Oxford University Press, 2011).

behalf. Union advocates have raised concerns that this choice creates a free-rider problem, since nonmembers benefit from union-negotiated contracts and protections without having to contribute financially to the union's operations. Supporters, on the other hand, say these laws protect workers' freedom of—and from—association.

One downside of this reform is that it could diminish union power, but weakening a union's monopolistic features and enhancing worker representation creates a better avenue to promote the diverse needs of workers and could lead to more collaborative unions.[102] Moreover, workers prefer to be represented by unions that have more cooperative relationships with management, and they prefer to have a diversity of union options within one workplace (as opposed to being represented by one powerful union).[103] As Freeman and Roger's survey research showed, even when workers were given the direct trade-offs, the majority preferred a weaker union that the management supported over a powerful union that management opposed.[104] A 2017 survey by the Massachusetts Institute of Technology found similar results: While workers generally had positive attitudes toward unions, union political activity and strikes were the only two factors that made workers less likely to view organized labor favorably.[105]

The second policy path to labor union reform involves legislative reforms that would eliminate anticompetitive labor union practices.[106] Historically, early applications of the Sherman Act of 1890—which prohibits unfair monopolies and promotes competition—targeted labor unions for so-called anticompetitive practices such as boycotts and strikes. Later, the Clayton Act of 1914 and the Norris–LaGuardia Act of 1932 provided unions with limited exemptions from antitrust laws, prioritizing unions' role in balancing employer power.

Antitrust laws focus on limiting monopolistic practices in the market, while unions often operate in ways that mimic such practices. For example, unions aim to eliminate competition by monopolizing labor markets, a practice inherently at odds with the goals of antitrust laws, which promote competitive markets. Unions also pursue monopolistic objectives by organizing workers and using methods such as mass picketing, closed-shop agreements, and secondary boycotts, which suppress nonunion competition. Finally, multi-employer bargaining, a form of collective bargaining in which a single union negotiates with a group of employers (often within the same industry) rather than with individual employers, can also be anticompetitive because it can lead to a situation where a group of employers collectively set wages and working conditions, essentially removing competition between them in the labor market. Labor union activity was granted some exemptions to antitrust laws because (1) labor union activity was not attempting to control product markets or commerce, and (2) there was general support for collective action that helps level the playing field in labor relations, which would be undermined if antitrust laws treated unions like monopolistic business entities.

This inherent tension between competition and labor unions has led to decades of legal controversies and judicial inconsistencies about whether certain union practices breach antitrust

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[102] Jäger et al., "The German Model of Industrial Relations."

[103] Richard B. Freeman and Joel Rogers, *What Workers Want* (Cornell University Press, 2006).

[104] Freeman and Rogers, *What Workers Want*.

[105] Massachusetts Institute of Technology, "Work of the Future," MIT Industrial Performance Center, accessed January 23, 2025, https://ipc.mit.edu/research/work-of-the-future/.

[106] B. D. Meltzer, "Labor Unions, Collective Bargaining, and the Antitrust Laws," *The University of Chicago Law Review* 32, no. 4 (1965): 659–734; R. K. Winter, Jr., "Collective Bargaining and Competition: The Application of Antitrust Standards to Union Activities," *The Yale Law Journal* 73, no. 1 (1963): 14–61; R. H. Lande and R. O. Zerbe, Jr., "Reducing Unions' Monopoly Power: Costs and Benefits," *The Journal of Law and Economic,* 28, no. 22 (1985): 297–310.

laws.[107] For this reason, some legal scholars have argued that the Sherman Act is poorly suited to regulate collective bargaining and that a new legislative framework is needed, one that can better balance the goals of competition and collective bargaining without undermining either. Some of those proposals could include the following:

- Prohibiting "most favored nation" clauses in collective agreements, which mandate uniform terms across employers.
- Allowing employers more flexibility to withdraw from multi-employer bargaining units.
- Applying some corporate merger guidelines to unions to prevent anticompetitive union practices. These could include, for example, the following:
    - Stipulating that one single union cannot represent two or more companies' employees if antitrust laws would also prevent those same companies from merging.
    - Stipulating that one single labor union's "market share" cannot exceed a certain threshold—for example, if one single union represents more than 30-40 percent of a given industry's workforce.
    - Requiring a Department of Justice or Federal Trade Commission review of multi-employer bargaining units to prevent excessive consolidation.

These proposals aim to reduce the structural monopoly face of unions—a union's exclusive legal control over representation—in favor of more open, pluralistic systems that retain collective voice while restoring choice and competition.

Conclusion

In recent years, several high-profile labor disputes culminated in major contract agreements, including the United Auto Workers' resolution of a prolonged strike against Ford, General Motors, and Stellantis, as well as significant labor negotiations involving UPS, Boeing, and the International Longshoremen's Association. Many viewed these agreements—which secured substantial wage increases and other benefits—as major victories for workers across industries. But these seemingly successful contracts also resulted in lost jobs for workers—losses that stem not from the collective voice itself, but from the statutory monopoly face that amplifies confrontational tactics and blocks alternative channels for adjustment.

More than three decades of economics research support this anecdotal evidence: When the monopoly face of union power dominates, even seemingly strong bargaining outcomes can trigger downstream costs—slower job growth, reduced investment, and diminished firm performance. These negative outcomes reflect not the mere presence of unions and collective voice, but the legally enforced monopoly status of those unions that distorts incentives, fuels adversarial bargaining, and suppresses more adaptive models of worker representation.

The Rust Belt offers an insightful case study: As union power and frequent strikes drove up labor costs and reduced productivity, many firms responded by downsizing or relocating to regions with weaker union influence. Lessons from Europe also show the long-term costs of powerful unions and massive collective bargaining agreements: slower growth and higher unemployment.

While in the short run powerful and monopolistic labor unions that make significant demands in collective bargaining agreements have historically increased worker pay, they also harmed

[107] Cases such as Allen-Bradley Co. v. Local No. 3 (1945) and Apex Hosiery Co. v. Leader (1940) highlight inconsistencies in the court's rulings. The former restricted unions from collaborating with employers to fix prices, while the latter emphasized unions' self-interest as a protected activity.

workers by contributing to conditions that impede employment growth, cut jobs, reduce investment, and sometimes even prompt firms to downsize or close. Reforms that loosen exclusive-representation rules, permit multiple channels of worker voice, and make membership voluntary can preserve the power of collective voice while stripping away the monopoly distortions that hurt the very workers unions seek to help.

Appendix

The tables in this appendix show the variables and directional effects of unionization on worker and firm outcomes, as synthesized in our meta-analysis of the empirical literature. While our full review encompasses 147 studies, not all primary models from these papers fit within the structured framework adopted in this paper, which conceptualizes worker and firm outcomes as dependent variables and varying degrees of unionization or union-related activity as independent variables. The tables are organized to distinguish between labor market effects at the worker level and firm level. While our systematic research focuses on the last three decades of top publications, we have included seminal and highly cited papers from literature before 1994 to illustrate the evolution of this topic within the discipline.

TABLE A1. The effects of unionization on job creation, employment growth, and related labor market outcomes as evidenced in economics journals (workers)

Year	Unionization measure	Outcome variable—workers	Directional change	Journal	Authors
2024	Blue-collar representative in worker council	Involuntary separation	Positive	*NBER*	Julian Budde, Thomas Dohmen, Simon Jäger, Simon Trenkle
2024	High-frequency strikes	Employment	Negative	*Journal of Political Economy*	Simeon D. Alder, David Lagakos, Lee Ohanian
2023	Unionization	Healthcare and education employment*	Positive	*American Economic Journal: Economic Policy*	John S. Ahlquist, Mitch Downey
2022	Uniform wage floors	Employment	Negative	*Journal of Economic Perspective*	Simon Jäger, Shakked Noy, Benjamin Schoefer
2021	Flexible pay without union	Supply of higher quality teachers	Positive	*American Economic Journal: Economic Policy*	Barbara Biasa
2021	Weakened unionization	Supply of teachers	Positive	*AEA Papers and Proceedings*	E. Jason Baron
2020	Centralized wage bargaining	Employment	Negative	*NBER*	Tito Boeri Andrea, Ichino Enrico, Moretti, Johanna Posch
2020	Union density	Employment	Negative	*IZA World of Labor*	John T. Addison
	Flexible industry level bargaining	Employment	Less negative		

TABLE A1 *(continued)*

2012	Centralized bargaining	Employment	Negative	*American Economic Journal: Applied Economics*	Jeremy R. Magruder
		Self-employment	Negative		
	Wage demand moderating unions	Employment	Positive	*American Economic Journal: Applied Economics*	Michael Kremer, Benjamin A. Olken
2005	Diminish union power through wage cushion	Employment	Positive	*Journal of Labor Economics*	Ana Rute Cardoso, Pedro Portugal
2004	High statutory power of union	Employment	Negative	*Quarterly Journal of Economics*	Juan C. Botero, Simeon Djankov, Rafael La Porta, Florencio Lopez-de-Silanes and Andrei Shleifer
2004	Increased labor regulation	Formal manufacturing employment	Negative	*The Quarterly Journal of Economics*	Timothy Besley, Robin Burgess
2004	Unionization	Employment	No significant effect	*NBER*	John DiNardo, David S. Lee
2003	Labor market deregulation	Employment	SR: Unchanged	*Quarterly Journal of Economics*	Olivier Blanchard, Francesco Giavazzi
			LR: Positive		
2003	Centralized wage bargaining and stricter product market regulation	Employment effect on natives of immigration	Negative	*The Economic Journal*	Joshua D. Angrist, Adriana D. Kugler
1999	Wage rigidity	Employment	Negative	*Quarterly Journal of Economics*	Ernst Fehr and Klaus Schmidt
1999	Collective bargaining agreement	Employment-population ratio	Negative	*Econometrica*	John M. Abowd, Francis Kramarz, David N. Margolis
1999	Wage rigidity	Employment	Negative	*The Canadian Journal of Economics*	David Card, Francis Kramarz, Thomas Lemieux
1999	Union driven reductions in standard work hours	Employment of men	Negative	*The Quarterly Journal of Economics*	Jennifer Hunt

TABLE A1 *(continued)*

1998	Weakened unionization	Manufacturing employment	Positive	*Journal of Political Economy*	Thomas J. Holmes
1997	Labor market rigidity	Employment	Negative	*Journal of Economic Perspective*	Horst Siebert
1994	Push for higher wage	Employment	Negative	*The Quarterly Journal of Economics*	Juan C. Botero, Simeon Djankov, Rafael La Porta, Florencio Lopez-de-Silanes, Andrei Shleifer
1994	Union imposed strict firing restriction	Employment	Negative	*Journal of Political Economy*	Marc A. Van Audenrode
	Union allows flexibility	Employment	Positive		
1994	Unionization	Employment	Negative	*Journal of Political Economy*	John Pencavel, Ben Craig
1993	Continued bargaining	Fire department employment*	Positive	*Journal of Labor Economics*	Robert G. Valletta
1990	Unionization	Employment growth	Negative	*Journal of Labor Economics*	Richard B. Freeman, Morris M. Kleiner
1951	Labor monopolies	Employment	Negative	*Journal of Political Economy*	H. Greg Lewis
1949	Unionization	Employment	Negative	Book	Charles E. Lindblom
1948	Union strikes	Payment of workers	Negative	*Southern Economic Journal*	Gordon F. Bloom, Nathan Belfer
1943	Wage rigidity	Employment	Negative	*Quarterly Journal of Economics*	J. Shister

*Unionization has a positive effect on employment in rare cases where labor demand is elastic, such as in local public section unions (police, fire department).

TABLE A2. Effect of unionization on firm closures, firm output, profit, resource allocation, investment, and related labor-market outcomes as evidenced in economics journals (firms)

Year	Unionization measure	Outcome variable—firms	Directional change	Journal	Authors
2024	High frequency strikes	Investment in new technologies	Negative	*Journal of Political Economy*	Simeon D. Alder, David Lagakos, Lee Ohanian
		Operation expansion			
		Productivity			
		Plant relocation			
2024	Subsidizing Unions	Profit	Negative	NBER	Naoki Aizawa, Hanming Fang, Katsuhiro Komatsu
2024	Representation of workers	Firm survival	Positive	NBER	Julian Budde, Thomas Dohmen, Simon Jäger, Simon Trenkle
2023	Strengthen teachers' union	Service and capital spending	Negative	*American Economic Journal: Economic Policy*	Ying Shi, John D. Singleton
		Number of charter schools	Negative		
		Share of students enrolled in charter schools	Negative		
2021	Unionization	Product quality	Negative	*Management Science*	Omesh Kini, Mo Shen, Jaideep Shenoy, Venkat Subramaniam
		Product quality in non-right-to-work states	Severe Negative		
2021	Shared governance through workers representatives	Productivity	Positive	*Quarterly Journal of Economics*	Simon Jäger, Benjamin Schoefer, Jörg Heining
		Fixed capital stock	Positive		
2021	Unionization	Plant viability	Negative	*Journal of Labor Economics*	Brigham R. Frandsen
2020	Unionization	Profit	Negative	*IZA World of Labor*	John T. Addison
		Capital investment			
		R&D Investment			

TABLE A2 *(continued)*

2018	Profit sharing through union	Productivity	Positive	*IZA Discussion Paper Series*	Hristos Doucouliagos, Patrice Laroche, Douglas L. Kruse, T.D. Stanley
2019	Dissonant workers council	Firm survival	Negative	*Journal of Economic Behavior and Organization*	John T. Addison, Paulino Teixeira
2012	Union pension fund activism	Stock market reaction	Negative	*The Review of Financial Studies*	Ashwini K. Agrawal
2012	Centralized bargaining	Number of small firms	Negative	*American Economic Journal: Applied Economics*	Jeremy R. Magruder
2009	Wage demand moderating unions	Business survival	Positive	*American Economic Journal: Applied Economics*	Michael Kremer, Benjamin A. Olken
2009	Teachers' union	Resource allocation	Positive	*Journal of Labor Economics*	Michael F. Lovenheim
2005	Union concessions	Productivity	Positive	*Journal of Political Economy*	James A. Schmitz Jr.
	Profit sharing		Positive		
2004	Unionization	Business survival	Negative, insignificant	*NBER*	John DiNardo, David S. Lee
		Productivity	No effect		
2004	Increased labor regulation	Productivity	Negative	*The Quarterly Journal of Economics*	Timothy Besley, Robin Burgess
		Capital Investment	Negative		
		Manufacturing output			
2004	Strikes	Product quality	Negative	*Journal of Political Economy*	Alan B. Krueger and Alexandre Mas
2003	Unionization	Profit	Negative	*IZA Discussion Paper Series*	Barry T. Hirsch
		Business survival	No significant effect		
		Productivity	Zero or negative		
		Long-lived tangible and intangible capital investment	Negative		

TABLE A2 *(continued)*

2003	Unionization	Flexibility adjusting labor inputs	Negative, insignificant	*The Review of Economic Studies*	Johannes Van Biesebroeck
2003	Unionization	Productivity in the face of technological advancement	Negative	*Review of Economic Studies*	Johannes Van Biesbroeck
2003	Labor market deregulation	Profit	Positive	*Quarterly Journal of Economics*	Olivier Blanchard, Francesco Giavazzi
2000	Union weakening deregulation	Production	Positive	*The Review of Economic Studies*	Melvyn G. Coles and Andrew K. G. Hildreth
1998	Weakened unionization	Firm relocation	Negative	*Journal of Political Economy*	Thomas J. Holmes
1997	Presence of strong and active union	Privatization prizes	Negative	*The Quarterly Journal of Economics*	Florencio Lopez-de-Silanes
1996	Unionization	Efficient resource allocation	Negative	*The Quarterly Journal of Economics*	Caroline Minter Hoxby
		High school completion rate	Negative		
1994	Filing of a petition for a union representation election	Firm's market value	Negative	*Journal of Political Economy*	Stephen G. Bronars, Donald R. Deere
1994	Unionization	Operational days	Negative	*The Quarterly Journal of Economics*	William M. Boal, John Pencavel
1990	Profit sharing	Efficiency	Positive	*Journal of Labor Economics*	George E. Johnson
1984	Union power	Investment	Negative	*Econometrica*	Paul A. Grout
1978	Unionization	Productivity	Positive	*Journal of Political Economy*	Charles Brown and James Medoff
1954	High unionization	Plant relocation	Positive	*Journal of Political Economy*	Irvin Sobel
1951	Pattern bargaining by national labor unions	Cost structure	Negative	*Journal of Political Economy*	George Seltzer
1951	Labor monopolies	Output	Negative	*Journal of Political Economy*	H. Greg Lewis

TABLE A2 *(continued)*

1948	Unionization	Investment	Negative	*Southern Economic Journal*	Gordon F. Bloom, Nathan Belfer
1947	Union power	Resource allocation	Negative	*Book*	Charles E. Lindblom
1942	Unionization	Production	Negative	*The American Economic Review*	John T. Dunlop

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