Returning Power To American Workers And Raising Wages
How Collective Bargaining Reform Can Help Restore America’s Middle Class

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Appendix
Executive Summary

Over the last four decades, workers’ bargaining power has significantly eroded in the United States. Union membership, which has traditionally given workers the opportunity to bargain collectively with employers, has drastically declined, while structural changes in the economy, such as the proliferation of outsourcing and sub-contracting work, has made it increasingly difficult for workers to organize and collectively bargain over wages.

The decline in worker power has coincided with a falling labor income share, stagnating real wages, and soaring income inequality in the United States. Since the early 1980s, labor’s share of national income has fallen in the U.S., from an average of 64 percent between the postwar period to the early 1980s, to 58 percent in 2016. Over the same period, the United States saw average real hourly compensation grow at an annual rate of only 0.2 percent. This sluggish growth in real compensation has fueled a precipitous rise in inequality, which threatens economic growth, social mobility, and political equality in the United States.

While these concerning trends in the labor income share and wage stagnation are seen across OECD countries, this report shows that the problem is most profound in countries where collective bargaining is done at the firm level (enterprise bargaining), rather than at a more centralized level, such as sectoral or regional bargaining. Enterprise bargaining suffers from three major structural defects in today’s economy: 1) it leads to high rates of exclusion, 2) it is unresponsive to the changing structure of the labor market, and 3) it creates a competitive disadvantage for unionized firms, which incentivizes conflict in the workplace. In order to restore collective power to workers and reverse the decline in the labor income share, the enterprise-based bargaining regime in the United States must be reformed.

This report makes a general case for sectoral bargaining as a promising solution to the dual challenges of wage stagnation and the declining labor share in the United States. We show that sectoral bargaining systems are associated with higher collective bargaining coverage rates, higher labor income shares, and higher growth rates in real compensation per capita. We conclude the report with some short-term policy recommendations that would lay the groundwork for a sectoral bargaining regime to emerge in the United States.
SECTION 1: BACKGROUND AND SUMMARY

1. The threat of inequality looms large

Since the early 1980s, labor’s share of national income has fallen in the United States, from an average of 64 percent between the postwar period to the early 1980s, to 58 percent in 2016 (Figure 1). The labor share represents the percentage of economic output that accrues to workers in the form of compensation – including wages, salaries, and benefits – and indicates the extent to which workers share in the economy’s output. A falling labor share implies a rising capital share, which means a greater portion of national income in the U.S. is being distributed to capital owners, rather than to workers. Since capital is heavily concentrated in the upper ends of the income distribution, this trend broadly reflects the rise in income inequality in the U.S.

Figure 1: Labor’s share of output in the nonfarm business sector, 1947-2016

Over the same period, the United States has seen a growing gap between worker productivity and workers’ wages. From 1979 to 2018, net productivity (output less depreciation per hour worked) rose by nearly 70 percent, while workers’ real hourly compensation increased by only 11 percent (Figure 2). The growing productivity-pay gap is directly related to the fall in the labor share, and suggests that workers are not being adequately compensated for the output that they have helped to produce. Over the last four decades, an increase in labor productivity has led to...
soaring corporate profits and the potential for substantial growth in wages, but these national income gains have largely accrued to capital and business owners, rather than trickling down to workers. Since 1980, real hourly compensation for the average American worker has grown by just 0.2 percent annually (Bivens et al. 2014).

*Figure 2: Productivity growth and real hourly compensation growth, 1948-2018*

![Graph showing productivity and hourly compensation growth from 1948 to 2018](image)

*Source: “The Productivity-Pay Gap,” Economic Policy Institute, updated August 2019*

**Broad wage stagnation has directly undermined growth in living standards for middle class Americans.** Among the bottom 90 percent of American households, labor income – including wages and wage-related income – comprises an average of 86 percent of total household income (compared to only 40 percent of total income for the top 10 percent of households). Sluggish wage growth thus contributes to stagnating living standards for the vast majority of American households (Gould, 2019). Capital income, on the other hand, is heavily skewed towards the top of the income distribution: the top 10 percent own about 70 percent of all capital, while the bottom 50 percent own less than 5 percent (Piketty, 2014). Taken together with the decline in the labor income share, these distributions can explain much of the growing income inequality in the United States – which is at its highest point since the Census Bureau began tracking the distribution of incomes in the 1960s (Block and Sachs, 2019).
The rise in inequality, fueled by sluggish wage growth, is a critical threat to economic growth, social mobility, and political equality in the United States. A wide-body of empirical evidence suggests that the current level of income inequality in the United States threatens both short-term aggregate demand and long-term economic growth. Since lower income households have a higher marginal propensity to consume than wealthier households, stagnant income growth for the middle class significantly reduces aggregate consumption, dampening economic growth (Rajan, 2011). Business economists at Standard and Poor’s (S&P) even downgraded long-run U.S. growth prospects on account of high inequality (S&P Capital IQ, 2014). Inequality has also been shown to significantly reduce generation-to-generation economic mobility (Kopczuk et al, 2010; Corak, 2013; Chetty et al, 2014), a relationship which the late Alan Krueger called the “Great Gatsby Curve” (Krueger, 2012). This threat to social mobility even led current Treasury secretary Janet Yellen to question whether the rise in inequality is compatible with American values, when she declared in a 2014 speech, “I think it is appropriate to ask whether this trend is compatible with values rooted in our nation’s history, among them the high value Americans have traditionally placed on equality of opportunity” (Yellen, 2014). Finally, rising inequality can have insidious effects on political power in America. Recent political science reveals how “the views of constituents in the bottom third of the income distribution receive no weight at all in the voting decisions of their Senators” (Druckman and Jacobs, 2015). The rise in income inequality thus presents an urgent threat to our democracy, and undermines the very political foundations of this country.

1. 2. Why has labor’s share of income decreased?

Five broad reasons have been proposed to explain the dual problems of stagnant real wages and the falling labor income share in recent decades (see Appendix 1 for a graphical representation of these five explanations):

“I think it is appropriate to ask whether this trend [in wealth gains at the very top and stagnant living standards for the majority] is compatible with values rooted in our nation’s history, among them the high value Americans have traditionally placed on equality of opportunity” — Janet Yellen
Technological change: Advances in information technology and automation has caused a decline in the relative price of investment goods, increasing the elasticity of demand for labor and inducing firms to shift away from labor towards capital (Karabarbounis and Neiman, 2014; Autor and Salomons, 2018; Dao et al, 2017).

Increased globalization: An increase in trade and international outsourcing has led to offshoring of labor-intensive parts of the U.S. supply chain, reducing the elasticity of demand for labor and putting downward pressure on U.S. labor shares (Elsby et al, 2013; Abdih and Danninger, 2017).

Increased monopsony power: Increases in employer concentration and the proliferation of non-compete agreements (where employees are prevented from working for a firm’s competitors) has increased labor market frictions and reduced worker mobility. This has created a non-competitive market that allows firms some degree of wage-setting power – allowing wages to be set below the marginal product of labor. (Furman and Krueger, 2016; Benmelech et al, 2019).

Increased monopoly power: Higher barriers to entry and reduced market competition has led to high levels of inefficient market concentration, increasing aggregate firm markups well above the marginal cost of production (De Loecker et al, 2020; Covarrubias et al, 2019;Autor et al, 2020).

Decline in worker power: Institutional changes reducing unionization rates and workers’ collective bargaining power have led to a redistribution of economic rents (unearned profits above the marginal cost of production) from labor to capital (Levy and Temin, 2007; Bivens et al, 2018; Stansbury and Summers, 2020).

While economists disagree over the relative importance of each of these factors, there is general agreement that workers’ bargaining power has significantly eroded over the last four decades, and that this is responsible for at least part of the rise in inequality. Union membership – which has traditionally given workers the opportunity to bargain collectively with employers over wages, benefits, and workplace conditions – has drastically declined in recent decades. The percentage of workers covered by a union in the U.S. has fallen from nearly one third of the workforce in the late 1950s to only 10.5 percent in 2018, including a mere 6 percent of
private sector workers (Bureau of Labor Statistics, 2018). In a recent paper, Lawrence Summers and Anna Stansbury declared that the decline in worker power “is one of the most important structural changes to have taken place in the U.S. economy in recent decades” (Stansbury and Summers, 2020). Studies have also shown that the decline in union membership has contributed directly to the sharp increase in income inequality. Bruce Western and Jake Rosenfeld found that the decline of organized labor in the U.S. could explain up to one third of the growth in inequality between 1973 and 2007 (Western and Rosenfeld, 2011).

The erosion of workers’ bargaining power in the U.S. can be attributed to three main factors: 1) institutional antagonism towards unions, 2) increases in shareholder power, and 3) structural changes in the economy. In recent decades, employers have become increasingly hostile to union organizing, and federal and state labor law amendments have made it increasingly difficult for workers to organize. Bivens et al (2017) find that when workers become interested in forming unions, 54 percent of employers threaten workers. Employees who engage in union organizing face a one in five chance of getting fired, and penalties for employers who violate workers’ rights during union drives have remained low and poorly enforced (Kleiner and Weil, 2010). Labor law rulings have also limited the ability of public unions to collect dues, sharply curbed union rights to picket and boycott, and have allowed states to expand so-called “right-to-work” laws, which make it more difficult for workers to form unions and have reduced state-level labor shares (Hazell, 2019). The second broad shift has been an increase in shareholder power and the rise of shareholder primacy, which has increased pressures on firms to cut labor costs, and has resulted in a large rise in outsourcing and subcontracting labor. Weil (2019) estimates that 19 percent of private sector workers are in industries where these “fissured” arrangements dominate – which makes it increasingly difficult for workers to organize. Finally, structural changes in the economy – including intensified globalization and the rise of automation – have increased the substitutability of workers. This has also contributed to a decline in workers’ bargaining power.

Trade unions in the U.S. have historically acted as an important way to bolster wages for lower- and middle-income families. Unions can increase wages both through their direct effect on union members, who earn an average union wage premium of around 15 percent (Rosenfeld, 2014) and through the “threat effect” of unionization for nonunion workers, which incentivizes
nonunionized firms to offer better wages (Farber, 2005). A recent study on this “threat effect” estimates that nonunion private-sector men would have made about $3,172 more in 2015 if union density remained at 1979 levels (Denice and Rosenfeld, 2018). Harvard economist Richard Freeman and others have argued that the sharp decline in the number of people earning middle-class salaries over recent decades can be explained by the decline in union membership (Freeman et al, 2016).

*Figure 3: Union membership and share of income going to the top 10%, 1917 – 2017*

![Graph showing union membership and share of income going to the top 10% from 1917 to 2017.]

Source: “Collective bargaining beyond the worksite,” Economic Policy Institute, updated March 2019

**But the overall impact of trade unions on productivity, employment, and firm investment is more mixed.** Richard Freeman and James Medoff (1984) wrote the seminal paper on the economic impacts of unions, arguing that unions have “two faces”. One face of unions is to increase the collective voice of workers, which can increase worker productivity by lessening information asymmetries between employers and employees and reducing labor turnover. The other face of unions is the monopoly face, which can “raise wages above competitive levels” and lower worker productivity by creating “restrictive work practices.” Doucouliagos & Laroche (2003) conducted a meta-analysis of the effect of unions on productivity, and found a near-zero impact. The impact of trade unions on employment and firm investment is also mixed. Trade unions can increase
employment if monopsony power is present and results in inefficiently low employment, or they may reduce employment if firms move up the labor-demand schedule and hire higher quality workers, or have less flexibility to adjust to macro-shocks (Blanchard and Wolfers, 2000). Some empirical evidence suggests that trade unions may decrease employment of low-skilled workers (Frandsen, 2012; Blanchard and Wolfers, 2000). Unions can also increase firm investment if they incentivize firms to increase investments in worker training (Acemoglu and Pischke, 1999), or reduce investment if union rent-seeking acts as a tax on firms’ return on investment (Connolly et al, 1986). Several empirical studies suggest that trade unions are likely to lower firm investment in physical and intangible capital and lead to slower growth (Addison and Hirsch, 1989; Lee and Mas, 2012).

**The traditional trade union model may be ill-suited to deliver broad gains to workers in the 21st century economy.** Intensified globalization and competition from abroad leaves unions with little bargaining power when negotiating with multinational employers, or when trying to transform conditions along a long supply chain. The proliferation of outsourcing, subcontracting, and gig employment also leaves a growing share of the workforce outside the reach of unions. On the political front, increasing employer opposition to unionization has made it exceedingly difficult for unions to secure a first contract, even when workers do vote for a union. When employers strongly oppose the organizing effort, only 10 percent of petitions for union election result in the union successfully securing an initial contract (Ferguson, 2008).

**Given these economic and political changes, new innovations in labor law are needed.**
1.3. How can labor law address the decline in worker power?

The cornerstone of U.S. labor law, the National Labor Relations Act (NLRA), was passed in 1935 to safeguard workers’ right to organize and bargain collectively – but it fails to fulfill its objective in today’s economy. Even at the time of its adoption, the NLRA only extended collective bargaining rights to statutorily defined employees – which excluded domestic workers and agricultural laborers from the Act’s coverage. Today, that exclusion also restricts independent contractors and other gig-economy workers from having any collective bargaining rights. In total, roughly 20% of private-sector workers are denied collective bargaining rights (Block and Sachs, 2019). But even where workers’ bargaining rights are statutorily covered, the fundamental changes in the structure of the economy since the 1930s have left an ever-increasing number of American workers without any effective means to collectively bargain. In 2017, only 10 percent of all workers were covered by a collective bargaining agreement – the second lowest coverage rate across the OECD.

Given the shortcomings of the NLRA, a growing number of economists, legal scholars, advocates, and trade union federations have called for comprehensive federal labor law reform. Thomas Kochan, an expert in industrial relations at MIT, has argued that U.S. labor law “has been broken for so long” that we need a “fundamentally new structure of labor law” (Dyer, 2019). The Clean Slate for Worker Power initiative at Harvard Law School also released a 2020 report calling for a comprehensive overhaul of labor law, and Kate Andrias, a law professor at the University of Michigan, and David Madland, an economist at the Center for American Progress, have recently proposed completely modernizing labor law to satisfy workers’ needs in the twenty-first century.

This report will focus on one specific feature of U.S. labor law – the bargaining unit – and argue that the enterprise-based bargaining system used in the U.S. is fundamentally broken. While most industrial democracies empower unions to negotiate for workers on a sectoral or regional basis, U.S. labor law channels negotiations about wages and benefits to the firm level (Andrias, 2017). Section 159 of the NLRA states: “The unit appropriate for the purpose of collective bargaining shall be the employer unit, craft unit, plant unit, or subdivision thereof”
(NLRA, 1935). Enterprise-based bargaining (sometimes referred to as firm-level bargaining or decentralized bargaining) has the following three structural defects:

**Three structural defects of enterprise-based bargaining**

1. **High rates of exclusion** – Enterprise bargaining leaves millions of workers without any collective bargaining coverage.

2. **Unresponsive to the changing structure of the labor market** – Enterprise bargaining is structurally incompatible with a labor market characterized by fissured employment relations and intensified globalization.

3. **Incentivizes conflict in the workplace** – Enterprise bargaining creates a competitive disadvantage for employers, which provides an incentive to fight unionization efforts.

Any reforms to federal labor law will undoubtedly face large political resistance in the U.S. Trade associations such as the U.S. Chamber of Commerce, and powerful corporations like Amazon, are steadfast in their commitment to undermine the rights of workers to organize and bargain collectively. Legislation to strengthen workers’ collective bargaining power is therefore sure to meet resistance, as has been evidenced by the recent political battle over the Protecting the Right to Organize (PRO) Act in Congress. But collective bargaining is a fundamental right of workers, enshrined in both domestic and international labor law, and is the cornerstone of a democratic and fair workplace. Our federal labor law therefore must be amended to uphold this basic right in a changing twenty-first century economy. Moreover, as this report will show, collective bargaining reform can be designed in a specific way such that workers can receive a greater share of economic output, while negative effects on firm productivity and profits are minimized.

This report does not propose to restore the labor movement of yesterday, but rather suggests innovative solutions that are sensitive to the features of today’s workforce and economy. The structure of the labor market in the twenty-first century is characterized by fissured employment relations and intensified globalization, which requires new forms of collective bargaining beyond traditional unions. The proliferation of workplace fissuring means that lead firms have maintained control over subcontracted workers, while relinquishing any formal responsibility for their rights.
or activities. The proliferation of globalization means that workers are more frequently left powerless when trying to bargain with large multinational corporations. Overcoming these unique challenges that undermine workers’ power today calls for new innovations in labor law.

In this report, we will analyze collective bargaining models across OECD countries in order to identify what bargaining arrangements have been most effective in preserving workers’ power in recent decades. Specifically, we will seek to answer the following question: is there an alternative model of collective bargaining that leads to higher bargaining coverage, higher labor income shares, and higher wage growth, while also limiting detrimental effects on unemployment and economic output? Any alternative bargaining regime must also overcome the three fundamental defects of enterprise bargaining identified in the introduction, and be sensitive to the specific features of the labor market and industrial relations in the United States.

Section II of this report will analyze collective bargaining systems across the OECD, and lay out general trends in collective bargaining coverage and collective bargaining reforms over the past four decades. Section III will look at the effect of collective bargaining systems on labor market outcomes in OECD countries, including labor incomes shares and wage growth. In this section, we create a taxonomy of bargaining systems to classify country’s bargaining arrangements in each year, and present empirical findings correlating these bargaining types with different labor market outcomes. Section IV will present policy recommendations based on our empirical analysis, and propose a path forward for the United States to move towards a sectoral bargaining regime.
SECTION 2: COLLECTIVE BARGAINING SYSTEMS IN OECD COUNTRIES

2.1. The role of collective bargaining

Collective bargaining is the process in which working people negotiate contracts with their employers to determine the terms of their employment, including pay and benefits (AFL-CIO, 2021). It is a key labor right that gives workers a voice in the workplace and ensures a more equitable and inclusive labor market. The right to collective bargaining is recognized by international human rights conventions, and is one of the International Labor Organization’s eight fundamental conventions that comprise the Declaration on Fundamental Principles and Rights at Work.

Three key functions of collective bargaining for workers are: 1) ensuring that economic profits are shared, 2) managing social conflict, and 3) guaranteeing adequate workplace conditions (OECD, 2019). Collective bargaining can directly affect the distribution of product market rents between labor and capital, allowing workers to lay claim to a fairer share of the profits they helped create. Cross-country evidence offers support for this theory: OECD countries with higher rates of collective bargaining coverage also have higher labor income shares (Figure 4). Collective bargaining also allows workers to voice workplace concerns directly to management, which can lead to more stable labor relations, overcome information asymmetries, and possibly increase workers’ job-satisfaction and motivation. Finally, collective bargaining agreements usually lead to increased worker benefits beyond wages, including job-security, increased workplace safety, and greater access to skill trainings.

Collective bargaining can also help correct for market failures in the economy, including asymmetric information between workers and employers, and monopsony power arising from job-search frictions. Recent research has showed that dynamic monopsony power – employer’s power to set wages below competitive levels due to search frictions such as imperfect information and other constraints on job mobility – is widespread across the U.S. labor market (Webber, 2015). In the presence of monopsony power, collective bargaining can act as a countervailing power to restore wages to a competitive equilibrium.
Figure 4: There is a strong positive relationship between OECD countries’ collective bargaining coverage and the labor income share, 2017

Note: Adjusted labor income share adds two-thirds of self-employment income to labor income and removes taxes on production and imports (minus subsidies) from gross value added at market prices. This follows Glyn 2009; Gollin 2002; and Izyumov and Vahaly 2015

Source: Own calculations based on data from ICTWSS and UN National Accounts

But economic theory cautions that some collective bargaining arrangements can introduce market distortions that hinder economic performance. One influential model of collective bargaining, the “right-to-manage” model, makes a distinction between “insiders” and “outsiders” (Leontief, 1946). According to this model, workers bargain exclusively over their own wages, and therefore set the wage above market equilibrium, which helps workers covered by collective bargaining agreements at the expense of lower employment opportunities for job-seekers outside of the firm. Some collective bargaining agreements also have the additional downside of reducing the flexibility of firms to respond to macroeconomic and productivity shocks (OECD, 2019).
2. 2. Trends in collective bargaining across OECD countries

In 2018, about 82 million workers were members of trade unions in OECD countries, and about 160 million are covered by collective bargaining agreements (OECD, 2019). As shown in Figure 5 below, there is considerable heterogeneity across OECD countries in both collective bargaining coverage and union density, as well as in the gap between the two. In the United States in 2017, both bargaining coverage and union density stood at close to 11%. In France, on the hand, union density was at 11%, but collective bargaining coverage was at 98%. The discrepancy between these two numbers in France (and other countries) arises due to extending agreements concluded at either the national, regional, sectoral, occupational, or firm level to non-union members.

Figure 5: Collective bargaining coverage and union density, 2017

Since the 1980s, however, collective bargaining systems have weakened around the world. The share of workers in OECD countries covered by a collective agreement has dropped from 45% in 1980 to 30% in 2017. In the United States, the share has fallen from 25% to 11% over the same time period. Union density has seen a parallel decline across OECD countries, from 32% in 1980 (17% in the United States) to 15% in 2017 (10% in the United States). These trends are shown in Figures 6 and 7 below. While the drivers of the decline in bargaining coverage are multifaceted, much of it can be explained by 1) policy reforms in industrialized countries decentralizing
collective bargaining arrangements, 2) declines in union density due to institutional pressures, and 3) the rise of non-standard employment arrangements.

Figure 6: Collective bargaining coverage has declined across OECD countries

Collective bargaining coverage declined the most in countries where significant reforms took place to decentralize collective bargaining (shifting the bargaining unit to the firm-level). In Central and Eastern European countries, the collapse of old regimes led to a drastic shift from centralized (bargaining at the national or regional level) to decentralized collective bargaining (OECD, 2019). In Hungary, Czech Republic, and Poland, these collective bargaining reforms resulted in drops in collective bargaining coverage of more than 50 percent since 1990 (Figure 8). New Zealand, the United Kingdom, and Australia all implemented reforms to decentralize collective bargaining, which corresponded to reductions in collective bargaining coverage of 73 percent, 64 percent, and 57 percent, respectively.

Source: Own calculations based on ICTWSS database.
Collective bargaining coverage remained high and stable only in countries where multi-employer bargaining (also called broad-based bargaining) dominates (Figure 9). In countries where broad-based bargaining happens (bargaining either at the sectoral, regional, or national level), collective bargaining coverage is uniformly higher than in countries with predominantly enterprise bargaining. In many Southern European countries (such as France, Portugal, and Spain), these high rates of collective bargaining coverage come even when union membership remains very low (at comparable levels to the United States).

Figure 9: Collective bargaining coverage is significantly higher in countries with broad-based bargaining

Source: Own calculations based on ICTWSS database
2.3. Features of collective bargaining systems

Collective bargaining systems across OECD countries have four principle components, summarized in the box below (modified from OECD (2019): “Negotiating our way up”):

**Four main features of collective bargaining systems**

1. **Level of bargaining** – does collective bargaining take place at the firm, sectoral, or national level?

2. **Amount of flexibility** – how much room is there for firms to derogate from higher-level agreements or opt-out of bargaining agreements in case of economic hardship?

3. **Extent of coordination** – is there synchronization between different bargaining units (e.g. do sectors coordinate with each other on wage targets in sectoral systems)?

4. **Enforcement capacity** – how likely is punishment if a party deviates from the terms set in collective agreements?

While broad-based bargaining agreements are common in nearly all continental European countries, there is significant variation in how, and to what extent, firm-level agreements supplement higher-level agreements. In some countries, such as the Scandinavian countries, sectoral agreements only define broad frameworks, but leave significant scope for bargaining at the firm level. In other countries, such as Germany and Austria, sectoral agreements play an important role, but still allow firms to opt-out of certain agreements and renegotiate at the firm-level. In a third set of countries, such as Italy and Slovenia, sectoral agreements largely set the rules, and don’t allow firms much flexibility (OECD, 2019).

The majority of OECD countries (not including the United States) use some combination of firm-level and higher-level agreements to extend collective bargaining coverage to workers (Figure 10). Two key components that influence how sectoral and firm-level agreements interact are: 1) the favorability principle, and 2) derogations. The favorability principle, which is common in most continental European countries, states that lower-level agreements can only improve higher-level agreements. The second key component, derogations, allow firms to opt-out of higher-level conditions, either through general opening clauses, or temporary opt-out clauses in the case of an economic hardship. Germany effectively used temporary opt-out clauses to support firms during the 2008-2009 financial crisis (Dustmann et al, 2014).
Economic theory suggests that there is an important trade-off between flexibility and coordination among these different types of bargaining systems. In an enterprise bargaining system (e.g. the United States system), there is less wage rigidity at the firm-level, which gives firms more flexibility to respond to firm-specific economic shocks and more autonomy to link worker performance/productivity to wages. In a sectoral or centralized bargaining system, theory suggests that there is a weaker link between productivity and wages, but more macroeconomic resiliency, since wage-setters can recognize broader national interests, and entire sectors can have a coordinated response in the aftermath of an economic downturn.

The next section seeks to test this theory by empirically answering the following question: to what extent do collective bargaining systems explain the variation in labor shares, wages and labor market performance across OECD countries?
SECTION 3: EFFECT OF COLLECTIVE BARGAINING ON LABOR MARKET OUTCOMES

Key Findings

- Enterprise bargaining systems lead to much lower rates of collective bargaining coverage than broad-based bargaining systems.

- Sectoral bargaining systems are associated with significantly higher labor income shares and higher wage growth than enterprise based bargaining systems.

- Sectoral bargaining systems are also associated with higher employment, lower unemployment, and higher job quality than enterprise bargaining systems.

3. 1. Labor income shares and wage growth across the OECD

Since the 1980s, labor’s share of national income has steadily decreased across OECD countries (Figure 11). The average labor income share across all OECD countries fell from 64 percent in 1980 to 60 percent in 2017. While most OECD countries have experienced this downward trend, some countries – such as France and Belgium – have maintained a relatively stable labor share in the last 30 years.

Figure 11: Labor shares have been decreasing across OECD countries since the 1980s

Source: Own calculations based on data from UN National Accounts
Over the past two decades in particular, the United States has seen one of the sharpest declines among all OECD countries in the labor income share (Figure 12). Many of the countries that experienced gains in the labor share since 2000 – including Norway, Finland, Sweden, and Italy – have among the highest rates of collective bargaining in the OECD. The United States has also seen a precipitous decrease in the labor share in sectors where “fissuring” predominates (Figure 13). Between 2000 and 2015, fissured sectors (which are characterized by high levels of sub-contracting and outsourcing) saw an 18 percent decline in the labor share. This finding aligns with other empirical evidence which has shown that the fissuring of the workplace leads to lower wages and weaker bargaining power for workers (Weil, 2019).

**Figure 12: The United States has seen one of the largest decreases in labor income, 2000 – 2017**

![Graph showing change in labor income share](image)

*Source: Own calculations based on data from UN National Accounts*

**Figure 13: The U.S. labor share has seen a particularly large decline in fissured sectors†**

![Graph showing adjusted labor income shares](image)

*Note: Selection of highly fissured industries come from Weil (2019). Weil provides six-digit NAICS codes, which are converted to four-digit SIC codes provided by UN National Accounts.*

*Source: Own calculations based on data from UN National Accounts*
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Since 2000, the United States has also seen one of the slowest growth rates across the OECD in real labor compensation per capita (Figure 14). Between 2000 and 2017, total cumulative growth in real annual compensation per capita in the United States was only 6 percent, compared to an OECD average of 22 percent. The only countries that saw less overall growth in real labor compensation were Portugal, Greece, and Italy. Real labor compensation per capita is a good proxy for workers’ living standards – which provides more evidence of the stagnating living standards for the middle class in the United States.

Figure 14: The United States has seen one of the slowest growth rates in per capita real compensation, 2000 – 2017

2 Real labor compensation per capita is calculated by first adjusting nominal labor compensation using country-level CPI data, and then dividing real labor compensation by OECD country-level adult population statistics (ages 15-64).
3. 2. Creating a taxonomy of collective bargaining systems

To better understand the role of collective bargaining systems on inequality, wages, and economic performance, we create a taxonomy of collective bargaining systems based on the features outlined in the preceding section. The taxonomy takes into account the level of bargaining, the degree of coordination between bargaining units, and the amount of flexibility firms have in the wage-setting process. This approach is similar to the one taken in OECD (2019), but creates a more aggregated taxonomy to increase the number of observations in each group. The database on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts (ICTWSS) is used to create this taxonomy.

The following are the four classifications of collective bargaining systems:

- **Enterprise** – Wage bargaining is fragmented and takes place at the local or company level, with limited government intervention and limited coordination across firms. In 2017 this included: Canada, Czech Republic, Estonia, Greece, Hungary, Japan, Korea, Latvia, Lithuania, Luxembourg, New Zealand, Poland, Slovak Republic, United Kingdom, and the United States.

- **Sectoral with firm-level flexibility** – Wage bargaining takes place at the sector or industry level, or alternates between sector and company bargaining; wage clauses have some flexibility for firms to specify, or deviate from, sectoral agreements. Some degree of coordination is present during the wage setting process. In 2017 this included: Australia, Austria, Denmark, France, Germany, Iceland, Israel, Italy, Netherlands, Norway, Portugal, Slovenia, and Sweden.

- **Sectoral with strong coordination** – Wage bargaining takes place at the sector or industry level; coordination is present during wage setting through pattern bargaining, intra-associational or inter-associational coordination, or government-sponsored bargaining like pacts; there is limited scope for firms to derogate or opt-out of sectoral agreements. In 2017 this included: Iceland, the Netherlands, Spain, and Switzerland.

- **Predominantly centralized** – Wage bargaining takes place predominantly at the central or cross-industry level, or alternates between central and industry bargaining; sectors or companies have the ability to specify/deviate from higher-level agreements; some degree of coordination is present between bargaining units. In 2017 this included: Belgium and Finland.
The bargaining system for each OECD country is classified according to this taxonomy in each year over the period 1980-2017. In total, we use 32 countries in our analysis.³

3. 3. Relationship between collective bargaining and labor income shares

Since the 1980s, there has been a systematic shift across OECD countries to more decentralized and flexible systems (Figure 15). In 1980, 18 OECD countries had either predominantly centralized bargaining systems or predominantly sectoral bargaining systems with strong coordination between bargaining units. By 2017, only 6 countries had bargaining arrangements under these two classifications. Enterprise bargaining, on the other hand, has become much more common since 1980: 16 countries use predominantly enterprise-based bargaining systems (as of 2017), compared to only 9 countries in 1980.

*Figure 15: Number of countries with each bargaining classification, 1980 vs 2017*

![Figure 15: Number of countries with each bargaining classification, 1980 vs 2017](image)

*Source: Own calculations based on ICTWSS data*

Between 1980 and 2017, countries with enterprise-based bargaining saw the largest decline in bargaining coverage (Figure 16), the largest drop in labor income shares (Figure 17), and among the slowest real compensation growth per worker (Figure 18).⁴ Countries with enterprise bargaining systems had a 56 percent decrease in average collective bargaining coverage over this time period, from an average coverage of 52 percent in 1980 to 23 percent. On the other

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³ The 32 countries included in the analysis are: Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Latvia, Lithuania, Luxembourg, Netherlands, New Zealand, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, United Kingdom, and the United States. Chile, Mexico, and Turkey are excluded due to data limitations.

⁴ Countries are classified according to the bargaining system they had in the majority of years between 1980 and 2017. Compensation growth is used in place of wage growth, and is calculated using 1990 as the base year due to data availability.
hand, the bargaining coverage in countries with broad-based bargaining (regardless of specific classification) was relatively stable over this period. Labor income shares are also the lowest in countries with enterprise bargaining, and saw the largest decline since 1980. The average labor share in countries with enterprise bargaining decreased from 63 percent in 1980 to 56 percent in 2017. Average compensation growth in countries with enterprise bargaining systems also lagged behind compensation growth in countries with predominantly centralized systems or sectoral systems with firm-level flexibility – though it did exceed the rate of growth in countries with coordinated sectoral systems.

Figure 16: Average bargaining coverage over time, by type of bargaining system (1980-2017)

![Graph showing bargaining coverage over time by type of bargaining system](image)

Figure 17: Average labor income shares over time, by type of bargaining system (1980-2017)

![Graph showing labor income shares over time by type of bargaining system](image)

Figure 18: Average growth in real compensation per capita, by type of bargaining system (1990-2017)

![Graph showing real compensation growth over time by type of bargaining system](image)

Source: Own calculations based on ICTWSS and UN National Accounts data
When countries reformed their bargaining systems from centralized or sectoral bargaining, to predominantly enterprise-based bargaining, labor’s share of income saw a significant decline. Four countries in our sample underwent significant collective bargaining reforms since 1990 that shifted collective bargaining to the enterprise level: Czech Republic, Greece, Ireland, and the United Kingdom. We exploit these changes to show what happened to the labor share after each country underwent their bargaining reform. Figures 19-22 below plot the average labor income share in each country, and code each year observation according to the type of bargaining system. The dashed red lines show that there is a clear trend break when each of the four countries underwent collective bargaining reform to decentralize their systems. These graphs should not be interpreted causally, as there were likely many other macroeconomic factors that may have also influenced the labor share.

Figure 19: The labor income share in Czech Republic, before and after their bargaining reform

Figure 20: The labor income share in Greece, before and after their bargaining reform
3.4. Empirical estimates for effect of collective bargaining on labor market performance

Setting up the model

The empirical analysis exploits time-variations in the classifications of collective bargaining systems within countries in order to estimate the effect of bargaining arrangements on labor shares, wages, and other labor market outcomes. The explanatory variable of interest is a country’s bargaining classification in each year, and the main outcomes of interest are: 1) adjusted labor income shares, 2) growth in total labor compensation per capita, and 3) other labor market outcomes, which include employment rates, unemployment rates, labor productivity, workers’ job satisfaction, and worker tenure. For most regressions, country and year fixed effects are used to control for time-trends and unobserved differences across countries. The analysis is conducted on 27 countries between 1985 – 2017.5

The box below provides a summary of the estimation approach for the first outcome of interest, adjusted labor income shares.

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5 The analysis excludes Estonia, Lithuania, Latvia, Slovakia, and Slovenia due to data limitations.
Empirical approach to estimate the effect of collective bargaining on labor income shares

The baseline regression to estimate the effect of collective bargaining systems on labor income share is as follows:

\[ LIS_{ct} = \beta_0 + \beta_1 \text{Barg.Type}_{ct} + \beta_2 \text{Barg.Type}_{ct-1} + \beta_3 \text{Barg.Type}_{ct-2} + \alpha_{ct} + \gamma_{ct} + \epsilon_{ct} \]  

(1)

And the variables are defined as:

- \( LIS_{ct} \) is the country’s adjusted labor income share in country \( c \) in year \( t \)
- \( \text{Barg.Type}_{ct} \) is the bargaining taxonomy in country \( c \) in year \( t \)
- \( \text{Barg.Type}_{ct-1} \) is the bargaining taxonomy in country \( c \) in year \( t - 1 \)
- \( \text{Barg.Type}_{ct-2} \) is the bargaining taxonomy in country \( c \) in year \( t - 2 \)
- \( \alpha_{ct} \) represents country and year fixed effects
- \( \gamma_{ct} \) is a vector of country-year controls, including:
  - Industrial composition controls for 13 four-digit sectors
  - Macroeconomic controls – Composite leading indicators, inflation rate, current account balance as % of GDP, export orientation (domestic value added in foreign final demand as a share of total value added)
  - Institutional controls – tax wedges, product market regulations, employment protection regulations, minimum wage to medium wage ratio, gross unemployment insurance replacements rates
  - Demographic controls – log of average years of education, female employment share

The outcome of interest is the three-year cumulative effect of the bargaining system on the labor income share, which is why we include two-year lags in the model. The coefficient of interest is the sum of \( \beta_1 + \beta_2 + \beta_3 \). For each bargaining taxonomy (e.g. sectoral with firm-level flexibility, sectoral with strong coordination, and predominantly centralized), the coefficients \( \beta_1 + \beta_2 + \beta_3 \) are measured relative to enterprise bargaining. For example, if \( \beta_1 + \beta_2 + \beta_3 > 0 \) for the bargaining classification “sectoral with firm-level flexibility”, then we can say that “sectoral with firm-level flexibility” systems are associated with a higher labor income shares than enterprise-based systems. We perform a Wald test to test whether \( \beta_1 + \beta_2 + \beta_3 > 0 \) for each bargaining type. We run three model specifications for robustness: 1) with no fixed effects, 2) with only time fixed effects, and 3) with time and country fixed effects.

The data for this analysis comes from a combination of sources including: 1) Database on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts (ICTWSS), 2) UN National Accounts Database, 3) OECD Employment dataset, 4) OECD Labor dataset, 5) OECD Structural Analysis dataset, and 6) Barro-Lee Educational Attainment Data.
**Empirical Results**

**Sectoral bargaining systems are associated with significantly higher labor income shares than enterprise bargaining systems.** Sectoral bargaining systems with firm-level flexibility and sectoral bargaining systems with strong coordination both outperform enterprise systems. Countries with sectoral systems, on average, have approximately a 4 percentage point higher labor income share (Table 1, Appendix 3). This result is strongly statistically significant, and robust across all four regression models. One possible explanation for this finding is that sectoral bargaining systems allow for more coordination across firms, which makes it more likely for workers to successfully bargain sector-wide wage increases in response to sector-wide productivity increases. The regression results are included in Table 1 of Appendix 3, and shown graphically in Figure 23.

**Sectoral bargaining systems are also associated with significantly higher growth in real labor compensation per capita compared to enterprise bargaining systems.** Countries with sectoral systems with firm-level flexibility experience about 3 percent more growth in real labor compensation over the course of 3 years, relative to countries with enterprise bargaining systems (Table 1, Appendix 3). Countries with sectoral systems with strong coordination also experience about 2 percent more growth than countries with enterprise bargaining systems. These results are also robust across different model specifications. This suggests that labor’s share of income is higher with sectoral agreements not because of lower labor productivity, but rather because of higher wage growth (the labor share is essentially employee compensation divided by GDP, and thus can increase either because relative compensation increases or GDP decreases). The results are shown graphically in Figure 23.

**Enterprise bargaining systems are associated with lower employment and higher unemployment rates than sectoral and centralized systems.** The overall employment rate is about 3 to 4 percentage points lower in enterprise systems than in sectoral and centralized systems (Table 2, Appendix 3). Youth and female employment are also much lower in enterprise systems: female employment tends is an average of 5 percentage points lower than in broad-based bargaining systems, while youth employment is a staggering 13-14 percentage points lower. When
country fixed effects are included, which looks at what happens when countries change their bargaining systems to enterprise-based, we also see a large decrease in employment. With country fixed effects, sectoral bargaining systems are associated with a 2 percentage point higher overall employment rate, and a 2 percentage point lower overall unemployment rate (Table 3, Appendix 3). These results suggest that transitioning to higher-level bargaining (for example, at the sectoral level) is likely to lead to higher employment, and is unlikely to lead to an increase in unemployment. The fact that youth and low-skill workers also have higher employment rates suggests that sectoral bargaining can overcome the “insider” vs “outsider” dilemma of collective bargaining – with sectoral agreements, traditional “outsiders” (lower-skilled workers) are not negatively affected via lower employment opportunities. Figures 24 and 25 summarize these findings.

**Sectoral bargaining systems are also associated with significantly higher job satisfaction.** Workers in countries where broad-based bargaining dominates (sectoral or centralized bargaining) score between 6 and 10 percentage points higher on the OECD’s earnings quality index (Table 4, Appendix 3). This index is an important component of job quality, and captures the extent to which earnings contribute to workers’ well-being, both in terms of average earnings and in terms of their distribution across the workforce. Workers also report higher labor market security in broad-based systems, which captures the aspects of economic security related to the risk of job loss. These results are summarized in Figure 26.

For full regression results, see Tables 1 – 4 in Appendix 3.

*Figure 23: Effect of collective bargaining systems on labor shares and compensation*
Difference in percentage points with respect to enterprise bargaining. Stars show significance level
**Figure 24: Effect of collective bargaining systems on employment rates**
Difference in percentage points with respect to enterprise bargaining. Stars show significance level.

![Bar chart showing the effect of collective bargaining systems on employment rates.

**Figure 25: Effect of collective bargaining systems on unemployment rates**
Difference in percentage points with respect to enterprise bargaining. Stars show significance level.

![Bar chart showing the effect of collective bargaining systems on unemployment rates.

**Figure 26: Effect of collective bargaining systems on earnings quality and labor market insecurity**
Difference in percentage points with respect to enterprise bargaining. Stars show significance level.

![Bar chart showing the effect of collective bargaining systems on earnings quality and labor market insecurity.

Notes: Results are based on OLS regressions year and country fixed effects, industrial composition controls, demographic controls, and institutional controls. *p<0.10, **p<0.05, ***p<0.01.

Source: Own estimates based on OECD data.
SECTION 4: POLICY RECOMMENDATIONS: MOVING TOWARDS SECTORAL BARGAINING

This report has made a general case for broad-based collective bargaining as a promising solution to the dual challenges of wage stagnation and the declining labor share in the United States. Broad-based bargaining systems (either sectoral or more centralized systems) are associated with higher collective bargaining coverage rates, higher labor income shares, and higher growth rates in real compensation per capita. Broad-based bargaining systems are also correlated with other positive labor market outcomes, including higher employment rates, lower unemployment rates, and increased job satisfaction.

Policymakers in the U.S. have increasingly recognized the importance of restoring workers’ collective bargaining power. President Joe Biden released a plan on the 2020 campaign trail called “The Biden Plan for Strengthening Worker Organizing, Collective Bargaining, and Unions,” and remains committed in office to support organized labor, as evidenced by his recent pro-union message ahead of the Amazon union drive in Alabama. The U.S. House of Representatives also recently passed the Protecting the Right to Organize (PRO) Act on March 9, 2021 with a 225-206 vote, which would significantly improve protections for workers trying to organize and collectively bargain.

But even if the PRO Act advances in the senate (which remains highly unlikely), the enterprise-based bargaining system in the United States still suffers from the following 3 structural defects:

1. **Enterprise bargaining leads to high rates of exclusion.** This report has shown that enterprise bargaining systems systematically lead to much lower coverage rates than broad-based bargaining systems. With the exception of Luxembourg, every OECD country with predominantly enterprise bargaining has less than 40 percent of workers covered by collective bargaining agreements. On the other hand, every OECD country with predominantly broad-based bargaining has at least 50 percent of workers covered by collective bargaining agreements.
2. **Enterprise bargaining is incapable of responding to the changing structure of the labor market.** Over the past three decades, there has been a fundamental change in the employment relationship, as businesses have shed noncore workers through outsourcing, subcontracting, and misclassification of workers as independent contractors. While broad-based bargaining systems can expand the scope of bargaining across formal employment divides, enterprise based bargaining systems are structurally incapable of responding to the fissured workplace. In particular, this report has shown that since the 1980s, countries with enterprise bargaining have seen a significant drop in collective bargaining coverage, whereas countries with broad-based bargaining have retained stable coverage.

3. **Enterprise bargaining incentivizes conflict, rather than collaboration, between management and workers.** When bargaining happens at the firm level, employers have the incentive to fight unionization efforts in order to avoid any competitive disadvantage. For this reason, employers, shareholders, and business organizations like the U.S. Chamber of Commerce will continue to strongly oppose traditional unions – and policies that support these unions, such as the PRO Act.

A technically correct policy solution to restore workers’ collective bargaining power must address these three defects in the current U.S. system, while also minimizing any potential negative labor market effects. The policy solution must also take into consideration the politics of reform by paying attention to the power and interests of the following stakeholders: federations of unions (e.g. AFL-CIO, SEIU), individual labor interest groups (i.e. unions, worker councils), trade associations (e.g. U.S. Chamber of Commerce, Business Roundtable, the National Retail Federation), corporate management, shareholders, and American workers. Finally, the proposed solution must be administratively feasible – any administratively complex proposal should be implemented in a fragmented way, so that it can be piloted and experimented before scaling up.
4. 1. A Schedule of Policy Alternatives

Against this backdrop, we present a brief evaluation of some of the most common proposals to restore worker’s power in the United States:

<table>
<thead>
<tr>
<th>Policy Approach</th>
<th>Technically Correct</th>
<th>Administratively Feasible</th>
<th>Politically Supportable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status Quo</td>
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<tr>
<td>Strengthen traditional unions (e.g. PRO Act)</td>
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<tr>
<td>Create new forms of worker organization (“alt-labor”)</td>
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<tr>
<td>Establish tripartite industry committees</td>
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<td></td>
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<tr>
<td>Establish sectoral bargaining regime</td>
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**Strengthen traditional unions:** Most proposals to increase worker’s bargaining power in the U.S. revolve around increasing traditional union representation. The major legislative demand of the U.S. labor movement during the Obama years was card check procedures, which allow workers to form a union if a majority signs authorization cards stating they wish to be represented by the union. President Joe Biden’s plan for strengthening collective bargaining centers around the Protecting the Right to Organize (PRO) Act, which also focuses on making it easier for workers to unionize. While strengthening unions can deliver wage gains for workers in unionized workplaces (and in high union density industries via the “threat effect”), independently this approach is unlikely to reach a critical scale of workers, due to the three defects of enterprise-bargaining laid out above. Legislation such as the PRO Act also faces tremendous political resistance from trade association lobbies, corporate executives, shareholders, and conservative lawmakers.

**Create new forms of worker organization:** Over the past decade, there has been a proliferation in non-union labor groups that function outside of federal labor law (often called “alt labor”).
Examples of alt-labor include worker centers, which are community-based mediating institutions that provide support to low-wage workers, and industry or occupational initiatives, such as the Fight for $15, National Domestic Workers Alliance, and the Restaurant Opportunities Centers (ROC). These newer worker organizations have successfully raised minimum wages in cities and states, and have won critical reforms in local and stake workplace law. While non-union workers’ groups have promise in increasing worker compensation, they also have critical limitations as a standalone solution. Workers’ groups are limited by having no formal collective-bargaining rights, no stable financial base (since they are reliant on progressive foundations, rather than members’ dues), and they tend to be very small relative to the size of the workforce (Eidelson, 2013). Members of workers’ groups also still face the same resistance by employers as union members.

**Establish tripartite industry committees**: One approach to move towards worker representation at the sectoral level is for the Department of Labor to create a system of tripartite industry committees. These committees would consist of representatives of labor, business, and the public, and have the public mandate to set minimum wages and working conditions for a given sector. Limited examples of these tripartite committees already exist at the state and local level, such as the Industrial Welfare Commission Wage Orders in California, the Minimum Wage Advisory Commission in New Jersey, and the New York Minimum Wage Board (Madland, 2019). While industry committees could function in a similar way to sectoral bargaining panels and improve wages and working conditions, they still have several shortcomings. At the state and local level, tripartite wage boards would likely incentivize capital flight, and also face challenges of home rule and state preemption where hostile state governments can eliminate the ability of localities to enact minimum wages. For example, the Alabama state legislature recently voted to nullify a City of Birmingham law that would have increased the city’s minimum wage (Andrias, 2017). Tripartite industry committees also do not endow any formal collective bargaining rights, and thus workers’ bargaining position is not backed by the threat of strikes, lockouts, or other economic weapons (Andrias and Rogers, 2018). Thus, detached from other forms of worker empowerment, tripartite industry committees may not give workers’ adequate leverage at the bargaining table.

**Establish a sectoral bargaining regime**: Sectoral bargaining allows workers to negotiate for wages and benefits at the industry-level, which can greatly expand collective bargaining coverage,
address the challenges presented by the fissured workplace, and ensure that similar firms have similar labor costs so that firms to do not have any competitive disadvantages. This report has also suggested that sectoral bargaining can be effective at increasing the labor share and wage growth, while not having any negative effect on employment or unemployment. There are two key limitations, however, that would need to be addressed:

- 1) A full-fledged sectoral bargaining regime would require the passing of a new federal labor statute, which is both administratively and politically complex. This statute would need to lay out the ground rules of the sectoral bargaining system, including a process for defining and creating sectoral bargaining units (would the bargaining units be created by the Secretary of Labor or through petitions from worker organizations?), a process to ensure fair representation of workers and employers, and a process for defining the scope of bargaining and enforcement mechanisms. A new federal labor statute would also face significant political resistance from most trade associations and corporations – particularly small businesses which might have limited bargaining power in a sectoral bargaining system.

- 2) Sectoral bargaining is most effective when it works as a complement, rather than a substitute, to enterprise bargaining. Throughout continental Europe, sectoral bargaining has historically been most effective where organized labor is already strong (OECD, 2019). Unions need to be strong enough to both adequately represent workers and to compel employers to bargain in good faith. A real concern in the United States is that sectoral bargaining can have the unintended consequence of empowering employers to bargain down labor standards below statutory levels. For example, powerful gig economy platforms such as Uber and Lyft have promoted sectoral bargaining as an alternative to classifying workers as employees, presumably because of the disproportionate bargaining power these companies would have vis-à-vis independent contractors.

Taking these considerations into account, we present our policy recommendations in the subsequent section.
4.2. Policy Recommendation: Laying the groundwork for sectoral bargaining

Our long-term recommendation is to establish a sectoral bargaining regime on top of existing labor law, which would provide workers the power to negotiate for minimum wages and labor standards at the industry level. Sectoral bargaining can 1) vastly extend bargaining coverage to American workers, 2) overcome the problems of the fissured workplace, and 3) disincentivize conflict in the workplace by creating an even playing field for firms across industries. The findings of this report also present broad empirical evidence that sectoral bargaining can increase labor’s share of income and raise wages.

While sectoral bargaining can go a long way in restoring America’s middle class in the long run, it must be complemented with other policy reforms in order to work effectively. Establishing a sectoral bargaining regime is a long-term legislative goal that requires reforms in the near-term to lay the groundwork for a new federal labor law to emerge. These near-term goals should aim to address the three fundamental defects in our current enterprise system, while also offering opportunities to experiment with new forms of representation that can provide the foundation for a well-designed sectoral bargaining system in the future. These recommendations are summarized in the box below:

**Laying the groundwork for an effective sectoral bargaining regime**

1. **Extend legal bargaining rights to all workers excluded from the NLRA** – Sectoral bargaining must work as a complement to enterprise bargaining, not as a substitute. To this end, we recommend extending bargaining coverage to workers not covered as statutorily defined employees in the NLRA.

2. **Strengthen the capacity of organized labor** – Sectoral bargaining must be built on an already strong labor movement to ensure workers have fair representation in sectoral negotiations, and to curtail disproportionate bargaining power on behalf of employers. We recommend strengthening the right to organize through many of the provisions laid out in the PRO Act.

3. **Experiment with tripartite committees at the federal level** – Federal wage boards that have representation by workers, employers, and the public offers a promising short-term solution to bolster wages at the industry level. We recommend the DOL experiment with the creation of federal wage commissions in several low-wage sectors.
1. **Extend legal bargaining rights to all workers excluded from the NLRA.** A sectoral bargaining regime must prioritize inclusion and complementarity with enterprise bargaining. To this end, collective bargaining rights need to be extended to workers currently excluded from the NLRA. This would include domestic and agricultural workers, as well as independent contractors and workers in the gig-economy. In the near-term, the NLRA should be amended to include the ABC test, which establishes a presumption that all workers are employees unless the employer can prove that it does not exert control over the workers, that the work performed is outside the usual scope of the employer’s business, and that the workers are engaged in an independent trade, occupation or business (Block and Sachs, 2019).

2. **Strengthen the capacity of organized labor.** A sectoral bargaining regime can only work effectively if it has organized and democratic worker organizations already in place to act as the bargaining representative. This is important for two reasons: 1) since sectoral bargaining brings together employer organizations (who would be exempted from anti-trust under labor law), it runs the risk of having terms dictated by these employers if workers do not have strong organization. Worker representatives must be able to come to the bargaining table with a credible threat of mass worker action in order to have adequate bargaining leverage against employers. 2) Workers need to be fairly represented in industry negotiations, which requires strengthened workplace organization to give workers adequate voice. In order to strengthen the capacity of organized labor, we recommend passing legislation that makes it easier for workers to organize, including overriding “right-to-work” laws, restricting employee interference in union elections, and establishing monetary penalties for executives that violate workers’ organizing rights (all of which are included as part of the PRO Act).

3. **Experiment with tripartite commissions at the federal level.** A sectoral bargaining regime ultimately must create an administrative system of sectoral bargaining panels that allows unions to bargain with employer associations. As a step in this direction, the Department of Labor can begin experimenting with tripartite commissions, which would bring together workers, employers, and public experts to recommend wage levels to an administrative agency for a given sector. While these committees would not offer formal collective bargaining rights, they can act as a bridge to provide a democratic platform for worker organizations and
businesses to consult the government in setting fair wages on a sectoral basis (Andrias and Rogers, 2018). Here, the Department of Labor still has the ultimate decision-making authority, rather than workers and employers, but the process can serve as a catalyst to increase worker participation in sectoral wage setting.

4.3. Conclusion

The decline of worker’s bargaining power over the last four decades has coincided with a steep rise in income inequality in the United States. While these trends are seen across OECD countries, the problem is most profound where enterprise-based bargaining dominates. The United States needs to innovate in its labor law in order to expand collective bargaining rights to more workers, and move towards a system where bargaining can take place at the sectoral level, rather than at the firm level. To be sure, the vision laid out in this report is bold in its recommendations and is unlikely to be achieved in the short term. But we hope that it provides a path forward for collective bargaining reform in the United States, and can ultimately lay the groundwork for a full-fledged sectoral bargaining system to emerge.
References


National Labor Rights Act (NLRA), 1935


Declining labor share of income in the U.S.

- **Technology change**
  - Advances in information technology and automation
  - Decline in the relative price of investment goods
  - Increased elasticity of demand for labor
  - Karabarbounis and Neiman (2014): lower price of investment goods explains half of the observed decline in global labor share
  - Autor and Salomons (2018): Automation has been labor-share displacing in OECD counties over last four decades
  - Dao et al (2017): tech explains half of overall decline in labor share of income

- **Globalization**
  - Increased trade and international outsourcing
  - Offshoring of labor-intensive part of U.S. supply chain
  - Elsby et al (2013): offshoring is leading potential explanation of decline in U.S. labor share over past 25 years
  - Abdih and Danninger (2017): fall in labor share largest in industries w/ high level of import competition & foreign input usage

- **Declining worker power**
  - Increase in shareholder power/activism
  - Increased workplace fissuring (Weil, 2019)
  - Dube and Kaplan (2010): outsourced janitors/guards lose wage premium
  - Mishel (2018): staffing agencies decrease manu. wage premium

- **Increasing monopsony power**
  - Institutional changes reducing unionization and union bargaining power
  - Private sector union membership down from one third in 1950s to 6% today
  - Antagonistic labor law since 1970s: attacks on union rights & low enforcement
  - Hazell (2019): expansion of right-to-work laws reduced state-level labor shares
  - Firm based model of organizing and bargaining has undermined collective bargaining

- **Increasing monopoly power**
  - Increased labor market concentration and/or labor market frictions
  - Increased barriers to entry and decrease in competition
  - Aggregate firm markups increased, generating pure profits
  - Furman and Krueger (2016): hiring hasn’t kept pace with job openings, 20% workers sign non-compete agreements
  - Benmelech, Bergman, and Kim (2019): monopsonies influence wage-setting behavior; made worse when unionization rates are low

- **Areas of focus**
  - De Loecker et al (2020): markups rose from 21% to 61% since 1980
  - Covarrubias et al (2019): high levels of inefficient concentration since 2000
  - Autor et al (2020): reallocation of economic activity toward high mark-up, large firms
### Appendix 2: Classification of bargaining systems

<table>
<thead>
<tr>
<th>Country</th>
<th>1980 classification</th>
<th>2017 classification</th>
</tr>
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<tbody>
<tr>
<td>Australia</td>
<td>Sectoral with strong coordination</td>
<td>Sectoral with firm-level flexibility</td>
</tr>
<tr>
<td>Austria</td>
<td>Predominantly centralized</td>
<td>Sectoral with firm-level flexibility</td>
</tr>
<tr>
<td>Belgium</td>
<td>Sectoral with strong coordination</td>
<td>Predominantly centralized</td>
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<td>Enterprise</td>
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<tr>
<td>Czech Republic</td>
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<td>Enterprise</td>
</tr>
<tr>
<td>Denmark</td>
<td>Predominantly centralized</td>
<td>Sectoral with firm-level flexibility</td>
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<td>Estonia</td>
<td>Enterprise</td>
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<td>France</td>
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<td>Sectoral with firm-level flexibility</td>
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<td>Germany</td>
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<td>Japan</td>
<td>Enterprise</td>
<td>Enterprise</td>
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<td>Korea</td>
<td>Enterprise</td>
<td>Enterprise</td>
</tr>
<tr>
<td>Latvia</td>
<td>Enterprise</td>
<td>Enterprise</td>
</tr>
<tr>
<td>Lithuania</td>
<td>Enterprise</td>
<td>Enterprise</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>Enterprise</td>
<td>Enterprise</td>
</tr>
<tr>
<td>Netherlands</td>
<td>Sectoral with strong coordination</td>
<td>Sectoral with strong coordination</td>
</tr>
<tr>
<td>New Zealand</td>
<td>Predominantly centralized</td>
<td>Enterprise</td>
</tr>
<tr>
<td>Norway</td>
<td>Predominantly centralized</td>
<td>Sectoral with firm-level flexibility</td>
</tr>
<tr>
<td>Poland</td>
<td>N/A</td>
<td>Enterprise</td>
</tr>
<tr>
<td>Portugal</td>
<td>Sectoral with strong coordination</td>
<td>Sectoral with firm-level flexibility</td>
</tr>
<tr>
<td>Slovak Republic</td>
<td>N/A</td>
<td>Enterprise</td>
</tr>
<tr>
<td>Slovenia</td>
<td>N/A</td>
<td>Sectoral with firm-level flexibility</td>
</tr>
<tr>
<td>Spain</td>
<td>Predominantly centralized</td>
<td>Sectoral with strong coordination</td>
</tr>
<tr>
<td>Sweden</td>
<td>Predominantly centralized</td>
<td>Sectoral with firm-level flexibility</td>
</tr>
<tr>
<td>Switzerland</td>
<td>Sectoral with strong coordination</td>
<td>Sectoral with strong coordination</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>Sectoral with firm-level flexibility</td>
<td>Enterprise</td>
</tr>
<tr>
<td>United States</td>
<td>Enterprise</td>
<td>Enterprise</td>
</tr>
</tbody>
</table>

---

Note: Chile, Mexico, and Turkey are excluded from this analysis due to data constraints.
### Appendix 3: Empirical results

**Table 1: Effect of collective bargaining systems on labor income shares and compensation**

*OLS regressions using taxonomy of collective bargaining systems for 27 countries, 1985 - 2017*

<table>
<thead>
<tr>
<th></th>
<th>Adjusted Labor Income Share</th>
<th>Growth in total labor compensation per capita</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td><strong>Sectoral with firm-level flexibility</strong></td>
<td>0.025**</td>
<td>0.018</td>
</tr>
<tr>
<td></td>
<td>(0.010)</td>
<td>(0.011)</td>
</tr>
<tr>
<td><strong>Sectoral with coordination</strong></td>
<td>0.055***</td>
<td>0.028**</td>
</tr>
<tr>
<td></td>
<td>(0.014)</td>
<td>(0.010)</td>
</tr>
<tr>
<td><strong>Predominantly centralized</strong></td>
<td>0.018</td>
<td>-0.003</td>
</tr>
<tr>
<td></td>
<td>(0.011)</td>
<td>(0.011)</td>
</tr>
<tr>
<td>L1.<strong>Sectoral with firm-level flexibility</strong></td>
<td>0.010</td>
<td>0.015*</td>
</tr>
<tr>
<td></td>
<td>(0.010)</td>
<td>(0.007)</td>
</tr>
<tr>
<td>L1.<strong>Sectoral with coordination</strong></td>
<td>0.002</td>
<td>0.008</td>
</tr>
<tr>
<td></td>
<td>(0.010)</td>
<td>(0.007)</td>
</tr>
<tr>
<td>L1.<strong>Predominantly centralized</strong></td>
<td>0.002</td>
<td>0.005</td>
</tr>
<tr>
<td></td>
<td>(0.011)</td>
<td>(0.008)</td>
</tr>
<tr>
<td>L2.<strong>Sectoral with firm-level flexibility</strong></td>
<td>-0.016</td>
<td>-0.002</td>
</tr>
<tr>
<td></td>
<td>(0.013)</td>
<td>(0.019)</td>
</tr>
<tr>
<td>L2.<strong>Sectoral with coordination</strong></td>
<td>-0.004</td>
<td>-0.004</td>
</tr>
<tr>
<td></td>
<td>(0.012)</td>
<td>(0.016)</td>
</tr>
<tr>
<td>L2.<strong>Predominantly centralized</strong></td>
<td>-0.034***</td>
<td>-0.022</td>
</tr>
<tr>
<td></td>
<td>(0.009)</td>
<td>(0.014)</td>
</tr>
</tbody>
</table>

**Wald test - Cumulative effects**

|                          | 0.02*                      | 0.031**   | 0.033***  | 0.041***  | 0.016     | 0.013     | 0.029***  | 0.035***  |
|                          | 0.054***                   | 0.031**   | 0.032**   | 0.036***  | 0.006     | 0.012     | 0.018*    | 0.021*    |
| **Predominantly centralized** | -0.014**                   | -0.021**  | -0.019*   | 0.012     | 0.005     | 0.003     | 0.011     | 0.020*    |

**Industrial Composition controls**

|                          | No                         | Yes       | Yes       | Yes       | No         | Yes       | Yes       | Yes       |
| Fixed effects            | None                       | None      | Yr        | Yr, Country | None       | None      | Yr        | Yr, Country |
| Observations             | 890                        | 890       | 890       | 890       | 890        | 890       | 890       | 890       |
| R-squared                | 0.466                      | 0.762     | 0.775     | 0.906     | 0.309      | 0.356     | 0.410     | 0.511     |

*Notes: OLS regressions show effects relative to countries with enterprise bargaining systems. Robust standard errors, clustered at the country level, in parentheses. *p<0.10, **p<0.05, ***p<0.01*
### Table 2: Effect of collective bargaining systems on employment indicators

*OLS regressions using taxonomy of collective bargaining systems for 27 countries, 1985 - 2017*

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>(7)</th>
<th>(8)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Employment rate</td>
<td>Employment rate</td>
<td>Female employment rate</td>
<td>Female employment rate</td>
<td>Incidence of part-time employment</td>
<td>Incidence of part-time employment</td>
<td>Youth employment rate</td>
<td>Youth employment rate</td>
</tr>
<tr>
<td>Sectoral with firm-level flexibility</td>
<td>2.792*</td>
<td>1.572*</td>
<td>3.199***</td>
<td>1.072</td>
<td>8.744***</td>
<td>0.618</td>
<td>13.476***</td>
<td>5.263***</td>
</tr>
<tr>
<td></td>
<td>(1.498)</td>
<td>(0.881)</td>
<td>(1.441)</td>
<td>(0.962)</td>
<td>(1.567)</td>
<td>(0.801)</td>
<td>(3.559)</td>
<td>(2.218)</td>
</tr>
<tr>
<td>Sectoral with coordination</td>
<td>4.363**</td>
<td>1.976***</td>
<td>5.014**</td>
<td>1.472</td>
<td>10.940***</td>
<td>0.492</td>
<td>14.148***</td>
<td>4.210*</td>
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<tr>
<td></td>
<td>(1.877)</td>
<td>(0.959)</td>
<td>(1.928)</td>
<td>(1.032)</td>
<td>(1.651)</td>
<td>(0.773)</td>
<td>(4.130)</td>
<td>(2.312)</td>
</tr>
<tr>
<td></td>
<td>(1.719)</td>
<td>(0.926)</td>
<td>(1.706)</td>
<td>(0.957)</td>
<td>(1.764)</td>
<td>(0.766)</td>
<td>(4.025)</td>
<td>(2.487)</td>
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<td>No</td>
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<td>No</td>
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<tr>
<td>Year Fixed Effects</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>986</td>
<td>986</td>
<td>1089</td>
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<tr>
<td>R-squared</td>
<td>0.664</td>
<td>0.910</td>
<td>0.877</td>
<td>0.970</td>
<td>0.570</td>
<td>0.962</td>
<td>0.592</td>
<td>0.891</td>
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Notes: OLS regressions show effects relative to countries with enterprise bargaining systems. All regressions include industrial composition, institutional, and demographic controls. Robust standard errors, clustered at the country level, in parentheses. *$p<0.10$, **$p<0.05$, ***$p<0.01$
### Table 3: Effect of collective bargaining systems on unemployment indicators

*OLS regressions using taxonomy of collective bargaining systems for 27 countries, 1985 - 2017*

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>(7)</th>
<th>(8)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Unemployment rate</td>
<td>Unemployment rate</td>
<td>Female unemployment rate</td>
<td>Female unemployment rate</td>
<td>Low-skilled unemployment rate</td>
<td>Low-skilled unemployment rate</td>
<td>Youth unemployment rate</td>
<td>Youth unemployment rate</td>
</tr>
<tr>
<td>Sectoral with firm-level flexibility</td>
<td>-0.504 (1.143)</td>
<td>-1.565** (0.753)</td>
<td>-0.441 (1.325)</td>
<td>-0.461 (1.253)</td>
<td>-2.652 (1.678)</td>
<td>-1.377 (1.658)</td>
<td>-3.658* (2.046)</td>
<td>-0.247 (1.845)</td>
</tr>
<tr>
<td>Sectoral with coordination</td>
<td>-0.509 (1.364)</td>
<td>-1.439* (0.758)</td>
<td>0.177 (1.522)</td>
<td>-0.049 (1.196)</td>
<td>-3.725* (2.085)</td>
<td>-0.661 (1.500)</td>
<td>-1.664 (2.356)</td>
<td>-2.211 (1.990)</td>
</tr>
<tr>
<td>Predominantly centralized</td>
<td>-1.754 (1.309)</td>
<td>-2.302** (0.916)</td>
<td>-1.472 (1.427)</td>
<td>-2.616** (1.271)</td>
<td>-4.713*** (1.803)</td>
<td>-3.570** (1.583)</td>
<td>-3.399 (2.309)</td>
<td>-4.559** (2.107)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>Yes</th>
<th>No</th>
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<th>No</th>
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<td>1089</td>
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<td></td>
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</tr>
<tr>
<td>R-squared</td>
<td>0.219</td>
<td>0.686</td>
<td>0.287</td>
<td>0.736</td>
<td>0.276</td>
<td>0.801</td>
<td>0.342</td>
<td>0.758</td>
<td></td>
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</tbody>
</table>

*Notes: OLS regressions show effects relative to countries with enterprise bargaining systems. All regressions include industrial composition, institutional, and demographic controls. Robust standard errors, clustered at the country level, in parentheses. *p<0.10, **p<0.05, ***p<0.01*
### Table 4: Effect of collective bargaining systems on job quality and labor market insecurity

**OLS regressions using taxonomy of collective bargaining systems for 27 countries, 2005 - 2017**

<table>
<thead>
<tr>
<th></th>
<th>Earnings quality</th>
<th>Labour market insecurity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td><strong>Sectoral with flexibility</strong></td>
<td>6.224***</td>
<td>-2.108*</td>
</tr>
<tr>
<td></td>
<td>(1.707)</td>
<td>(1.218)</td>
</tr>
<tr>
<td><strong>Sectoral with coordination</strong></td>
<td>9.384***</td>
<td>-0.805</td>
</tr>
<tr>
<td></td>
<td>(1.876)</td>
<td>(1.798)</td>
</tr>
<tr>
<td><strong>Predominantly centralized</strong></td>
<td>8.567***</td>
<td>-4.037***</td>
</tr>
<tr>
<td></td>
<td>(3.100)</td>
<td>(1.456)</td>
</tr>
<tr>
<td><strong>Year Fixed Effects</strong></td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Country Fixed Effects</strong></td>
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<td>No</td>
</tr>
<tr>
<td><strong>Observations</strong></td>
<td>389</td>
<td>326</td>
</tr>
</tbody>
</table>
| **R-squared**            | 0.758            | 0.380                    

Notes: OLS regressions show effects relative to countries with enterprise bargaining systems. Earnings quality captures extent to which earnings contribute to workers' well being, and labor market insecurity captures those aspects of economic security related to the risks of job loss. All regressions include industrial composition, institutional controls, and demographic controls. Country fixed effects are omitted due to the shorter time period based on data availability. Robust standard errors clustered at the country level in parentheses. *p<0.10, **p<0.005, ***p<0.001