



U.S. DEPARTMENT OF THE TREASURY
**LABOR UNIONS AND THE
MIDDLE CLASS**

August 2023

Executive Summary

In 1935, the landmark National Labor Relations Act (NLRA) was passed, significantly bolstering the power of American workers. In the decades that followed, during and immediately after World War II, labor unions flourished and income inequality fell to its lowest levels since the Great Depression. By the end of the 1950s, however, structural changes in the labor market and labor laws began to erode the gains accrued by labor unions and to bring change to the American middle class. Some of those changes brought hard-won good news. The civil rights movement in the 1950s and 1960s and the women's liberation movement of the 1970s led to expanded access to better careers and union representation for more Americans. On the negative side, declining union membership rates reflected weakened worker bargaining power and contributed to sluggish wage growth and rising inequality. This report describes how a policy of strengthening unions could slow or reverse some of the negative trends felt by the middle class and support broader economic growth.

The empirical research on unions suggests that middle-class workers reap substantial benefits from unionization. Unions raise the wages of their members by 10 to 15 percent. Unions also improve fringe benefits and workplace procedures such as retirement plans, workplace grievance policies, and predictable scheduling. These workplace improvements contribute substantially to middle-class financial stability and worker well-being. For example, one study has estimated that the average worker values their ability to avoid short-notice schedule changes at up to 20 percent of their wages.

Importantly, the positive effects of unions are not only experienced by workers at unionized establishments. Other workers see increases in wages and improved work practices as their nonunionized workplaces compete with unionized ones for labor. In turn, the higher pay and job security of both unionized and nonunionized middle-class workers can further spill over to their families and communities through more stable housing, more investment in education, and other channels.

Unions benefit all demographic groups. By encouraging egalitarian wage practices, unions serve to reduce race and gender wage gaps. And modern unions have broad representation across race and gender. In 2021, Black men had a particularly high union representation rate at 13 percent, as compared to the population average of 10 percent. The diverse demographics of modern union membership mean that the benefits of any policy that strengthens today's unions would be felt across the population.

Finally, in addition to supporting the middle class, unions contribute to more robust general economic growth and resilience. They do so, in part, by reducing overall inequality. Income inequality often feeds back into inequality of opportunity, which impedes growth if disadvantaged people cannot access the resources necessary to acquire job skills or start businesses. And unions can spur overall economic productivity by improving working environments and giving experienced workers more of an input into decisions that design better and more cost-effective workplace procedures.

The Biden-Harris Administration recognizes the benefits of unions to the middle class and the broader economy and is committed to fulfilling the policy objectives of the NLRA. Promisingly,

there have been recent signs of a reinvigorated labor movement, as union election petitions in 2022 bounced back from the pandemic to their highest level since 2015, and public opinion of labor unions is at its highest level in over 50 years. Actions taken and planned by the Biden-Harris Administration to advance this progress include:

- Prioritizing the passage of the Protecting the Right to Organize (PRO) Act and the Public Sector Freedom to Negotiate Act.
- Appointing a General Counsel and Board Members to the National Labor Relations Board (NLRB) committed to protecting the right of workers to organize in the workplace.
- Increasing the funding of the NLRB to enable them to expand enforcement activities.
- Creating the White House Task Force on Worker Organizing and Empowerment, which, under the leadership of Vice President Harris, works with agencies on ways to use their existing statutory authority to support worker organizing and bargaining.
- Signing Executive Order 14063, which requires the use of project labor agreements on federal construction projects of \$35 million or more.
- Signing Executive Order 14003 to promote the rights of federal employees to collectively bargain.
- Launching the Good Jobs Initiative to ensure the provision of critical information to workers, employers, and governments—including about the union advantage—as they work to improve job quality and create access to good jobs free from discrimination and harassment for all working people.
- Promoting “know your rights” initiatives to provide workers with better information about their organizing and bargaining rights.
- Announcing a new rule to raise wage standards of construction workers by updating prevailing wage regulations issued under the Davis-Bacon and Related Acts, which require payment of locally prevailing wages and fringe benefits to more than one million construction workers.
- Requiring employers to pay prevailing wages and abide by apprenticeship requirements to claim the full value of many clean energy tax incentives in the Inflation Reduction Act, as part of the Treasury Department’s implementation of the law.

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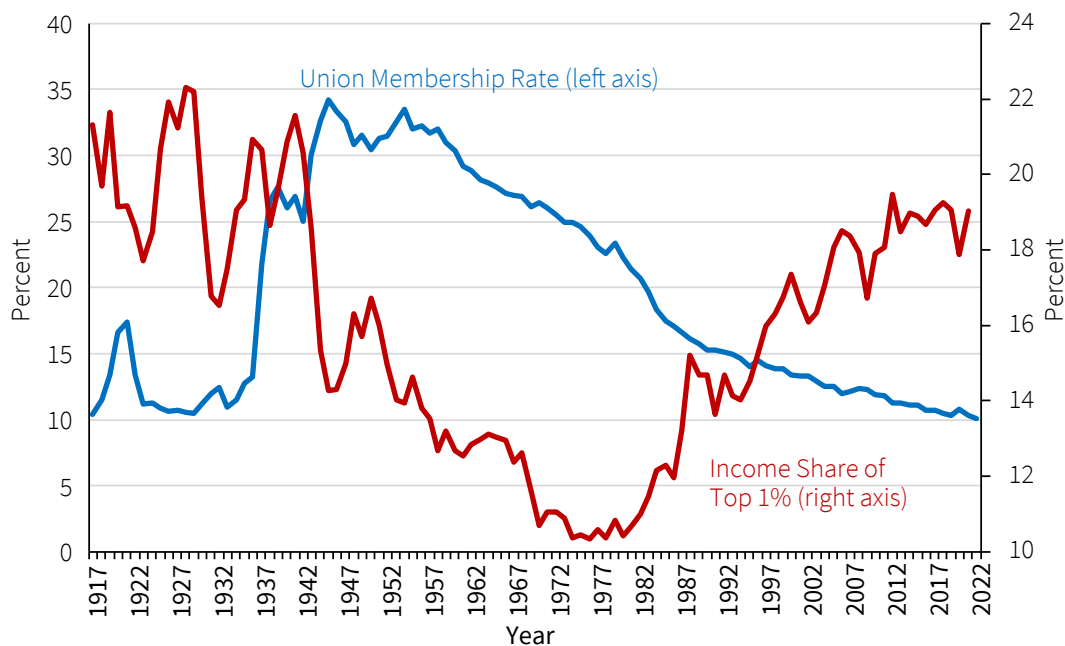
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Section 1. Introduction

From the 1970s until recently, income inequality in the United States rose markedly, real median wages stagnated, and many measures of the strength of the middle class decreased. Over the same period, workers' bargaining power diminished, a trend that can be seen in steadily declining union membership rates. Strengthening worker power—particularly by supporting unions—could reverse these longstanding trends and improve the wages, benefits, and well-being of the middle class, and bolster the overall U.S. economy.

In 1935, the National Labor Relations Act (NLRA) provided federal protections to most private-sector workers seeking to improve working conditions by forming or joining unions.¹ Union membership spiked following passage of the NLRA, from 11 percent of the non-agricultural labor force in 1934 to 28 percent in 1939. Unionization rates continued to rise through the 1940s and then leveled off through the mid-1950s at around a third of U.S. workers (Figure 1).²

Figure 1: Union Membership and Inequality



Source: Union membership data through 1994 from Farber et al. (2021) and Freeman (1998). After 1995, union membership data is from the CPS and reflects the percent of employed civilian labor force aged 16+ that are a member of a union. Top income share is from the World Inequality Database.

At that time, the shares of Americans graduating high school and attending college were rising rapidly, and the proportion of American children who could expect to earn more than their parents was higher than it is today.³

1 29 U.S.C. §§ 151–69

2 Farber, Henry S., Daniel Herbst, Ilyana Kuziemko, and Suresh Naidu. 2021. “Unions and Inequality over the Twentieth Century: New Evidence from Survey Data.” *The Quarterly Journal of Economics* 136 (3): 1325–1385; Freeman, Richard B. 1998. “Spurts in Union Growth: Defining Moments and Social Processes.” In *The Defining Moment: The Great Depression and the American Economy in the Twentieth Century*, edited by Michael D. Bordo, Claudia Goldin, and Eugene N. White, 265–296. Chicago: University of Chicago Press; U.S. Bureau of Labor Statistics. n.d. Current Population Survey (CPS) – Union Affiliation Data. Last accessed March 15, 2023. <https://beta.bls.gov/dataViewer/view/timeseries/LUU0204899600>; World Inequality Database. n.d. Top 1% Share – Pre-tax National Income for the USA. Last accessed March 15, 2023. <https://wid.world/data/>

3 Chetty, Raj, David Grusky, Maximilian Hell, Nathaniel Hendren, Robert Manduca, and Jimmy Narang. 2017. “The fading American dream: Trends in absolute income mobility since 1940.” *Science* 356 (6336): 398–406.

Despite pervasive racial and gender discrimination, in the mid-1950s, overall income inequality was close to its lowest level since its peak before the Great Depression.

Since the passage of the Taft-Hartley Act in 1947, the legal framework protecting workers' rights to organize has eroded, and employers have capitalized on that erosion by opposing unionization attempts and reducing union representation.⁴ Consequentially, union membership rates have been steadily shrinking. The resulting decline in workers' bargaining power was exacerbated by the worldwide trends of globalization and technical change, and workers' share of corporate earnings decreased as corporate profits constituted a growing slice of the economic pie. Inequality soared, undermining the middle class. These trends have continued to the present: in 2022, the private-sector unionization rate was lower than it was in 1935, just prior to the passage of the NLRA, and income inequality reached one of its highest levels in the post-war period.

Despite these long-term trends, the past eight decades also saw notable gains for important segments of the middle class. Most prominently, the civil rights movement in the 1950s and 1960s and the women's liberation movement of the 1970s paved the way for expanded access to better paying jobs and careers for more Americans. Even though overall union membership rates continued to fall, unions extended their coverage to include new types of workers, such as public sector employees, and to represent a larger share of women and non-white workers as members. Now that unions cover more sectors and a wider set of demographics, the benefits of reversing historical membership declines would be widely felt.

In the last two years, there have been signs of a reinvigorated labor movement. Unionization efforts have increased. In 2022, worker petitions to form unions bounced back from the pandemic to their highest level since 2015.⁵ Workers successfully formed unions at several companies that have been high-profile opponents of unionization.⁶ And public opinion favoring labor unions is the highest in over fifty years.⁷ The Biden-Harris Administration is committed to fueling this spark and providing the support workers need to fulfill the policy objectives of the NLRA.

Evidence suggests that strengthening unions will improve the well-being of the middle class. Unionized workers earn 10 to 15 percent more than nonunionized workers in similar jobs,⁸ and unionized workers tend to be those in the middle of the income distribution.⁹ Unions also help workers bargain for improved non-wage amenities such as vacation time, sick leave, scheduling predictability, and a grievance procedure protected from employer retaliation. In addition, unions reduce gender and race wage gaps. These less-discussed benefits of unions are key contributors to arresting and reversing the downward trends in the stability of middle-class jobs. All of these benefits have significant spillovers: nonunionized workers also enjoy improved pay and job quality when workers at related firms unionize. In turn, the higher pay, job security, and equality accruing to workers from stronger unions could raise homeownership, education, and intergenerational mobility.

Beyond their effects on the middle class, unions contribute to a more robust economy overall. By increasing

4 Mishel, Lawrence, Lynn Rhinehart, and Lane Windham. 2020. "Explaining the erosion of private-sector unions." *Economic Policy Institute*, November 18, 2020.

5 National Labor Relations Board. 2022. "Election Petitions Up 53%, Board Continues to Reduce Case Processing Time in FY22." Press release. October 6, 2022. <https://www.nlr.gov/news-outreach/news-story/election-petitions-up-53-board-continues-to-reduce-case-processing-time-in->

6 Examples of recent high-profile successful union elections include efforts at Amazon (Palmer 2022) and Starbucks (Bruenig 2022). Palmer, Annie. 2022. "'Amazon, here we come': Biden boosts warehouse unionization efforts." *CNBC*, April 6, 2022. <https://www.cnn.com/2022/04/06/amazon-here-we-come-biden-boosts-warehouse-unionization-efforts.html>; Bruenig, Matt. 2022. "Workers Are Winning 90 Percent of Their Union Elections." *Jacobin*, May 24, 2022. <https://jacobin.com/2022/05/starbucks-union-elections-nlr-statistics-ulps>.

7 McCarthy, Justin. 2022. "U.S. Approval of Labor Unions at Highest Point Since 1965." *Gallup*, August 30, 2022.

8 Farber et al. (2021).

9 Freeman, Richard, Eunice Han, Brendan V. Duke, and David Madland. 2016. "What Do Unions Do for the Middle Class?" *Center for American Progress*, January 2016.

middle-class wages, they reduce overall inequality, which supports long-term economic growth and resilience. Furthermore, the existing evidence suggests that they increase productivity by improving working environments and giving experienced workers more of a voice in management decisions.

This white paper is just one part of a broad federal response to [Executive Order 14025](#), which called on each federal agency to take steps to improve opportunities for building worker power and created the White House Task Force on Worker Organizing and Empowerment. Led by Vice President Harris, the Task Force issued comprehensive recommendations, all of which were approved by President Biden, including the writing of this paper. A companion report by the U.S. Treasury Department’s Office of Economic Policy, released in March 2022 (hereafter referred to as “UST (2022)”), explored the role of uneven bargaining power between employers and employees.¹⁰

The sections describe, in turn: (2) the historical context; (3) the theory of unions; (4) the occupational breakdown of union members; (5) the effect of unions on the middle class; (6) the intersection of unions, race, and gender; and (7) the effect of unions on the broader economy. Section 8 concludes and includes an overview of the Biden-Harris Administration’s policies and supportive actions.

Section 2. Historical Context: Middle Class Trends

Who are the Middle Class?

There is no one technical definition of “middle class.” Depending on the context, researchers may define “middle class” using absolute measures, such as occupational status or education level, or relative measures, like social identification, income, or wealth.¹¹

Occupational status or education level may be used to define a person’s social class because of their association with socioeconomic factors such as financial security and health status.¹² However, since the occupational or educational credentials that are needed to maintain social class status may change over time, it is difficult to measure long-term changes in the middle class when defined by these factors.¹³

Another measure is through social identification, which tends to cover a larger part of the population. In the General Social Survey in 2021, 87 percent of respondents identified themselves as either “middle” or “working” class as opposed to “lower” or “upper” class.¹⁴ And in a 2022 Gallup survey, 87 percent of Americans categorized themselves as “working” (35 percent), “middle” (38 percent), or “upper-middle” class (14 percent).¹⁵

Finally, income or wealth are frequently used to define “middle class,” although there are still multiple ways to differentiate between social classes using these financial indicators. For example, the Organisation for Economic Co-operation and Development (OECD), Pew Research Center, and Krueger (2012) have defined “middle-class” or “middle-income” households as having annual household incomes that are within the ranges of 75–200 percent, 67–200 percent, or 50–150 percent, respectively, of the national median household income.¹⁶ Under the Brookings Institution’s definition, middle-class households would have annual household incomes that fall

10 U.S. Department of the Treasury. 2022. “The State of Labor Market Competition.” March 7, 2022.

11 Reeves, Richard V., Katherine Guyot, and Eleanor Krause. 2018. “Defining the middle class: Cash, credentials, or culture?” *Brookings Institution*, May 7, 2018.

12 Reeves, Guyot, and Krause (2018); Zajacova, Anna, and Elizabeth M. Lawrence. 2018. “The Relationship Between Education and Health: Reducing Disparities Through a Contextual Approach.” *Annual Review of Public Health* 39:273–289.

13 Reeves, Guyot, and Krause (2018).

14 Smith, Tom W., Michael Davern, Jeremy Freese, and Stephen L. Morgan. n.d. General Social Surveys, 1972-2021. NORC at the University of Chicago. Accessed July 5, 2022. <https://gssdataexplorer.norc.umd.edu/variables/568/vshow>.

15 “Middle-Class Identification Steady in U.S.” *Gallup*, May 19, 2022.

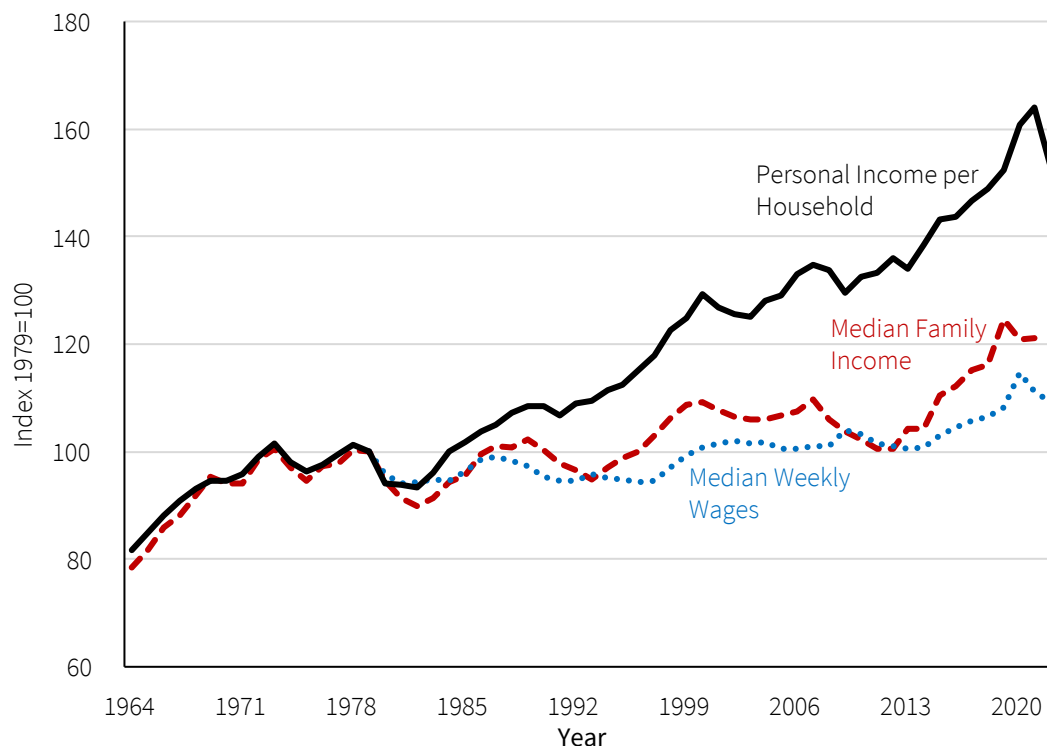
16 OECD. 2019. *Under Pressure: The Squeezed Middle Class*. Paris: OECD Publishing; Kochhar, Rakesh, and Stella Sechopoulos. 2022. “How the American middle class has changed in the past five decades.” *Pew Research Center*, April 20, 2022; Krueger, Alan B. 2012. “The Rise and Consequences of Inequality in the United States.” Speech at Center for American Progress. January 12, 2012.

Who are the Middle Class? (continued)

between the 20th to 80th percentiles of the national income distribution.¹⁷ Rose (2016) uses absolute income thresholds based on distance from the federal poverty line.¹⁸ In this report, the middle class is described by households in the middle of the income distribution and by outcomes commonly associated with middle class prosperity, such as owning a home or the ability to afford a college education.

Since the 1970s, middle-class wages and household incomes have stagnated, despite brisk growth in the economy as a whole. Real median weekly wages—a series that started in 1979 and captures the inflation-adjusted weekly wages received per worker—increased 8 percent over the 40-year period ending in 2019, such that annual gains amounted to only 0.2 percent per year. Real median family income, which captures the total collective annual pre-tax income earned by spouses and other family earners, has not fared much better, growing only 0.6 percent per year from 1979 to 2019. In contrast to these median measures, growth of overall income in the U.S. economy was more robust. Real personal income per household grew more than 50 percent over that same time period, at an average pace of 1.1 percent per year.

Figure 2: Income and Wage Growth since the 1960s



Source: Real median weekly wages from Bureau of Labor Statistics; nominal personal income from Bureau of Economic Analysis; real median household income from Census. All series are deflated by the Consumer Price Index.

17 Reeves, Richard V., and Katherine Guyot. 2018. "There are many definitions of "middle class"—here's ours." *Brookings Institution*, September 4, 2018.

18 For Rose (2016), lower-middle class and middle-class households have annual household incomes within 150–500 percent of the federal poverty line (or incomes of \$30,000–\$100,000 at the time of the study). Rose, Stephen J. 2016. "The Growing Size and Incomes of the Upper Middle Class." *Urban Institute*, June 2016. <https://www.urban.org/sites/default/files/publication/81581/2000819-The-Growing-Size-and-Incomes-of-the-Upper-Middle-Class.pdf>.

Over the same time period that median wages stagnated, income volatility rose. From 1971 to 2008, the standard deviation of the two-year percent changes in income experienced by households increased by 35 percent. The increase in volatility was largest for people who have not attended college.¹⁹ Consistent with rising income volatility, according to the Economic Security Index, the share of people that experienced a loss of one quarter of their income or more increased from 14 percent to 18 percent between 1986 and 2012.²⁰

The economic stagnation of households has occurred despite large increases in female employment and a rise in dual-earning households.²¹ As a consequence, many household workers have to work more hours in total, when including hours spent on household work, to maintain their standard of living. When including work time spent on housework and childcare, mothers and fathers in 2011 worked 2 to 5 hours more per week on average than parents did in 1965.²² The stress of balancing paid work, housework, and childcare is apparent. In a 2019 survey, about half of working parents said that they felt they could not give 100 percent at work.²³ This phenomenon of “more work, less play” is also reflected in the decline in vacations taken. Workers are half as likely in 2022 to be on vacation than they were in 1980 in any given week, and the decline has been seen across most industries, educational brackets, and ages.²⁴

Homeownership—long a symbol of American middle-class success—has become steadily more costly. Median home prices, adjusted by inflation, have doubled since the mid-1970s, growing more than three times the rate of household income. Partly because of this increase, households are waiting longer before purchasing their first homes.²⁵

The higher cost of housing has applied to renters as well as homeowners, as the cost of renting has also grown faster than nominal median wages. From 1960 to 2000, the share of renters devoting more than 30 percent of their income to rent increased overall, and particularly so for the middle quintiles: 23 percentage points for the lower-middle quintile and 8 percentage points for the middle-income quintile.²⁶ These shares appear to have continued to increase throughout the 2000s²⁷ and have risen even further during the COVID-19 pandemic.²⁸

In addition to housing, the prices of education and health have increased faster than median household income. As a consequence, these three key expenditures—housing, education, and healthcare—have soaked up an increasing

19 Dynan, Karen, Douglas Elmendorf, and Daniel Sichel. 2012. “The Evolution of Household Income Volatility.” *The B.E. Journal of Economic Analysis & Policy* 12 (2).

20 Economic Security Index. 2013. Compare Economic Security by State: Viewing percentage of people who lost one quarter (1/4) of their income. Last updated November 2013. <http://economicsecurityindex.org/?p=usmap>.

21 U.S. Bureau of Labor Statistics. n.d. Employment-Population Ratio (for Total Ratio, Men, Women, and Ages 25–54 Years). Retrieved from FRED, Federal Reserve Bank of St. Louis. Last accessed April 27, 2023. <https://fred.stlouisfed.org/graph/?id=EMRATIO,%20LNS12300001,LNS12300002,LNS12300060>; Fry, Richard, Carolina Aragão, Kiley Hurst, and Kim Parker. 2023. “In a Growing Share of U.S. Marriages, Husbands and Wives Earn About the Same.” *Pew Research Center*, April 13, 2023.

22 Parker, Kim, and Wendy Wang. 2013. “Modern Parenthood: Roles of Moms and Dads Converge as They Balance Work and Family.” *Pew Research Center*, March 14, 2013.

23 Horowitz, Juliana Menasce. 2019. “Despite challenges at home and work, most working moms and dads say being employed is what’s best for them.” *Pew Research Center*, September 12, 2019.

24 Van Dam, Andrew. 2023. “The mystery of the disappearing vacation day.” *The Washington Post*, February 10, 2023.

25 U.S. Census Bureau. 2023b. Figure 7.: Annual Homeownership Rates for the United States by Age Group: 1982 to Present. Current Population Survey/Housing Vacancy Survey. Last updated March 15, 2023. <https://www.census.gov/housing/hvs/data/charts.html>.

26 Quigley, John M., and Steven Raphael. 2004. “Is Housing Unaffordable? Why Isn’t It More Affordable?” *Journal of Economic Perspectives* 18 (1): 191–214.

27 Larrimore, Jeff, and Jenny Schuetz. 2017. “Assessing the Severity of the Rent Burden on Low-Income Families.” *Finance and Economics Discussion Series Notes, Board of Governors of the Federal Reserve System*, December 22, 2017.

28 Mateyka, Peter J., and Jayne Yoo. 2023. “Share of Income Needed to Pay Rent Increased the Most for Low-Income Households From 2019 to 2021.” *U.S. Census Bureau*, March 2, 2023.

percentage of middle-class budgets.²⁹ These investments have been financed partially by soaring household debt. Since the 1970s, debt-to-income ratios have more than doubled.³⁰ Mortgage debt is the largest contributor to the overall increase, but student debt has also contributed to heavier debt burdens, acutely so for many middle-class borrowers.

In turn, higher debt has undermined retirement preparedness. Defined benefit pensions have become much less common,³¹ and many working Americans do not have access to defined contribution plans like 401(k)s. Almost 40 percent of millennials born in the 1980s will not have sufficient income at age 70 to maintain their pre-retirement standard of living. Retirement readiness for millennials born in the 1980s is lower than it was at similar life stages for the generations born between 1937 and 1964.³²

Finally, one of the central principles of the middle class—that it is possible to pass on a better life to ones’ children—has been diminished. A report in *Science* finds that 90 percent of children born in the 1940s earned more than their parents did at age 30, while only half of children born in the mid-1980s have done the same.³³ The decline in intergenerational mobility may be the single trend that best encapsulates the pervasive sense of the deterioration in the middle class.

Despite these negative trends, there has been a notable expansion of access to the middle class over this period. Following the civil rights and women’s liberation movements, explicit discrimination in the workplace has been reduced,³⁴ cultural norms have shifted, and well-paying and middle-class jobs have become more accessible to a broader swath of Americans than was the case in the mid-1900s. Nevertheless, huge racial gaps in wealth, income, and financial well-being persist to this day,³⁵ and many families continue to bear the scars of prior and current discrimination,³⁶ effectively shutting them out of the middle class.

There have been substantive improvements for American workers. Workplaces have become safer following passage of the Occupational Safety and Health Act of 1970. The rate of nonfatal work-related injuries and illnesses fell fourfold from 1972 to 2018, from 11 to 3 cases per 100 full-time equivalent workers.³⁷

Education attainment has notably increased—high school graduation rates rose from 55 percent of people over the age of 25 in 1970 to more than 90 percent in 2022, while four-year college graduation rates grew from 11 percent to 38 percent.³⁸ Improvements in educational attainment were seen across all demographic groups, although there

29 Dohrman, Emily, and Bruce Fallick. 2020. “Is the Middle Class Worse Off Than It Used to Be?” *Federal Reserve Bank of Cleveland*, Economic Commentary 2020-03.

30 Bartscher, Alina K., Moritz Kuhn, Moritz Schularick, and Ulrike I. Steins. 2020. “Modigliani Meets Minsky: Inequality, Debt, and Financial Fragility in America, 1950–2016.” *Federal Reserve Bank of New York*, staff report no. 924.

31 Employee Benefits Security Administration, U.S. Department of Labor. n.d. “Private Pension Plan: Abstract of Form 5500 Annual Reports.” Accessed March 14, 2023. <https://www.dol.gov/agencies/ebsa/researchers/statistics/retirement-bulletins/private-pension-plan>.

32 Johnson, Richard W., and Karen E. Smith. 2022. “How Might Millennials Fare in Retirement?” *Urban Institute*, September 2022.

33 Chetty, et al. (2017).

34 Discrimination has not been reduced in all metrics. A recent summary analysis found no change in the discrimination of Black applicants in hiring from 1972 to 2015 (Quillian et al. 2017). Quillian, Lincoln, Devah Pager, Ole Hexel, and Arnfinn H. Midtbøen. 2017. “Meta-analysis of field experiments shows no change in racial discrimination in hiring over time.” *PNAS* 114 (41): 10870–10875; Darity, William A., and Patrick L. Mason. 1998. “Evidence on Discrimination in Employment: Codes of Color, Codes of Gender.” *Journal of Economic Perspectives* 12 (2): 63–90.

35 Bowdler, Janis, and Benjamin Harris. 2022. “Racial Inequality in the United States.” *U.S. Department of the Treasury*, July 21, 2022.

36 Aneja, Abhay, and Guo Xu. 2021. “The Costs of Employment Segregation: Evidence from the Federal Government Under Woodrow Wilson.” *The Quarterly Journal of Economics* 137 (2): 911–958.

37 Brown, Jeff. 2020. “Nearly 50 years of occupational safety and health data.” *Beyond the Numbers*, U.S. Bureau of Labor Statistics 9 (9).

38 U.S. Census Bureau. 2023a. Table A-2.: Percent of People 25 Years and Over Who Have Completed High School or College, by Race, Hispanic Origin and Sex: Selected Years 1940 to 2022. Current Population Survey Historical Time Series Tables. Last updated February 9, 2023. <https://www.census.gov/data/tables/time-series/demo/educational-attainment/cps-historical-time-series.html>.

remain large differences in the levels of education reached.

New discoveries, innovations, and technology have also improved the quality of life for many Americans. Between 1970 and 2010, the share of American households with central air conditioning or window units jumped from 37 percent to 89 percent, and those with central heating grew from 78 percent to 94 percent.³⁹ Technological advances have led to the invention of new timesaving household appliances and an explosion of entertainment options. The number of new media products (e.g., movies, books, television shows, and recorded musical works) has skyrocketed in the age of digitization with, for instance, the number of new television shows increasing tenfold since the 1970s.⁴⁰ While only 8 percent of households in 1984 had a computer, 92 percent of households by 2018 had a desktop, laptop, smartphone, tablet, or other type of computer.⁴¹

All in all, the lifestyles and economic experiences of middle-class Americans have changed notably since the 1970s. There have been positive changes, including the increased accessibility and inclusivity of middle-class jobs. But there have also been negative changes, reflected in stagnant real wages and declining intergenerational mobility. The goal of this paper is to explore how strengthening and expanding unions could reverse some of these negative trends in ways that capitalize on the positive, thus improving the lives of many middle-class Americans.

Section 3. Theory

How do unions change labor markets and improve working conditions? As discussed in UST (2022), employers typically have the upper hand in the relationship with their employees, even in the absence of anti-competitive practices. Unions can act as a counterweight to employer power. Two schools of thought have emerged on the way in which unions exercise their countervailing power: the “monopoly” channel of unions and the “voice” channel of unions. The monopoly channel describes withholding labor as a means of raising wages. The voice channel describes unions as a communications tool that helps workers and firms be more productive.

The monopoly channel emphasizes the ability of unions to become the exclusive source of labor for their employer. By monopolizing the supply of labor, unions and their members achieve their goals of higher compensation and better working conditions by providing a credible threat of workers striking if their demands are not met.

The effect of the monopoly channel on firm profits and consumer prices depends on the structure of the industry. At a single firm within a perfectly competitive industry, a union may not be able to sustain higher wages for its workers, since doing so may put the unionized firm at a competitive disadvantage and result in its closure. However, if a union was able to represent all workers within an industry, even one in which the output market is perfectly competitive, they would be able to raise wages. In this case, the industry would hire fewer workers at higher wages and the marginal cost of production would increase. The cost of that wage increase would be spread among consumers paying higher prices and shareholders earning lower returns.

In reality, perfectly competitive markets are uncommon. Firms typically have some market power, sell their products at a price above average cost, and earn greater profits than firms in a competitive market. In recent

39 Gordon, Robert J. 2017. *The Rise and Fall of American Growth*. Princeton: Princeton University Press, 352.

40 Waldfogel, Joel. 2017. “How Digitization Has Created a Golden Age of Music, Movies, Books, and Television.” *Journal of Economic Perspectives* 31(3): 195–214.

41 Martin, Michael. 2021. “Computer and Internet Use in the United States, 2018.” *American Community Survey Reports, U.S. Census Bureau*, report no. ACS-49. <https://www.census.gov/library/publications/2021/acs/acs-49.html>.

decades, increased concentration in many industries has led to increased profit margins.⁴² At these firms with market power, unions engaging in monopoly behavior of their own can bargain for workers to share some of the high profits earned by firm owners, executives, and shareholders.

In contrast to the monopoly channel of unions, the voice channel emphasizes the role unions can play in the process of production.⁴³ Although the mechanisms by which a union can extract concessions are similar (i.e., striking or threatening to strike), in the voice channel, unions play less of a role of a wage negotiator and more of a role in allowing workers to provide input into decisions that improve workplace efficiency, profitability, and fairness to employees. For example, union workers may bargain for safer working conditions, more reliable schedules, or the ability to voice their objections to management decisions or suggest alternative ways of operating without fear of retaliation from their employers.

In summary, both channels promote worker welfare. The monopoly channel does so by giving workers a fairer share of income—often resulting in an increased labor share and reduced profit share—and the voice channel gives workers an opportunity to provide input into company policies. The evidence presented in the sections that follow suggests that both of these channels are in play. Unions bargain to increase the wages of workers by, at times, reducing the share of profits earned by firm owners, consistent with the monopoly channel. Unions also bargain over non-pay amenities to improve their members' working conditions in ways that increase employee satisfaction, consistent with the voice channel.

Section 4. Union Coverage by Occupation

The 1935 NLRA was one of the most important pieces of federal legislation supporting worker bargaining power in U.S. history. But the Act excluded important groups of workers, including public sector employees, agricultural workers, and most domestic help.⁴⁴ Over time, additional legislation expanded the right to bargain to include some of these groups, most notably public sector workers. At the same time, however, Congress enacted the Taft-Hartley Act, weakening workers' organizing rights, and employers learned ways to oppose unions even within the structures of the NLRA. And several states passed so-called "right-to-work" laws, which made it illegal for unions and employers to negotiate "fair share" fees for unions to defray their costs of representing workers.⁴⁵ Perhaps more importantly, the U.S. economy has steadily changed with relatively fewer jobs in sectors with more union representation, like manufacturing, and more jobs in sectors with less union membership, like services. As a result of all these trends, private-sector union membership rates have gradually declined even as workers in more industries and occupations legally have access to collective bargaining rights.

Union membership rates vary widely by occupation, from 3 percent in sales trades, to more than 30 percent for teachers and first responders (Table 1). The occupations with the highest rates of unionization are already supporting the middle class, with salary ranges close to the median wage. Some of the occupations with the highest unionization rates are on track to expand in the future, given innovations in technology, changing demographics, and policy. Healthcare employment, for example, is likely to continue to expand as the population

42 Grullon, Gustavo, Yelena Larkin, and Roni Michaely. 2019. "Are US Industries Becoming More Concentrated?" *Review of Finance* 23 (4): 697–743; Autor, David, David Dorn, Lawrence F. Katz, Christina Patterson, and John Van Reenen. 2020. "The Fall of the Labor Share and the Rise of Superstar Firms." *The Quarterly Journal of Economics* 135 (2): 645–709.

43 For a canonical example of this theory of unions, see Freeman, Richard B., and James L. Medoff. 1984. *What Do Unions Do*. New York: Basic Books.

44 Although railroad employees were also not covered by the NLRA, they were already covered by the Railway Labor Act, passed in 1926.

45 Gould, Elise, and Will Kimball. 2015. "Right-to-work' States Still Have Lower Wages." *Economic Policy Institute*, April 22, 2015.

ages and the sector continues to innovate in the provision of healthcare delivery.⁴⁶ And employment in the transportation, construction, and manufacturing sectors are also poised to expand given recent Biden-Harris Administration infrastructure policies and production tax credits such as those included in the Bipartisan Infrastructure Law and the Inflation Reduction Act.⁴⁷ As these industries grow, strong unions could ensure that any economic profits are shared equitably between workers and employers and that new firms and plants adopt productive workplace environments.

Table 1: Union Membership Rates by Occupation

Occupation	Percent of Occupation in a Union in 2022	Percent of Total Employment in 2022	Estimated Annual Median Earnings in 2022, dollars
Protective service	34.6	2.2	53,200
Education, training, and library	33.7	6.3	59,700
Construction and extraction	16.4	4.8	49,000
Community and social service	15.9	1.9	58,700
Installation, maintenance, and repair	13.0	3.1	54,200
Transportation and material moving	13.0	7.7	41,400
Production	11.4	5.6	44,800
Healthcare practitioners and technical	11.3	6.6	70,400
Building and grounds cleaning and maintenance	9.5	3.2	34,900
Life, physical, and social science	9.1	1.2	76,100
Office and administrative support	8.4	11.0	44,000
Healthcare support	8.3	3.4	35,600
Arts, design, entertainment, sports, and media	8.0	1.7	66,200
Architecture and engineering	6.0	2.4	90,200
Legal	5.1	1.1	91,700
Personal care and service	4.3	2.0	35,700
Farming, fishing, and forestry	4.3	0.6	33,500
Business and financial operations	4.0	5.9	76,100
Management	3.8	11.1	86,200
Food preparation and serving related	3.6	5.5	32,300
Computer and mathematical	3.3	4.2	93,000
Sales and related	3.0	8.6	48,900

Source: Bureau of Labor Statistics. Median annual earnings are estimated by multiplying median weekly earnings by 52. Sample is employed 16+ year olds. Excludes workers represented by, but not a member of, a union.

46 U.S. Bureau of Labor Statistics. 2022. Table 1.1.: Employment by major occupational group, 2021 and projected 2031. Employment Projections. Last modified September 8, 2022. <https://www.bls.gov/emp/tables/emp-by-major-occupational-group.htm>.

47 U.S. Department of Transportation. n.d. "Bipartisan Infrastructure Law FAQs: Q4. What kinds of jobs will the Bipartisan Infrastructure Law create?" Last accessed April 27, 2023. <https://www.transportation.gov/bipartisan-infrastructure-law/faq>.

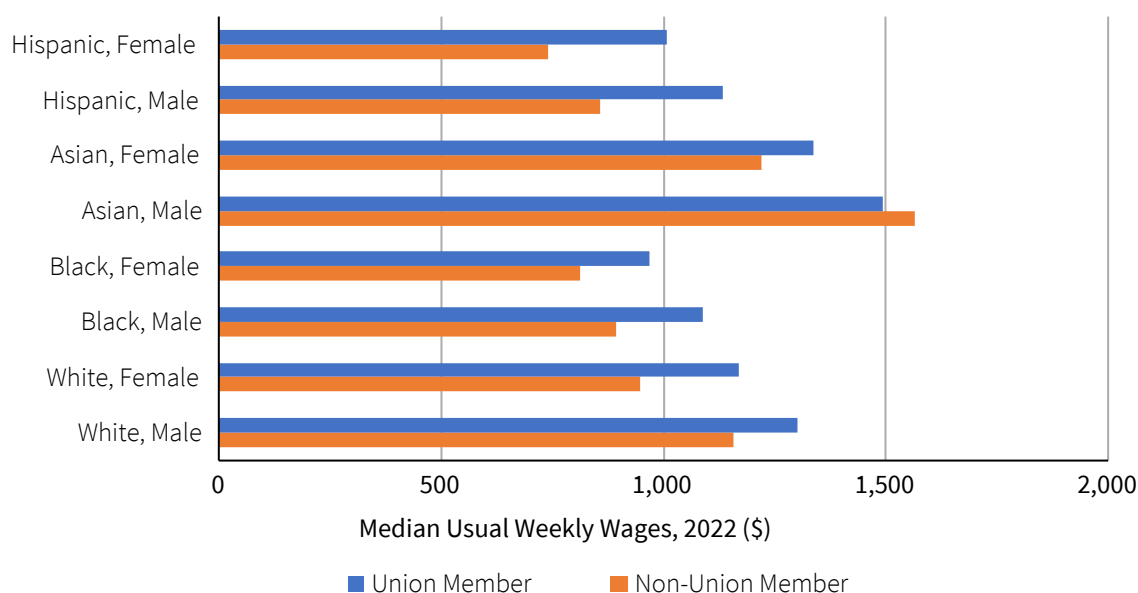
Section 5. The Effect of Unions on the Middle Class

In this section, we provide evidence that empowering workers to form unions could serve to stem or reverse some of the negative trends of the middle class discussed in the previous section. The subsections describe, in turn, (1) the evidence that unions raise the wages of their workers; (2) the role of unions in improving fringe benefits, such as the provision of pensions, health insurance, and other amenities; and (3) the indirect effects of unions—including spillovers to nonunion workers and to socioeconomic markers such as homeownership and education.

Section 5.1. Unions Increase Wages

One of the main benefits of unions is their ability to raise the wages of union members compared with the wages of similar workers in similar nonunion jobs. This wage difference is called “the union wage premium.” Figure 3 demonstrates this gap in a simple way, by comparing union and nonunion wages within demographic groups without adjusting for key job characteristics or personal characteristics such as age or educational attainment. As measured by median weekly wages, union workers earn more than nonunion workers across almost all demographic groups. On average, the median union worker earns about 20 percent higher wages than the median nonunion worker. This unconditional union wage premium is particularly evident among Hispanic workers (35 percent), Black workers (around 20 percent), and women (23 percent).⁴⁸

Figure 3: Median Wages for Union and Nonunion Workers



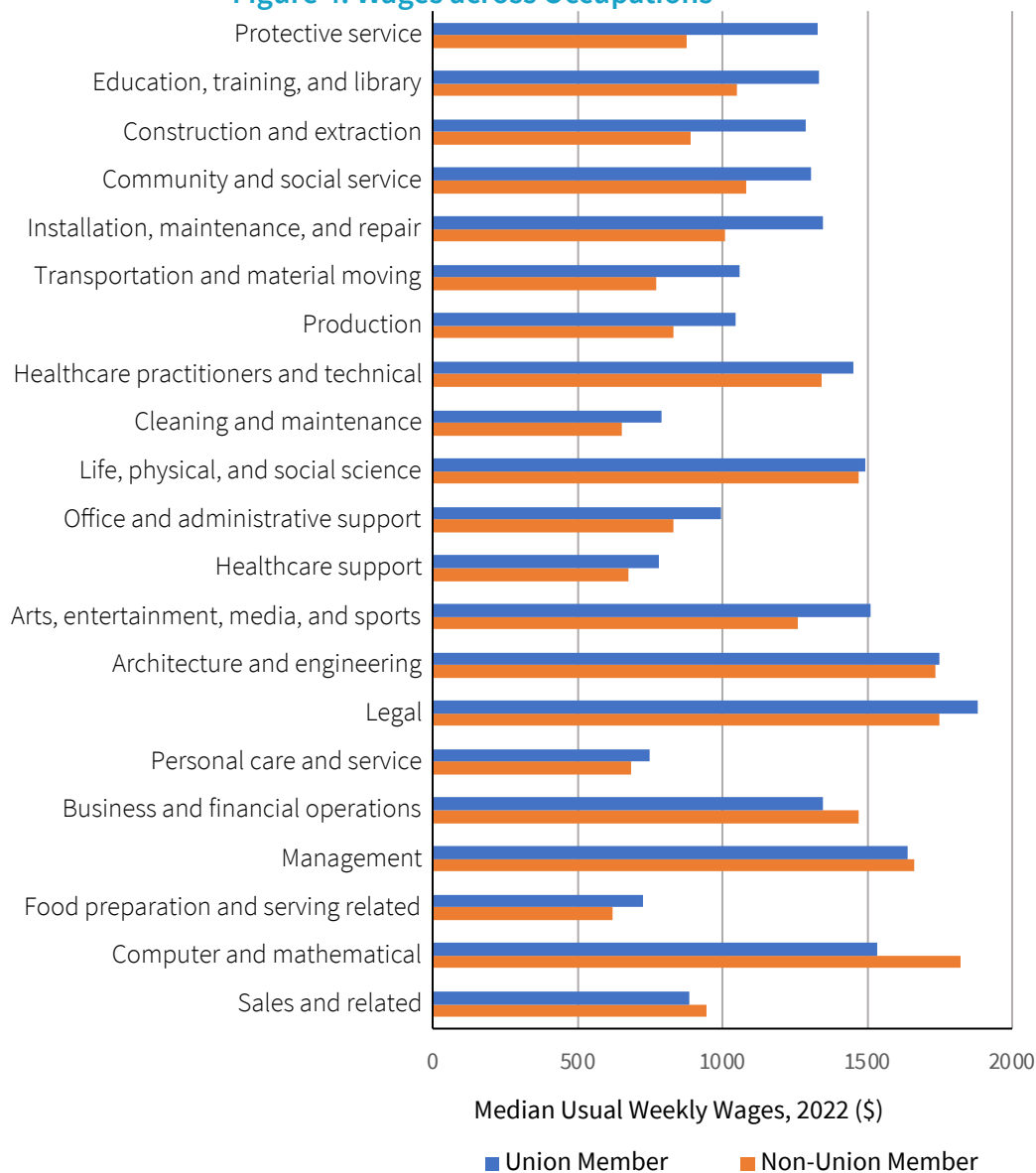
Source: Bureau of Labor Statistics. Sample is employed 16+ year olds.

These simple differences should not be interpreted as the causal effect that unions have on wages. At least part of the wage difference is attributable to factors other than union status, such as occupation and age. For example, the typical unionized Asian male worker may make less than the typical nonunionized Asian worker not because the union support detracts from their wages, but because nonunionized Asian male workers may be more likely to work in higher wage occupations than those in unions. One way to dig deeper into the union wage premium is to look within the same occupation; here, the typical union member still earns more than the typical nonunion

48 U.S. Bureau of Labor Statistics. 2023. Table 2.: Median weekly earnings of full-time wage and salary workers by union affiliation and selected characteristics. Last modified January 19, 2023. <https://www.bls.gov/news.release/union2.t02.htm>.

member, at least when occupations are broadly defined (Figure 4).⁴⁹ For example, in a production occupation (which includes both manufacturing and food production), the typical unionized worker makes about 20 percent more than the typical nonunionized worker.

Figure 4: Wages across Occupations



Source: Bureau of Labor Statistics. Sample is employed 16+ year olds.

However, even a comparison of union and nonunion wages within occupations, as in Figure 4, cannot be interpreted as a pure measurement of the union wage premium. Each occupation in the figure has within it a wide

⁴⁹ Datasets that include highly detailed occupational information are generally unable to also measure unionization status or wages. Smaller datasets sometimes provide wage and unionization status, but often lack the necessary sample sizes to measure detailed occupational information in a way that makes statistical analysis possible. Asking questions about unions on larger government surveys could help to mitigate this challenge.

variety of jobs, with varying wages and union membership rates. If entry-level computer systems analysts are more likely to be unionized than computer network architects, for example, that might explain why nonunion workers in “Computer and mathematical” occupations are paid more than unionized ones. To address these confounding factors in the simple comparisons like Figures 3 and 4, economics researchers have developed two main strategies for estimating the wage premium.

The first approach uses simple regression analysis. It estimates the wage premium by regressing individual wages on union membership and a host of other worker and workplace characteristics. If job or worker characteristics missing from the regression are not correlated with both wages and union membership, then the coefficient on the union status should reflect the union wage premium. Using this approach, Gittleman and Kleiner (2016) conclude the union wage premium ranges between about 13 percent and 20 percent.⁵⁰ These results are consistent with previous estimates that used similar methodologies and data, which estimated a union premium of about 15 percent.⁵¹ In a recent paper, Farber et al. (2021) examine the union premium on family income. Their estimates suggest the family income union premium has averaged around 10 percent since 2000.⁵²

The second approach to estimating the union wage premium, controlling for differences in jobs and occupations, investigates what happens to workers’ wages when a workplace becomes unionized. Researchers compare workplaces where unionization elections barely succeed, with just over 50 percent of workers supporting the effort, to workplaces where unionization elections barely fail, with just over 50 percent opposing unionization.⁵³ This statistical method is called “regression discontinuity.” Because the two groups are theoretically nearly identical, save a few percentage points in an election, this approach yields estimates of unionization’s effects with significantly reduced bias.⁵⁴ This approach tends to find effects of unionization on wages that are smaller than the

50 Gittleman and Kleiner (2016) use data from the National Longitudinal Survey of Youth (NLSY79) from 1979 to 2010. Gittleman, Maury, and Morris M. Kleiner. 2016. “Wage effects of unionization and occupational licensing coverage in the United States.” *ILR Review* 69 (1): 142–172.

51 See, e.g., Kleiner and Krueger (2013), Card (1996), and Card, Lemieux, and Riddell (2018). Kleiner, Morris M., and Alan B. Krueger. 2013. “Analyzing the Extent and Influence of Occupational Licensing on the Labor Market.” *Journal of Labor Economics* 31 (2): S173–S202; Card, David. 1996. “The effect of unions on the structure of wages: A longitudinal analysis.” *Econometrica* 64 (4): 957–979; Card, David, Thomas Lemieux, and W. Craig Riddell. 2018. “Unions and Wage Inequality: The Roles of Gender, Skill and Public Sector Employment.” *National Bureau of Economic Research*, working paper no. 25313.

52 To create consistent estimates across time, Farber et al. (2021) do not include occupation codes in their estimates. Note: estimates from 2000 onward are based on the CPS—earlier years rely on other sources, including survey data from Gallup.

53 Note: estimation with this technique requires tremendously detailed information including, at minimum, information about union votes matched to employers and the ability to follow employers over time. Since not all elections are close-call elections, the sample size must also be large enough to include a sufficiently large number of close-call wins and losses. Additionally, employer-employee linked data is needed if the aim is to determine the effects of unionization on workers at the firm. In the United States, these types of data are realistically only available using non-public sources like the U.S. Census Bureau’s Longitudinal Employer-Household Dynamics dataset.

54 As Ferguson (2008) notes, this “regression discontinuity” approach may only identify an intention to treat with unionization because, as discussed later, a substantial share of union certifications fail to form a first contract. This may downwardly bias estimates because the ‘treated’ group may never actually receive the ‘treatment’ of forming a union contract. Ferguson, John-Paul. 2008. “The Eyes of the Needles: A Sequential Model of Union Organizing Drives, 1999–2004.” *ILR Review* 62 (1): 3–21.

effects estimated by the regression approach.⁵⁵

The comparison between barely-pass and barely-fail unionization efforts comes with some drawbacks. First, the studies only measure the effect of election wins, but not of successful contracts between new unions and their members' employers. Many first contracts fail to materialize quickly due to lengthy bargaining processes, even after a successful vote.⁵⁶ This leads to an underestimate of the effect of a first union contract on outcomes. Second, by only studying elections with outcomes close to the 50 percent cutoff, these estimates may be uninformative about the union wage premiums for unions that experienced decisive wins or losses⁵⁷ or about unions that were formed through alternative means, such as voluntary recognitions by the employer.⁵⁸ Finally, this approach is informative only about the effect of unionization in the first few years following an election. Data limitations and other concerns prevent this method from determining the effect more established unions have on wages and other longer-term outcomes of interest, such as the effect on the wages of long-tenured union members. In fact, there is evidence that the wage premium is smaller for recent union hires and larger for long-tenured union workers.⁵⁹

All in all, the evidence points to a union wage premium of around 10 to 15 percent, with larger effects for longer-tenured workers. These estimates of the wage premium do not include the non-wage fringe benefits or the effect on other amenities, to which we now turn.

Section 5.2. Unions Improve Fringe Benefits and Amenities

Union workers generally have access to greater fringe and non-monetary benefits (Figure 5) than nonunionized workers. Union workers are much more likely to be offered retirement benefits, medical benefits, and life insurance. For defined-benefit retirement plans, the gap between union jobs and nonunion jobs is especially large—unionized workers are five times more likely to be offered defined-benefit plans.⁶⁰ More than 90 percent of union workers

55 DiNardo and Lee (2004) are among the first to use a narrow-win union election framework to analyze the impact of new unionization on wages. Using data on manufacturing establishments from the U.S. Census' Longitudinal Research Database, this study's estimates suggest the union wage premium is close to zero. Using similar data, Young and Wang (2021) and Frandsen (2021) both use similar approaches to DiNardo and Lee (2004), adjusting for non-random manipulation of vote shares around the 50 percent vote cutoff, to show incumbent workers' wages in these studies were largely unaffected by a successful unionization effort compared to those who did not successfully unionize. Both papers note a drop in average wages but find that drop is driven by a compositional change from older workers (who tend to be higher-paid) to younger workers (who tend to be lower-paid). Sojourner et al. (2015) find a similar compositional effect in the context of nursing homes, though they find a positive effect of unionization on wages for incumbent workers. Sojourner et al. (2015) show the shift to workers at the lower end of the income distribution occurs both through retention of lower income workers and separations of higher income workers. DiNardo, John, and David S. Lee. 2004. "Economic Impacts of New Unionization on Private Sector Employers: 1984–2001." *The Quarterly Journal of Economics* 119 (4): 1383–1441; Young, Samuel and Sean Wang. 2021. "Unionization, Employer Opposition, and Establishment Closure." December 30, 2021. https://sammyyoung.github.io/young_site/unionsClosure.pdf; Frandsen, Brigham R. 2021. "The Surprising Impacts of Unionization: Evidence from Matched Employer–Employee Data." *Journal of Labor Economics* 39 (4): 861–894; Sojourner, Aaron J., Brigham R. Frandsen, Robert J. Town, David C. Grabowski, and Min M. Chen. 2015. "Impacts of unionization on quality and productivity: Regression discontinuity evidence from nursing homes." *ILR Review* 68 (4): 771–806.

56 Only 36 percent of elections are followed by a contract within one year, and 58 percent within two years. Bronfenbrenner, Kate. 2022. "In Solidarity: Removing Barriers to Organizing." Testimony before the United States House Committee on Education and Labor, September 14, 2022. <https://hdl.handle.net/1813/111838>.

57 A nontrivial share of elections are either decisively won or lost—Frandsen (2021) finds that the average vote share in a winning election is 70 percent, while the average vote share in a losing election is 33 percent.

58 For more details, see discussion in Kochan et al. (2022). Kochan, Thomas A., Janice R. Fine, Kate Bronfenbrenner, Suresh Naidu, Jacob Barnes, Yaminette Diaz-Linhart, Johnnie Kallas, et al. 2022. "U.S. Workers' Organizing Efforts and Collective Actions: A Review of the Current Landscape." *The Worker Empowerment Research Network*, June 2022. <https://mitsloan.mit.edu/institute-work-and-employment-research/new-report-u-s-workers-organizing-efforts-and-collective-actions>.

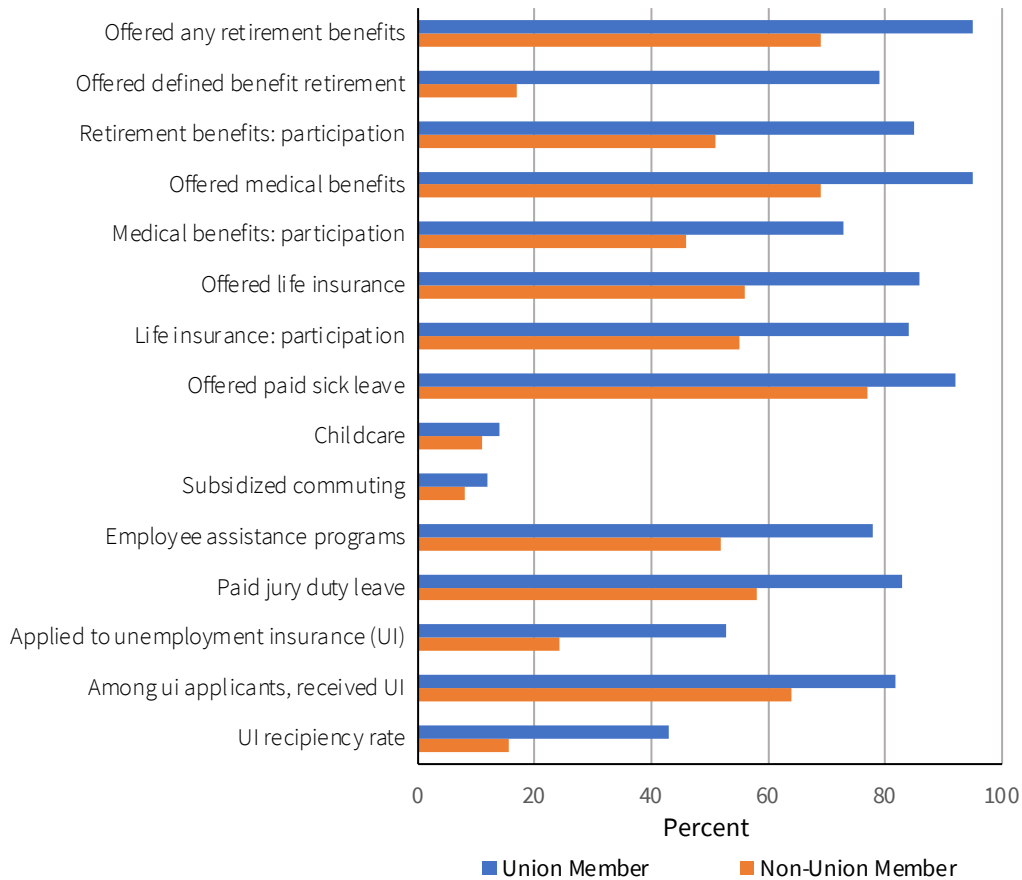
59 Parolin, Zachary, and Tom VanHeuvelen. 2022. "The Cumulative Advantage of a Unionized Career for Lifetime Earnings." *ILR Review* 76 (2): 434–460.

60 Defined benefit plans correspond to traditional pensions—a promise by an employer to provide specified payments to the employee upon their retirement. Defined contribution plans allow employers to make specific contributions toward current employees' retirement accounts (e.g., 401(k)). Relative to defined benefit plans, defined contribution plans increase participant decision risk, financial market risk, and annuitization risk for employees (Poterba 2014). Poterba, James M. 2014. "Retirement Security in an Aging Population." *American Economic Review* 104 (5): 1–30.

are offered sick leave, in contrast to 77 percent of nonunion workers. Although employer-provided or -sponsored childcare is uncommon, employers of union workers are about 25 percent more likely to offer a childcare benefit than employers of nonunion workers (14 percent versus 11 percent, respectively).

The benefits of unionization even extend to workers who lose their jobs. Upon being laid off, union workers are more likely to apply for unemployment insurance (UI) benefits and, conditional on applying, more likely to receive them. Unemployed unionized workers in 2018 were almost three times as likely to receive UI as their nonunionized counterparts, likely the result of unions providing resources that ease filing procedures for members regarding their access to and eligibility for UI benefits.⁶¹

Figure 5: Fringe Benefits and Amenities



Source: Bureau of Labor Statistics. UI data from 2018. Other data from March 2021. Offered benefits describe whether an employee has access to the benefit through their employer, not the take-up thereof. UI values include non-member workers represented by a union. UI recipiency rate is the percent of unemployed workers who received UI, irrespective of whether they are eligible for UI payments.

61 All else equal, employers have weak incentives to provide full transparency regarding UI eligibility because of the rating of state UI tax rates—that is, employers who lay off more workers that end up on UI are required to pay more into the state UI system. For more details, see Employment & Training Administration, U.S. Department of Labor. n.d. “Conformity Requirements for State UC Laws: Experience Rating.” Accessed September 16, 2022. https://oui.doleta.gov/unemploy/pdf/uilaws_exper_rating.pdf; Anderson, Patricia M., and Bruce D. Meyer. 2000. “The effects of the unemployment insurance payroll tax on wages, employment, claims and denials.” *Journal of Public Economics* 78 (1–2): 81–106; Cleary, Aisling, Joyce Kwok, and Rob Valleta. 2009. “New Highs in Unemployment Insurance Claims.” *Federal Reserve Bank of San Francisco, FRBSF Economic Letter* 2009-28.

Unions clearly play a key role in boosting these benefits—that is, part of the differences in these benefits between unionized and nonunionized workplaces can be directly attributed to collective bargaining. A detailed analysis of first-time union contracts from 1987 to 1996 shows that benefits and non-pecuniary amenities are often explicitly bargained for by unions.⁶² More recent work by Knepper (2020), using the regression discontinuity method described in the previous section, presents evidence that shows the higher rates of fringe benefits at newly unionized firms are the direct result of collective bargaining.⁶³ For publicly listed firms, Knepper (2020) estimates approximately that unionized employers contribute \$500 to \$900 more each year per worker to their employees' pension plans.⁶⁴ Petach and Wyant (2022) study individual workers before and after they join a union and conclude that by joining, workers are 5 percent more likely to have access to health insurance, 17 percent more likely to have access to paid sick leave, and are more likely to pay a lower portion of their healthcare expenses out-of-pocket.⁶⁵

Unions also have a notable effect on personnel practices that improve the quality of workers' lives while on the job. Freeman and Kleiner (1990) found that unionized workplaces had better systems for addressing employee grievances, stronger protections for workers with seniority, and more formal processes for repositioning workers within the company.⁶⁶ In addition, unions have improved workplace safety. They bargain to improve safety practices, protect their members against retaliation for reporting a violation, or make complaints on members' behalf about hazards to the U.S. Department of Labor's Occupational Safety and Health Administration.⁶⁷

Some non-wage amenities are critically important to workers' well-being because they reduce hidden or intangible costs of working. As noted in UST (2022), on-demand scheduling can be costly to workers who incur high costs of going to work without the ability to plan ahead, perhaps due to last-minute commuting and childcare arrangements. Union negotiations likely reduce scheduling unpredictability—in the General Social Survey 2014 and 2018 waves, 54 percent of union members reported knowing their schedule four or more weeks in advance, in contrast to 35 percent of nonunion workers, although these are uncontrolled differences.⁶⁸ Being able to plan ahead can increase effective disposable income even if it does not directly increase wages. These implicit costs are non-trivial—Mas and Pallais (2017) estimate that the average worker is willing to give up to 20 percent of wages to avoid having their schedule frequently changed by their employer on short notice.⁶⁹

In addition, non-wage amenities improve happiness and job satisfaction. Akerlof, Rose, and Yellen (1988) find that 80 percent of people who like their jobs cite a non-wage reason as the primary cause of their satisfaction and, conversely, 80 percent of people who *dislike* their jobs cite non-wage reasons to explain their dissatisfaction.⁷⁰ More recently, Sockin (2022) examines the relative value of non-wage amenities versus wages using matched employee-

62 Juravich, Tom, Kate Bronfenbrenner, and Robert Hickey. 2006. "Significant Victories: An Analysis of Union First Contracts." In *Justice on the Job: Perspectives on the Erosion of Collective Bargaining in the United States*, edited by Richard N. Block, Sheldon Friedman, Michelle Kaminski, and Andy Levin, 87–114. Kalamazoo: W.E. Upjohn Institute for Employment Research.

63 Knepper, Matthew. 2020. "From the Fringe to the Fore: Labor Unions and Employee Compensation." *The Review of Economics and Statistics* 102 (1): 98–112.

64 Dollar figures reflect inflation adjustment from values reported in Knepper (2020) using the Consumer Price Index for All Urban Consumers (CPI-U).

65 Petach, Luke, and David K. Wyant. 2022. "The union advantage: union membership, access to care, and the Affordable Care Act." *International Journal of Health Economics and Management*, 1–26.

66 Freeman, Richard B., and Morris M. Kleiner. 1990. "Employer behavior in the face of union organizing drives." *ILR Review* 43 (4): 351–365.

67 Sojourner, Aaron, and Jooyoung Yang. 2022. "Effects of union certification on workplace-safety enforcement: regression-discontinuity evidence." *ILR Review* 75 (2): 373–401. See also Weil, David. 1991. "Enforcing OSHA: The role of labor unions." *Industrial Relations: A Journal of Economy and Society* 30 (1): 20–36.

68 Smith et al. (n.d.). Estimates are pooled from 2014 and 2018 waves due to sample size limitations.

69 Mas, Alexandre, and Amanda Pallais. 2017. "Valuing alternative work arrangements." *American Economic Review* 107 (12): 3722–59.

70 Akerlof, George A., Andrew K. Rose, and Janet L. Yellen. 1988. "Job switching and job satisfaction in the US labor market." *Brookings Papers on Economic Activity* 1988 (2): 495–594.

employer data from the online labor market platform Glassdoor.⁷¹ This research implies amenities like respect and work-life balance impact job satisfaction at least as much as pay.

Section 5.3. Spillovers and Other Indirect Effects

The benefits that accrue to the middle class extend beyond those experienced directly by the union members. The first subsection below presents evidence that unions have spillover benefits for workers at nonunion firms. The second subsection describes the benefits that unions may bring to workers' families, communities, and their local economies.

Evidence of Spillovers

Workers at nonunion firms are rewarded from unionization efforts at other firms in two main ways. First, nonunion firms in competition with unionized firms may themselves raise wages, change hiring practices, or improve amenities to either attract workers to their firm or to avoid unionization.⁷² Second, some of the effects unions have on the labor market are felt by a broader group of firms, such as changing workplace safety norms or advocating for changes in minimum wage laws.⁷³

Fortin, Lemieux, and Lloyd (2021) estimate that the increase in wages of nonunion workers from a union threat effect is largest for men around the 30th to 40th percentile of men's wages.⁷⁴ They suggest a 1 percentage point increase in union membership percentage would increase the wages of nonunion men in this income range by about 0.4 percent. Rosenfeld, Denice, and Laird (2016) come to similar conclusions, and measure the spillover effects of union membership by estimating what wages would have been for nonunion workers if union membership rates had remained as high as they were in 1979.⁷⁵ They estimate that nonunion private-sector men would have been paid 5 percent more in 2013. Each 1 percentage point increase in private-sector union membership rates translates to a 0.3 percent increase in nonunion wages. Their estimates are larger for workers without a college degree, the majority of America's workforce.⁷⁶

Other Indirect Effects

The benefits that unions bring to middle-class workers—wages, fringe benefits, and workplace amenities—could spill over to their families and their communities. These indirect benefits are hard to measure precisely. There is a robust empirical literature, however, that establishes the effects of income and financial stability on spending,

71 Sockin, Jason. 2022. "Show Me the Amenity: Are Higher-Paying Firms Better All Around?" *CESifo*, working paper no. 9842.

72 Fortin, Nicole M., Thomas Lemieux, and Neil Lloyd. 2021. "Labor market institutions and the distribution of wages: The role of spillover effects." *Journal of Labor Economics* 39 (S2): S369–S412; Taschereau-Dumouchel, Mathieu. 2020. "The Union Threat." *The Review of Economic Studies* 87 (6): 2859–2892.

73 The impact of changes in government policy arising out of union advocacy is not the focus of this paper; however, Ahlquist (2017) suggests that advocacy plays an important role in unions' impacts on the labor market. Spillovers and "threat effects" within the labor market, however, are discussed in this paper. Ahlquist, John S. 2017. "Labor Unions, Political Representation, and Economic Inequality." *Annual Review of Political Science* 20 (1): 409–432.

74 The distribution regression approach of Fortin, Lemieux, and Lloyd (2021) model effects over the income distribution by interacting the unionization rate with a quartic function in wage to construct a distribution of effects over the income distribution. They compute marginal effects (of a 1 percentage increase in union density) by comparing this distribution to a counterfactual estimated distribution where unionization rates were 1 percentage point higher (see eq (5)). The authors find similar results using the recentered influence functions approach of Firpo, Fortin, and Lemieux (2009). Firpo, Sergio, Nicole M. Fortin, and Thomas Lemieux. 2009. "Unconditional quantile regressions." *Econometrica* 77 (3): 953–973.

75 Rosenfeld, Jake, Patrick Denice, and Jennifer Laird. 2016. "Union decline lowers wages of nonunion workers." *Economic Policy Institute*, August 30, 2016. Note: "average nonunion worker" excludes senior managers since senior managers are generally unable to unionize.

76 Note: Rosenfeld, Denice, and Laird (2016) do not interpret their estimates causally. Their approach suffers from many of the CPS's sample size limitations. Although the CPS ostensibly reports quite detailed occupational codes, Rosenfeld, Denice, and Laird estimate regressions with only four occupational codes and 18 industry codes. This data limitation greatly increases the risks that the regression-adjusted approach cannot control for selection effects into unionization.

homeownership, educational attainment, and health outcomes. Higher income is associated with higher rates of homeownership,⁷⁷ a greater probability that children start and graduate from college,⁷⁸ improvements to health, and reductions in mortality.⁷⁹ In contrast, instability in finances or housing is associated with worse educational outcomes,⁸⁰ worse child health,⁸¹ and poverty traps.⁸²

Unions may also produce benefits for communities that extend beyond individual workers and employers by enhancing social capital and civic engagement. Freeman (2003) finds that union members vote 12 percentage points more often than nonunion members, and nonunion members in union households vote 3 percentage points more often than individuals in nonunion households.⁸³ In addition, Zullo (2011) finds that union members are more likely to donate to charity, attend community meetings, participate in a neighborhood project, and volunteer for an organization.⁸⁴

Section 6. Unions, Race, and Gender

While unions have an uneven history when it comes to discrimination, in recent decades they have become important promoters of within-firm and economy-wide equality across demographic groups. At the peak of union membership in the 1950s, unions' civil rights records were decidedly mixed. Some unions fought for more equal rights both within and outside of their workplace, while many others explicitly excluded non-white workers from skilled occupations and union leadership. At that time, women were a distinct minority of union members.⁸⁵ And even as women became a bigger part of both the workforce and unions over the subsequent decades, it took many decades for them to be accepted as union leaders even in industries where women were overrepresented, like teaching and textiles.⁸⁶ However, unions eventually adopted anti-discrimination goals and policies, and gender and race equality became a central part of contract negotiations and policy advocacy for most unions. For example, in first-time union contracts from 1987 to 1996, 70 percent of union contracts included anti-discrimination measures for both gender and race.⁸⁷ Union contracts have also included protections for

77 Goodman, Laurie S., and Christopher Mayer. 2018. "Homeownership and the American Dream." *Journal of Economic Perspectives* 32 (1): 31–58.

78 Bailey, Martha J., and Susan M. Dynarski. 2011. "Gains and Gaps: Changing Inequality in U.S. College Entry and Completion." *National Bureau of Economic Research*, working paper no. 17633.

79 Lindahl, Mikael. 2005. "Estimating the Effect of Income on Health and Mortality Using Lottery Prizes as an Exogenous Source of Variation in Income." *The Journal of Human Resources* 40 (1): 144–168.

80 Hutchings, Hayley A., Annette Evans, Peter Barnes, Joanne Demmler, Martin Heaven, Melanie A. Hyatt, Michelle James-Ellison, et al. 2013. "Do children who move home and school frequently have poorer educational outcomes in their early years at school? An anonymised cohort study." *PLoS One* 8 (8): e70601.

81 Bzostek, Sharon H., and Audrey N. Beck. 2011. "Familial Instability and Young Children's Physical Health." *Social Science & Medicine* 73 (2): 282–292.

82 Gennetian, Lisa A., and Eldar Shafir. 2015. "The Persistence of Poverty in the Context of Financial Instability: A Behavioral Perspective." *Journal of Policy Analysis and Management* 34 (4): 904–936.

83 This 12 percentage-point union voting premium largely reflects socioeconomic factors associated with individuals who join a union. However, when comparing members with non-members who exhibit similar characteristics, there remains a union voting premium of 4 percentage points. Freeman, Richard B. 2003. "What Do Unions Do...to Voting?" *National Bureau of Economic Research*, working paper no. 9992.

84 Zullo, Roland. 2011. "Labor Unions and Charity." *Industrial and Labor Relations Review* 64 (4): 699–711.

85 Crain, Marion. 1994. "Between Feminism and Unionism: Working Class Women, Sex Equality, and Labor Speech." *Georgetown Law Journal* 82 (6): 1942–1946.

86 Yates, Michael D. 2009. *Why Unions Matter*. New York: Monthly Review Press.

87 Juravich, Bronfenbrenner, and Hickey (2006).

workers with disabilities and LGBTQ+ workers.⁸⁸

Unions promote within-firm equality by adopting explicit anti-discrimination measures, supporting anti-discrimination legislation and enforcement, and promoting wage-setting practices that are less susceptible to implicit bias. As an example of egalitarian wage-setting practices, single rate or automatic progression wage structures contribute to lower within-firm income inequality compared to firms that make individual determinations.⁸⁹ These types of practices, and others like publicly available pay schedules, benefit women and vulnerable workers who can be less likely to negotiate aggressively for pay raises.

Empirical studies have confirmed that unions have, indeed, closed race and gender gaps within firms. Rosenfeld and Kleykamp (2012) find that the wage gap between Black and white women was significantly reduced due to union measures.⁹⁰ Biasi and Sarsons (2022) show evidence of how collective bargaining has reduced gender wage gaps amongst teachers.⁹¹ Bruns (2019) found that declining union coverage in Germany slowed down the rate of gender wage convergence,⁹² and Gartner and Stephan (2004) found that German firms covered by collective contracts or works councils had small gender pay gaps.⁹³ Although analyses from other countries, which have different labor market structures, are not directly applicable to U.S. unions, they nevertheless reveal the potential for collective bargaining to narrow wage gaps.

Unions also have the potential to promote economy-wide equality by virtue of their broad demographic reach (Table 2). Women now have roughly the same overall union membership rate as men. They actually have a higher union membership rate in the public sector than men, largely due to their disproportionate representation in the field of primary and secondary education, which is highly unionized.⁹⁴ Therefore, if unions were to strengthen and grow, women would be well positioned to enjoy the increased wages and enhanced workplace environments. Working parents, including working mothers, may particularly benefit from amenities such as pre-scheduled hours and the provision of childcare.

88 In the first-time union contracts from 1987 to 1996, 53 percent included protections for workers with disabilities, while only 18 percent included protections due to sexual orientation (Juravich, Bronfenbrenner, and Hickey 2006). For the LGBTQ+ community, union protections have come more recently. See, for example, Ángeles et al. (2020). Ángeles, Sophia, Lucero Herrera, Sid Jordan, Janna Shaddock-Hernández, and Saba Waheed. 2020. "Union Values and LGBTQ+ Worker Experiences: A Survey of UFCW Workers in the United States and Canada." UCLA Labor Center. <https://www.labor.ucla.edu/publication/lgbtqworkers/>.

89 See, e.g., Card (1996) and Freeman (1982). Freeman, Richard B. 1982. "Union wage practices and wage dispersion within establishments." *ILR Review* 36 (1): 3–21.

90 Rosenfeld, Jake, and Meredith Kleykamp. 2012. "Organized Labor and Racial Wage Inequality in the United States." *American Journal of Sociology* 117 (5): 1460–1502.

91 Biasi, Barbara, and Heather Sarsons. 2022. "Flexible wages, bargaining, and the gender gap." *The Quarterly Journal of Economics* 137 (1): 215–266.

92 Bruns, Benjamin. 2019. "Changes in Workplace Heterogeneity and How They Widen the Gender Wage Gap." *American Economic Journal: Applied Economics* 11 (2): 74–113.

93 Gartner, Hermann, and Gesine Stephan. 2004. "How Collective Contracts and Works Councils Reduce the Gender Wage Gap." *Institute for Employment Research, German Federal Employment Agency*, IAB discussion paper no. 7.

94 Dunn, Megan, and James Walker. 2016. "Union Membership in the United States." U.S. Bureau of Labor Statistics, Spotlight on Statistics. <https://www.bls.gov/spotlight/2016/union-membership-in-the-united-states/home.htm>.

Table 2: Union Membership by Demographic Group

Demographic Group	Percent of Group in Union	Percent of Group in Private Sector Union	Percent of Group in Public Sector Union
Total	10.1	5.1	5.0
Male	10.5	6.2	4.3
Female	9.6	3.9	5.7
White	10.0	5.0	5.0
White, Male	10.4	6.2	4.2
White, Female	9.5	3.5	6.0
Black	11.6	6.1	5.5
Black, Male	13.0	7.5	5.5
Black, Female	10.3	4.8	5.5
Asian	8.3	4.5	3.8
Asian, Male	7.6	4.1	3.5
Asian, Female	9.1	5.0	4.1
Hispanic	8.8	5.1	3.7
Hispanic, Male	9.1	6.3	2.8
Hispanic, Female	8.5	3.7	4.8

Source: Bureau of Labor Statistics (BLS) and author's calculations using BLS data, accessed through IPUMS. Data reflect 2022 values. Sample is employed 16+ year olds. Excludes workers represented by, but not a member of, unions.

Men make up about half of all union workers and continue to be disproportionately represented in private-sector unions. Accordingly, unions may be able to help close some well-being gaps in areas where middle-class men of all races are lagging behind women. College graduation rates for women first surpassed those for men in the 1990s, and, in 2022, men were 9 percentage points less likely to receive a four-year college degree than women.⁹⁵ Working-age men are more likely to experience social isolation or loneliness than women,⁹⁶ and men are half as likely to receive emotional support from their friends than women.⁹⁷ Men, unlike women, rely more on their jobs to draw meaning for their lives than from other factors such as time with family, time with friends, hobbies, and

95 U.S. Census Bureau (2023a). This statistic is for people ages 25–29 who have completed four or more years of college.

96 Umberson, Debra, Zhiyong Lin, and Hyungmin Cha. 2022. "Social isolation increases from adolescence through later life but varies by gender, age, and partnership status." *CAPS Research Brief* 1 (2).

97 Cox, Daniel A. 2021. "The State of American Friendship: Change, Challenges, and Loss." *Survey Center on American Life*, June 8, 2021. <https://www.americansurveycenter.org/research/the-state-of-american-friendship-change-challenges-and-loss/>.

volunteering.⁹⁸ Strengthened and expanded unions could provide an important institutional structure to create a sense of belonging for men who have become disconnected from other social outlets.

Finally, the benefits of belonging to a union may be especially large for Black men, who have a higher union membership rate than any other reported demographic group (Table 2). This is a group that has been hit particularly hard by some of the negative trends experienced by the middle class as a whole. In a 2020 study on intergenerational mobility, the statistics for Black men are much worse than for white men, white women, or Black women: Black men are substantially less likely to rise in the income distribution relative to their parents than white men or Black women. Furthermore, a Black child born into the top quintile of the income distribution is just as likely to move to the bottom quintile of the income distribution than to stay at the top.⁹⁹ Given that they have a relatively high union coverage and wage premium,¹⁰⁰ Black men may be particularly poised to benefit from a policy of strengthening unions.

Section 7. Unions and the Broader Economy

In the previous section, we discussed the benefits that unions bring to middle-class workers and their communities. In this section, we turn to unions' effect on the economy as a whole through two main channels: 1) inequality and 2) productivity.

To justify the focus on inequality and productivity, it is useful to recall Section 2, which described two ways that unions provide benefits to workers. In the first, the monopoly channel, unions increase worker wages, sometimes by reducing the share of profits received by firm owners. In the second, the voice channel, unions change how processes are done, which could theoretically either increase or reduce the total amount of economic profits by raising or lowering firm productivity. Both modes of influence could lead to an effect on the broader U.S. economy—the first through the unions' effect on inequality, or the distribution of earnings, and the second through unions' effect on overall productivity. As we describe in the sections below, there is evidence that unions strengthen the economy through both channels. In contrast, there is little support for the argument that unions weaken the overall economy.

Section 7.1. Inequality

Income inequality, by any measure, has risen starkly since the 1970s. Traditional measures—such as the share held by the top of the income distribution, as shown in Figure 1, and the Gini coefficient—have all risen steadily over the past fifty years. Measures of the distribution of economic profits within corporations have also risen. In 2021, the ratio of compensation of the chief executive officers of the largest firms in the United States to a typical worker at their firm was 399-to-1, twenty times higher than the 20-to-1 ratio in 1965.¹⁰¹ A recent paper estimated that between 1984 and 2016, labor's share of economic surplus as a percentage of value added in the non-financial corporate sector fell by 8 percentage points for workers with a high school degree or some college education and by 4.5 percentage points for workers with a college degree.¹⁰²

98 Pew Research Center. 2018. "Where Americans Find Meaning in Life." Detailed Tables. November 20, 2018. <https://www.pewresearch.org/religion/wp-content/uploads/sites/7/2018/11/Detailed-Tables-FOR-WEB.pdf>; Reeves, Richard V. 2022. *Of Boys and Men: Why the Modern Male Is Struggling, Why It Matters, and What to Do about It*. Washington, DC: Brookings Institution Press, p. 39.

99 Chetty, Raj, Nathaniel Hendren, Maggie R. Jones, and Sonya R. Porter. 2020. "Race and Economic Opportunity in the United States: An Intergenerational Perspective." *The Quarterly Journal of Economics* 135 (2): 711–783.

100 Hirsch, Barry, David Macpherson, and William Even. 2023. Union Membership and Coverage Database from the Current Population Survey. Last updated March 22, 2023. <https://unionstats.com/>.

101 Bivens, Josh, and Jori Kandra. 2022. "CEO pay has skyrocketed 1,460% since 1978." *Economic Policy Institute*, October 4, 2022.

102 Stansbury, Anna, and Lawrence H. Summers. 2020. "The declining worker power hypothesis: An explanation for the recent evolution of the American economy." *National Bureau of Economic Research*, working paper no. 27193.

Reversing these trends in inequality would promote economy-wide growth and resilience. Reducing inequality can increase growth by increasing the incomes of families at the bottom and middle of the income distribution. This increased income alleviates borrowing constraints, allowing workers to start businesses, build human capital, and exploit investment opportunities.¹⁰³ Reducing inequality can also promote economic resilience by reducing the financial fragility of the bottom 95 percent of the income distribution, making these Americans less sensitive to negative income shocks and thus lessening economic volatility.¹⁰⁴

Empirical analyses examining the effect that unions have on inequality typically take one of three approaches. The first is to use the results from the analyses of the union wage premium, as discussed above, and then use the known income distribution of union workers to simulate what the income distribution would be had those workers not received their union wage premium. The benefit of this approach is that it relies on an extensive literature on the union wage premium. Drawbacks are that it is sensitive to the wage premium used, and that it does not directly account for the spillovers from unions to nonunion workers. This means that this method tends to underestimate the effect of unions on inequality since spillovers largely accrue to workers and families in the middle or bottom of the income distribution. Even so, studies that have used this method have found that, at their peak in the 1950s and 1960s, unions played a significant role in pushing down inequality. Using this methodology, Farber et al. (2021) found that the rise of unions explained about half of the 20 percent decline in the 90/10 income ratio that occurred between 1938 and 1968. Fortin, Lemieux, and Lloyd (2021) estimate that de-unionization from 1979 to 2017 contributed to approximately 13 percent of the increase in the 90-10 wage ratio for men, and accounting for spillovers to nonunionized workers roughly doubles this effect.

A second approach to estimating the effect that unions have on inequality is to analyze the long-term relationship between union membership rates, inequality, and other aggregate statistics at a national level. By accounting for other factors that may have influenced inequality over time, authors seek to tease out how much of the rise in inequality in the United States has been caused by the decline in union membership. This approach has also led to the conclusion that union membership decreases inequality. Farber et al. (2021), using this method, find that a 10-percentage point increase in the union membership rate leads to a 2 percent decline in the 90/10 wage ratio for men. Stansbury and Summers (2020) conclude that declining worker bargaining power is the best candidate to coherently explain the trends in the labor and corporate sector.

Finally, a third approach examines whether regional differences in union membership rates across states or countries can explain regional differences in inequality. Like the second approach, this method relies on controlling for a set of explanatory variables that may themselves explain either unionization rates or inequality differentials. An advantage over the second approach is that the geographic panel allows for a richer, more robust set of explanatory variables than the time-series-only approach. Farber et al. (2021) bring this method to states and use an instrumental variables approach to proxy for union membership rates. They find that a 10-percentage point increase in the union membership rate of a state would lead to a reduction in the share of income held by the top 10 percent in that state by 6 percentage points. Estimates from Brady, Baker, and Finnigan (2013) using cross-state analysis present evidence that union density reduces working poverty (defined in their analysis as household incomes below 50 percent of the national median).¹⁰⁵

The results of this section reflected on the distribution of profits and labor income between middle-class workers

103 Aghion, P., E. Caroli, and C. Garcia-Penalosa. 1999. "Inequality and Economic Growth: The Perspective of the New Growth Theories." *Journal of Economic Literature* 37 (4): 1615–60.

104 Kumhof, Michael, Romain Rancière, and Pablo Winant. 2015. "Inequality, Leverage, and Crises." *American Economic Review* 105 (3): 1217–45.

105 Brady, David, Regina S. Baker, and Ryan Finnigan. 2013. "When unionization disappears: State-level unionization and working poverty in the United States." *American Sociological Review* 78 (5): 872–896.

and firm owners and executives. We now turn to the effect of unions on the amount of total profits and labor income earned through unions' effect on productivity.

Section 7.2. Productivity

Unions may have positive or negative effects on productivity depending on the circumstances of a particular business. On the positive side, happier and more engaged employees are more productive,¹⁰⁶ more satisfied workers are less likely to quit, and lower employee turnover will reduce the costs of worker training and recruiting. Furthermore, unions may enable the workers to improve efficiency by participating in decisions about the workplace's processes. For example, protections offered by a union may encourage ground-level workers to voice their ideas for improvement without fear of reprisal. On the negative side, certain types of worker protections may lead some firms to retain unproductive employees. In addition, unions may increase wages to employees by redirecting cash flow that would otherwise be directed to investment. Reduced investment, in turn, could lead to a reduction in productivity.

Researchers have found many cases of unions that improve productivity. Notable examples come from the healthcare sector. Dube, Kaplan, and Thompson (2016) show that patient outcomes improved in hospitals where registered nurses unionized compared to patient outcomes in hospitals without registered nurse unions. The largest quality improvement occurred in the year of unionization.¹⁰⁷ Sojourner et al. (2015) find unions can reduce the number of nurses a hospital employs without decreasing the quality of patient care. Dean et al. (2022) present evidence that mortality from COVID-19 was lower at unionized nursing homes in the first year of the pandemic than in nonunionized nursing homes.¹⁰⁸

Research also provides examples of labor market conflict having mixed effects on productivity which can vary by sector. For example, strikes can produce temporary negative outcomes. Gruber and Kleiner (2012) observe that nurse strikes, though uncommon, lead to diminished patient outcomes, including higher rates of 30-day readmissions.¹⁰⁹ However, to the extent that occasional strikes are necessary for unions to exercise their bargaining power, the short-term disruptions from strikes can pave the way for the longer-term benefits, including the positive effects on productivity and outcomes mentioned above. Another recent study finds that while unions in manufacturing significantly increased wages of workers in the Rust Belt, labor market conflict prior to the 1980s led to a decline in the employment share of the Rust Belt as firms migrated investment to other, less unionized regions of the United States.¹¹⁰

Other studies show that the particular policies pursued by unions are important. One study in the manufacturing industry finds that unionized plants that do not adopt "high-performance workplace practices" may see a decrease in productivity relative to similar nonunionized plants.¹¹¹ In contrast, unionized plants that adopt practices such

106 Oswald, Andrew J., Eugenio Proto, and Daniel Sogri. 2015. "Happiness and Productivity." *Journal of Labor Economics* 33 (4): 789–822; Harter, James K., Frank L. Schmidt, and Theodore L. Hayes. 2002. "Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis." *Journal of Applied Psychology* 87 (2): 268–279.

107 Dube, Arindrajit, Ethan Kaplan, and Owen Thompson. 2016. "Nurse unions and patient outcomes." *ILR Review* 69 (4): 803–833.

108 Dean, Adam, Jamie McCallum, Simeon D. Kimmel, and Atheendar S. Venkataramani. 2022. "Resident Mortality and Worker Infection Rates from COVID-19 Lower in Union than Nonunion US Nursing Homes, 2020–21." *Health Affairs* 41 (5): 751–759.

109 Gruber, Jonathan, and Samuel A. Kleiner. 2012. "Do strikes kill? Evidence from New York state." *American Economic Journal: Economic Policy* 4 (1): 127–57.

110 Alder, Simeon, David Lagakos, and Lee Ohanian. 2023. "Labor Market Conflict and the Decline of the Rust Belt." *Journal of Political Economy* 131 (4).

111 Black, Sandra E., and Lisa M. Lynch. 2001. "How to Compete: The Impact of Workplace Practices and Information Technology on Productivity." *The Review of Economics and Statistics* 83 (3): 434–445.

as profit sharing for nonmanagerial workers and regular worker meetings could see an increase.¹¹² In education, productivity is difficult to measure, and the choice of student outcome matters. For example, Matsudaira and Patterson (2017) find unionization statistically increases math test scores, but not English test scores.¹¹³

Two other strands of literature may indirectly provide evidence about unions' effect on productivity. The first is empirical work on the effect of unions on firm closures. Frandsen (2021) demonstrated that newly unionized establishments are more likely to close than similar nonunionized establishments.¹¹⁴ These closures may be due to a loss in productivity in some establishments. However, Young and Wang (2021) find such closures are largely driven by multi-establishment firms choosing to shut down the newly unionized establishment, suggesting that the closures may be partially motivated by strategic behavior by firm headquarters rather than productivity considerations alone.¹¹⁵

The second strand of literature that may be considered to provide indirect evidence on productivity involves the effect of unions on stock prices and equity valuations. One well-cited study shows that unions decreased firm equity value, on average, for a set of firms with union elections between 1961 to 1999.¹¹⁶ However, as with the firm closure analysis, declining stock prices do not necessarily result from declining productivity. As discussed earlier in this paper, unions can redistribute economic profits from shareholders to workers. This decline in profits accruing to shareholders may reduce firm valuation without reducing firm revenues.

Researchers who have summarized the existing body of evidence conclude that the effects of unions on productivity are either modestly positive or neutral. Doucouliagos and Laroche (2003) did a comprehensive statistical review of the published empirical literature through 2003 and found unions, on average, are associated with higher productivity, particularly in the manufacturing sector.¹¹⁷ In a qualitative overview of the same literature, Hirsch (2004) came to the conclusion that the union productivity effect for the economy as a whole appeared to be close to zero.¹¹⁸ In a more recent summary analysis, Doucouliagos, Freeman, and Laroche (2017) updated their previous statistical review to include newer empirical work and estimated a zero effect of unions on productivity in U.S. manufacturing sectors, but a positive effect of unions on productivity in the construction and education sectors.¹¹⁹ Additionally, they summarize evidence of positive productivity effects through the channels of employee engagement and union voice effects and negative effects through the investment channel. None of these overviews supported a net negative effect of unions on overall U.S. productivity.

112 Black and Lynch (2001).

113 Matsudaira, Jordan D., and Richard W. Patterson. 2017. "Teachers' unions and school performance: Evidence from California charter schools." *Economics of Education Review* 61:35–50.

114 An establishment refers to a single physical location, whereas a firm refers to ownership over all establishments. Most firms are single establishment firms. Larger firms are more likely to have multiple establishments.

115 Due to data limitations regarding single- versus multi-establishment firms, Young and Wang (2021) are only able to estimate these effects for manufacturing firms. Results may not necessarily translate to service sector firms and establishments.

116 Lee, David S., and Alexandre Mas. 2012. "Long-run impacts of unions on firms: New evidence from financial markets, 1961–1999." *The Quarterly Journal of Economics* 127 (1): 333–378.

117 Doucouliagos, Christos, and Patrice Laroche. 2003. "What do unions do to productivity? A meta-analysis." *Industrial Relations: A Journal of Economy and Society* 42 (4): 650–691. <https://library.fes.de/libalt/journals/swetsfulltext/17556769.pdf>.

118 Hirsch, Barry T. 2004. "What Do Unions do for Economic Performance?" *Journal of Labor Research* 25, 415–456.

119 Doucouliagos, Christos, Richard B. Freeman, and Patrice Laroche. 2017. *The Economics of Trade Unions: A Study of a Research Field and Its Findings*. London: Routledge.

Section 8. Conclusion

Strengthened unions have the potential to stem or reverse some of the negative trends faced by the middle class since the 1970s: stagnating wages, deteriorated retirement preparedness, and decreased leisure time. Unions raise wages, fringe benefits, and amenities for their members, and spillovers lead to similar improvements for nonunion workers.

Furthermore, unions today are well positioned to capitalize on positive trends over the last few decades. Unions have more equitable race and gender coverage now than at their peak in the 1950s, meaning that strengthened unions would lift a broader swath of American workers, closing race and gender wage gaps as they do so. And unions already have particularly high coverage in sectors being revitalized by recent Biden-Harris Administration policies, making them a possible partner for the federal government to ensure that the policies benefit workers and their communities. Finally, unions complement ongoing improvements to healthcare technology and delivery. Not only do unions bargain for better health insurance options for their members, they also have been shown to increase health outcomes for patients in hospitals where healthcare workers are unionized.

More broadly, strengthened unions and expanded union membership have the potential to contribute to economy-wide growth and resilience. This finding is supported by the robust conclusion that increased unionization leads to decreased inequality, which, in turn, can have positive macroeconomic effects. In addition, evidence suggests that unions' contribution to firms' productivity likely makes modest positive contributions to overall economic output. Furthermore, the theory and empirics are clear on the ways in which unions have, in the past, and could, in the future, increase productivity more substantially: through increasing the voice effect of union members and increasing workers' happiness and connection to their jobs. Unions are well positioned to target these goals in their negotiations and to emphasize the benefits that could come to both workers and firm owners alike with productivity-enhancing actions.

For all of these reasons, the Biden-Harris Administration prioritizes strengthening unions. Examples of policies and other supportive actions include:

Legislative priorities

In the 2022 Omnibus bill passed in December 2022, the Biden-Harris Administration's budget increased funding to the National Labor Relations Board (NLRB) by 9 percent, or \$25 million. This was the first increase since 2014 and will allow the NLRB to strengthen and expand its enforcement efforts.

Going forward, the Biden-Harris Administration's top legislative priorities for restoring workers' bargaining power will be both the Protecting the Right to Organize (PRO) Act and the Public Sector Freedom to Negotiate Act. The PRO Act would establish penalties for violations of workers' organizing rights, reduce employer interference when workers want to organize, establish a process for reaching an initial collective bargaining agreement when workers first organize, and make other important updates and improvements to the NLRA. The Public Sector Freedom to Negotiate Act would extend collective bargaining rights to millions of state and local public employees who currently lack them.

The Inflation Reduction Act requires taxpayers to pay prevailing wages and abide by apprenticeship requirements to claim the full value of most of its enhanced clean energy tax incentives. In implementing the Inflation Reduction Act, the Treasury Department is focused on developing worker-centric guidance, including initial guidance in November 2022 that triggered these requirements for projects beginning construction after January 29, 2023.

Executive actions

The White House Task Force on Worker Organizing and Empowerment continues to work with agencies using their existing statutory authority to support worker organizing and bargaining. This includes initiatives to increase workers' awareness of their organizing and bargaining rights, efforts to reduce barriers to worker organizing by facilitating greater access and communications between workers and organizers on federal property, and support for the creation of good, union jobs through preferences and requirements on federal grants. A status report on implementation of the Task Force recommendations was issued in March 2023, showing the progress made to date by agencies across the government supporting worker organizing and the goals of the Task Force. One successful example regards public sector unions: since the Office of Personnel Management started working with agencies to ensure that workers are aware of their union rights, nearly 80,000 workers have joined a union.¹²⁰ And earlier this month, the Vice President announced a new rule to raise wage standards of construction workers by updating prevailing wage regulations issued under the Davis-Bacon and Related Acts, which require payment of locally prevailing wages and fringe benefits to more than one million construction workers.

Several agencies are involved in efforts to ensure that workers are aware of their organizing and bargaining rights and that employers and workers are informed of the benefits of unions and collective bargaining. These initiatives include the Department of Labor's Worker Organizing Resource and Knowledge (WORK) Center,¹²¹ Worker.gov and Employer.gov, and a new resource guide from the Small Business Administration providing information to employers about unions and collective bargaining.

The Department of Labor's Office of Labor Management Standards (OLMS) is taking action to increase reporting of employer expenditures to persuade employees in union organizing campaigns. OLMS has done extensive outreach on the reporting requirements and has established a tip line for complaints about non-compliance. In addition, OLMS is finalizing a rulemaking that will require companies that are hiring consultants to represent management's viewpoint in unionization efforts to disclose whether they are federal contractors or subcontractors. This will ensure that workers will have access to information concerning the direct or indirect source of the funding used to persuade or surveil them in connection with organizing, collective bargaining, and other concerted activities at the workplace. In addition, the public and policymakers should know whether public funds may indirectly lead to disruptions of harmonious labor relations and workers' rights, even if the underlying activities are not unlawful.

The NLRB and the Federal Mediation and Conciliation Service are independent labor agencies that are not formally part of the Task Force. Nevertheless, these agencies have partnered on a new initiative to provide no-cost services to employers and workers at newly organized facilities in reaching a first collective bargaining agreement. This initiative helps address a persistent problem facing newly organized workers.

The Treasury Department will continue to explore changes to the tax code to discourage anti-union campaigning and/or encourage employer neutrality/non-interference in organizing campaigns. Treasury has also provided technical assistance on proposed legislation to eliminate tax deductibility for employer expenses related to persuader activities.¹²²

120 The White House. 2023. "The White House Task Force on Worker Organizing and Empowerment: Update on Implementation of Approved Actions." Press release. March 17, 2023. <https://www.whitehouse.gov/briefing-room/statements-releases/2023/03/17/the-white-house-task-force-on-worker-organizing-and-empowermentupdate-on-implementation-of-approved-actions/>.

121 <https://www.dol.gov/general/workcenter>.

122 S.4192, 117th Congress (2021–2022). See also Casey, Bob. 2023. "Casey Introduces Legislation to Make Tax Code Fairer for Workers, Combat Union Busting." Press release. March 9, 2023. <https://www.casey.senate.gov/news/releases/casey-introduces-legislation-to-make-tax-code-fairer-for-workers-combat-union-busting>; Casey, Bob, Ron Wyden, Patty Murray, Chris Van Hollen, and Cory Booker. n.d. "No Tax Breaks for Union Busting Act." Press release. https://www.casey.senate.gov/imo/media/doc/one_pager_no_tax_breaks_for_union_busting_act.pdf.

