Labour standards compliance in the global garment supply chain

Evidence from ILO's Better Work Program on the Role of Unions and Collective Bargaining

Luisa Lupo
Anil Verma

International Labour Organization

International Finance Corporation
WORLD BANK GROUP

BetterWork.

Labour Standards Compliance in the Global Garment Supply Chain: Evidence from ILO's Better Work Program on the Role of Unions and Collective Bargaining

Luisa Lupo

International Labour Organization

Anil Verma

University of Toronto

July 2020

ABSTRACT

This paper examines the role that unions and collective bargaining play in improving working conditions in garment factories participating in the Better Work program in Bangladesh, Cambodia, Haiti, Indonesia, Jordan and Vietnam. Based on analyses of factory assessment data over repeated cycles of capacity-building and monitoring, we find that workplace unionization and collective bargaining are associated with lower non-compliance in salaries and benefits, contracts, as well as occupational safety, health, and welfare standards. Findings, however, are much less definitive for working hours. While local capacity to enforce accountability and better working conditions remains circumscribed by the business imperatives of fast fashion strategies, this study demonstrates local industrial relations systems have the potential to augment the efficacy of transnational, collaborative interventions such as Better Work.

Introduction

More than six years after the tragic Rana Plaza building collapse in April 2013 in Dhaka, Bangladesh, where over 1,100 workers lost their lives and many more were injured, ensuring transparency and adequate working conditions continues to be a challenge in garment factories around the world. This is becoming ever more apparent since the COVID-19 pandemic, which has put a magnifying glass on the inequalities and vulnerabilities facing workers on a global scale. As past experiences demonstrate, buyer-driven corporate social responsibility (CSR) efforts are doing little to address the power asymmetries and commercial practices underpinning the fast fashion model, which is characterized by production and high consumption of low-quality, affordable and trendy apparels with shortened lead times, frequent changes in orders and decreasing prices. Some studies find that these production practices are associated with significant and widespread labour and human rights violations (Connell-Hiller, 2019; Taplin, 2014). At the same time, transnational initiatives, such as the Better Work (BW) program, appear to have improved compliance with labour standards, but evidence suggests improvement has been uneven. In fact, garment factories are particularly heterogeneous in their response to these efforts.

This paper tests the hypothesis that some of the heterogeneity between compliant and noncompliant factories, and within factories over time, can be explained by the role played by unions and collective bargaining in improving working conditions. To what extent do local industrial relations systems, specifically unions and collective bargaining, make a difference? This article seeks to bring to light these dynamics. While embeddedness in local industrial relations systems are key for the efficacy of transnational regulatory interventions (Locke, 2013), empirical evidence on the extent to which these play a role is scant, particularly in exporting countries, where supplier factories have limited scope of action.

Our analysis draws on factory-level compliance data in the areas of contracts, working hours, occupational safety and health standards (OSH), wages and paid leave, workplace facilities and welfare standards, as well as on the existing literature, and qualitative evidence. This includes documentary evidence from factories' improvement reports and a number of interviews with Better Work field staff. First, we examine previous studies of compliance and present the Better Work program. Next, we provide an overview of the methodology and data. Finally, we interpret our findings to discuss the articulation of local industrial relations systems in supplier factories and their role in improving working conditions, specifically when power and control are distributed unevenly across the supply chain.

Overall, findings indicate that the stronger the industrial relations system, the more likely that factories have the structure and processes to ensure compliance with standards in key areas of working conditions, such as contracts, OSH, wages, paid leave and welfare standards. Findings are less solid with respect to working hours, suggesting that local capacity to enforce accountability and better working conditions remains circumscribed by the business imperatives of fast fashion strategies. Yet, to varying degrees, the analysis also demonstrates that local industrial relations systems have the potential to enable levers and positive feedback loops, potentially augmenting the efficacy of transnational interventions such as Better Work.

Standards Compliance in the Global Garment Industry

A significant body of research in the global value chains and networks traditions has examined the impact of private initiatives, such as codes of conduct and compliance-based audits, on working conditions with mixed results at best. The greatest impacts were registered on safety and health (Tucker, 2013; Locke et al. 2009) and working hours (Barrientos and Smith, 2007), while impact on freedom of association rights was limited (Anner, 2017; 2012; Barrientos and Smith, 2007). Aside from measuring the overall impact of private initiatives a debate has developed around the factors that can explain their uneven impact. Based on his evaluation of several initiatives to enforce fair labour standards within global value chains, Locke (2013) argues that a collaborative approach is necessary, based on the view that regulation cannot be left to private stakeholders alone but should rather be adaptive to and embedded in local circumstances. Along these lines, Bartley (2018, p.5), argues for increased attention to the places of implementation, in contrast with the 'hope of transcendence,' or denial of local conditions promoted by many CSR projects.

With respect to transnational regulation, both quantitative and qualitative studies demonstrate that efficacy is highly dependent on local institutions, especially on the ways in which state, civil society, and market governance institutions interact (Schuessler et al. 2019; Toffel et al., 2015; Disthelhorst et al., 2015; Locke et al., 2013). Further, within domestic contexts, worker organizing has historically played an important role in advancing labour regulation, for instance, with respect to minimum wage setting. In Vietnam, incremental waves of strikes have been pivotal for a significant increase in national minimum wage levels (Tran, 2007; Anner and Liu, 2015, Cox, 2015), while similar dynamics have been documented in Bangladesh (Khanna, 2011; Anner, 2012). In Indonesia, Amengual and Chirot (2016) find that greater compliance with minimum wage standards is achieved only when unions

activate and engage with district-level state institutions, indicating that the pressure of transnational efforts may be insufficient by itself for standard enforcement.

The Role of Industrial Relations in Supplier Factories

Different approaches and academic standpoints have provided different lenses through which to examine formal employment relations (Fox, 1966; 1973; Edwards, 2003; Kaufman, 2004; Wilkinson et al., 2018). Studies have demonstrated that conflict is better managed when workers have voice in the workplace (Backes-Gellner et al., 1997; Dobbins and Guniggle, 2009; Kim et al., 2010), and that voice can serve the dual goal of efficiency and equity (Budd 2004; Budd and Colvin, 2008). Yet, there is little evidence on the extent to which IR systems at the workplace can augment the efficacy of regulatory efforts, especially the ones that transcend national boundaries such as interventions at the production-end of global supply chains.

Over the past decades, a number of studies have shown that unions and collective bargaining are associated with better working conditions and compliance with labour standards (e.g. Morantz, 2017; Pohler and Riddell, 2004; Weil 1982; 1994). A number of mechanisms have been identified, such as, worker-management dialogue. Unions provide workers with an effective channel to bring issues to managers' attention. Further, by participating in workplace committees, for instance, on safety and health, unions contribute to the identification, record-keeping and remediation of violations (Reilly et al. 1995). Through collective bargaining, unions exercise rights and seek remedies when public mechanisms are insufficient or lacking, thus filling regulatory gaps within domestic contexts.

Several seminal studies by Weil (1991; 1994) in particular demonstrate that unions, specifically in larger factories, are likely to support labour inspectors and auditors, enabling greater surfacing of violations and, in turn, remediation of issues. Another mechanism is communication and training of workers. In fact, unions typically play an important role in educating workers on their rights and on preventive OSH measures. Gillen et al. (2002), for instance, find that workers' awareness of dangerous work practices is higher in factories where a union is present. Lastly, if workers have a preference for unionized workplaces, unions may have a positive spillover effect on working conditions, leading non-unionized employers to make improvements in order to be competitive and attract workers.

Others have argued that unions' role in improving working conditions in factories may be limited due to a number of factors. For example, in the case of legally mandated employment and social security regulations in Argentina, Ronconi (2010) finds that unions

5

are not associated with greater compliance enforcement. Similarly, Rassier (2006) finds that, in the case of environmental regulation, the union effect on compliance is negative, because unions may apply more weight to the short-term costs of compliance than its long-term benefits. According to this view, unions are likely to align their interests with those of management, if they believe this strategy would preserve profitability and employment and reduce the risk of layoffs due to a reduction in profits.

Another strand in the literature contends that many registered but weak unions often play tokenistic roles, rather than providing workers with a meaningful channel to voice. These negative views, particularly when global supply chain factories are located in authoritarian states that limit the role of unions by law and practice, see unions as rigid, illegitimate, corrupt, dependent on political elites or serving as an extension of the government (Anner, 2012; Anner and Liu, 2016; Ashraf and Prentice, 2019). In such cases, union presence in supplier factories may have negative effects as well, on the quality and intensity of regulatory scrutiny, by actively failing to address workers' grievances or protect their interests. Much remains unknown, however, about the extent to which their institutional presence correlates with different compliance outcomes. It is especially important to understand the conditions under which regulatory efforts might be augmented or undermined at the production-end of the supply chain.

Industrial Relations and the Better Work Program: Context and Key Trends

Better Work is a joint ILO-IFC program dedicated to improving working conditions, recognizing labour rights and enhancing business competitiveness in the global garment supply chain. It provides in-factory services, consisting of advisory, unannounced compliance assessments, and training, while simultaneously supporting national industrial relations institutions and mobilizing international buyers to adopt more responsible business practices (Rossi, 2015). This is based on a tripartite 'win-win' collaborative rationale, by which improvements in working conditions and respect of labour rights go hand-in-hand with business competitiveness. To achieve its objectives, the program creates a governance structure within each country to bring together labour, management and government at the industry and factory levels.

When factories join the Better Work program, they are coached to create (or work with existing) bipartite worker-management committees, self-diagnose labour rights violations and make immediate improvements. Following this initial stage, Better Work's Enterprise Advisors (EAs) carry out an independent, unannounced 2-person, 2-day

assessment visit to identify labour rights violations with respect to national laws and international labour standards. Following the first assessment (cycle 1), the advisory process continues and focuses on remediating noncompliance issues through social dialogue and learning.

A number of studies have documented the positive impact of the Better Work intervention on working conditions and business competitiveness (Polaski, 2009; Shea et al. 2010; Ang et al., 2012; Brown et al. 2013; 2016; World Bank, 2015), worker-management communication and human resource practices (Pike and Godfrey, 2015; Rourke, 2014). Additionally, research has examined the role that local stakeholders play in achieving scope and sustainability of the programme (Alois, 2016; Polaski, 2009). In the case of Better Factories Cambodia, evidence shows that improved industrial relations, exemplified by greater union presence and improved worker-manager communication, have led to significant improvements in crucial aspects of working conditions and, to a lesser extent, on workers' wellbeing (Rossi and Robertson, 2011; Oka, 2015). Others have been critical of social dialogue mechanisms in Better Work participating factories. In Vietnam, for instance, non-union collective institutions, such as worker-management committees, compounded by weak national unions, were found to provide a weak defense of workers' rights, leading to short-lived solutions rather than sustainable improvements (Anner, 2017, p.20).

Important distinctions need to be made, however, with respect to the features of industrial relations institutions across the countries where Better Work is present.[i] In Vietnam, all unions are required to be affiliated to the Vietnam General Confederation of Labour (VGCL), while in Jordan, unions are required to be members of the government-supported General Federation of Jordanian Trade Unions, posing serious limitations on their political independence (Kolben, 2019).

In the other countries, the law allows for the existence of multiple unions and/or confederations, but the level of unionisation varies considerably. While it remains particularly low in Bangladesh, Jordan and Haiti, it has increased substantially in Cambodia and Indonesia over the past decade. In Cambodia, estimates suggest the number of active unions per factory reached 1.7 on average, with total membership accounting to 60 percent of garment sector workers (Arnold, 2013). Though garment sector factories tend to be unionized in Nicaragua, protection of workers' right at the workplace-level is precarious (Bair and Gereffi, 2014), and voluntary individual negotiations remain common practice (Mendez, 2005). Public estimates with respect to collective bargaining are seldom available, the ILO estimates this stands at 26 and 8 percent in Cambodia and Nicaragua respectively.[ii]

In light of these differences, each Better Work country program has developed and tailored its own strategies, priorities and methodologies to domestic conditions, in collaboration with national constituents. This is apparent in the program's compliance assessment tool, whereby compliance is measured according to applicable legal standards that vary across countries depending upon national law. Based on the preceding discussion, the main hypothesis guiding our analysis is that an association exists between factory-level industrial relations systems and labour standards compliance. Specifically, given the communication and education functions of unions within factories, we would expect a negative correlation between noncompliance and measures of both union presence and exercise of their legal and contractual rights. In factories with collective bargaining agreements (CBAs), we would expect lower noncompliance with wage and paid leave standards compared to factories with no CBAs, as these issues tend to be frequently addressed in processes of negotiation at the factory-level.

Unions' roles in practice

We examined documentary evidence from Better Work's factory-level improvement plans to trace the IR mechanisms that may be at play in practice. These provide a brief description of the actors involved and ways in which remediation took place for each non-compliance issue identified during assessments.

Throughout over 60,000 improvement items recorded during the last three years by BW staff, unions are frequently featured in the description of action needed and progress updates, particularly in light of their knowledge sharing function. During one assessment in Indonesia, for instance, workers were found to continue working during break periods. Over the course of the following eight months, the union conducted three awareness-raising initiatives among workers to inform them about their rights and amended the CBA. As noted by BW staff in the improvement plan, "document reviews during the visit in July 2018 showed that the new Collective Bargaining Agreement has articles which [provide] the basis to issue warning letters if there are any […] supervisors who instruct workers to work during the breaktime." In another case, one factory did not establish the legally required wage structure and scale, nor carry out periodic reviews of wage levels based on productivity. In the next improvement plan update, BW staff noted that following consultations with the union, the factory took all actions needed to remediate the issue.

In addition, we identified a number of cases where union representatives were listed as the lead person in the identification of issues, such as with emergency preparedness and

worker protection requirements in Vietnam, social security, overtime wage payments and the establishment of OSH management systems in Cambodia. This suggests that workplace unions can augment the efficacy of Better Work's assessment oversight, demanding further analyses along the lines discussed in this paper.

Methodology and Data

The analysis draws on longitudinal compliance data grounded in national legislation and a range of workplace-level measures of industrial relations. These include respect of union operations and exercise of rights, as well as the effective implementation of CBAs. Since our industrial relations indicators and outcome measures of non-compliance are measured at the same point in time, we use a lag of one time period (one cycle in our case) in the (explanatory) industrial relations variables. This provides an adequate length of time to observe shifts in compliance practices, while ensuring a large enough sample size to conduct statistical analyses. These latter build on the methodology developed by Oka (2015), to exploit three model specifications, testing different substantive relationships between variables. The first is a pooled OLS, with robust standard errors:

$$\ln(Noncompliance_{it}) = \propto_0 + \beta_1 IR_{i(t-1)} + \beta_2 X_{it} + + \beta_3 Year_t + \varepsilon_{it} \quad (1)$$

This model allows us to understand whether union presence correlates with particular non-compliance outcomes at a given point in time, testing for differences between union and non-union factories in their compliance enforcement behavior. In doing so, it explores prevailing associations across the universe of Better Work participating factories.

Next, we introduce a lagged dependent variable on the right-hand side as an explanatory variable. This dynamic OLS (DOLS) specification allows us to exploit the cross-sectional specification, while controlling for time-variant characteristics at time *t-1,* which may have an influence on the dependent variable at time *t*:

$$\ln(Noncompliance_{it}) = \propto_0 + \beta_1 IR_{i(t-1)} + \beta_2 X_{it} + \beta_3 Year_t + \quad (2)$$
$$+ \beta_4 Noncompliance_{i(t-1)} + \varepsilon_{it}$$

Finally, we use a fixed-effects model, to control for time-invariant factory characteristics and thus examine within-factory changes. This model differs substantively

from the previous two. In fact, it examines the process of change in non-compliance outcomes at the level of the individual factory, to measure the change in non-compliance when the same factory changes its union or CBA status. The relatively short timeframe (9 years) in our study prevents us from using the lagged dependent variable in the fixed-effects specification, as it would be correlated with the error term. Year fixed-effects are used in all specifications, while main buyer and country where the supplier is located are absorbed by factory fixed-effects in that specification:

$$\ln(Noncompliance_{it} = \propto_0 + \beta_1 IR_{i(t-1)} + \beta_2 X_{it} + \beta_3 Year_t + F_i + \varepsilon_{it} \quad (3)$$

$Noncompliance$ is the simple mean between a series of dichotomous variables that take value one in the presence of non-compliance with working conditions standards and zero otherwise, in the following six categories: contracts, wages, paid leave, working hours, OSH, workplace facilities and welfare.[iii] IR is a binary variable accounting for specific industrial relations indicators, such as the presence of at least one union in the factory. X is a vector of factory-specific characteristics, specifically country, size (number of workers), whether the factory's main buyer is a Better Work partner and cycle, which takes into consideration each period (lasting roughly 12-18 months) of Better Work services received by the factory. $Year$ and F are year and factory fixed-effects respectively.

Our main hypothesis is that industrial relations systems at the supplier-level matter in predicting compliance with national labour standards. In light of the communication and education functions of unions in supplier factories, we would expect a negative correlation between non-compliance and measures of both union presence and exercise of rights (H1: $\beta_1 < 0$). In the case of CBAs, we would expect lower non-compliance, particularly with wage and paid leave standards. Conversely, if factory-level unions have no effect on compliance or are counterproductive to the protection of workers' rights, we would expect to reject our main hypothesis. This would lend support to the argument that unions in supplier factories have limited scope of action in enforcing respect of labour standards.

Data used in this paper cover all garment-exporting factories operating in Cambodia, Haiti and Jordan. In the case of Bangladesh, Indonesia and Vietnam, however, participation in the programme is voluntary and we are not able to rule out selection bias. We are also cognizant that union and non-union factories, or factories that select into having a CBA and those that do not, might differ in many unobservable ways, including managerial practices and workers' organizational capacity. It may be the case that union or CBA presence have no

effect on compliance enforcement but we find an effect because factories with managers that are more inclined to respect compliance on working conditions standards such as contracting practices, are also factories where management respects freedom of association rights.

Measuring the effect of unions remains elusive and prone to endogeneity issues, which are likely to create a downward bias in estimated coefficients (Morantz, 2018). One reason is that while unions may prevent hazards (or violations), these may also be the reason why workers unionize in the first place. If this were the case, we would observe greater non-compliance in unionized workplaces, relatively to non-unionized factories. It is also plausible that, in factories where there is a union and/or a CBA, workers were more mobilized in the first place, and that this is the main driver for both industrial relations measures and compliance outcomes. If workers' mobilization improved compliance outcomes prior to unionization, or to the formation of a CBA, this would bias our findings on the role of unions and collective bargaining. Unfortunately, we lack data on factories' mobilization history. We have tried to minimize omitted variable bias using a variety of specifications and lagged industrial relations measures, but caution that regression results need to be interpreted as evidence of association and not as proof of causal links.

In addition, we recognize that there are significant limitations associated with the IR measures used in this paper, specifically in light of the tokenistic role that registered unions may play in certain contexts. Future research should aim at collect more systematic data on the degree of independence, representativeness, membership and size of unions, as well as on the prevalence of alternative forms of worker organizing in supplier factories. Additionally, most variables to control for differences between union and non-union workplaces remain unobserved, preventing us from making rigorous comparisons. This bias is mitigated by drawing from a relatively homogeneous set of first-tier suppliers operating within the same global industry, and by adopting a twofold approach in our empirical analyses. The first seeks to discern cross-sectional differences, while the second explores the changes in compliance enforcement before and after the formation of a union, or the establishment of a CBA, within the same factory, which takes place in about one-third (30 percent) of factories in our sample.

While acknowledging important differences, we argue in favour of examining compliance data pooled across divergent industrial relations systems, for theoretical and methodological reasons. As suggested by Kabeer et al. (2020, p.32) in a recent study of the Accord on Fire and Building Safety in Bangladesh: "We cannot understand the persistence

and pervasiveness of these practices by focusing on individual factories or countries." Understanding these dynamics requires taking into account "the broader political economy of supply chain capitalism within which these production processes are located" (Ibid.). Thus, considering patterns from diverse factories and countries participating in Better Work allows us to explore the functioning of a globally integrated production system in which factories in diverse domestic contexts are producing for the same market.

In this context, pooling data across countries can test a single model of fundamental relationships between industrial relations measures and compliance outcomes at the most disaggregate level at which these systems are implemented. In addition to quantitative data, we reviewed documentary evidence on factories' improvement processes and collected qualitative evidence by interviewing field staff with coordination and support roles on IR matters, individually and in groups using semi-structured interviews. This evidence, complemented by the existing literature, provides useful insights into whether results from the pooled model hold in practice, under different domestic conditions.

Data

The quantitative analysis draws from a total of 4,883 assessments collected by Better Work's trained EAs between 2009 and 2018, in an unbalanced panel of over 900 supplier factories that had completed at least two cycles of participation in the program. As seen in Table 1, the majority are located in Cambodia (28 percent) and Vietnam (32 percent), which are the largest amongst Better Work's country programs. Over 70 percent employ more than 600 workers and have completed on average three cycles of participation in the program.

[Table 1 near here]

For the purpose of this study, we argue that the following four indicators provide relevant information about workplace industrial relations: union presence, union rights, presence of collective bargaining agreements and their effective implementation. Summary statistics for each of these measures are seen in Table 2.

[Table 2 near here]

The majority of supplier factories in our sample have a union present (over 70 percent) but only in about half, the employer respects union rights. This variable asks questions such as the freedom to meet without management present, equal treatment of multiple unions (when multiple unions are allowed under national law) and non-discrimination with respect to union membership or activities. In Vietnam, while all factories have one active union by law, only in about half of observations (55 percent) non-interference requirements are met. Turning to CBAs, over half of factories have at least one agreement in force (53 percent). For only about 30 percent of observations, however, the CBA has been implemented in all of its provisions, can be accessed by all workers, and the provisions are at least as favourable for workers than what is required by national law.

In the case of Jordan, mobilisation and bargaining takes place at the sectoral level, yet indicators at the workplace level remain particularly telling. In 46 percent of cases the requirements in the sectoral CBA are implemented, while in 42 percent, a branch of the sectoral confederation is active at the factory-level. Further, about one-third of factories, representative of the sample of factories in our study, shifted their internal IR structures, including from non-union to union and/or from non-CBA to CBA. This suggests that the fixed-effects specification is particularly suited for this analysis. Bangladesh is one exception, as the vast majority of factories does not have any registered unions (95 percent), with only incremental improvements since the program's creation in 2014.

[Table 3 near here]

Next, we examine data on six selected measures of working condition outcomes. Each of these is assessed against the national legislation specific to the country where the factory is based but covers comparable legal requirements on the following: contracts, including contracting procedures and termination; wages, especially overtime wage, minimum wage, and deductions; paid leave (sick leave, parental and annual leave), working hours non-compliance with regular and overtime limits; OSH, specifically, emergency preparedness, OSH management systems, chemicals, worker protection, workplace noise, lighting and heat; and workplace facilities and welfare, comprising of accommodations, working environment, first-aid facilities and welfare. A summary is presented in Table 2. Factories report the highest levels of non-compliance in safety and health standards, with 64 percent of violations on average. Paid leave and working hour standards follow, with 60 and

55 percent respectively. Workplace facilities and welfare standards non-compliance stands at 42 percent, while wage standards at 37 percent.

Regression Results

We estimated regression coefficients using the models described earlier: the pooled OLS, dynamic OLS (DOLS) and fixed-effects specifications. Regression results are shown in Tables 4-7. For example, Table 4 gives the estimated coefficients of regressing non-compliance on contracts, wages, paid leave, hours, OSH, workplace facilities and welfare standards respectively on the industrial relations measure of union presence. Columns 1-3 in Table 4 provide estimates for each model specification (OLS, DOLS and FE), for contracts non-compliance. Coefficients can be interpreted as approximate percent changes in the outcome variable. A negative coefficient indicates that non-compliance decreases when the specific IR component is met controlling for other factors.

[Table 4 near here]

The association between industrial relations and compliance is significantly different from zero and negative in most model specifications, as expected. For instance, when a factory forms a union, non-compliance with contract standards, including contracting procedures and termination, is significantly lower (6 percent) at the following cycle. Similarly, non-compliance with OSH standards drops by about 4 percent holding other factors constant.

[Table 5 near here]

The presence of a union in supplier firms, however, does not necessarily translate into effective union activism. The union may be subject to management interference and not be empowered to conduct its operations. The IR indicator of union rights measures whether union members are free to meet without management present, as well as treatment of unionists, and therefore represents a more stringent requirement than union presence. Findings for this variable reinforce those for union presence and are significant and negative in the case of contracts, wages, OSH, as well as facility and welfare standards non-compliance. In line with previous empirical and theoretical evidence (Freeman, 1984),

14

the majority of estimates from cross-sectional analyses signal larger IR effects compared to longitudinal estimates, providing respectively an upper and lower bound on the 'true' effects.

[Table 6 near here]

Table 6 presents regression results for the IR measure of CBA presence. Coefficients are negative and statistically significant for wages, as well as contracts and OSH non-compliance. Yet, the adoption of a CBA, however, does not automatically translate into better working conditions. In order to do so, the agreement must ensure provisions that are at least as favourable, if not more favourable, than the law and it needs to be implemented in all of its provisions. In fact, implementation of CBAs translates into lower non-compliance with all working conditions standards, with the exception of working hours. In line with the hypothesis that paid leave standards non-compliance would be lower in factories that implement a CBA, compared to factories with no CBA, we find that paid leave non-compliance drops by 5 percent within the same factory when it implements the CBA (FE specification), and by 10 percent when comparing different factories controlling for time-variant factors (DOLS).

[Table 7 near here]

Factory size is negatively associated with non-compliance and significant in most model specifications, indicating that larger factories are less likely to be in non-compliance. Lastly, results for the buyer variable show that, when a given factory indicates a Better Work partner as its primary buyer, it also less likely to be in non-compliance.

Interpretation and Discussion

Exploring the extent to which local industrial relations systems can augment the efficacy of transnational initiatives to improve compliance with labour standards in global supply chains was at the heart of our enquiry. We examined union presence, union rights, CBA presence and implementation as illustrative of IR systems in supplier factories participating in the Better Work program.

Overall, our results provide support for the argument that the stronger the IR system, the more likely that factories have the structure and processes to ensure monitoring

15

and enforcement of labour standards compliance. This is apparent in regression results for paid leave and wages, for which the implementation of favourable CBA conditions and unrestricted access of workers to having copies of the CBA, rather than merely having a CBA in force, translates into lower non-compliance.

These findings are consistent with recent studies on the role of unions for improving compliance with corporate codes of conduct (Bird et al., 2019), national and international labour law (Oka, 2015), and occupational safety (Morantz, 2012). In particular, Bird et al. (2019) theorize that the degree to which suppliers in emerging economies improve their labour practices is related to the presence of other structures in these organizations and cannot therefore be attributed solely to external institutional factors. Our study corroborates this theory, providing additional evidence that internal structures, such as unions, allow to more closely align practices with institutional demands, but differs in its focus. While that study examines compliance with codes of conduct, we shift the attention to compliance with national regulation, which we consider having greater legitimacy in supplier factories.

As we pointed out earlier in the methodology section, there is potential for bias in our results due to various factors. In the fixed-effects specification, we minimize bias stemming from heterogeneity between suppliers, which may influence a supplier's likelihood of adopting specific labour practices. Despite limitations, findings are robust across time periods, across and within national regimes. As such, they provide useful insights into the role of internal conditions under which transnational interventions, such as the Better Work program, are likely to be more effective in fostering improvements in working conditions.

Additional evidence, however, is necessary to understand how compliance enforcement and internal IR systems may be linked in practice. For instance, there is evidence from Cambodian factories (Oka, 2015) that managers, in order to pre-empt unions to go on strike and therefore reduce risks of penalties associated with late deliveries, improve their labour practices, by granting paid sick leave and paid annual leave benefits above the legal minimum in collective agreements. This mirrors our findings for CBA implementation, which are significant specifically in the case of paid leave. Evidence also suggests that unions have the tendency to neglect occupational safety (Ibid.), but more recent data in our regression analysis does not seem to corroborate this finding. It might be the case that unions have shifted their priorities. Exploring this possibility would be an interesting avenue for future research.

It may also be the case that unions, in particular when they are provided with necessary means to ensure their operations, provide an important communication channel for workers to bring management's attention to poor conditions on the factory-floor and demand remediation. In addition, as certain standards might be difficult to interpret or implement, unions can play a facilitation function in mainstreaming these standards. With respect to their impact on working conditions, an important topic emerging during interviews with Better Work staff was behavioural change: "the [greatest] achievement has been a change in the mind-set, not only in non-compliance" (authors' interview, June 13 2019). Thus, communication channels such as unions facilitate enforcement of standards, fostering changes in behavior to monitor and correct violations.

Bilateral agreements between global unions and buyers represent another channel through which workplace-level unions have advanced improvements in working conditions. As suggested by one Better Work staff member, "More unions in factories are starting to talk about [global framework agreements] GFAs […] when they have a problem, when they need to deal with the factory [manager]; they start by mentioning agreements with buyers" and continues, "whether this will have an effect will depend on the capacity of the national-level union to share information and knowledge with unions in the factory" (authors' interview, June 12 2019). This view resonates with experiences across different countries where Better Work is present and echoes similar findings in the literature. For instance, Bartley (2018) documents that local unions, specifically under certain conditions, have been successful in leveraging corporate forms of regulation, while they have been counterproductive in others, specifically when there is a lack of mobilization at the grassroot-level.

Further, the association between IR measures and compliance outcomes we find is much less significant for working hours, while it is relatively less robust for the wage variable. Several members of Better Work field staff revealed to us that excessive hours of work remain a big challenge, regardless of internal efforts to improve. While some suppliers show progress in restraining the hours worked, even in those cases often "hours remain above the legal limit," suggesting that progress towards reducing excessing working hours has been gradual but limited (authors' interview, June 14 2019). One possibility is that unions, and therefore the workers they represent, have specific preferences, which lead to the prioritization of certain issues over others (Oka, 2015). According to this argument, this may result in unions tolerating violations of working hour standards in exchange for earning higher wages. Taken together, however, our findings lend little support to this possibility.

A more plausible explanation is that there is a systemic cause of violations in these issue categories, inherent to the business practices underpinning the fast fashion model. In fact, supply chain pressures, specifically fluctuations in orders and short lead times, as well as poor management systems practices such as overbooking, partly through subcontracting and partly by arranging overtime, are found to be among the leading reasons of non-compliance (Seo, 2011). These findings mirror Kabeer et al. (2020, p.31), who find a stickiness in employer practices, specifically with respect to basic wages and overtime non-compliance. As symptoms of systemic and longstanding asymmetries in power relationships within global supply chains, these are likely to be left intact by nascent IR systems at the factory-level.

In sum, our findings indicate that there has been significant progress for workplace level unionisation and bargaining across different institutional contexts and through an array of channels. In some instances, integration in globalized markets has expanded the confines of workplace IR to greater scales, providing levers for standards enforcement at the workplace-level. In others, local capacity to enforce compliance with national labour standards has remained constrained by the business imperatives of fast fashion strategies. These findings are in line with a long tradition in the IR scholarship on the role of unions for compliance enforcement (e.g. Freeman, 1985; Weil, 1991), and with more recent studies on the coupling between labour practices of codes of conduct in the context of globalized production processes (for instance, Bird et al., 2019; Bartley and Egels-Zandén, 2016). We provide novel evidence at the intersection of these two strands in the literature. These have important implications along the lines discussed below, for the efficacy of collaborative initiatives such as Better Work.

Conclusions

Our study offers useful insights into transnational initiatives and their interplay with national and local level industrial relations systems. The intent of this study was not to enter the debate over international versus national regulation. We could hardly afford to do so as we lacked data from factories that did not participate in the Better Work program. Rather, our findings speak to the reality that international initiatives do not exist in a vacuum at their point of implementation. International initiatives, in order to be effective, must operate through national and local systems. Hitherto, there was little empirical evidence on the extent to which local industrial relations systems had the capacity to augment the efficacy of these interventions, particularly in factories at the production-end of supply chains.

Our findings suggest that the stronger the local industrial relations system, the more likely that factories have the structure and processes to ensure monitoring and enforcement of compliance with contracts, OSH, workplace facilities, welfare standards, paid leave and wages. These results echo earlier findings that unions play a key role in ensuring compliance with the law and complement recent scholarship that examines the role played by external actors for compliance enforcement.

While results provide greater confidence in claiming that workplace industrial relations matter for augmenting the efficacy of transnational collaborative efforts, these systems are not perfect, and neither are they easy to implement nor to ensure their effectiveness. Workplace industrial relations can be considered to be effective (or sound) only when institutional structures such as unions and collective bargaining represent all workers on an equal basis and are complemented with an effective relationship established through ongoing dialogue that transcends the workplace itself. We are not able to examine the extent to which our measures of industrial relations are ultimately able to do so. Further, we only examined a specific set of supplier factories consisting of first-tier suppliers, which are likely subject to greater scrutiny and better positioned to address violations. Informal sweatshop factories or home-based workers are oftentimes excluded from both the reach of transnational programs and formal channels of worker activism. Finally, while we focused on compliance with national labour standards, reforming and strengthening these standards, for instance by raising social protection floors, remains equally important.

References

Alois, Paul, "Better Work and Global Governance," 2016. CUNY Academic Works.

Amengual, Matthew, and Laura Chirot. "Reinforcing the State: Transnational and State Labor Regulation in Indonesia", Industrial and Labor Relations Review 69, no. 5 (2016): 1056–1080.

———, Greg Distelhorst, and Danny Tobin. "Global Purchasing as Labor Regulation: The Missing Middle." ILR Review 73, no. 4 (August 1, 2020): 817–40.

Anner, Mark. 2017. Monitoring Workers' Rights: The limits of voluntary social compliance initiatives in labor repressive regimes. Global Policy 8(3): 56-65.

———, and Xiangmin Liu. "Harmonious Unions and Rebellious Workers: A Study of Wildcat Strikes in Vietnam." ILR Review 69, no. 1 (January 1, 2016): 3–28.

———. 2012. "Corporate Social Responsibility and Freedom of Association rights: The Precarious Quest for Legitimacy and Control in Global Supply Chains." Politics & Society 40(4) 609-644.

———. "CSR Participation Committees, Wildcat Strikes and the Sourcing Squeeze in Global Supply Chains." SSRN Scholarly Paper. Rochester, NY: Social Science Research Network, March 1, 2018.

Arnold, Dennis. "Workers' agency and power relations in Cambodia's garment industry." In Arianna Rossi, Amy Luinstra and John Pickles (Eds.), Towards Better Work: Understanding Labour in Apparel Global Value Chains, pp.212-231.

Arnold, Dennis. "Workers' Agency and Re-Working Power Relations in Cambodia's Garment Industry." SSRN Electronic Journal, 2013.

Ashraf, Hasan, and Rebecca Prentice. "Beyond Factory Safety: Labor Unions, Militant Protest, and the Accelerated Ambitions of Bangladesh's Export Garment Industry." Dialectical Anthropology 43, no. 1 (March 1, 2019): 93–107.

Barrientos, Stephanie, and Sally Smith. "Do Workers Benefit from Ethical Trade? Assessing Codes of Labour Practice in Global Production Systems." Third World Quarterly 28, no. 4 (2007): 713–729.

Bartley, Tim. Rules Without Rights: Land, Labor, and Private Authority in the Global Economy. Oxford University Press, 2018.

Bird, Yanhua, Jodi L. Short, and Michael W. Toffel. "Coupling Labor Codes of Conduct and Supplier Labor Practices: The Role of Internal Structural Conditions." Organization Science 30, no. 4 (April 30, 2019): 847–67.

Brown, Drusilla, Rajeev Dehejia, Raymond Robertson. 2013. "Is There an Efficiency Case for International Labour Standards?" Better Work Discussion Paper Series: No. 12. October 2013.

Budd, John W. *Employment with a Human Face: Balancing Efficiency, Equity, and Voice*. Cornell University Press, 2004.

———, and Alexander J.S. Colvin. 2008. Improved metrics for workplace dispute resolution procedures: Efficiency, Equity, and Voice. Industrial Relations 47(3): 460-479.

Connell- Hiller, Kim Y.. 2019. "Utilizing Political Consumerism to Challenge the 21st Century Fast Fashion Industry." The Oxford Handbook of Political Consumerism, pp.293-312.

Cox, Anne. "The Pressure of Wildcat Strikes on the Transformation of Industrial Relations in a Developing Country: The Case of the Garment and Textile Industry in Vietnam." Journal of Industrial Relations 57, no. 2 (2015): 271–290.

Dannecker, Petra. "Collective Action, Organisation Building, and Leadership: Women Workers in the Garment Sector in Bangladesh." Gender & Development 8, no. 3 (2000): 31–39.

Distelhorst, Greg, and Richard M. Locke. "Does Compliance Pay? Social Standards and Firm-Level Trade." American Journal of Political Science 62, no. 3 (2018): 695–711.

———, and Timea Pal, and Hiram Samel. "Production Goes Global, Compliance Stays Local: Private Regulation in the Global Electronics Industry." Regulation & Governance 9, no. 3 (2015): 224–42.

Dunlop, John Thomas. Industrial relations systems. Harvard Business School, 1993.

Edwards, Paul. Industrial Relations: Theory and Practice. John Wiley & Sons, 2009.

Evans, Alice. "Patriarchal unions = weaker unions? Industrial relations in the Asian garment industry." Third World *Quarterly* 38:7(2017), pages 1619-1638.

Ford, Michele. "Indonesia: Separate Organizing within Unions." In Women and Labour Organizing in Asia: Diversity, Autonomy and Activism, edited by Kaye Broadbent and Michele Ford, 15–33. Abingdon: Routledge, 2008.

Fox, Alan. Industrial sociology and industrial relations. HM Stationery Office, 1966.

Fox, Alan. "Industrial relations: a social critique of pluralist ideology." Man and organization (1973): 185-233.

Freeman, Richard. What Do Unions Do? New York: Basic Books, 1985.

———. 1984. "Longitudinal Analyses of the Effects of Trade Unions." *Journal of Labor Economics* 2(1): 1–26.

Hyman, Richard. "What Is Industrial Relations?" In Industrial Relations, 9–31. Palgrave
Macmillan, London, 1975..

International Labour Organization (ILO). "Better Work Indonesia helps communicate
employment rules across the country's garment industry." Geneva: ILO, 2018.

International Labour Organization (ILO). "Collective Bargaining: A Policy Guide." Geneva: ILO,
2015.

Kaufman, Bruce E. 2004. *The Global Evolution of Industrial Relations. Events, Ideas and the
IIRA*.

Khanna, P. "Making Labour Voices Heard during an Industrial Crisis: Workers with Struggles
in the Bangladesh Garment Industry," Labour, Capital and Society 44, no. 2 (2011):
106–129.

Kolben, Kevin. 2019. "The Jordanian Garment Industry and Better Work," Better Work
Discussion Paper No. 35. Available at https://betterwork.org/wp-
content/uploads/2020/01/DP34.pdf accessed 21 March 2020.

Kuruvilla, Sarosh and Anil Verma. 2006. International labor standards, soft regulation, and
national government roles. Journal of Industrial Relations 48(1): 41-58.

Locke, Richard, Fei Qin, and Alberto Brause. 2007. "Does Monitoring Improve Labor
Standards? Lessons from Nike." Industrial and Labor Relations Review 61(1).

———, Matthew Amengual, and Akshay Mangla. 2009. "Virtue out of Necessity?
Compliance, Commitment, and the Improvement of Labor Conditions in the Global
Supply Chains." Politics & Society 37(3).

———,Locke, Richard M., Ben A. Rissing, and Timea Pal. "Complements or Substitutes?
Private Codes, State Regulation and the Enforcement of Labour Standards in Global
Supply Chains." *British Journal of Industrial Relations* 51, no. 3 (2013): 519–52.

Mayer, Frederick and Gary Gereffi. 2010. "Regulation and Economic Globalization: Prospects
and Limits of Private Governance." Business and Politics 12(3).

Marginson, Paul. 2016. Governing work and employment relations in an internationalized
economy: The institutional challenge. Industrial and Labor Relations Review 69(5):
1033-1055.

Mendez, Jennifer Bickham. From the revolution to the maquiladoras: Gender, labor, and
globalization in Nicaragua. Duke University Press, 2005.

Merk, Jeroen. Stitching a Decent Wage across Borders: The Asia Floor Wage Proposal. New
Delhi: Asia Floor Wage Alliance, 2009.

Miles, Lilian. 2015. The 'integrative approach' and labour regulation and Indonesia: Prospects and challenges. Economic and Industrial Democracy 36(1): 5-22.

Morantz, Alison. 2018. "The Elusive Union Safety Effect: Toward a New Empirical Research Agenda." Members-Only Library 0, no. 0 (May 25, 2018).

———. 2017. "What Unions Do for Regulation." SSRN Scholarly Paper. Rochester, NY: Social Science Research Network (October 1, 2017).

———. 2012. "Coal Mine Safety: Do Unions Make a Difference?" SSRN Scholarly Paper. Rochester, NY: Social Science Research Network (May 29, 2012).

Oka, Chikako. "Improving Working Conditions in Garment Supply Chains: The Role of Unions in Cambodia." British Journal of Industrial Relations 54, no. 3 (September 1, 2016): 647–72.

Pohler, Dionne, and Chris Riddell. "Multinationals' Compliance with Employment Law: An Empirical Assessment Using Administrative Data from Ontario, 2004 to 2015." ILR Review 72, no. 3 (May 1, 2019): 606–35.

Polaski, Sandra. 2009. Harnessing global forces to create Decent Work in Cambodia. International Institute for Labour Studies, Research Series 119. Geneva: International Labour Office.

Polaski, Sandra. 2006. "Combining Global and Local Forces: The Case of Labor Rights in Cambodia." World Development 34: 919-932.

Rani, Uma, Patrick Belser, Martin Oelz, and Setareh Ranjbar. "Minimum wage coverage and compliance in developing countries." International Labour Review, Vol. 152 (2013), no. 3–4: 381–410.

Rassier, Dylan G. 2006. "Do Trade Unions Affect Compliance with Environmental Regulation?" Washington DC: Bureau of Economic Analysis. Available at SSRN 889400.

Reilly, Barry, Pierella Paci, and Peter Holl. 1995. "Unions, Safety Committees and Workplace Injuries." *British Journal of Industrial Relations,* Vol. 33, No. 2, pp. 275–288.

Ronconi Lucas. 2010. "Enforcement and compliance with labor regulations in Argentina." *Indudstrial and Labor Relations Review*, 63(4):719–36.

Rossi, Arianna, and Raymond Robertson. "Better Factories Cambodia: An Instrument for Improving Industrial Relations in a Transnational Context." SSRN Scholarly Paper. Rochester, NY: Social Science Research Network, June 9, 2011.

———. "Better Work: Harnessing Incentives and Influencing Policy to Strengthen Labour Standards Compliance in Global Production Networks." Cambridge Journal of Regions, Economy *and Society* 8, no. 3 (November 1, 2015): 505–520.

Ruggie, John Gerard. "Business and Human Rights: The Evolving International Agenda." *The American Journal of International Law* 101, no. 4 (2007): 819–40.

Schuessler, Elke, Stephen J. Frenkel, and Chris F. Wright. "Governance of Labor Standards in Australian and German Garment Supply Chains: The Impact of Rana Plaza." *ILR Review* 72, no. 3 (May 1, 2019): 552–79.

Seo, Ji-Won. 2011. "Excessive Overtime, Workers and Productivity: Evidence and Implications for Better Work." Better Work Discussion Paper Series: No. 2. May 2011.

Shea, Anne, Mariko Nakayama, and Jody Heymann. 2010. Improving labour standards in clothing factories: Lessons from stakeholder views and monitoring results in Cambodia. Global Social Policy 10(1): 85–110.

Taplin, Ian M. "Who Is to Blame?: A Re-Examination of Fast Fashion after the 2013 Factory Disaster in Bangladesh." Text. Emerald Group Publishing Limited, 2014.

Toffel, Michael W., Jodi L. Short, and Melissa Ouellet. "Codes in Context: How States, Markets, and Civil Society Shape Adherence to Global Labor Standards." Regulation & Governance 9, no. 3 (2015): 205–23.

Tran, Angie Ngoc. 2011. "Corporate Social Responsibility in Communist Vietnam." In Labour in Vietnam, edited by Anita Chan. Singapore: Institute of South East Asian Studies.

Tucker, Eric. 2013. "Giving voice to the precariously employed? Mapping and exploring channels of worker voice in occupational health and safety regulation." Comparative Research in Law and Political Economy. Research Paper No. 14.

Weil, David. 1987. "Government and Labor at the Workplace: The Role of Labor Unions in the Implementation of Federal Health and Safety Policy." Diss.: Harvard University.

———. 1991. "Enforcing OSH: The role of labor unions". Industrial Relations: A Journal of Economy and Society, 30 (1), 20-36

———. 1994. *Turning the Tide: Strategic Planning for Labor Unions.* New York: Lexington Books.

———. 1999. "Are mandated health and safety committees substitutes for or supplements to labor unions?" Industrial and Labor Relations Review, 52 (3), 339-360.

Wilkinson, Adrian, Tony Dundon, Jimmy Donaghey, and Alexander Colvin. *The Routledge Companion to Employment Relations*. Routledge, 2018.

World Bank. "Interwoven: How the Better Work Program Improves Job and Life Quality in the Apparel Sector." Washington, DC: 2015.

Yoon, Youngmo. "A Comparative Study on Industrial Relations and Collective Bargaining in East Asian Countries," ILO Working Paper No. 8, Geneva: ILO, 2009.

Table 1. Factory characteristics (2009-2018)

	Mean	St. Dev.	Min.	Max.
Medium-large (>600 workers)	0.73	0.44	0	1
BW partner buyer	0.52	0.50	0	1
Cycle	3.02	2.15	1	14
Bangladesh	0.05	0.22	0	1
Cambodia	0.28	0.45	0	1
Haiti	0.07	0.25	0	1
Indonesia	0.15	0.35	0	1
Jordan	0.11	0.31	0	1
Nicaragua	0.03	0.17	0	1
Vietnam	0.32	0.47	0	1
Observations	4883			

Source: Authors' calculation using Better Work data.

Table 2. Industrial Relations Indicators (2009-2018)

IR measure	Mean	St. Dev.	Min.	Max.
Union presence	0.72	0.45	0	1
Union rights	0.52	0.50	0	1
CBA in force	0.53	0.50	0	1
CBA implementation†	0.29	0.45	0	1
Observations	4883			

† In addition to whether the CBA has been implemented, Better Work assesses whether the conditions of the CBA are at least as favourable as the law. Figures for this measure mirror those of CBA implementation and are not included in the analysis.

Source: Authors' calculation using Better Work data.

Table 3. Non-compliance with National Labour Legislation (2009-2018)

Non-compliance category	Mean	St. Dev.	Min.	Max.
Contracts	0.52	0.34	0	1
Wages	0.37	0.24	0	1
Paid leave	0.60	0.49	0	1
Hours	0.54	0.38	0	1
Occupational safety	0.64	0.21	0	1
Facilities & Welfare	0.54	0.25	0	1
Observations	4883			

Source: Authors' calculation using Better Work data.

Table 4. Regression Results for Union Presence (2009-2018)

Regression model	Contracts			Wages			Paid Leave			Hours			OSH			Facilities & Welfare		
	OLS	DOLS	FE	OLS	DOLS	FE	OLS	DOLS	FE	OLS	DOLS	FE	OLS	DOLS	FE	OLS	DOLS	FE
Union presence (t-1)	-0.04**	-0.03**	-0.06**	-0.03*	-0.02*	-0.01	-0.02	-0.01	-0.01	-0.02	-0.01	-0.04	-0.03**	-0.02***	-0.04**	-0.02*	-0.01	0.01
	(-2.70)	(-2.58)	(-3.06)	(-2.45)	(-2.51)	(-0.53)	(-0.85)	(-0.71)	(-0.24)	(-0.99)	(-0.52)	(-1.67)	(-3.24)	(-3.34)	(-2.83)	(-2.04)	(-0.95)	-0.73
Medium-large (>600 workers)	-0.04**	-0.02**	0.03	-0.04***	-0.02**	0.00	-0.05**	-0.04**	0.01	-0.01	0.00	0.00	-0.02*	-0.01	0.01	-0.01	0.24***	0.03
	(-3.18)	(-2.58)	(1.04)	(-3.56)	(-2.82)	(0.17)	(-3.14)	(-3.12)	(0.32)	(-0.56)	(-0.34)	(-0.02)	(-2.07)	(-1.86)	(0.43)	(-1.54)	(9.31)	(1.91)
BW partner buyer	-0.03**	-0.03**		-0.02	-0.01		-0.02	-0.02		-0.02	-0.02*		-0.01	-0.01		-0.02	0.00	
	(-2.67)	(-3.04)		(-1.58)	(-1.88)		(-1.29)	(-1.23)		(-1.51)	(-2.05)		(-0.84)	(-1.04)		(-1.83)	(-0.47)	
Non-compliance (t-1)		0.31***			0.35***			0.21***			0.37***			0.31***			-0.01	
		(16.28)			(16.14)			(9.88)			(14.95)			(13.56)			(-1.47)	
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cycle FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Factory FE	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes
Constant	0.51***	0.32***	0.31**	0.29***	0.18***	0.18**	0.49***	0.35***	0.56**	0.58***	0.36***	0.68***	0.55***	0.37***	0.50***	0.28***	0.20***	0.45***
	(23.52)	(14.83)	(2.98)	(14.32)	(10.09)	(3.12)	(15.81)	(11.23)	(3.17)	(23.27)	(14.11)	(6.85)	(37.41)	(19.31)	(8.27)	(18.14)	(11.71)	(9.11)
Observations	2'932	2932	2932	2'932	2932	2932	2'932	2932	2932	2932	2702	2932	2'932	2932	2932	2'932	2242	2932
Number of firms	924	924	924	924	924	924	924	924	924	924	913	924	924	924	924	924	908	924
R^2	0.25	0.33		0.12	0.22		0.24	0.28		0.19	0.29	0.04	0.09	0.17		0.45	0.49	
R^2 within			0.03			0.04			0.08			0.04			0.03			0.12
R^2 overall			0.17			0.05			0.00			0.02			0.05			0.00
R^2 between			0.19			0.06			0.06			0.01			0.07			0.07

Exponentiated coefficients; t statistics in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
Source: Authors' calculation using Better Work data.

Table 5. Regression Results for Union Rights (2009-2018)

	Contracts			Wages			Paid Leave			Hours			OSH			Facilities & Welfare		
Regression model	OLS	DOLS	FE	OLS	DOLS	FE	OLS	DOLS	FE	OLS	DOLS	FE	OLS	DOLS	FE	OLS	DOLS	FE
Union rights (t-1)	-0.04***	-0.03***	-0.04**	-0.03***	-0.02**	0	-0.03	-0.02	0	-0.02	-0.01	-0.02	-0.02***	-0.01*	-0.01	-0.02**	-0.01	0
	(-4.37)	(-3.68)	(-3.03)	(-3.75)	(-2.87)	(-0.34)	(-1.89)	(-1.39)	(-0.18)	(-1.32)	(-0.84)	(-1.29)	(-3.58)	(-2.43)	(-0.80)	(-3.24)	(-1.63)	(-0.65)
Medium-large (>600 workers)	-0.04**	-0.02*	0.03	-0.04***	-0.03**	0	-0.05**	-0.04**	0.01	-0.01	0.00	0.00	-0.02*	-0.01*	0.01	-0.01	0.24***	0.03
	(-3.10)	(-2.57)	(1.07)	(-3.58)	(-2.96)	(0.14)	(-3.06)	(-3.08)	(0.31)	(-0.58)	(-0.33)	(-0.03)	(-2.16)	(-2.11)	(0.38)	(-1.46)	(9.25)	(1.90)
BW partner buyer	-0.03**	-0.02**		-0.02	-0.01		-0.02	-0.02		-0.02	-0.02*		-0.01	-0.01		-0.02	0	
	(-2.61)	(-2.98)		(-1.53)	(-1.83)		(-1.27)	(-1.21)		(-1.49)	(-2.03)		(-0.79)	(-1.00)		(-1.80)	(-0.38)	
Non-compliance (t-1)		0.31***			0.34***			0.21***			0.37***			0.31***			-0.01	
		(16.03)			(16.04)			(9.82)			(14.95)			(13.50)			(-1.48)	
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cycle FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Factory FE	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes
Constant	0.49***	0.31***	0.30**	0.27***	0.16***	0.18**	0.48***	0.35***	0.30**	0.57***	0.36***	0.66***	0.54***	0.36***	0.49***	0.27***	0.20***	0.45***
	(25.04)	(15.21)	(2.89)	(15.21)	(10.26)	(3.07)	(17.31)	(11.96)	(2.89)	(25.52)	(14.91)	(6.82)	(40.70)	(19.29)	(8.30)	(19.46)	(12.62)	(9.38)
Observations	2'932	2932	2932	2'932	2932	2932	2'932	2932	2932	2932	2702	2932	2'932	2932	2932	2'932	2242	2932
Number of firms	924	924	924	924	924	924	924	924	924	924	913	924	924	924	924	924	908	924
R^2	0.26	0.33		0.12	0.22		0.24	0.28		0.19	0.29	0.04	0.09	0.17		0.46	0.49	
R^2 within			0.03			0.04			0.03			0.04			0.03			0.12
R^2 overall			0.17			0.04			0.17			0.03			0.04			0.00
R^2 between			0.19			0.05			0.19			0.02			0.04			0.06

Exponentiated coefficients; t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: Authors' calculation using Better Work data.

Table 6. Regression Results for CBA in Force (2009-2018)

	Contracts			Wages			Paid Leave			Hours			OSH			Facilities & Welfare		
Regression model	OLS	DOLS	FE	OLS	DOLS	FE	OLS	DOLS	FE	OLS	DOLS	FE	OLS	DOLS	FE	OLS	DOLS	FE
CBA in force (t-1)	-0.07***	-0.05***	-0.03	-0.05***	-0.04***	-0.02	-0.05*	-0.03	-0.01	-0.06**	-0.04**	0	-0.03*	-0.02	0.03	-0.05***	-0.03**	-0.01
	(-5.14)	(-3.97)	(-1.26)	(-4.03)	(-3.92)	(-0.88)	(-2.35)	(-1.63)	(-0.25)	(-2.96)	(-3.05)	(0.15)	(-2.46)	(-1.94)	-1.53	(-4.36)	(-3.10)	(-0.50)
Medium-large (>600 workers)	-0.04**	-0.03**	0.05*	-0.03**	-0.02*	0.01	-0.05***	-0.04***	-0.01	-0.01	0.00	0.02	-0.01	-0.01	0.02	-0.01	0.25***	0.03
	(-3.23)	(-3.12)	(2.18)	(-2.81)	(-2.31)	(0.57)	(-3.40)	(-3.36)	(-0.40)	(-0.46)	(-0.49)	(0.88)	(-1.82)	(-1.64)	(1.16)	(-1.69)	(9.36)	
BW partner buyer	-0.03**	-0.03***		-0.02*	-0.02*		-0.03	-0.02		-0.03	-0.02*		-0.01	0		-0.02*	-0.01	
	(-2.96)	(-3.31)		(-2.04)	(-2.19)		(-1.79)	(-1.77)		(-1.94)	(-2.15)		(-0.68)	(-0.80)		(-2.02)	(-0.73)	
Non-compliance (t-1)		0.34***			0.35***			0.22***			0.36***			0.34***			-0.01	
		(17.93)			(16.64)			(10.25)			(15.11)			(14.59)			(-1.83)	
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cycle FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Factory FE	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes
Constant	0.51***	0.30***	0.37***	0.29***	0.17***	0.20***	0.53***	0.38***	0.56***	0.59***	0.38***	0.49***	0.53***	0.34***	0.46***	0.30***	0.22***	0.43***
	(22.05)	(12.98)	(6.28)	(13.77)	(9.37)	(4.24)	(16.22)	(11.38)	(6.00)	(22.31)	(14.61)	(8.12)	(30.16)	(16.51)	(9.76)	(18.35)	(11.97)	(12.80)
Observations	2'891	2891	2891	2'891	2891	2891	2'891	2891	2891	2891	2891	2891	2'891	2891	2891	2'891	2241	2891
Number of firms	923	923	923	923	923	923	923	923	923	923	923	923	923	923	923	923	908	923
R^2	0.26	0.35		0.11	0.22		0.25	0.29		0.28	0.37	0.03	0.07	0.17		0.46	0.49	
R^2 within			0.03			0.04			0.05			0.03			0.03			0.08
R^2 overall			0.03			0.04			0.02			0.00			0			0.00
R^2 between			0.07			0.05			0.07			0.00			0.01			0.04

Exponentiated coefficients; t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: Authors' calculation using Better Work data.

Table 7. Regression Results for CBA Implementation (2009-2018)

	Contracts			Wages			Paid Leave			Hours			OSH			Facilities & Welfare		
Regression model	OLS	DOLS	FE	OLS	DOLS	FE	OLS	DOLS	FE	OLS	DOLS	FE	OLS	DOLS	FE	OLS	DOLS	FE
CBA implementation (t-1)	-0.06***	-0.03**	-0.01	-0.04***	-0.02	0.01	-0.10***	-0.07***	-0.05**	-0.03*	-0.01	0.03*	-0.04***	-0.02**	0.00	-0.05***	-0.04***	0.00
	(-6.11)	(-2.97)	(-1.28)	(-4.54)	(-1.94)	(-0.91)	(-6.27)	(-4.87)	(-2.68)	(-2.20)	(-0.61)	(2.34)	(-5.26)	(-2.86)	-0.38	(-6.67)	(-5.24)	(-0.36)
Medium-large (>600 workers)	-0.04**	-0.03**	0.05*	-0.03**	-0.02*	0.01	-0.05**	-0.04**	-0.01	-0.01	-0.01	0.02	-0.01	-0.01	0.02	-0.01	0.24***	0.03
	(-3.20)	(-3.21)	(2.20)	(-2.84)	(-2.50)	(0.53)	(-3.12)	(-3.09)	(-0.27)	(-0.57)	(-0.74)	(0.77)	(-1.66)	(-1.59)	(1.15)	(-1.54)	(9.22)	(1.87)
BW partner buyer	-0.04**	-0.03***		-0.02*	-0.02*		-0.03	-0.02		-0.03*	-0.02*		-0.01	-0.01		-0.02*	0.00	
	(-3.18)	(-3.49)		(-2.21)	(-2.39)		(-1.85)	(-1.81)		(-2.07)	(-2.32)		(-0.75)	(-0.87)		(-2.19)	(-0.49)	
Non-compliance (t-1)		0.34***			0.35***			0.21***			0.36***			0.33***			-0.01*	
		(17.91)			(16.52)			(9.71)			(15.23)			(14.39)			(-2.02)	
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cycle FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Factory FE	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes
Constant	0.46***	0.27***	0.36***	0.25***	0.14***	0.19***	0.51***	0.38***	0.57***	0.55***	0.34***	0.48***	0.51***	0.33***	0.47***	0.27***	0.20***	0.43***
	(22.80)	(13.29)	(6.24)	(14.31)	(8.88)	(4.08)	(18.57)	(13.05)	(6.13)	(25.62)	(15.19)	(8.16)	(35.86)	(17.51)	(9.93)	(20.15)	(13.43)	(13.17)
Observations	2'891	2891	2891	2'891	2891	2891	2'891	2891	2891	2891	2891	2891	2'891	2891	2891	2'891	2241	2891
Number of firms	923	923	923	923	923	923	923	923	923	923	923	923	923	923	923	923	908	923
R^2	0.26	0.35		0.11	0.22		0.26	0.29		0.28	0.37	0.04	0.08	0.17		0.46	0.49	
R^2 within			0.03			0.04			0.05			0.04			0.03			0.08
R^2 overall			0.04			0.03			0.01			0.00			0.01			0
R^2 between			0.12			0.02			0.06			0.00			0.00			0.06

Exponentiated coefficients; t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: Authors' calculation using Better Work data.

Acknowledgments

Endnotes

[i] In terms of international rules, the majority of countries participating in Better Work have ratified both the Freedom of Association and Protection of the Right to Organise Convention (No. 87), and the Right to Organise and Collective Bargaining Convention (No. 98), but while Convention No. 135 on Workers' Representatives has only been ratified in Jordan and Nicaragua. None of the countries in this study have ratified the Collective Bargaining Convention, 1981 (No. 154), which defines the parties to collective bargaining and the purposes of negotiations, while at the time of writing Vietnam has just only ratified Convention 98.

[ii] 2018 ILOSTAT estimates.

[iii] In this paper, we refer to 'non-compliance' as opposed to 'compliance' reflecting Better Work's reporting method. Details on each assessment question are available at https://betterwork.org/portfolio/better-works-global-compliance-assessment-tool/ Accessed 3 April 2020.

International Labour Organization

IFC International Finance Corporation WORLD BANK GROUP