

Annual Review of Law and Social Science What Unions Do for Regulation

Alison D. Morantz

School of Law, Stanford University, Stanford, California 94305–8610; email: amorantz@law.stanford.edu

Annu. Rev. Law Soc. Sci. 2017. 13:515-34

The Annual Review of Law and Social Science is online at lawsocsci.annualreviews.org

https://doi.org/10.1146/annurev-lawsocsci-120814-121416

Copyright © 2017 by Annual Reviews. All rights reserved



Keywords

unions, unionism, organized labor, regulation, enforcement, outcomes

Abstract

The question of how organized labor affects the content, enforcement, and outcomes of regulation is especially timely in an era in which protective laws and regulations are being scaled back or minimally enforced and union membership is in decline. This article surveys literature from a wide array of regulatory domains—antidiscrimination, environmental protection, product quality, corporate governance, law enforcement, tax compliance, minimum wage and overtime protection, and occupational safety and health—in an effort to identify common findings on what unions do for regulation. Literature on the topic has taken up five questions: how labor unions affect the passage of protective laws and regulations; how they affect the outcomes that regulators target; how they affect the intensity of regulatory enforcement; the specific activities and channels of influence they use to influence regulated outcomes; and the role they play in self-regulation. Drawing on empirical literature from the domains listed, I review and analyze literature on each of these questions and offer several conclusions and suggestions for future research.

INTRODUCTION

One of the most influential works of labor economics from the latter twentieth century is What Do Unions Do? by Freeman & Medoff (1984). In this study, the authors contend that prior theoretical literature describes two models, or "faces," of trade unionism. Most economists emphasize the "monopoly face," which presumes that unions exploit their monopoly power to raise wages above competitive levels, thereby inefficiently lowering employment and output. The alternative "collective voice/institutional response face," building on Hirschman's (1970) classic work, characterizes unionism as a "vehicle for collective voice" that, in enabling workers to communicate effectively with management instead of quitting, has beneficial economic effects (Freeman & Medoff 1984, p. 8). Freeman & Medoff consider an array of theoretical and empirical scholarship, as well as primary data, to determine which of these faces garners more support. They find that "the positive elements of the voice/response face of unions offset or dominate the negative elements of the monopoly face" (Freeman & Medoff 1984, p. 247), and that popular portrayals of unions as corrupt, discriminatory, and rent-seeking special interest groups are overdrawn. On balance, they suggest, unions tend to reduce wage inequality and further the passage of social legislation that improves the welfare of all workers (pp. 247-48). On the basis of these findings, they conclude that the level of union density is "below the optimal level," and that US labor law should be revised to more effectively safeguard workers' right to unionize (p. 250).

A 20-year retrospective volume with the same name, edited by Bennett & Kaufman (2007), revisits many questions from Freeman & Medoff's work. Drawing on more recent scholarship, this volume contains a number of evaluations and extensions of the original study. Most notably, in a critique of the prior work's theoretical framework, Kaufman (2007) contends that unions have a third face, the "positive monopsony-reducing face." In the presence of widespread labor market imperfections that constrain competition and labor mobility, the monopsony-reducing face "capture[s] the idea that unions are necessary to offset employer power in the labor market and firm, thus protecting workers from managerial abuse and substandard wages and working conditions" (p. 40).

In addition to reviewing theory and evidence regarding the effect of unionism on readily quantifiable labor market outcomes, both the original study and the retrospective volume conceptualize unions as political interest groups that exert influence on the national stage. Each work includes a chapter on unions' political power. In the first study, Freeman & Medoff consider a variety of strategies that unions employ to affect political outcomes, such as urging their members to support specific policies or candidates, funding pro-labor candidates, and getting out the vote. They also present evidence that the intensity of union support correlates with the votes of individual legislators. However, they find no support for the notion that unions' monopoly face significantly shaped the passage of federal legislation in the latter twentieth century. Although unions occasionally mounted legislative campaigns designed to increase their own influence, these efforts almost invariably failed (pp. 202–4). At best, unions managed only to prevent business interests from dismantling existing labor law protections. The only regard in which unions experienced significant legislative success was in helping to pass broad-based social reforms, the benefits of which accrued not just to organized labor but to all workers and lower-income individuals.

In the retrospective volume, Masters & Delaney (2007, p. 497) adopt a strategic-choice framework in which "political action emerges as one among several strategies in the union arsenal." Drawing on their review of more recent literature, the authors reach conclusions similar to those reported by Freeman & Medoff. They find positive correlations between pro-union legislative voting and, respectively, union density and union lobbying expenditures. They also suggest that around the turn of the millennium, the labor movement offset some of the declines in private-sector union density with greater political action, including higher spending on elections and

lobbying and intensified efforts to increase voter turnout (p. 509). Yet the authors also underscore a theoretical paradox: "Union political success may erode political support for unions" (p. 513). To the extent that unions win passage of broad-based social reforms that improve conditions for all workers (e.g., higher minimum wages, stronger overtime protection, enhanced workplace safety, more generous pensions and unemployment insurance), they lessen the marginal benefit to workers of joining a union and, consequently, make it more difficult to expand their membership base.

Absent from both volumes is a detailed examination of the relationship between unionism and regulation in public policy domains that do not directly affect unions' political power. Freeman & Medoff suggest that unions' support for legislation that affects workers' ability to organize or their collective bargaining rights reveals the monopoly face of unionism, whereas unions' support for broader social legislation that affects all workers manifests their collective voice/institutional response face. In the retrospective volume, Masters & Delaney likewise distinguish between legislation that affects the power of organized labor and legislation that is designed to effectuate broader social goals. However, the authors of both volumes focus exclusively on the enactment of federal laws and fail to clarify which specific reforms the second, broader type of legislation encompasses.

The goal of this review is to critically analyze literature that probes the relationship between unions and regulation in policy domains that do not pertain to collective bargaining (or organizing) rights. Although I devote some attention to unions' influence over the passage of general protective legislation, my primary focus is on how unionism mediates the effects of legislation: how regulatory agencies construe and implement it, how inspectors enforce it, the extent to which firms comply with it, and whether labor market forces promote or impede it. These questions are particularly timely in an era when many protective regulations are being decentralized, dismantled, or minimally enforced. In such a political climate, understanding unions' influence on the efficacy of existing protective regulations is just as important as, and perhaps even more important than, assessing unions' capacity to pass (or block) new legislative reforms. A fuller accounting of what unions do for regulation—a question that neither Freeman & Medoff's original work nor subsequent scholarship has addressed in a thoroughgoing fashion—provides a more complete picture of unions' social function and value.

To undertake this survey, I examined literature from eight regulatory domains: antidiscrimination, product quality, corporate governance, law enforcement, tax compliance, wage and hour laws, environmental issues, and occupational safety and health (OSH). The works examined drew on a variety of social scientific disciplines and relied on both quantitative and qualitative methodologies. I also reviewed studies that explore the relationship between unions and regulation in a more theoretical fashion, identifying union-related trends that could affect the formulation or enforcement of regulations. Although I cannot claim to have reviewed all relevant scholarship, I tried to obtain and synthesize the majority of English-language sources available.

My review suggests that scholars have taken up five questions regarding the relationship between regulation and unionism. First, a cluster of scholarship, primarily qualitative in nature, examines the effect of unions on the passage of protective laws and regulations. A second line of inquiry explores the impact of organized labor on the outcomes of regulation, including regulatory compliance and levels of workplace hazards. A third body of work probes the effect of unionism on the intensity of regulatory enforcement, such as the frequency of inspections and the amount of monetary penalties imposed on violators. The fourth area of research analyzes some of the specific union-related institutions and practices that influence regulated outcomes. Finally, the fifth cluster of scholarship describes unions' role in self-regulation—that is, programs or mechanisms implemented at the firm or industry level that enable companies to monitor their own compliance with regulatory mandates.

Before proceeding with a survey of existing literature, two important caveats are in order. First, none of the literature examined bears directly on the question of whether unionism enhances social welfare. As Freeman & Medoff (1984, pp. 205–6) note with reference to their analysis of union political power,

Where unions have favored "liberal" legislation, liberals see social gain and conservatives see social losses. Where unions have favored conservative policies, the converse is true. In short, "union voice" can produce socially good or bad results, depending on one's perspective on the general social legislation.

The same point applies to the foregoing analysis. If the presence of organized labor alters the content, enforcement, or outcomes of regulations in a particular domain, whether this result is efficiency enhancing depends largely on the social costs and benefits of the regulations in question. Yet because the efficiency of many social regulations is a matter of ongoing debate, the most that can be said regarding unions' influence is whether it seems consistent with the three faces of unionism described earlier.

Second, from an empirical standpoint, the conclusions reached here should be regarded as tentative given the inherent methodological difficulty of isolating unionism's impact. In jurisdictions in which union density is low, unionized firms are likely to differ in systematic ways from nonunionized firms, which makes it difficult to disentangle the effect of unionism from the effects of other characteristics with which it is correlated. For example, because most unionized establishments are large, it is often hard to distinguish the effect of unions from the effect of firm size. Disparities between union and nonunion establishments that cannot be directly observed pose even more weighty methodological challenges. If one such characteristic (for example, a workplace climate that discourages worker participation) is a primary impetus for workers to unionize in the first place, statistical estimates of unionism's effect will be biased. Another important limitation is researchers' frequent inability to make fine-grained distinctions between unions based on their organizational characteristics and activities. Even if such information could be obtained, it would be prohibitively expensive to acquire in many contexts. As a result, most large-scale econometric studies treat all unions in a given sample as undifferentiated entities. Although often unavoidable, this simplification fails to illuminate which aspects of unionism are the most critical in affecting regulatory outcomes. Finally, because what unions do and how they do it varies widely across industries, it is dangerous to generalize results from one environment to other industrial sectors. The same concern applies even more forcefully to cross-country comparisons given that the legal and regulatory contexts in which unions operate vary dramatically across borders.

THE EFFECT OF UNIONS ON PROTECTIVE LAWS AND REGULATIONS

A sizable body of scholarship regarding specific public policy domains bears out the claim that unions have helped pass protective legislation that benefits union and nonunion workers alike. In the United States, for example, the role of the labor movement in securing the passage of landmark protective labor legislation in the United States—such as the Fair Labor Standards Act of 1938, the Civil Rights Act of 1964, and the Occupational Safety and Health Act of 1970—is well documented (e.g., Bennett & Taylor 2001, Donnelly 1982, Hall 2005, Korstad & Lichtenstein 1988, MacLaury 1981, Samuel 2000). English-language studies on other Western countries, focusing primarily on the OSH domain, contain broadly similar observations. For example, a series of studies by Walters (1987, 1996, 2001, 2004, 2006) and Walters and coauthors (Walters & Denton 1990, Walters & Nichols 2009, Walters et al. 2011) provide thoughtful accounts, rich with political and institutional detail, of the influence of trade unions on OSH governance in the United Kingdom,

Europe, Canada, and Australia. Nichols (1997, pp. 139–40) argues that the decline of organized labor's influence over policy making in the United Kingdom in the 1980s accounted for the contemporaneous rise in manufacturing injuries. Hardy (2011) describes ways in which Australia's workplace regulatory agency actively sought (and received) the assistance of trade unions and other non-state actors in formulating a variety of protective labor laws around the turn of the millennium, although Quinlan & Johnstone (2009) suggest that recent neoliberal reforms have limited unions' ability to influence OSH issues at the federal level.

A handful of industry-specific studies describe unions' legislative influence in a more granular fashion. For example, Tucker (1992) describes the passage of a law in the early twentieth century that allowed unions to directly influence mine safety in Sweden. In a similar vein, Wallace (1987) argues that the decline in fatal and nonfatal mining injuries in the United States from 1930 to 1982 was due to unions' role in strengthening state and federal safety laws. DiMartino & Wirth (1990) focus on the exploitation of white-collar workers engaging in telework and describe efforts by European and US labor unions to pass stronger protective laws in such settings. In a study of home-based work and outsourcing, Quinlan & Bohle (2008) describe several instances in which union-led media campaigns in Western countries spurred the passage of protective OSH legislation, while observing that the overall weakness of organized labor has impeded more extensive reforms.

A particularly fertile line of inquiry has been (real or imagined) political collaborations between organized labor and environmental activists. Much scholarship in this area (e.g., Burgmann 2012, Norton 2003, Rathzel & Uzzell 2012, Rossman 2012) is theoretical and normative, describing ways in which labor–environmentalist alliances can or should be formed. Some studies, however, draw upon survey findings or quantitative data. Minet (1975) and Rose (2003) present both survey data and historical examples of successful collaborations to illustrate the potential scope of labor involvement in environmental reform. Survey findings presented by Obach (2002, 2004) also suggest that there is a significant complementarity of interests between unions and environmentalists. An analysis of state-level data by Yandle (1983), however, finds no compelling evidence to support the hypothesis that union members demand stronger environmental laws. A more nuanced study by Fredricksson & Gaston (1999), reporting that labor is more likely to support stronger environmental protection when union jobs are not at risk, helps reconcile these disparate findings.

A limitation of this scholarship is that it rarely differentiates between unionism's influence on the passage of protective legislation from its influence on the ways such laws are construed and implemented through regulatory rulemaking and administration. A few noteworthy exceptions examine the OSH domain. Weinstock & Failey (2014) document the key role of labor unions in persuading federal regulatory agencies to promulgate regulations that have reduced workers' exposure to numerous workplace hazards. Slatin (2009) offers a highly polemical account of the labor movement's role in protecting hazardous waste remediation workers and first responders. The author contends that labor unions' choice to house the newly authorized Workers Education and Training Programs (WETP) at the National Institutes of Health's National Institute of Environmental Health Sciences (NIEHS) instead of the National Institute of Occupational Safety and Health (NIOSH), and their ongoing collaboration with agency officials, largely accounts for the success of the innovative program. In a detailed case study of the offshore oil and gas industry, Bieder & Bourrier (2013) compare US and Norwegian approaches toward OSH regulation. The distinguishing features of the Norwegian model include a tripartite self-regulatory body composed of regulators, industry, and unions and the close involvement of organized labor in the formulation of company-specific safety plans. Unions in the United States, however, have little or no direct influence on the content of highly proceduralized, inflexible, and fragmented rules. Outside of the OSH arena, literature on unionism and administrative implementation is sparse and cursory. Although two studies of police unions (Juris 1971, Walker 2008) usefully acknowledge that organized labor can influence the day-to-day administration of state and local law enforcement, neither contains any quantitative analysis.

Taken as a whole, the scholarship concerning the effect of unionism on protective laws and regulations echoes the findings of Freeman & Medoff. Union involvement has helped secure the passage of federal protective legislation in areas such as OSH, fair labor standards, and equal employment opportunity. Furthermore, organized labor has played an important role in the promulgation of new regulations and in the implementation of agency mandates in the OSH domain. In these regards, the collective voice/institutional response face of unionism appears to dominate its monopoly face. In fact, the way in which organized labor has exerted its political influence calls to mind the "paradox" described by Masters & Delaney: To the extent that unions have helped raise the floor of legal protection for union and nonunion workers alike, they may have eroded their own power base by attenuating unorganized workers' desire to unionize. Yet the literature's widespread reliance on case studies and its almost exclusive focus (outside the OSH arena) on unions' role in the enactment of federal legislation are significant shortcomings. Without more extensive analysis of how unions affect agencies' exercise of their authority to interpret statutes and promulgate regulations, it is difficult to draw broad conclusions.

THE EFFECT OF UNIONS ON OUTCOMES THAT REGULATORS TARGET

Unions can affect the outcomes of regulation in two ways. First, they can improve firms' adherence to regulatory mandates. Second, they can reshape the labor market in ways that promote the objectives pursued by regulators.

The vast majority of empirical literature on the relationship between unions and regulated outcomes pertains to workplace safety and health. The first strand of such scholarship, focusing on adherence to OSH regulations, usually reports a positive correlation between unionism and levels of regulatory compliance. For example, Grob's (1998) detailed study of the New York construction industry finds that unionized companies were less likely to violate safety standards, results that are qualitatively similar to those reported by Weil's (2001) nationwide study of the same industry. Boden (1977), Morse et al. (2003), Fenn & Ashby (2004), Morantz (2013), and Amick et al. (2015) also report findings consistent with the view that compliance with injury reporting regulations is higher in unionized establishments. Although Weil (1991) finds that unionized establishments in the US manufacturing sector are cited for more violations than their nonunionized counterparts, this disparity may reflect not lower levels of compliance but rather exposure to more rigorous inspections (a point taken up in the next section). Worrall & Butler (1983), Hirsch et al. (1997), and Morse et al. (2003) find that unionism increases the likelihood of receiving workers' compensation benefits in the United States. Smith (1986) reports that OSH complaints originate disproportionately from unionized workplaces, a finding that the author construes as substantiating unions' protective role in enforcing workers' rights. The evidence for Canada is mixed: Meng & Smith (1993) find that unionism increases claims, consistent with the view that unions help workers exercise statutory rights, but Shannon & Lowe (2002) find no statistically significant correlation.

The second strand of this scholarship, which focuses on the rate of occupational injuries and illnesses, presents an empirical puzzle. On the one hand, several empirical studies from the United States, Canada, and Great Britain (e.g., Amick et al. 2015, Boal 2009, Litwin 2000, Morantz 2013, Taylor 1987, Zullo 2011) find statistically significant positive correlations between unionism and workplace safety. Gillen et al. (2002) and Reynolds & Brady (2012) also report salutary union effects in their respective analyses of self-reported indicators of job safety and health. A unique

study by Gray & Mendeloff (2005) finds that OSHA inspections have a smaller effect on reported injuries in unionized manufacturing plants, consistent with the notion that unionism per se has a beneficial effect on compliance, making inspections less impactful in unionized workplaces. In a more qualitative vein, Nichols (1997) draws similar conclusions from the fact that a decline in British union strength in the early 1980s was accompanied by an increase in serious occupational injury rates. Similarly, Tucker (1992) argues that extensive worker participation in firm-level OSH oversight and enforcement, buttressed by a strong labor movement, best explains the advances in workplace conditions that occurred in Sweden during most of the twentieth century.

On the other hand, a sizable number of statistical studies (e.g., Fairris 1992, 1995; Fenn & Ashby 2004; Habeck et al. 1998; Leigh 1986; Nichols et al. 2007; Worrall & Butler 1983) find either no relationship at all or a seemingly perverse positive relationship between union status and injury rates.

The diversity of findings could be explained partly by the inherent difficulty of drawing causal inferences regarding the effect of unionism on workplace safety. As Morantz (2009) discusses more fully, a host of statistical problems—such as aggregation bias, errors in coding union membership rates, and selection bias arising from the fact that "while unions may prevent hazards, hazards may also attract unions" (Brown 1995, p. 21)—complicate the task of identifying the impact of unions on OSH.

Yet upon close inspection, a striking pattern emerges from this literature. Empirical models that use fatalities and/or severe traumatic injuries—which are the least susceptible to reporting bias—as the metric of safety usually report positive union safety effects (e.g., Boal 2009, Morantz 2013, Zullo 2011). Models that rely on all injuries and/or illnesses as the outcome measure, thereby including many less severe injuries that are prone to underreporting, tend to find negative union safety effects (e.g., Fenn & Ashby 2004, Habeck et al. 1998, Leigh 1986, Morantz 2013, Nichols et al. 2007, Zullo 2011). Models that use intermediate measures—such as disabling injuries or injuries resulting in some loss and/or restriction of work—display an inconsistent pattern, with some (e.g., Amick et al. 2015) reporting a positive union safety effect and others (e.g., Habeck et al. 1998) finding a negative one.

Viewed as a whole, then, research on the union safety effect is broadly consistent with the view that unions reduce workplace hazards—at least the risk of severe traumatic and fatal injuries—although the strength of this effect varies by industry. Yet high rates of underreporting among nonunionized firms may obscure this relationship if the outcome measure analyzed includes many injuries that are susceptible to underreporting.

Studies from non-OSH areas of employment law also usually find that unionism improves outcomes in areas targeted by regulators. For example, Ehrenberg & Schuman (1982) and Trejo (1991, 1993) find higher adherence to overtime pay provisions among unionized firms. In a careful study that includes controls for employer size, Brown et al. (2000) likewise find that compliance with wage and hour disclosures in Great Britain is higher in unionized establishments. Ashenfelter (1972) and Rosenfeld & Kleykamp (2015) report that wage discrimination against African American workers is lower in unionized US establishments. Focusing on other metrics of employment discrimination, Harcourt et al. (2004, 2005) and Bamberger et al. (1995) report positive effects of unionism on compliance in New Zealand and Israel, respectively, although Lurie (2014) points out that several commonplace provisions of Israeli collective bargaining agreements may hinder gender equality. In a provocative study of many countries in the Organisation for Economic Co-operation and Development (OECD), Whitehouse (1992) contends that several features of highly organized national labor movements—including centralized wage bargaining and high levels of public employment—are even more powerful drivers of gender-based wage equality than antidiscrimination laws.

A few studies, however, fail to find any evidence that unionism improves non-OSH outcomes. For example, Ronconi (2010) finds no statistically significant relationship between union status and compliance with employment regulations in Argentina, and Morales (1984) finds no relationship between unionism and the proportion of undocumented workers employed in the Los Angeles automobile industry.

Empirical evidence from outside the employment law domain, although comparatively sparse, is generally consistent with the view that unionism furthers the goals pursued by regulators. For example, Chyz et al. (2013) report that unions reduce tax aggressiveness, an arguably reasonable proxy for US tax compliance. In the environmental sphere, Yandle (1985) finds that US unions have a positive and significant effect on investments in pollution control equipment, although Rassier (2006) finds that strongly unionized plants in the US chemical manufacturing industry violate pollution discharge limits more than their nonunionized (or weakly unionized) peers. Studies on product quality and police misconduct also lend some credence to the notion that unions can, at least under certain conditions, improve regulatory outcomes: Cooke (1992) reports that unions can improve product quality if union leaders and management jointly administer employee-participation programs; Krueger & Mas (2004) find that the percentage of defective Firestone tires fell significantly in periods when the company was not experiencing intense labor strife; and Chandrasekher (2013) finds that incidents of police misconduct (i.e., abuse of authority and discourteous behavior) in New York City increase significantly with the time spent out of a union contract.

In short, the majority of available empirical evidence suggests that unionism furthers the objectives that regulations are intended to achieve. Adherence to regulations is generally higher in the presence of organized labor. Fatal and severe injuries, which are the least prone to underreporting, are also less prevalent in unionized environments. However, this correlation is not universal, and its strength depends not only on the regulatory domain examined but also on a host of other factors, such as industry, labor market conditions, and the incentives facing union leaders. The fact that Weil (1991, 2001) reports, respectively, a negative union OSH compliance effect in US manufacturing and a positive union compliance effect in US construction is a case in point.

Which face of unionism do these findings exemplify? If the enhanced voice available to workers at unionized establishments is responsible for their (typically) higher levels of regulatory compliance, then the evidence would seem to substantiate the collective voice/institutional response face. If improvements in regulatory outcomes at unionized firms come at the expense of poorer outcomes in nonunionized firms, then the disparity in regulated outcomes also arguably illustrates unions' monopoly face. At the same time, if labor market imperfections (such as asymmetric information and imperfect labor mobility) reduce regulatory compliance below the efficient level, and unionism helps to mitigate these inefficiencies, then the compliance gap could also be seen as consistent with unionism's monopsony-reducing face. In short, unionism mediates regulated outcomes in complex and multifaceted ways that can be construed as exemplifying all three faces of unionism. Which one empirically predominates is a difficult question, the answer to which depends on one's assumptions about other features of the labor market.

THE EFFECT OF UNIONS ON THE INTENSITY OF REGULATORY ENFORCEMENT

A handful of studies, nearly all on OSH regulation, have taken up the question of whether unionism increases the intensity of regulatory enforcement. Such studies almost invariably support the view that unionism increases the rigor of regulatory scrutiny. For example, econometric studies of several different US industries (including manufacturing, construction, and mining) by Weil

(1987, 1991, 1992, 1999) and Morantz (2011) find that unionized establishments are inspected more often and more intensively, more frequently exercise their statutory to have an employee representative accompany inspectors on their tour of a facility, and are assessed higher penalties for regulatory violations than similarly situated establishments that are not unionized. Gunningham & Sinclair (2012) report similar disparities in enforcement among unionized (and nonunionized) mines in Australia.

Most qualitative scholarship on OSH enforcement has reached the same conclusion. For example, the comparative international studies by Walters (1987, 1996, 2001, 2004, 2006) and Walters and coauthors (Walters & Denton 1990, Walters & Nichols 2009, Walters et al. 2011) reinforce the idea that labor union involvement increases the intensity of OSH regulation, including various forms of self-regulation that enable union officials (or other individuals who are not agents of the employer) to monitor compliance with safety standards. Notably, Walters (2001, 2004) and Walters et al. (2011) suggest that the gap in regulatory intensity is most pronounced among small- and medium-sized enterprises. Additionally, in a study of labor law enforcement in Australia, Landau et al. (2014) suggest that labor unions' direct collaboration with the inspectorate around the turn of the millennium increased the scope and rigor of regulatory oversight.

Outside of the OSH domain, literature on the relationship between unionism and the intensity of regulatory enforcement is virtually nonexistent. In a rare study of environmental regulation, Yandle (1983) finds no association between union penetration and state and local budgets for pollution control activities in the United States.

Whether the increase in regulatory scrutiny that labor unions induce in the OSH arena represents the monopoly face or the collective voice/institutional response face of unionism is empirically uncertain for several reasons. First, as a practical matter, it is unknown whether unions actively pursue more intensive regulatory oversight (for example, by encouraging their members to register complaints with OSHA's hotline), or whether agency inspectors decide of their own volition to subject unionized firms to greater scrutiny. Second, it is unclear whether the gap in enforcement increases net compliance with OSH regulations. On one hand, the literature that finds that regulatory compliance and workplace safety are higher at unionized firms suggests that unionized firms are in less urgent need of regulatory intervention. On the other hand, given unions' greater capacity to accompany an inspector on his/her tour of a facility and point out hazards that might otherwise go undetected, the marginal impact of an inspection may be higher at unionized firms than at nonunionized firms in some industries. Moreover, if unions facilitate the transmission of information across facilities and between firms, then prioritizing unionized firms for inspection within a given industry may increase the general deterrence effect of inspection activity by inducing higher compliance at non-inspected facilities.

UNION-MEDIATED ACTIVITIES AND CHANNELS OF INFLUENCE

A great deal has been written about what unions do and how these activities affect regulation and enforcement in various public policy domains. Although primarily descriptive and qualitative, research of this type can help overcome the limitation of most statistical work identified earlier (i.e., its implicit assumption that unionism is a uniform treatment when in fact it is a "bundle" of treatments whose composition and relative strength vary). The questions that most econometric studies leave unanswered—why, how, and to what extent particular "sticks" in the union bundle further regulatory goals—can be explored by identifying specific union activities and probing their effects on outcomes. In most real-world settings, causation cannot be rigorously established because of small sample sizes, selection problems, omitted variable bias, and the difficulty of objectively quantifying results. Nevertheless, rich descriptive accounts of unions' organizational practices can uncover factors that are likely to be influential and merit closer scrutiny.

A handful of scholars, predominantly outside the United States, have explored which workplace governance structures best promote safety and health. Walters & Nichols (2007, 2009) critically review a large body of country-specific and comparative international research. Their primary findings are the indispensable role of worker representation in the enforcement of OSH regulations and the practical difficulty of institutionalizing and maintaining robust forms of worker representation without strong trade union support. Walters & Nichols (2007) observe that some form of representative worker participation is mandatory in all EU jurisdictions, and minimum legal rights to facilitate such participation are also formally required. Yet enforcement is often so lax that in many industries, representative participation is merely a formality (Walters & Nichols 2007, pp. 13–14, 115). Based on case studies of the chemical and construction industries in the United Kingdom, as well as a review of the secondary literature, the authors conclude that external trade union support is a necessary but not a sufficient condition for effective worker involvement (p. 162).

Case studies focusing on the role of health and safety representatives (HSRs) have reached similar conclusions. For example, Hillage et al. (2000) and Walters & Nichols (2007) report that British HSRs in nonunionized workplaces are less vigilant advocates for workers' interests than their counterparts in unionized workplaces. The latter work observes that in the absence of union support, HSRs cannot carry out workplace inspections, inspect statutory OSH documents, conduct investigations, or request the establishment of safety committees. García et al. (2007) report similar findings in a study of HSRs in Spain. Menendez et al. (2009, p. 5) likewise stress the importance of "systematic strong trade union support" in a study encompassing multiple EU jurisdictions. Focusing predominantly on the mining industry, Quinlan (2014, p. 59) observes that HSRs in the United Kingdom and Australia "rely heavily on the logistical support of unions and so are rarely found in nonunion workplaces."

The only widely discussed context in which HSRs have improved OSH practices without substantial trade union involvement is Sweden's reliance on regional safety representatives. Several studies, including those by Frick (2009, p. 154) and Frick & Walters (1998), find that regional representatives can meaningfully improve the provision of safety and health in small- to medium-sized enterprises, even those with very little union participation. Importantly, however, such regional representatives are hired at the behest of national trade unions and are authorized to enter smaller establishments with at least one union member (Frick 2009, p. 154).

Another form of worker representation that is commonplace throughout Europe, Canada, and Australia, although used far less frequently in the United States, is the joint health and safety committee (HSC), a consultative body in which representatives from labor and management convene regularly to discuss OSH-related matters. Nichols et al. (2007) find that HSCs in British private manufacturing firms had no statistically significant impact on injuries without union representation and/or input. Walters & Nichols (2007, pp. 15, 22) note that although employers in the United Kingdom are legally obliged to establish a HSC if requested to do so by two or more employee representatives, this right does not extend to representatives appointed in nonunionized settings. SPR (1994), cited by Walters & Nichols (2007), finds similarly that HSCs in nonunionized workplaces report lower levels of compliance than those in unionized settings that meet certain procedural requirements. In a study of New Jersey public-sector employees, Eaton & Nocerino (2000) also conclude that HSCs have little impact on health and safety without strong union support. Tuohy & Simard (1992) report similar disparities in a study of HSCs in Ontario and Quebec, as does Weil (1999) in a study of mandated HSCs in Oregon. Based on studies of HSCs in the northeastern United States and Ontario, Egarion (1990) concludes that trade union involvement is a critical determinant of the efficacy of HSCs because only unions can pressure employers and/or regulators to address major safety hazards.

A final body of OSH-related literature on unions' channels of influence examines specific union-led programs. Anderson et al. (2012), for example, describe in detail a hazard-identification training program pioneered by a US utility workers' union. Hilyer et al. (2000) examine a workplace safety peer-training program implemented by members of a paper-workers' union. Hugentobler et al. (1990) describe the results of collaborative training programs led jointly by management and union leadership at five US manufacturing sites. Peetz & Alexander (2013) review the effects of union-led training on members' activism and confidence in the workplace. Grob (1998) finds that among construction firms in New York, safety and health programs were associated with higher worker participation in OSH activities only among unionized firms. Studies of this type provide important details on the content and implementation of specific union-led programs, and in so doing can help build an evidence base on best practices. Yet they rely almost exclusively on survey data in evaluating outcomes. Although there is arguably some intrinsic benefit to implementing a program that members deem a success, it is rarely possible to draw any clear conclusions regarding the effects of regulatory compliance or injury rates.

Outside the OSH domain, the largest body of literature on union practices and activities pertains to antidiscrimination law. One of the most pervasive and interesting findings in labor economics, reported in What Do Unions Do? and confirmed in later studies by Gosling & Machin (1995), Kuhn (1998), Card et al. (2004, 2007), and the Council of Economic Advisors (2015), is that unions lower overall wage dispersion. A handful of scholars have suggested that wage compression indirectly reduces pay discrimination against historically disadvantaged groups, such as women and people of color. For example, Bamberger et al. (1995) find that although most Israeli high-tech firms engage in gender-based earnings and promotion discrimination, the disparity in earnings is less pronounced at unionized firms. Metcalf et al. (2001) report a similar union effect on male/female, white/black, and disabled/nondisabled pay gaps in Great Britain, and Rosenfeld & Kleykamp (2015) find that the decline in unionism has magnified the black/white wage gap in the United States. Based on a cross-country comparison of OECD data on wages and labor laws, Whitehouse (1992) contends that the "collective model"—characterized by a strong trade union presence and centralized, industry-wide wage bargaining—is more effective in promoting gender pay equality than the "liberal model," which is reliant upon legislation protecting individual rights. Many of these scholars caution, however, that employers' increasing reliance on casual, temporary, subcontracted, and contingent workers who are not protected by antidiscrimination law-a phenomenon that Weil (2014) calls "workplace fissuring"—has made it increasingly difficult for unions to reduce pay disparities.

Research on union practices that affect compliance with US wage and hour laws is comparatively sparse. Work reporting that unionized establishments pay a higher share of overtime hours than nonunionized establishments (Bell & Hart 1999, King 1997), and that they provide higher levels of fringe benefits (Freeman 1981, Miller & Mulvey 1992), is not directly on point because these aspects of compensation are left entirely to employers' discretion. However, in settings where unions modify the composition or structure of compensation to satisfy the tastes of their membership, they may view the task of policing firms' compliance with wage and hour laws as an intrinsic part of the bundle of services they provide.

A pair of qualitative studies on wage and hour enforcement in Australia and China underscores the disparity between unions' legal powers and the regulatory agencies that often, in practice, constrain their sphere of influence. Landau et al. (2014) argue that the historically integral role of labor unions in the enforcement of labor laws in Australia has been significantly diminished by an increasing emphasis on the vindication of individual (as opposed to collective) rights and a more proactive enforcement posture by the labor inspectorate that has crowded out labor union involvement. Meanwhile, Cooney (2007) observes that if Chinese law is taken at face value,

workers enjoy rights very similar to those enjoyed by their Western counterparts, and unions are formally obliged to advocate on behalf of workers whose rights are threatened. In practice, however, many labor laws are not drafted with sufficient precision to create clear rights and remedies, and regulatory enforcement procedures are extremely cumbersome. Labor unions have no independent enforcement powers or right to strike, and company managers often occupy union leadership positions. In these circumstances, unions are ill-equipped to play a meaningful enforcement role despite their extensive formal responsibilities.

Outside of employment law, literature on the impact of specific union practices is scarce. A lone study on product quality (Cooke 1992) reports that employee participation programs in unionized manufacturing plants significantly improve product quality if (and only if) they are jointly administered by union leaders. A few studies in the environmental arena provide interesting insights. Minet (1975) and Burgmann (2012) describe historical examples of successful collaborations between labor and environmental leaders. Based on a survey of state labor leaders, Obach (2002) reports that although labor-environmental relations vary considerably between states, there is no evidence of pervasive hostility between the two groups. Obach's (2004) thoughtful book-length treatment combines many of the latter approaches, and Fredricksson & Gaston (1999) consider the challenges of labor union involvement in environmental regulation from a theoretical perspective. However, much of the other work in the environmental area (e.g., Rathzel & Uzzell 2012) is highly normative and prescriptive.

Finally, a handful of studies in tax and corporate law (e.g., Chen et al. 2012, Chyz et al. 2013, Faleye et al. 2006) hypothesize that unions engage in various activities to lower companies' risk of default—such as engaging in opposing takeovers, supporting less risky investments, and mobilizing the media to assist financially troubled firms—that result in lower levels of tax aggressiveness and greater conservatism in financial reporting and corporate investments. Unions' efforts to reduce corporate risk could provide a possible explanation for the finding, reported by Bronars et al. (1994) but disputed in studies by Doucouliagos & Laroche (2003) and Sojourner et al. (2015), that organized labor lowers productivity in nonmanufacturing establishments. It may likewise help explain the finding that unions lower share prices (Eschuk 2001, Lee & Mas 2009) and reduce corporate profits (Hirsch 2007). Yet the risk-aversion hypothesis is harder to reconcile with a cluster of scholarship, summarized in Hirsch (2007, pp. 207–8), finding that union establishments are more productive than nonunion establishments in some niche industries and in manufacturing plants that encourage joint decision making and offer incentive-based compensation.

In summary, it is difficult to draw any universal conclusions about which union-mediated interventions affect key regulated outcomes, or which face of unionism accords best with available evidence. There is some suggestion that workers' direct involvement in decision making (for example, the existence of standing bodies or committees that include worker representatives) is an important causal factor across multiple domains. To this extent, there appears to be considerable support for unionism's collective voice/institutional response face. Yet the empirical importance of different union practices depends on the domain examined, and in some areas, empirical research is so scant that few inferences can be drawn.

UNIONS' ROLE IN SELF-REGULATION

Self-regulation encompasses programs or mechanisms implemented at the firm or industry level, whether voluntarily or in response to a legal mandate, that enable companies to monitor their own OSH practices. In principle, self-regulatory practices can lessen the need for external regulatory oversight.

A good deal of scholarship on OSH self-regulation has centered on the use of HSCs and HSRs in Europe and Australia. For example, Dawson et al. (1988), Nichols (1997), and Walters & Nichols (2007) describe the use of these practices in the United Kingdom; Johnstone (2009) analyzes their use in certain jurisdictions in Australia; Coutrot (2009) examines HSCs in France; García et al. (2009) undertake a similar study of HSRs in Spain; and Frick et al. (2000) probe worker participation in the context of another self-regulatory practice known as occupational health and safety management. Unsurprisingly, given the diversity of cultural settings and political environments involved, the detailed findings of these studies vary considerably. Yet their common theme is that self-regulatory practices function most effectively with strong trade union support. When it is lacking, self-regulation often becomes formalistic and ineffectual. As Nichols (1997, p. 140) concludes in his study of self-regulation in British manufacturing, "self-regulation suffers from the fundamental weakness that it is least likely to offer protection precisely where it is most needed."

A rare example of a union-led self-regulatory program that is wholly voluntary and replaces traditional regulation is referred to in the United States as a carve-out, or collectively bargained workers' compensation. The defining feature of carve-outs, which are usually confined to the construction industry and are legally permissible in only a few states, is that they enable a union and employer to jointly develop their own occupational injury insurance plan, which can deviate from the statutory regime within defined limits. As Moskowitz & Van Bourg (1996) note, carve-outs typically substitute alternative dispute resolution for claim adjudication, ban attorney representation at early stages of a dispute, and constrain the pool of medical providers. Based on in-depth empirical studies of two carve-out programs in California and a more cursory survey of other existing programs, Levine et al. (2002, p. 467) conclude that carve-outs "do not appear to harm employees, and sometimes they help."

The literature on self-regulation is far too thin to enable one to draw any clear conclusions. Yet it provides some grounds for optimism that under certain circumstances, limited forms of self-regulation—such as SHRs, SHCs, and even opt-outs from state regulatory regimes—induce unions to show their collective voice/institutional response face in ways that can benefit workers and firms alike.

CONCLUSIONS AND SUGGESTIONS FOR FUTURE RESEARCH

Understanding the effect of unions on the content, enforcement, and outcomes of protective laws and regulations adds important nuance to the portrait of unionism presented in Freeman & Medoff's (1984) seminal study and the 20-year retrospective volume by Bennett & Kaufman (2007). A full accounting of whether unions' involvement improves net social welfare is beyond the scope of this study. However, the majority of literature reviewed reinforces Freeman & Medoff's conclusion that in most contexts, unions' tendency to strengthen workers' collective voice and mitigate market imperfections predominates their tendency to exert monopoly power and engage in economic rent-seeking.

A review of existing literature supports several additional conclusions. First, although unions have influenced the passage of important protective legislation, their role in the implementation of legal mandates and administrative rulemaking is poorly understood outside of the OSH arena. Second, unionism not only tends to increase the level of regulatory compliance but also, in the case of OSH, lowers rates of serious and fatal injuries. Third, unionism typically strengthens adherence to regulatory mandates and also tends to further many of the same objectives in the labor market that protective regulations seek to promote. Fourth, unions' influence over regulated outcomes is often mediated by their involvement in and promotion of practices that encourage representative worker participation. Although in theory many of these practices can occur without

union involvement, most studies show that in practice, they are less prevalent and less effective in nonunionized settings. Finally, although the idea of self-regulation carries considerable political appeal, and some self-regulatory innovations reportedly have improved (or at least not harmed) regulatory objectives, the evidence suggests that such programs rarely succeed without active union participation.

A few observations that build on the insights gleaned from prior sections may help to guide future research. First, to better understand union influence on the content of regulations, scholars should collaborate more frequently with union leaders in examining innovative lobbying campaigns, especially those that harness new technologies and encourage participation from a variety of stakeholders. Additionally, in OSH and other areas of employment law, scholars should pay special attention to union campaigns that focus on temporary, casual, contract, contingent, and undocumented workers that fall outside the scope of regulatory protection. A recent example is the multifaceted and highly publicized campaign waged against Walmart, summarized by Struna et al. (2012), in which several labor unions participated. One important facet of this campaign, as elaborated by Ruckelshaus et al. (2014) and D'Elia (2015), was the effort to change legal definitions of "employer" and to expand the reach of tort law in ways that would make it easier to hold Walmart liable for the regulatory violations of its suppliers. More detailed study of how such campaigns are designed and implemented could yield new insights into how unions expand the de facto scope of regulatory protection.

Second, more researchers should take up the challenge of finding unbiased outcome measures with which to examine unions' net impact on the targets of regulation. For example, if adherence to regulations is the outcome of interest, simply using the frequency of violations as a proxy for compliance can be misleading if the intensity of inspections varies by union status. If workplace safety or health is the outcome of interest, using total reported injuries or illnesses as a proxy can introduce bias if the prevalence if underreporting differs by union status. Greater emphasis should be placed on empirical methodologies and data sources that enable researchers to overcome such problems and obtain credible estimates.

Third, more detailed work is needed on the relationship between unionism and day-to-day enforcement behavior. Empirical literature in this area is so scant that it is difficult to draw any robust conclusions. Although a strong labor presence tends to increase the frequency, duration, and stringency of OSH inspections in the United States, almost nothing is known about how unions affect inspectors' behavior in other jurisdictions. Especially in countries where qualitative research has portrayed unions and regulators as collaborating closely, such as Australia, quantitative analysis of granular enforcement data would be immensely valuable. Studies in regulatory arenas besides OSH are also virtually nonexistent and would contribute a great deal to existing literature.

Fourth, more work is needed to ascertain which aspects of unionism affect important regulatory outcomes. The difficulty is that even in contexts where unions are shown to have a causal effect, it is often hard to know precisely why or how. Greater efforts should be made to isolate the causal impact of specific union programs or practices. Social scientists should encourage unions to collaborate in the design and evaluation of major organizational reforms so that their effects can be rigorously evaluated. Programs in which union leaders join forces with management to implement self-regulatory programs—such as the study of California carve-outs by Levine et al. (2002)—are especially ripe for empirical investigation. Because union practices vary so widely across industries, time periods, and jurisdictions, generalizing findings across studies will always be risky. Even so, a broader evidence base on institutional innovations may encourage greater experimentation and enable unions to learn from one another's successes and failures.

Fifth, additional research is needed to explore whether any forms of direct or representative worker participation can significantly improve regulatory outcomes in nonunionized settings. The

literature summarized in this study provides little ground for optimism in this regard. Yet given the decline of organized labor in most industrialized Western countries, determining whether any forms of worker participation can substitute for union involvement is an urgent priority. As Walters & Nichols (2009, p. 3) have noted, the United States is the only Western Anglo-European country in which there are virtually no statutory provisions guaranteeing workers at least a modicum of influence over risk management. Under these conditions, the question is whether requiring nonunionized workers to play some role in workplace governance could reduce workplace hazards or promote other regulatory objectives. For example, researchers might explore whether regional safety and health representatives, used most extensively in Sweden, can be introduced in nonunionized workplaces in the United States in ways that measurably improve OSH performance.

Finally, even though a great deal of English-language literature on unionism describes the role of organized labor in the European Union, Canada, and Australia, studies originating from the United States hardly ever draw upon the experience of other countries in formulating policy recommendations. To understand more fully what unions do and why it matters to regulators, US scholars should follow the example of their European, Canadian, and Australian counterparts in considering the topic from a comparative international perspective.

DISCLOSURE STATEMENT

The author is not aware of any affiliations, memberships, funding, or financial holdings that might be perceived as affecting the objectivity of this review.

LITERATURE CITED

Amick BC, Hogg-Johnson S, Latour-Villamil D, Saunders R. 2015. Protecting construction worker health and safety in Ontario, Canada. 7. Occup. Environ. Med. 57(12):1337–42

Anderson J, Collins M, Devlin J, Renner P. 2012. Using hazard maps to identify and eliminate workplace hazards: a union-led health and safety training program. *New Solut*. 22(3):235–42

Ashenfelter O. 1972. Racial discrimination and trade unionism. 7. Political Econ. 80(3, Part 1):435-65

Bamberger P, Admati-Dvir M, Harel G. 1995. Gender-based wage and promotion discrimination in Israeli high-technology firms: Do unions make a difference? *Acad. Manag.* 7, 38(6):1744–61

Bell D, Hart RA. 1999. Overtime working in an unregulated labour market. Discuss. Pap. 44., Inst. Study Labor, Bonn, Ger.

Bennett JT, Kaufman BE. 2007. What Do Unions Do? A Twenty-Year Perspective. New Brunswick, NJ:

Bennett JT, Taylor JE. 2001. Labor unions: Victims of their political success? J. Labor Res. 22(2):261-73

Bieder C, Bourrier M. 2013. Trapping Safety into Rules: How Desirable or Avoidable is Proceduralization? Surrey, UK: Ashgate

Boal WM. 2009. The effect of unionism on accidents in U.S. coal mining, 1897–1929. Ind. Relat. 48(1):97–119Boden LI. 1977. Underground coal mining accidents and government enforcement of safety regulations. PhD Thesis,Mass. Inst. Technol., Cambridge, MA

Bronars SG, Deere DR, Tracy JS. 1994. The effects of unions on firm behavior: an empirical analysis using firm-level data. *Ind. Relat.* 33(4):426–51

Brown R. 1995. Unions, markets, and other regulatory mechanisms: theory and evidence. *Univ. Tor. Law J.* 44:1–45

Brown W, Deakin S, Nash D, Oxenbridge S. 2000. The employment contract: from collective procedures to individual rights. *Br. 7. Ind. Relat.* 38(4):611–29

Burgmann V. 2012. From "jobs versus environment" to "green-collar jobs": Australian trade unions and the climate change debate. In *Trade Unions in the Green Economy: Working for the Environment*, ed. N Rathzel, D Uzzell, pp. 131–45. Abingdon, UK: Routledge

- Card D, Lemieux T, Riddell WC. 2004. Unions and wage inequality. 7. Labor Res. 25(4):520-59
- Card D, Lemieux T, Riddell WC. 2007. Unions and wage inequality. See Bennett & Kaufman 2007, pp. 114-59
- Chandrasekher AC. 2013. Police labor unrest and lengthy contract negotiations: Does police misconduct increase with time spent out of contract? Presented at Harvard-Stanford-Yale Jr. Fac. Forum, Stanford, CA
- Chen H, Kacperczyk M, Ortiz-Molina H. 2012. Do nonfinancial stakeholders affect the pricing of risky debt? Evidence from unionized workers. Rev. Finance 16:347–83
- Chyz JA, Leung WSC, Li OZ, Rui OM. 2013. Labor unions and tax aggressiveness. J. Financ. Econ. 108:675–98
- Cooke WN. 1992. Product quality improvement through employee participation: the effects of unionization and joint union-management administration. *Ind. Labor Relat. Rev.* 46(1):119–34
- Cooney S. 2007. China's labour law, compliance and flaws in implementing institutions. J. Ind. Relat. 49(5):673–86
- Council of Economic Advisors. 2015. Worker voice in a time of rising inequality. Issue brief., Counc. Econ. Advis., Washington, DC
- Coutrot T. 2009. Health and safety committees in France: an empirical analysis. In *Workplace Health and Safety: International Perspective on Worker Representation*, ed. D Walters, T Nichols, pp. 50–72. London, UK: Palgrave Macmillan
- Dawson S, Willman P, Bamford M, Clinton A. 1988. Safety at Work: The Limits of Self-Regulation. Cambridge, UK: Cambridge Univ. Press
- D'Elia J. 2015. Keeping FLSA's promises: The third circuit extends the law's reach to more joint employers, successors, and supervisors in *Thompson v. Real Estate Mortgage Network. Villanova Law Rev.* 60(93):93–120
- DiMartino V, Wirth L. 1990. Telework: a new way of working and living. Int. Labor Rev. 129(5):529-54
- Donnelly PG. 1982. The origins of the Occupational Safety and Health Act of 1970. Soc. Problems 30(1):13–25 Doucouliagos C, Laroche P. 2003. What do unions do to productivity? A meta-analysis. Ind. Relat. 42(4):650–91
- Eaton AE, Nocerino T. 2000. The effectiveness of health and safety committees: results of a survey of public-sector workplaces. *Ind. Relat.* 39(2):265–90
- Egarion M. 1990. Joint committees: no substitute for union action. Labor Res. Rev. 1(16):67-73
- Ehrenberg RG, Schuman PL. 1982. Compliance with the overtime pay provisions of the Fair Labor Standards Act. 7. Law Econ. 25(1):159–81
- Eschuk CA. 2001. Unions and firm behavior: profits, investment, and share prices. PhD Thesis, Univ. Notre Dame, Notre Dame, IN
- Fairris D. 1992. Compensating payments and hazardous work in union and nonunion settings. *J. Labor Res.* 13(2):205–21
- Fairris D. 1995. Do unionized employees reappropriate rent through worsened workplace safety? East. Econ. J. 21(2):171–85
- Faleye O, Mehrotra V, Morck R. 2006. When labor has a voice in corporate governance. J. Financ. Quant. Anal. 41(3):489–510
- Fenn P, Ashby S. 2004. Workplace risk, establishment size, and union density. *Br. J. Ind. Relat.* 42(3):461–80 Fredricksson PG, Gaston N. 1999. The "greening" of trade unions and the demand for eco-taxes. *Eur. J. Political Econ.* 15:663–86
- Freeman RB. 1981. The effect of unionism on fringe benefits. Ind. Labor Relat. Rev. 34(4):489-509
- Freeman RB, Medoff JL. 1984. What Do Unions Do? New York: Basic Books
- Frick K. 2009. Health and safety representation in small firms: a Swedish success that is threatened by political and labour market changes. In Workplace Health and Safety: International Perspective on Worker Representation, ed. D Walters, T Nichols, pp. 154–76. London: Palgrave Macmillan
- Frick K, Jensen PL, Quinlan M, Wilthagen T. 2000. Systematic Occupational Health and Safety Management: Perspectives on an International Development. Oxford, UK: Elsevier Sci.
- Frick K, Walters D. 1998. Worker representation on health and safety in small enterprises: lessons from a Swedish approach. *Int. Labour Rev.* 137(3):367–89
- García AM, López-Jacob MJ, Dudzinski I, Gadea R, Rodrigo F. 2007. Evidence-based public health policy and practice: factors associated with the activities of safety representatives in Spanish workplaces. J. Epidemiol. Community Health 61(9):784–90

- García AM, López-Jacob MJ, Dudzinski I, Gadea R, Rodrigo F. 2009. Characteristics, activities and perceptions of Spanish safety representatives. In Workplace Health and Safety: International Perspective on Worker Representation, ed. D Walters, T Nichols, pp. 73–89. London: Palgrave Macmillan
- Gillen M, Baltz D, Gassek M, Kirsch L, Vaccaro D. 2002. Perceived safety climate, job demands, and coworker support among union and nonunion injured construction workers. J. Saf. Res. 33:33–51
- Gosling A, Machin S. 1995. Trade unions and the dispersion of earnings in British establishments, 1980–90.
 Oxf. Bull. Econ. Stat. 57(2):167–84
- Gray WB, Mendeloff JM. 2005. The declining effects of OSHA inspections on manufacturing injuries, 1979– 1998. Ind. Labor Relat. Rev. 58(4):571–87
- Grob HL. 1998. Self-regulation and safety programs in construction. PhD Thesis, Univ. Notre Dame, Notre Dame, IN
- Gunningham N, Sinclair D. 2012. Managing Mining Hazards: Regulation, Safety, and Trust. Sydney: Federation Habeck RV, Hunt HA, Van Tol B. 1998. Workplace factors associated with preventing and managing work disability. Rehabil. Couns. Bull. 42(2):98–143
- Hall JD. 2005. The long civil rights movement and the political uses of the past. J. Am. Hist. 91(4):1233-63
- Harcourt M, Lam H, Harcourt S. 2005. Unions and discriminatory hiring: evidence from New Zealand. Ind. Relat. 44(2):364–72
- Harcourt M, Wood G, Harcourt S. 2004. Do unions affect employer compliance with the law? New Zealand evidence for age discrimination. *Br. 7. Ind. Relat.* 42(3):527–41
- Hardy T. 2011. Enrolling non-state actors to improve compliance with minimum employment standards. Econ. Labour Relat. Rev. 22(3):117–40
- Hillage J, Kersley B, Bates P, Rick J. 2000. Workplace consultation on health and safety. Rep. CPR 268, Inst. Employ. Stud., Brighton, UK
- Hilyer B, Leviton L, Overman L, Mukherjee S. 2000. A union-initiated safety training program leads to improved workplace safety. *Labor Stud. J.* 24(4):53–66
- Hirsch BT. 2007. What do unions do for economic performance? See Bennett & Kaufman 2007, pp. 193-237
- Hirsch BT, Macpherson DA, Dumond JM. 1997. Workers' compensation recipiency in union and nonunion workplaces. Ind. Labor Relat. Rev. 50(2):213–36
- Hirschman AO. 1970. Exit, Voice, and Loyalty: Responses to Decline in Firms, Organizations, and States. Cambridge, MA: Harvard Univ. Press
- Hugentobler MK, Robins TG, Schurman SJ. 1990. How unions can improve the outcomes of joint health and safety training programs. *Labor Stud.* 7. 15(4):16–38
- Johnstone R. 2009. The Australian framework for worker participation in occupational health and safety. In Workplace Health and Safety: International Perspective on Worker Representation, ed. D Walters, T Nichols, pp. 31–49. London: Palgrave Macmillan
- Juris HA. 1971. The implications of police unionism. Law Soc. Rev. 6(2):231-46
- Kaufman BE. 2007. What unions do: insights from economic theory. See Bennett & Kaufman 2007, pp. 12–45 King SP. 1997. Oligopoly and overtime. *Labour Econ.* 4(2):149–65
- Korstad R, Lichtenstein N. 1988. Opportunities found and lost: labor, radicals, and the early civil rights movement. *7. Am. Hist.* 75(3):786–811
- Krueger AB, Mas A. 2004. Strikes, scabs, and tread separations: labor strife and the production of defective Bridgestone/Firestone tires. J. Political Econ. 112(2):253–89
- Kuhn P. 1998. Unions and the economy: what we know; what we should know. Can. 7. Econ. 31(5):1033-56
- Landau I, Cooney S, Hardy T, Howe J. 2014. *Trade unions and the enforcement of minimum employment standards in Australia*. Res. Rep., Cent. Employ. Labour Relat. Law, Victoria, Aust.
- Lee D, Mas A. 2009. Long-run impacts of unions on firms: new evidence from financial markets, 1961–1999. Work. Pap., Inst. Res. Labor Employ., Univ. Calif., Berkeley, CA
- Leigh JP. 1986. Individual and job characteristics as predictors of industrial accidents. Accid. Anal. Prev. 18(3):209–16
- Levine DI, Neuhauser F, Jeffrey PS. 2002. "Carve-outs" from the workers' compensation system. J. Policy Anal. Manag. 21(3):467–83
- Litwin AS. 2000. Trade Unions and Industrial Injury in Great Britain. London: Cent. Econ. Perform.

- Lurie L. 2014. Do unions promote gender equality? Duke J. Gend. Law Policy 22:89-109
- MacLaury J. 1981. The job safety law of 1970: Its passage was perilous. Mon. Labor Rev. 104:18-24
- Masters MF, Delaney T. 2007. Organized labor's political scorecard. See Bennett & Kaufman 2007, pp. 492–520
- Menendez M, Benach J, Vogel L. 2009. The impact of safety representatives on occupational health: a European perspective. Rep. 107, Eur. Trade Union Inst., Brussels
- Meng R, Smith D. 1993. Union impacts on the receipt of workers' compensation benefits. *Relat. Ind.* 48(3):503–18
- Metcalf D, Hansen K, Charlwood A. 2001. Unions and the sword of justice: unions and pay systems, pay inequality, pay discrimination and low pay. *Natl. Inst. Econ. Rev.* 176:61–75
- Miller P, Mulvey C. 1992. Trade unions, collective voice and fringe benefits. Econ. Rec. 68(2):125-41
- Minet G. 1975. Trade unions, employers' associations and protection of the environment. *Int. Labour Rev.* 112(5):335–50
- Morales R. 1984. Transitional labor: undocumented workers in the Los Angeles automobile industry. *Int. Migr. Rev.* 17(4):570–96
- Morantz AD. 2009. The elusive union safety effect: towards a new empirical research agenda. *Proc.* 61st Annu. Meet. Labor Employm. Relat. Assoc. 61:130–46
- Morantz AD. 2011. Does unionization strengthen regulatory enforcement? An empirical study of the mine safety and health administration. N.Y. Univ. J. Legis. Public Policy 14:697–727
- Morantz AD. 2013. Coal mine safety: Do unions make a difference? Ind. Labor Relat. Rev. 66(1):8-116
- Morse T, Punnett L, Warren N, Dillon C, Warren A. 2003. The relationship of unions to prevalence and claim filing for work-related upper-extremity musculoskeletal disorders. *Am. 7. Ind. Med.* 44(1):83–93
- Moskowitz E, Van Bourg VJ. 1996. Carve-outs and the privatization of workers' compensation in collective bargaining agreements. *Syracuse Law Rev.* 46(1):1–60
- Nichols T. 1997. The Sociology of Industrial Injury. London: Bloomsbury
- Nichols T, Walters D, Tasiran AC. 2007. Trade unions, institutional mediation and industrial safety: evidence from the UK. 7. Ind. Relat. 49(2):211–25
- Norton P. 2003. A critique of generative class theories of environmentalism and of the labour-environmentalist relationship. *Environ. Politics* 12(4):96–119
- Obach BK. 2002. Labor-environmental relations: an analysis of the relationship between labor unions and environmentalists. Soc. Sci. Q. 83(1):82–100
- Obach BK. 2004. Labor and the Environmental Movement: The Quest for Common Ground. Cambridge, MA: MIT Press
- Peetz D, Alexander M. 2013. A synthesis of research on training of union delegates. *Ind. Relat. J.* 44(4):425–42 Quinlan M. 2014. *Ten Pathways to Death and Disaster: Learning from Fatal Incidents in Mines and Other High Hazard Workplaces.* Leichhardt, Aust.: Federation
- Quinlan M, Bohle P. 2008. Under pressure, out of control, or home alone? Reviewing research and policy debates on the occupation health and safety effects of outsourcing and home-based work. Int. J. Health Serv. 38(3):489–523
- Quinlan M, Johnstone R. 2009. The implications of de-collectivist industrial relations laws and associated developments for worker health and safety in Australia, 1996–2007. *Ind. Relat.* 7, 40(5):426–43
- Rassier DG. 2006. Do Trade Unions Affect Compliance with Environmental Regulation? Washington, DC: Bur. Econ. Anal.
- Rathzel N, Uzzell D. 2012. Trade Unions in the Green Economy. New York: Routledge
- Reynolds M, Brady D. 2012. Bringing you more than the weekend: union membership and self-rated health in the United States. Soc. Forces 90(3):1023–49
- Ronconi L. 2010. Enforcement and compliance with labor regulations in Argentina. *Ind. Labor Relat. Rev.* 63(4):719–36
- Rose F. 2003. Labor-environmental coalitions. Working USA 6(4):51-70
- Rosenfeld J, Kleykamp M. 2015. Organized labor and racial wage inequality in the United States. Am. J. Sociol. 117(5):1460–502
- Rossman P. 2012. Food worker's rights as a path to a low carbon agriculture. In *Trade Unions in the Green Economy*, ed. N Rathzel, D Uzzel, pp. 58–63. New York: Routledge

- Ruckelshaus C, Smith R, Leberstein S, Cho E. 2014. Who's the boss: restoring accountability for labor standards in outsourced work. Rep., Natl. Employ. Law Proj., New York
- Samuel HD. 2000. Troubled passage: the labor movement and the Fair Labor Standards Act. *Mon. Labor Rev.* 123(12):32–37
- Shannon HS, Lowe GS. 2002. How many injured workers do not file claims for workers' compensation benefits? *Am. 7. Ind. Med.* 42(6):467–73
- Slatin C. 2009. Environment Unions: Labor and the Superfund. Amityville, NY: Baywood
- Smith R. 1986. Greasing the squeaky wheel: the relative productivity of OSHA complaint inspections. Ind. Labor Relat. Rev. 40(1):35–47
- Sojourner AJ, Frandsen BR, Town RJ, Grabowski DC, Chen MM. 2015. Impacts of unionization on quality and productivity: regression discontinuity evidence from nursing homes. *Ind. Labor Relat. Rev.* 68(4):771– 806
- SPR. 1994. Highlights of the 1994 Ontario Survey of Occupational Health and Safety and Joint Health and Safety Committees. Toronto: SPR Assoc. Workplace Health Saf. Agency
- Struna J, Curwin K, Elias E, Reese E, Roberts T, Bingle E. 2012. Unsafe and unfair: labor conditions in the warehouse industry. *Policy Matters* 5(2):1–12
- Taylor S. 1987. A reanalysis of the relation between unionization and workplace safety. *Int. J. Health Serv.* 17(3):443–53
- Trejo S. 1991. The effects of overtime pay regulation on worker compensation. *Am. Econ. Rev.* 81(4):719–40 Trejo S. 1993. Overtime pay, overtime hours, and labor unions. *7. Labor Econ.* 11(2):253–78
- Tucker E. 1992. Worker participation in health and safety regulation: lessons from Sweden. Stud. Political Econ. 37(1):95–127
- Tuohy CJ, Simard M. 1992. The Impact of Joint Health and Safety Committees in Ontario and Quebec. Gatineau: Can. Assoc. Adm. Labor Law
- Walker S. 2008. The neglect of police unions: exploring one of the most important areas of American policing. Police Pract. Res. 9(2):95–112
- Wallace M. 1987. Dying for coal: the struggle for health and safety conditions in American coal mining, 1930–82. Soc. Forces 66(2):336–64
- Walters D. 1987. Health and safety and trade union workplace organisation—a case study in the printing industry. *Ind. Relat. 7.* 18(1):40–49
- Walters D. 1996. Trade unions and the effectiveness of worker representation in health and safety in Britain. Int. J. Health Serv. 26(4):625–41
- Walters D. 2001. Health and Safety in Small Enterprises: European Strategies for Managing Improvement. Brussels: PIE Peter Lang
- Walters D. 2004. Worker representation and health and safety in small enterprises in Europe. *Ind. Relat. J.* 35(2):169–86
- Walters D. 2006. One step forward, two steps back: worker representation and health and safety in the United Kingdom. *Int. J. Health Serv.* 36(1):87–111
- Walters D, Denton M. 1990. Workers' knowledge of their legal rights and resistance to hazardous work. *Ind. Relat.* 45(3):531–47
- Walters D, Johnstone R, Frick K, Quinlan M, Baril-Gingras G, Thebaud-Mony A. 2011. Regulating Workplace Risks: A Comparative Study of Inspection Regimes in Times of Change. Cheltenham, UK: Edward Elgar
- Walters D, Nichols T. 2007. Worker Representation and Workplace Health and Safety. London: Palgrave Macmillan
- Walters D, Nichols T. 2009. Workplace Health and Safety: International Perspective on Worker Representation. London: Palgrave Macmillan
- Weil D. 1987. Government and labor at the workplace: the role of labor unions in the implementation of federal health and safety policy. PhD Thesis, Harvard Univ., Cambridge, MA
- Weil D. 1991. Enforcing OSHA: the role of labor unions. Ind. Relat. 30(1):20-36
- Weil D. 1992. Building safety: the role of construction unions in the enforcement of OSHA. *J. Labor Res.* 8(1):121–32
- Weil D. 1999. Are mandated health and safety committees substitutes for or supplements to labor unions? Ind. Labor Relat. Rev. 52(3):339-60

- Weil D. 2001. Assessing OSHA performance: new evidence from the construction industry. J. Policy Anal. Manag. 20(4):651–74
- Weil D. 2014. The Fissured Workplace. Cambridge, MA: Harvard Univ. Press
- Weinstock D, Failey T. 2014. The labor movement's role in gaining federal safety and health standards to protect America's workers. *New Solut*. 24(3):409–34
- Whitehouse G. 1992. Legislation and labour market gender inequality: an analysis of OECD countries. Work Employ. Soc. 6(1):65–86
- Worrall JD, Butler RJ. 1983. Health conditions and job hazards: union and nonunion jobs. J. Labor Res. 4(4):339-47
- Yandle B. 1983. Economic agents and the level of pollution control. Public Choice 40:105-9
- Yandle B. 1985. Unions and environmental regulation. 7. Labor Res. 6(4):429-36
- Zullo R. 2011. Right-to-work laws and fatalities in construction. J. Labor Soc. 14:225-34