Field Opacity and Practice-Outcomes Decoupling: Private Regulation of Labor Standards in Global Supply Chains

Sarosh Kuruvilla, London School of Economics and Cornell University

Chunyun Li, London School of Economics

Mingwei Liu, Rutgers University

Wansi Chen, East China University of Science and Technology

Abstract

Although private regulation of labor standards in global supply chains is increasingly adopted by firms in diverse industries, a mounting quantum of scholarly evidence suggests that this approach has not generated sustainable improvements in working conditions of workers in global supply chains. Prior studies attribute this gap between private regulation practices and expected outcomes to flaws in each element of the private regulation model or to symbolic adoption by firms. The authors draw on recent developments in institutional theory regarding practice-outcome decoupling to suggest an alternative organizational field-level explanation. Using qualitative and quantitative data from a global apparel supplier and a global home products retailer, they demonstrate how actor heterogeneity creates field opacity via practice multiplicity, behavioral invisibility and causal complexity, contributing to practice-outcomes decoupling.

Accepted by Industrial and Labor Relations Review on 29 July 2019.

Field Opacity and Practice-Outcomes Decoupling: Private Regulation of Labor Standards in Global Supply Chains

A variety of private regulation models were adopted by global apparel and footwear companies in the early 1990s in response to pressure from activists and consumers over sweatshop conditions in global supply chains. The most popular model consists of three elements. The first element concerns the setting of standards regarding labor practices in global supply chains through a code of conduct that is generally based on ILO's conventions; the second element, "auditing," involves checking whether supplier factories comply with the code of conduct and is carried out directly by the brands or sub-contracted to specialist auditing firms; the third element incentivizes suppliers to improve compliance with the code by linking future sourcing decisions to their compliance records (penalizing or dropping noncompliant suppliers and rewarding more compliant ones).

On the one hand, this model has diffused among many industries such as horticulture, home furnishings, furniture, fish, lumber, fair trade coffee and others, while also spawning a complex, burgeoning supportive eco-system of actors and institutions (multi-stakeholder initiatives, auditing firms, critical NGOs, and consulting firms). On the other hand, there is steadily mounting scholarly evidence that the model has not generated sustainable improvements in living standards of workers in the global supply chains (Appelbaum and Lichtenstein 2016). Thus, we have a puzzling situation where this private regulation model continues to be adopted despite reports of its ineffectiveness. The research question this paper addresses is: Why is there a gap between policies and practices of private regulation and the intended outcome of sustainable improvements in labor standards in global supply chains?

Two general explanations have been advanced for such a gap. The first, popular among critics, has focused on "symbolic adoption", whereby companies adopt private regulation primarily as a strategy to minimize reputational risk, without seriously implementing it (see Esbenshade 2004). A second explanation points to faulty assumptions underlying the model's design, and a variety of problems in each step of its' implementation (e.g., Locke 2013; Amengual and Distelhorst 2019). The symbolic adoption thesis does not fully fit the facts, as many global companies have not only adopted but have, to varying degrees, *implemented* a private regulation strategy. It is also unlikely that the few cases of specific implementation problems which have been unearthed can account for the policy-practice-outcomes gap noted in the organizational field of private regulation as *a whole*. Therefore, we draw on recent developments in institutional theory regarding organizational decoupling (Bromley and Powell 2012; Wijen 2014) to explain the general policy-practice-outcomes gap in private regulation with respect to labor standards.

Our argument is that actor heterogeneity in private regulation of labor standards generates opacity that result in practice-outcomes decoupling. More specifically, we develop propositions regarding how heterogeneous actors contribute to the three characteristics of field opacity identified by institutional scholars. These include *practice multiplicity* (the diversity of practices adopted by actors across socio-political and geographic spaces), *behavioral invisibility* (the difficulty in assessing the behavior of actors such as suppliers), and *causal complexity*, where a "multitude of interconnected heterogeneous actors and factors interacting in non-linear ways creates uncertainty about cause-effect relations" (Wijen 2014:306-7). We test our argument using novel qualitative and quantitative data from two "best of breed" sources in two studies.

Our qualitative evidence is drawn from a detailed study of two factories of a global supplier, and is used to show how suppliers face practice multiplicity and decoupling as a result

of heterogeneous brands' diverse rating scales and rating methodologies. Our quantitative data is drawn from audit records provided by a highly reputed global *retailer* combined with data from pay-slips of 1543 workers from 30 of its suppliers in China. The analysis of this data demonstrates global retailer experiences behavior invisibility and decoupling in auditing suppliers in diverse locations, even when auditing supposedly easy-to-measure outcomes such as wages and hours. Finally, we demonstrate that well-established causes of compliance identified in prior private regulation literature have uncertain effects in this case, when examined in conjunction with a variety of other variables such as supplier and worker characteristics suggesting some uncertainty regarding cause3-effect relations.

In showing how opacity and practice-outcomes decoupling exists in even highly motivated leading brands and suppliers, our contribution to the private regulation literature is to outline an alternative, systemic explanation for the practice-outcomes gaps noted. In essence, we suggest that it is not *only* the problems with symbolic adoption or individual elements of the private regulation model that contribute to its lack of effectiveness, but that the complex ways in which actors interact in an opaque field *also* plays an important role. In so doing, we also make a modest contribution to institutional theory by testing and extending recently advanced arguments to private regulation of labor standards in global supply chains.

Germane Literature

As is well established (e.g., Bartley 2007; Elliott and Freeman 2003), the inability of governments to effectively enforce their labor laws in apparel sourcing locations, coupled with pressure from activists and consumers, forced global apparel firms to adopt private regulation in the early 1990s. Although private regulation takes many forms, such as certification and reporting systems (e.g., Goodweave, Global Reporting Initiative, UN Global Compact), the most common form is through corporate codes of conduct. The key elements of the model are that companies articulate a code of conduct for their supply chain (either

directly or adopting the code of conduct of a multi-stakeholder institution), engage in "auditing" (again directly or through third parties) to evaluate the extent to which supplier factories comply with their code[1], and then use these results to direct the factories to "remediate", rewarding the factories that do and punishing those that don't. These three design elements have not changed significantly since their introduction in the early 1990s, and this form of private regulation has been widely adopted in many industries such as toys, electronics, accessories, jewelry, aquaculture, food processing, furniture, household products, office supplies, pharmaceuticals and many more.

Consequently, there has been growth in the associated "ecosystem" of private regulation. The ecosystem includes a number of independent "social auditing" businesses (e.g., Verite, SGS, Intertek, ELEVATE); multi-stakeholder standard setting organizations (e.g., Fair Labor Association [FLA), Ethical Trading Initiative [ETI), Social Accountability International [SA]); organizations involved in providing platforms for sharing of auditing information (e.g., Sedex); private foundations (e.g., C&A Foundation); student organizations (e.g., United Students against Sweatshops); and critical NGOs (e.g., Oxfam, Labor behind the Label) who focus on pressuring global brands to improve labor and environmental standards in their supply chains. More recently, new multi-stakeholder organizations have evolved to facilitate coordination among brands, such as the Bangladesh "Accord" on Fire and Building Safety.

There is growing consensus, however, that the growth in the private regulation eco-system has NOT been accompanied by a steady improvement in labor standards in global supply chains. Although the number of empirical studies is limited, they point to only a modest increase in overall compliance, but with continuing violations of many labor

[1] Hence the use of the term compliance. A fundamental assumption is that better compliance leads to better outcomes for workers.

standards. This is evident in several studies, for example, the analyses of auditing scores from Nike and HP (Locke et al. 2007; Distelhorst et al. 2015); the analysis of audit data from specialized auditing firms (e.g., Toffel et al. 2015, 2018); the analysis of audit data from multi-stakeholder initiatives such as the FLA (Anner 2012; Stroehle, 2017) and Fair Wear Foundation (Egels-Zanden and Lindholm 2015); and semi-public auditing reports by ILO's Better Factory Cambodia (BFC) project (Oka 2010a, b; Ang et al. 2012). A variety of investigative reports from NGOs reach similar conclusions (e.g., Oxfam, Labor Behind the Label).

These studies indicate that compliance varies across the different audit datasets and across different labor issues. The variation in overall compliance with specified standards across industries is large, ranging from low levels of compliance in the toy sector (Egels-Zanden and Lindholm 2014:35) to an average compliance level of approximately 65% among Nike's 575 suppliers from 2002 to 2005 (Locke et al. 2007:10). Compliance is generally weaker in respect of "enabling rights" such as freedom of association and collective bargaining, relative to other rights such as freedom from child labor (e.g., Bartley and Egels-Zanden 2015). There is a general absence of steady improvement. Locke (2013:31) notes that supplier factories "cycle in and out of compliance" and that, suggestive of a plateau effect, average compliance rates of all NIKE suppliers between the 2001-2004 period and the 2009-2012 period look remarkably similar. Evidence from qualitative case studies complement the evidence from the empirical studies above (Egels-Zanden 2007; Ngai 2005; Lund-Thomsen et al. 2012; Yu 2008; Esbenshade 2004; Barrientos and Smith 2007; Anner 2012; Egels-Zandén and Lindholm 2015; Rodriguez-Garavito 2005; Locke et al. 2007; Koçer and Fransen 2009; Applebaum and Lichtenstein 2016), as does evidence from worker surveys (e.g. Chan and Siu 2010).

Prior research has generated explanations for the lack of compliance and identified compliance correlates. Studies have identified problems with each of the three elements in the model. An early criticism focused on the *multitude of codes and standards* adopted by companies, which results in audit fatigue for multi-brand suppliers, affecting their ability to comply effectively. The *Auditing* element has attracted the most attention as a cause for compliance failure. Locke (2013) argues that the assumption that reliable high quality information can be gleaned through the auditing process is unwarranted, given the differential interests of buyers and suppliers. Buyers often want suppliers to invest in greater compliance while simultaneously reducing the price they pay for the product. This incentivizes suppliers to cheat via preparing alternate sets of records, and to coach workers to give "desired" responses to auditors' questions. These actions are made easier because audits are announced in advance. Alternatively, suppliers will subcontract production to second tier and third tier factories that are not the subject of brand auditing. Thus, auditing becomes an adversarial "cat and mouse" game, where auditors try and obtain "the elusive real data while factory managers offer suspicious or partial records and workers parrot answers that auditors suspect are coached" (Bartley et al. 2015:163).

The relatively short duration of most audits (1-2 days) makes it difficult to uncover compliance violations, especially because auditors do not triangulate with off-site worker interviews. Auditors are generally poorly trained, and since auditing has become a low cost commoditized activity, there is a tendency among auditors to "satisfice" by cursory checks of documents and engage in a "check the box" exercises without focusing on root causes. Finally, there is also considerable audit fraud (where auditors are paid bribes to overlook violations, or when audit records are falsified). Extensive reviews of such auditing problems can be found in (Locke 2013:36), Bartley et al. (2015), and Short, Hugill and Toffel (2017).

Finally, there is little evidence that companies *link future sourcing to supplier compliance records.* This has been the least researched, given that brands have not shared their sourcing data. There are two problems here. First, it is not at all clear that corporations have modified their business models to reward more compliant factories with more orders. As Bartley et al. (2015: 162) suggest, "some brands and retailers have well-staffed and well-meaning compliance departments, but these departments rarely have the power to shape decisions of the production/sourcing departments". Amengual and Distelhorst's (2019) case study of a company determined to link sourcing and compliance found that suppliers who complied received fewer orders than suppliers with lower compliance. This lack of connection between compliance and sourcing is a key failure in private regulation, consistent with Locke's (2013) dismissal of the assumption that incentives can be designed in ways that meet all actors' interests may be unwarranted. A second problem is that *sourcing practices* are often the root cause of non-compliance. Through low prices and short turnaround times, brands "squeeze" suppliers (Anner 2018), who react by violating labor standards (Oxfam 2010; Barrientos et al. 2011). Short turnaround times, coupled with unpredictable order changes often lead to excessive overtime (Locke 2013), as managers drive workers to fulfil orders out of fear of losing the customer's business. Yet, the private regulation model does not build-in sourcing practices as a key element.

Concerning determinants of compliance, scholars have suggested that *leverage*, *i.e.*, the percentage of a factory's production purchased by the brand, is an important driver of compliance (Fitjar 2011). But leverage is not typically high as suppliers tend to apportion their capacity among many brands to diversify market risk, consistent with Locke's (2013) argument that the assumption of asymmetric power relations where large buyers have tremendous influence over their suppliers may be unwarranted. There is some evidence that *long-term, collaborative_relationships* (relational contracting) could improve compliance (Frenkel and

Scott 2002; Locke et al. 2007; Locke and Roomis 2010; Oka 2010b; Knudsen 2013; Distelhorst et al. 2015; Toffel et al. 2015).

Other correlates of compliance include the *institutional context*. Compliance is generally better in host countries with stronger protective and effective labor law enforcement (Koçer and Fransen 2009; Toffel et al. 2015), or in factories in countries where leading brands are involved in multi-stakeholder initiatives (Oak 2010 a, b), such as the ILO's Better Work Program. *Organizational characteristics* of brands and suppliers have also been linked to compliance where larger suppliers often exhibit better compliance, given their managerial capacity and resources to invest in better working conditions (Moran 2002; Baumann-Pauly et al. 2013). MNC-owned suppliers comply more than independently owned factories (Mosley 2010). An argument has been made that corporate governance matters, with privately owned companies more likely to have better private regulation programs than publicly listed companies (Quinn 1997; Fulop et al. 2000). Furthermore, He and Perloff (2013) find that auditing results in better compliance for Chinese migrant workers.

Summing up extant research, Bartley et al. (2015) note that "existing evidence suggests that they [private regulation programs] have had some meaningful but narrow effects on working conditions and the management of human resources, but the rights of workers have been less affected, and even on the issues where codes tend to be most meaningful, standards in many parts of the (apparel) industry remain criminally low in an absolute sense". We still do not have many examples of sustained improvement in all labor standards in the global apparel supply chain which likely accounts for the growing consensus that the private regulation model has failed to deliver (Nova and Wegemer 2016). There are considerable gaps in our knowledge given that the vast majority of companies have been generally unwilling to publicly share compliance and sourcing data (private regulation, after all is, private!). Consequently, we know relatively little about the variation in practices within and across

industries, what constitutes best practice, or why there has not been sustainable progress in labor standards in global supply chains generally. As more and more companies adopt the model in diverse industries, it becomes crucial to explain why the general practice-outcomes gap exists. To do so, we turn to recent developments in institutional theory.

Theory and Arguments

Institutional theorists have studied organizations' responses to regulative and normative rules. Within this domain, organizational decoupling has received extensive attention, building on Meyer and Rowan's (1977) explanation for the observed gap between formal policies and actual practices. Much of the literature has focused on this *policy-practice gap*, specifically why organizations adopt policies but do not implement them (Bromley and Powell 2012). Institutionalists have argued that policy-practice gaps typically occur when organizations respond to rationalizing pressures from the environment, *e.g.,* adopting an "externally-induced" rule to gain "legitimacy" or to avoid legal sanction through "symbolic adoption", meaning that policies are adopted but not implemented at all or implemented so weakly "that they do nothing to alter daily work routines" (Bromley and Powell 2012: 7, 15). The argument is also that policy-practice decoupling is more evident early in the adoption process, where there is weak capacity to implement policies, and where internal constituents do not reinforce the external pressures for the policies (ibid 13-14). However, with time, even policies that are symbolically adopted sometimes become integrated into the organization, particularly if they are monitored through hard and soft law channels. This is clearly the case with private regulation regarding labor practices, as most firms have implemented their regimes, with formal organizational structures (such as CSR/labor practice departments) and practices. Hence the symbolic adoption argument may not fully explain the general ineffectiveness of private regulation.

A new strand of institutional theory hypothesizes the existence of a second decoupling form, i.e., means-ends decoupling, when formal structures are adopted, work activities are changed, policies are implemented, but where scant evidence exists to show that these activities are linked to organizational effectiveness or outcomes, resulting in *practice-outcome* gaps (Bromley and Powell 2012; Wijen 2014; Briscoe and Murphy 2012). This form of decoupling is argued to be more prevalent when external pressures are institutionalized via hard or soft law in *opaque* institutional fields, where "observers have difficulty identifying the characteristics of prevailing practices, establishing causal relationships between policies and outcomes and precisely measuring the results of policy implementation" (Wijen 2014: 302), as opposed to more transparent fields where these issues are clear. Therefore, field opacity contributes to means-ends decoupling such that even if the problem of symbolic adoption were resolved, there would still be inconsistencies between adopted practice and outcomes. Such decoupling does not necessarily indicate organizational failure, but it "could well be the most functionally effective path in the face of constraints, and it may nonetheless confer legitimacy" (Bromley and Powell 2012: 6). Field opacity and means-ends decoupling may explain why the private regulation model continues to be adopted, despite reports of its ineffectiveness.

Wijen (2014) has identified three features of opaque institutional fields that impede compliance with sustainability standards on socio-environmental issues. The first is *practice multiplicity*, the diversity of practices adopted by actors spreading across different geographic, institutional, economic and cultural contexts that make it difficult to identify and engage in compliant behavior. Simply put, "the higher the number of divergent practices encountered, the more difficult it is for adopters to exhaustively understand and compare the merits and limitations of different practices, resulting in ambiguity" (ibid:305). A second characteristic is "*behavioral invisibility*", i.e., the difficulty to observe and measure the behavior of actors, especially when actors operate in remote locations (most suppliers are

located in the third world). Behavioral invisibility enables suppliers who have a low incentive to disguise their non-compliance or "pretend to be substantively compliant" (ibid:307). The third key feature of field opacity is *causal complexity*, (uncertainty regarding cause-effect relations) given that heterogeneous actors and practices are interconnected in a given context in complex ways to drive impact (ibid:306). The existence of complex causes and uncertain effects (ibid) undermine adopters' ability to understand the critical drivers of compliant behavior, inhibiting their ability to implement effective practices.

Wijen's (2014) major contribution to this literature is to suggest that adopters and regulators (he calls them institutional entrepreneurs) in opaque fields face a tradeoff or dilemma in their efforts to induce compliance and achieve envisaged goals. On the one hand, the three features of opaque fields may drive regulators to introduce concrete and uniform rules, strong incentives, and transfer of best practices to reduce opacity and induce compliance (ibid:304). On the other hand, these standardized rules and verification systems may resolve the symbolic adoption problem, but are more likely to cause practice-outcome decoupling because the complexity and diversity of actions and contexts call for "holistic and context-contingent approaches", "which is at odds with the nature of the typical compliance-oriented institutions" (ibid:305). Hence, regulators face a tradeoff or dilemma because remedying policy-practice decoupling may enhance the gap between practice and outcomes as compliance-oriented institutions will constrain the agency of adopters to act in diverse contexts.

Wijen approaches the problem of decoupling in opaque fields mainly from the regulator's perspective, i.e., how to design rules and mechanisms to reduce the trade-off, and suggests several alternatives. These include the development of a systemic mindset to deal with the multi-level complexity in opaque fields, stimulating internalization among those who are more likely to decouple policies and practices (such as suppliers) through supplier clubs

and capability building to reduce behavioral invisibility, and the development of niche institutions to translate universal approaches to more context-sensitive ones.

We draw on these ideas in this paper, but we extend it in two ways. First, while Wijen alludes to heterogeneous actors when explaining causal complexity and practice multiplicity, how they create field opacity is not his central concern, as he focuses on rule design and regulators' dilemmas. We extend his argument by focusing more on demonstrating how actor heterogeneity results in field opacity. While this is a minor shift in emphasis, it helps us uncover new implications for practice such as the need for coordination among heterogeneous actors to improve labor conditions. Second, while Wijen's arguments concern socio-environmental regulation generally, we develop specific arguments regarding the pathways through which heterogeneous actors cause opacity in the organizational field of private regulation regarding labor practices in supply chains.

Our general argument is that actor heterogeneity contributes to field opacity in ways that result in practice-outcome decoupling. Specifically, we propose that heterogeneous brands contribute to practice multiplicity in *four* ways. First, different brands adopt different private regulation policies, resulting in diverse demands on suppliers. Second, heterogeneous global firms use diverse audit practices to assess suppliers. Third, these firms use a multiplicity of rating scales to assess supplier compliance, resulting in conflicting "grades" for the supplier. Finally, different brands assign varying weights for different violations. Together, these result in inconsistent ratings that make it difficult for suppliers to comply with conflicting demands from brands and achieve divergent goals at the same time, enhancing the gap between brands' multiple practices and intended improvement in labor standards.

We further argue that supplier heterogeneity increases the difficulty for auditors to detect violations of code of conduct provisions, thereby contributing to behavioral invisibility

(the inability to readily observe the behavior of actors). Supplier heterogeneity manifests in three ways. First, suppliers are typically located in different countries and regions, posing measurement challenges to auditors who need to be aware of the variety of local laws and standards affecting code provisions with respect to labor issues. For instance, codes of conduct normally stipulate that suppliers should comply with social insurance regulations, but with regard to China, these regulations vary across provinces, and change frequently. Second, suppliers (especially those supplying to multi-product global retailers) vary in terms of the products they produce and the industries they operate in. This variation poses measurement challenges for auditors using a standard code of conduct, as industry rules and regulations vary widely, particularly with regard to health and safety issues. Third, employment practices of suppliers vary. Shift work, flexible work schedules, payment of different allowances, and patterns of record keeping, among others, make it difficult for auditors to readily assess overtime hours, wage compliance, and leave taking, because a standardized code of conduct does not take into account such variations. These types of heterogeneity make it difficult to accurately assess even relatively easy-to-measure issues such as wages and hours, and especially given the short time frame of a typical audit. Given these measurement difficulties, we suggest that audit score (the usual metric that global companies rely on to assess their private regulation efforts), may not be the most reliable indicator.

Finally, we argue that actor (worker, supplier, and brand) heterogeneity contributes to causal complexity such that it is difficult to causally attribute worker outcomes to elements of private regulation. As industrial relations scholars have long known, numerous inter-related factors (institutional factors, employer characteristics and workforce attributes) can impact workplace outcomes. These complex causes of worker outcomes may overshadow the effects of private regulation such as long-term buyer-supplier relationships and high leverage (the share of a supplier's capacity accounted for by a brand) which have been linked with

compliance in prior studies. Complicating this further, the variation in global brands interactions with their suppliers creates uncertainty regarding what works and what are effective practices in that context. Therefore, given complex causal patterns, private regulation variables may have uncertain effects in different contexts.

In sum, these new institutional perspectives constitute a promising approach to examine private regulation in action, as they outline *how* field opacity occurs, resulting in organizational decoupling. This permits the articulation of an alternative organizational-field based explanation for the practice-outcomes gap with regard to private regulation of labor standards. While Wijen (2014) and others have made several suggestions to increase coupling such as the need for transparency and niche institutions, Bartley and Egels-Zanden (2015) point to how unions and others could leverage symbolic commitments to create a more "contingent coupling". Our recommendations take these approaches into consideration. But our key contribution in this paper is to illustrate how opacity is created by extending Wijen's arguments to emphasize the role of actor heterogeneity in fostering practice multiplicity, behavior invisibility and causal complexity in the labor practice organizational field.

Research Strategy and Methodology

We draw on two sources of data from reputed actors who have implemented private regulation practices. Our first source of data is from a qualitative investigation of how brand heterogeneity creates practice multiplicity for a large supplier (hereinafter ZZZ) manufacturing for about 70 global brands. ZZZ is a vertically integrated manufacturer of woven and knit shirts, with annual revenues in excess of $1.2 billion. ZZZ is reputed to be a technological leader in shirt manufacturing, with a proven managerial capacity and a well-

developed sustainability strategy.[2] As such, ZZZ is a very different entity from the stereotypical depiction of a low-cost garment supplier. We collected general data regarding audits at ZZZ by its customer brands from all its 9 factories, and specific data from its two most advanced factories: Factory A and Factory B in Guangdong, China. Factory A, established in 1992, has 4038 employees, (81% female) with mainly local (73%) rather than migrant workers. It employs relatively advanced equipment (RFID identification tags, pattern sewing machines, button machines, auto-run collar and cuff machines) and several processes are automated (folding, cutting and spreading). Factory A had also met ISO9000 and ISO14001 quality standards. Factory B was similar to Factory A in most respects, except that it was founded in 1998, and had 6400 employees.

Interviews were conducted with 2 marketing managers, and 3 officers of the supplier's own CSR department, including the head of sustainability, and 10 plant level sustainability executives (5 per factory) who were responsible for implementing sustainability initiatives, as well as ensuring compliance with the codes of conduct of their global customers. We also interviewed the head and deputy head of manufacturing. The focus of our interviews, which were largely unstructured, was to understand how the factories experience the audits of the brands. Each of the factories supplied (at the time of our visit) to approximately 16 brands. As such, they constitute an appropriate location to view *practice multiplicity* of heterogeneous brands.

Our second source of data, drawn from a global home furnishing retailer (hereinafter BBB) interrogates how *supplier* heterogeneity contributes to measurement difficulties. BBB was an early adopter of the private regulation model (2001) and is reputed for its CSR performance. One of BBB's auditors provided us with extensive detail regarding BBB's audit protocol and how they measure supplier compliance. By 2012, BBB had required that its

[2] These details are available from the authors.

suppliers comply with 98.6%[3] of its 75-item code, allowing suppliers leeway to violate its code only on overtime hours. BBB's own in-house auditors monitor supplier performance once every 12 months. The audit duration is two days, involving two auditors. BBB's audit manager informed us in 2013 that the company prided itself on setting a bottom-line compliance target for suppliers and its linkage of audit results with sourcing decisions, suggesting that it goes beyond symbolic adoption. BBB provided us access to their audit data, because they wanted to understand how their audits impacted outcomes for workers at their suppliers. Their audit data contained a number of contextual attributes of suppliers, such as ownership, location, workforce characteristics, the length of relationships with suppliers, and the share of supplier production purchased by BBB.

We focus here on the auditing of wages and hours, as these "outcome" standards (in contrast to process rights such as collective bargaining), because they are considered more easily measurable (Anner 2012; Drebes 2014:1264). The 6 items in BBB's code concerning wages and hours include (1) suppliers shall pay wages according to local laws and average hourly wage shall not be lower than the local minimum; (2) suppliers shall pay overtime compensation according to local laws; (3) weekly working hours shall not exceed 60 hours; (4) workers shall have at least one day off in seven days; (5) workers shall enjoy paid leave according to laws and local customs; and (6) payment of benefits such as social security shall comply with local laws.

We then requested and received 1549 pay-slips belonging to an average of 52 workers in each of the 30 suppliers. These were randomly selected by an auditor from the payrolls, for the month of May 2013. The pay-slips show workers' total wages, basic wages, attendance, working hours, overtime hours and pay, social insurance contribution, various allowances, and others (see Appendix). In the audit process, BBB requires that each worker's payment

[3] BBB gave one year for existing non-confirming suppliers to meet this bottom-line compliance level.

information on the payroll must be signed by the worker together with his or her written legal identification number to ensure authenticity.

Our strategy was to systematically measure compliance regarding four items on wages and hours from pay-slips. We focus on *four* items based on 1549 pay-slips from 30 suppliers as some issues such as paid leave and one day off in seven found in BBB's code cannot be assessed with pay-slips for just one month. Our calculations of compliance (the share of workers for whom there were violations) take into account differing local and regional regulations and employment practices in the industries in which these 30 suppliers operate. We then calculate a compliance scores on these items and compare it to the audit score that BB's auditors provided. Our analytical task here is to show the challenges involved in measuring supplier behavior by examining discrepancies between BBB's audit score and our calculations of compliance. Note that the pay-slips are generated on the basis of payroll records which the auditors have assessed. The only difference is that in calculating compliance we take into account local regulations and employment practices.

Finally, in order to demonstrate *causal complexity*, we attempt to examine the causes of compliance using both our data sources. In a quantitative analysis of our second source of data, we evaluate the effect of various supplier and worker characteristics as well as private regulation related variables such as leverage and long term-buyer supplier relations. Given that Wijen (2014:306) emphasizes both complex causes as well as uncertain effects of different variables on compliance, we hypothesize that the effect of private regulation variables could have uncertain effects in this data. We supplement our analysis through interviews with marketing managers of ZZZ, who also report considerable variation amongst brands with regard to the importance of long term buyer-supplier relations.

We thus illustrate our specific arguments regarding how actor heterogeneity drives opacity via practice multiplicity, behavioral invisibility, and causal complexity that results in

practice-outcomes decoupling. We have chosen to examine two "leading cases" where private regulation efforts are relatively well developed. If these cases also exhibit opacity, it would lend support to institutional theorists' position that when the means and ends are unclear, technical procedures such as auditing become "ends in themselves" (Bromley and Powell 2012:36).

Results

Buyer Heterogeneity and Practice Multiplicity

As argued, we report here the different ways in which buyer heterogeneity increases practice multiplicity and decoupling for suppliers. In general, there is considerable variation in how ZZZ's customer brands have instituted their private regulation programs, and even more variation in how they evaluate supplier performance. Table 1 lists general variation in its customers' general private regulation approach.

--Table 1--

As Table 1 suggests, although all its customers are well-known global brands, they differ in terms of their private regulation approach. Eight are members of the FLA, while 17 are members of the Sustainable Apparel Coalition and hence, leading adopters of the private regulation model. Surprisingly, we found that, of 74 global customers, 24 did not have a private regulation program with regard to ZZZ, while the others varied in the extent to which private regulation was implemented. With regards to auditing, some do less than others. The two factories of ZZZ participating in our study (Factory A and Factory B), serviced 14 and 18 global brands respectively. These factories experienced a total of 24 and 32 audits over the 2014-2015 period, roughly an audit or more every month, with more than 4 audits in some months.[4] Some brands audit the factories themselves, while a majority sub-contracts to third

[4] This is broadly consistent with the frequent complaint of "audit fatigue" by suppliers who service multiple brands.

party auditing firms. The majority of the audits were announced in advance, although a surprisingly large number were unannounced. In 27 out of 56 cases, the brand required the factory to pay the auditors, a serious "design flaw" which could result in collusion between factory management and auditing firms. Finally, the time and costs of audits varied widely, from as little as one person-day to nine person-days, while the average cost per audit varied from as little as $645 to as much as $ 3700. Finally, a key way in which auditing varies across customers was the extent to which auditor's function as "coaches who are interested in removing root causes of violations" versus those who simply "check the box" (Interview 2: ZZZ Sustainability Officer).

Practice multiplicity was even more apparent when we examined specifics regarding how different brands conduct audits. Conducting an audit requires that auditors provide an overall rating of the factory (brands require the rating so that it could, "potentially" be factored in to their sourcing decisions). Our interviews with factory management indicated their frustration with the problems caused by the *different rating scales* used by different brands/auditors, and the apparent lack of a clear connection between audit violations and the final rating. Table 2 lists the rating scales used by different brands. The left hand column lists rating scales for the top 9 customers of ZZZ (by volume), while the right hand column lists rating scales of the bottom 8 customers. Given the differences between the rating scales, it is quite possible that the factory might receive a rating of "acceptable" by one brand, and "unacceptable" by another brand in audits conducted during the same time frame, as we report below. Factory CSR representatives suggested that there was little effort by brands or auditors to link their rating scales to the findings found in the audit. In fact, they suggest that the *rationale* for the ratings was shared in only 57% of the audits.

--Table 2 --

If the rating scales used by different brands and audit firms vary, we find variation in the practices of auditors that result in *different* findings. We provide data below for two scenarios. In the first case, reported in Table 3, we examined audits done at Factory A *during the same time frame* (3/16 and 3/18, 2015, and 7/7 and 7/21, 2015) by *different brands/auditing firms*. The number and type of findings vary significantly, as do the ratings. Note the variation in a two-day period (the top panel of Table 3) and the variation in a two-week period (the bottom Panel of Table 3). In the first panel, audits done just 2 days apart show vastly different violations for conditions that do not usually change that much. This suggests that either auditors of different brands and audit companies are looking for very different things in an audit, despite the commonality of most codes of conduct used by the brands, or they are not uniformly trained.

--Table 3--

Therefore, we examined a second scenario (reported in Table 4), looking at audits in Factory B by *the same auditing firm*, representing 3 different brands, *during the same time frame* (9/22, 9/23 and 10/6, 2014). Curiously, the same auditing firm (we do not know if the specific auditors that visited on that day were the same) found quite different violations, even one day apart, and even more importantly, those variations led to quite different ratings. While two of the ratings are in the "major deficiencies" class, one represents a much higher rating!

--Table 4--

What is absent is any indication of the weight attached to each individual item (of over 200 items in most audits) in arriving at the overall rating given by the auditors. It is possible that individual auditors have leeway to exercise their judgment on this issue, but it is also possible that brands give their auditors generalized guidance in arriving at these decisions. What these findings suggest is that there is considerable variation in what auditors

a) look for, b) what they actually find during their audits and c) how much weight they assign to each violation. Our interviews with the ZZZ's sustainability staff suggest that the focus of auditing efforts i.e., what auditors look for, is often influenced by brand experiences at other factories or countries. For instance, following Rana Plaza in Bangladesh, most brands focused more on fire safety issues, relative to other issues, and fire safety violations tended to have a greater weightage in overall ratings in these factories during the time frame that we collected data. Similarly, one brand experienced a chemical safety issue in one of their supplier factories elsewhere, and that was reflected immediately in heightened focus on chemical issues in the auditing of this factory.

We found no relationship *between the number of instances of non-compliance found and the overall rating*s provided by the auditors in the 56 audits of ZZZ. We acknowledge that the number of instances of non-compliance is less important than the severity of those issues, but it was impossible to judge severity by examining the audit reports given the absence of weightage information, and given that one auditor's conception of severity might differ from that of another. Nevertheless, it is reasonable to hypothesize that the audit reports that find a higher number of instances of non-compliance would result in a lower final rating. This does not appear to be the case, as the two detailed tables showing audits and rating results in Factory A and Factory B do not support our hypothesis.

--Tables 5A and 5 B--

The tables above suggest considerable heterogeneity in the way brands practice private regulation. There is variation in what auditors look for and find during the same period, the different findings are not always systematically linked to the rating scales, the rating scales differ from company to company, and as discussed earlier, auditors do not communicate the rationale for the ratings given to the factory. As noted, in 43% of audits, the whole purpose of educating the supplier seems to be absent. ZZZ's chief sustainability officer

summarized as follows, "Our customers fall variously into two camps. One wants to do good and is often willing to work with us, while others just follow rigid rules, with a 'check-off mentality' that does not address the root causes of problems". She added that the "brands differ in terms of priorities and how much compliance is important to them" (Interview 3). Efforts by the supplier to "regulate" this multiplicity of practices by suggesting to its long term clients that they just accept an audit done by someone else were adopted by just two global brads (see Table 9). Thus, this multiplicity of practices among heterogeneous brands provides diverse or conflicting signals to the supplier, making it difficult, even for a leading multi-brand supplier like ZZZ, to effectively align its work conditions with different brand requirements.

Supplier Heterogeneity and Behavioral Invisibility

Recall that our analytical strategy was to compare BBB's audit scores on wages and hours with the compliance scores calculated by us from workers' pay-slips drawn from payroll records that the auditors assess. Although drawn from the same underlying data, our calculations of compliance take into account the effect of local regulations and employment practices, while we are uncertain whether BBB's auditors do the same.

Column three in Table 6 shows BBB's audit scores for the 6 items on wages and hours, while column four shows our calculation of compliance for four of these six items (hourly wage, monthly hours, overtime pay, and social security). Comparing these two columns reveals discrepancies with regard to monthly wages, overtime pay, and social security contributions. BBB's audit scores underreport violations in 9[5] out of 30 suppliers (30%) shown underlined in bold and italic font in this table. For instance, supplier #1 received an audit score of 83.3% with only one violation being detected by the BBB's audit, but our calculation shows that it violated two items on weekly hours and social security

[5] These are suppliers # 1, 3, 8, 9, 17, 21, 28, 29, 30.

contribution. Social security payments appear to be a particular problem, as it appears that 16 of 30 suppliers were not in compliance, and the severity of violation on social security varies (i.e., share of workers affected by this violation ranges from 1.8% in some suppliers to 100% in others). All of the nine suppliers noted above violate social security contributions based on pay-slip information.

Explaining instances in Table 6 where BBB audits reveal more "violations" than our computation is relatively easy as their auditors are evaluating 6 items relative to our 4, and because our computations rely on a month's pay-slip data, while BBB's auditors have access to payroll data for several months. Explaining why BBB's audit scores under-report in the four cases is more complicated, as a number of factors could be relevant here.

--Table 6—

The discrepancy noted in monthly wages is largely due to the fact that national rules in China require that wages and hours are reported on a monthly basis. BBB's code, which is standardized for all countries, sets maximum standards on a weekly basis (60 hours) for the monthly wage issue (item 3). Hence, auditors must translate BBB's weekly hours into a monthly hour standard and then compare this monthly standard to each worker's recorded hours. Several errors could arise in this translation. First, it may under-report the violation since it is unknown whether in a specific week the standard of maximum 60 hours is followed. Second, inaccuracy can occur in terms of how to translate weekly hours into monthly hours (depending on the number of days and weeks in each month). Third, errors may arise given that auditors have to go through the records of hundreds (or thousands) of workers in a short time. The same measurement challenge arises when assessing one day off in seven (item 4), because suppliers maintain records of total days off in a month. It is thus impossible to tell when the "days off" are taken and whether item 4 is fulfilled based on payroll records.

Assessing supplier compliance with overtime pay (item 2) is more complicated in China. Chinese labor law specifies three separate rates for overtime pay (1.5 times wage for overtime on weekdays, 2 times wage for overtime on weekends, and 3 times wage for overtime on national holidays). The auditors must obtain detailed overtime records from suppliers and compute, for each worker, whether they have been paid accurately, an impossible task given the short audit duration and a large number of workers.

Locational heterogeneity within China creates intra-country variations that make measurement difficult for auditors operating with a standardized code. BBB's auditors have to check relevant regulations in each of the 19 cities (which may vary year by year) in order to measure supplier compliance with items (1) and (6). We have taken these regulations into account to compute compliance, but it is not clear that BBB"S auditors have done so, potentially accounting for the discrepancies that we find with regard to these items. In the case of social security, for example, some cities allow different wage bases for calculating social security contributions, giving employers leeway to choose. Moreover, five of these cities specify different social security contribution rates for migrant versus local workers.

In addition, suppliers vary in terms of product-type and industry. As Table 7 suggests, the 30 suppliers of BBB are in a variety of industries such as textiles, metal, and lighting, where working environments and safety and health standards are different. First, auditors have to be aware of whether workers (or a proportion of workers) in a given supplier should be compensated for the industry-specific health and safety risks as mandated by laws, and then check the pay-slips to see whether the workers have received the legally-mandated allowances (the first part of item 1), a challenging task that requires auditors be familiar with various industries/products with regard to special allowances for a variety of health and safety risks. Because legally mandated allowances must be excluded from minimum wage standards according to Chinese law, auditors must check whether suppliers indeed comply

with minimum wage standards after these allowances are deducted. Our calculations take into account these industry and firm nuances, whereas it is unclear that BBB"s auditors are aware of them.[6].

Finally, employment practices of suppliers vary, complicating accurate measurement by auditors. In many industries, employers are allowed to adopt "flexible work schedules" or "irregular working hours systems" to adjust to fluctuating orders. Under these regimes, suppliers do not need to comply with the monthly overtime regulations for any specific month, as long as the average monthly overtime hours in a quarter or in a year meet the legal standards. Alternatively, they may be given compensatory hours off in lieu of overtime payments. Auditors however, will look for maximum hours per week, without taking into account these nuances, as it will not be easily apparent in payroll records. And it is also unlikely that auditors will be able to accurately assess the "sophisticated" compensation management practices that Chinese employers use to circumvent tax and labor regulations, such as including various allowances into total wages, to artificially increase the wage level[7]

In sum, we suggest that measuring supplier performance on wages, hours and social security payments can be quite complex given supplier heterogeneity with regard to location, industry, and employment practices, in the context of an extremely short audit duration of two days, and the need for BBB's auditors to measure supplier behavior on 75 different items, some of which take even longer to audit than wages and hours. These difficulties in measuring issues that hitherto considered easy-to-measure have not been addressed in prior

[6] Given this, we acknowledge that our own assessment of compliance with overtime hours and compensation based on information from pay-slips, cannot be accurate for all suppliers.

[7] A common practice. Chinese law provides that allowances for commuting, meals, and dormitory should be excluded from minimum wage standards, while allowances for skills, seniority and cell phone plans must be included. However, these allowances are not differentiated and indicated in payroll records, making it impossible to assess compliance accurately.

research on auditing. Such heterogeneity likely accounts for the discrepancies between audit scores and pay-slip information.

Actor Heterogeneity and Causal Complexity

We had argued that worker outcomes are a function of many complex causes, including supplier characteristics and worker attributes as well as private regulation variables. Furthermore, these various causes may have uncertain effects in complex fields, resulting in "effect uncertainty" or "response uncertainty", that Wijen alludes to in his conception of causal complexity (2014:306). In our quantitative analysis, we examine whether three private regulation variables, namely, the audit scores, leverage (the percentage of supplier production accounted for the global buyer) and the length of the relationship between buyer and various suppliers are related to compliance, in addition to other potential causes such as supplier characteristics and worker attributes.

To this end, we compute a compliance index for each worker based on their pay-slips from BBB. For instance, a worker would receive a compliance index score of .75 if he/she experienced only one violation out of four items on wages and hours. Since compliance outcomes for individual workers are nested within 30 suppliers, we use multilevel[8] linear regression to analyze antecedents of compliance outcomes for workers. Table 8 reports these results.

Table 8

Models 1 and 2 of Table 8 test the effects of private regulation related variables: audit scores, BBB leverage (share in the supplier's production ranging from 15-100%), and years supplying BBB (between 3 to 15 years). None of them are statistically significant predictors

[8] Some suppliers may comply systematically better than others and thus supplier level variables may influence individual level outcomes.

of better compliance, with or without controlling for other causes of compliance. This suggests that private regulation variables effect is uncertain, at best.

On the other hand, Model 2 in Table 8 shows multiple contextual causes of compliance beyond private regulation variables. Several supplier characteristics and worker attributes are significantly associated with better compliance. These include supplier ownership (with foreign-owned or foreign-invested suppliers showing higher compliance than suppliers owned by Taiwanese or Macao companies/individuals), location (suppliers located in Jiangsu and Zhejiang exhibit higher compliance than those in Shanghai), and size (positively related to compliance). Among worker attributes, Hukou (household registration), gender (male), tenure, and age relate positively and significantly with better compliance. Compliance was generally better for workers who have an urban Hukou relative to a rural Hukou. Taken together, Models 1 and 2 show that there are complex causes of compliance for workers including supplier and worker heterogeneity, while the effects of private regulation-related variables are uncertain in this sample.

Qualitative evidence from ZZZ complements the above analysis in a more *indirect* way. ZZZ has had long term relationships (over 15 years) with many of the brands. Prior research has suggested that long-term relationships result in better appreciation and knowledge of the supplier's ability to comply with the code. An outcome of long term trust based relationships is the reduced need for auditing. In the case of factories A and B, the results are quite mixed. As Table 9 suggests, 8 out of 15 brands with relationships exceeding 10 years continue to do audits regularly, while 7 of the brands do not require an audit or are content to accept a generic audit or ZZZ's internal audit. These heterogeneous responses from buyers make factory managers uncertain about the benefits of long-term relationships, as they do not seem to know how brands make decisions to conduct or not conduct audits.

--Table 9--

Marketing managers of ZZZ, a leading highly compliant supplier, suggest that their experience with auditing shows that there is little or no coupling between brands auditing practices and sourcing practices. So, the aspect of rewarding compliant suppliers with orders, a key element of the private regulation model, seems absent in this case. One marketing manager indicated that the "idea that long-term relationships will result in repeated/advance orders is ludicrous" and that customers "see themselves as free to make changes anytime". Another noted that even long-term customers "will often defect" after placing their orders. As such, brands' unpredictable behavior makes factory managers uncertain about what secures stable orders, without which it is difficult to continuously improve compliance and outcomes for workers. Since the link between auditing and sourcing is crucial to compliance through the incentive effects, the absence of this link in cases where leverage is high and relationships are long-term (both best case scenarios) is problematic. Taken together, these results suggest that there are complex causes of compliance, the effects of private regulation are uncertain in different contexts, and supplier factory managers are uncertain about what works, illustrating causal complexity that creates decoupling of private regulation and outcomes.

Discussion

The key contribution of this paper is to demonstrate *how* actor heterogeneity generates field opacity via practice multiplicity, behavioral invisibility and causal complexity in ways that result in decoupling of private regulation practices from outcomes for both brands and suppliers. In so doing, we provide support for the construction of an organizational-field based explanation for the general lack of sustained improvements in worker outcomes in global supply chains. This field-level explanation does not mean that the critiques of individual elements of private regulation model identified in prior literature (Locke 2013) lack explanatory power. The value of the institutional approach is that it provides a more "systemic" explanation for low compliance across diverse institutional contexts, and

company supply chains. Furthermore, it suggests several specific and general implications for the practice of private regulation, while also allowing us to evaluate contemporary developments in the field.

In specific terms, based on our evidence regarding brand heterogeneity which creates practice multiplicity for supplier ZZZ, a key element is the need for multi-brand co-ordination in terms of auditing approaches *in the case of factories who service multiple brands.* At present, such co-ordination is absent. Such a collaboration is consistent with Wijen's (2014) notion of niche institutions "tailored to specific contexts". In this case, the context is multiple brands sourcing from the same supplier, and could serve to reduce practice multiplicity. Contemporary examples of such niche institutions include the Bangladesh Accord on Fire Safety and its sibling organization, the Alliance for Bangladesh Safety, both of which involve collaboration between global brands to improve safety in Bangladesh factories. The Indonesian Freedom of Association protocol is another contemporary example of a context specific niche institutions. The implications of our results regarding supplier and worker heterogeneity is that brands in the apparel or home retailing company chains could collaborate to establish regional or provincial consortia with their suppliers to devise effective frameworks for auditing with regard to wages and hours regionally and locally.

Furthermore, such consortia of brands and their suppliers in a particular region may stimulate the suppliers to internalize the principles and goals of private regulation, another solution recommended by Wijen to decrease opacity and the tradeoffs between the two forms of decoupling. At a more general level, consistent with his arguments (2014:313), such internalization could also be stimulated by stricter selection procedures by multi-stakeholder institutions of which global companies are members. For example, they could require their

members to more closely integrate sourcing with compliance as a condition of membership, which they do not do currently.

Of course, we acknowledge that such coordination among global buyers will not solve the many other issues that cause behavioral invisibility (such as auditors' inability to process information in the short time frame provided). The variety of difficulties involved in measuring suppliers' performance in labor practices suggests that the labor practice field may be more opaque than the environmental field, since information on labor practices and intended outcomes are dispersed among thousands of workers across different suppliers, while environmental effects can be much more easily observed. Wijen (2014) treats social (including labor) and environmental issues similarly in making his argument. In this sense, it is important for future research to develop specific hypotheses with regard to the causes of opacity in labor practices, as we have done in this paper.

Using a decoupling lens permits us to evaluate a contemporary development in labor practices in global supply chains. A current effort under-way is that of the Social and Labor Convergence Project (SLCP), a consortium of brands and large suppliers which aims to develop an audit tool and a uniform verification (auditing) methodology for all types of global suppliers everywhere. Over 75 global companies and suppliers have signed on to this initiative, which is in the early stages of development. Wijen's arguments regarding causal complexity would suggest that such an effort, at best, might solve symbolic adoption issues, but will otherwise fail to realize its expected outcomes, given that it hews towards uniformity across multiple contexts that require a more differentiated approach, potentially constraining actor's agency to act in context-dependent ways.

Our results regarding the importance of worker heterogeneity raises the question of how they might be involved in private regulation. Since workers are the ones who know their work situation and working conditions better than any other actor, involving them in the

auditing process, or providing them with a role to implement codes of conduct, would help reduce opacity caused by behavioral invisibility. Indeed, recent research (Bartley and Egels-Zanden 2015) suggests that worker and union agency could shrink (though not eliminate) the gap between practices and outcomes, a process they call "contingent coupling". Involving workers (a key actor affected by private regulation who has been hitherto left out of the process) would also contribute to the generation of a *systemic mindset*, given Wijen's (2014:313) argument that collaboration among all relevant actors could accomplish this objective.

More generally, creating a systemic mindset among diverse inter-connected actors also requires identifying major and minor causes and uncertain effects of important variables (Wijen 2014:313), if we are to transform the opaque field of labor practices under private regulation to a more transparent one. One way in which causal complexity could be reduced is if actors such as global companies, multi-stakeholder initiatives, and auditing firms would publicly disclose the data and their analyses regarding the effects of their private regulation practices. This level of transparency does not exist in the private regulation field currently, as most brands and multi-stakeholder institutions do not publicly disclose any data[9]. Over the 25 years since private regulation was adopted, various multi-stakeholder institutions, such as the Fair Factories Clearinghouse, have amassed a large amount of data, but it is unclear how their analyses (which are private) provide evidence of the direct and indirect effects of causal variables in different contexts. More transparency through public disclosure is a necessary step to reduce the causal complexity that generates opacity and decoupling. In the few cases where such data was made available to the research community, Locke (2013), Toffel et al. (2015), Short et al (2017), and Amengual and Distelhorst (2019) for example, have made invaluable contributions in identifying causal relationships.

[9] The FLA does disclose a percentage of their audit results.

If the institutional approach used in this paper has been useful in showing *how* actor heterogeneity generates practice multiplicity, behavioral invisibility, and causal complexity to produce the opacity that results in the practice-outcomes gap, it also has the potential to explain *why* global firms continue with the private regulation model despite its demonstrated ineffectiveness in the labor standards arena. For example, Bromley and Powell (2012) argue that in opaque institutional fields when the link between means and ends is unclear, monitoring and evaluation become ends in themselves, as they serve to confer legitimacy in the face of normative external pressures. Although we do not specifically "test" this idea, our results with regard to ZZZ show that the brands sourcing from it practice auditing as an annually recurring, low cost, outsourced, "check the box" activity, which does not seem to be related to actual compliance, and is clearly decoupled from their sourcing practices.

In sum, our paper suggests that institutional theory has much to offer as a theoretical anchoring for examining private regulation in the labor standards arena. In ways that prior explanations do not, it offers an alternative and systemic field-level explanation for the practice-outcomes gap, and generates implications for how private regulation can be improved in the future.

Conclusion

Private regulation of labor standards in global supply chains has been increasingly adopted in diverse industries since the 1990s. However, scholarly evidence suggests that the private regulation model has not generated sustainable improvements in working conditions in the global supply chain, evidenced by a continuing gap between the practices adopted and the expected outcomes. Violations of labor standards continue to be quite common. One explanation for the lack of sustained improvement rests on the idea that organizations "symbolically adopt" private regulation practices, while other explanations point to flaws in the individual elements of private regulation or organizational failures in implementation.

Using new arguments from institutional theory regarding field opacity and decoupling, and data from a global apparel supplier and a home products retailer, we demonstrate how actor heterogeneity creates field opacity in ways that result in decoupling in private regulation regarding labor standards. Specifically, we argue and show that brand heterogeneity in terms of different auditing practices, rating scales, conflicting ratings, causes practice multiplicity that results in opacity for the supplier. We also highlight that supplier heterogeneity in locations and employment practices creates measurement challenges for brands to even accurately assess wages and hours that were considered easy to measure, resulting in gaps between brand audit scores and worker pay-slip data. Finally, we argue and show that complex configuration of actors in private regulation contributes to causal complexity, such that it is difficult to attribute worker outcomes to private regulation practices in some contexts and that characteristics of local actors also impact worker outcomes. In so doing, we develop the building blocks of plausible alternate "organizational field-level" explanation for the lack of sustainable progress in labor standards in global supply chains.

Although our analysis is limited in many ways, particularly given that our qualitative examination spans only two supplier factories, and our quantitative study compares audit scores to workers' pay-slips in only one month for a small sample of suppliers, we are able to demonstrate the potential of an institutional theory lens to understand progress in private regulation of labor standards. Future research may move beyond our efforts to study more specific pathways through which field opacity is generated, and examine how contextualized brand-supplier collaboration efforts can reduce opacity and decoupling to improve labor standards.

References

Amengual, Matthew, Greg Distelhorst, and D Tobin. 2019. "Global Purchasing as Labor Regulation: The Missing Middle." *Industrial & Labor Relations Review* Forthcoming.

Ang, Debra, Drusilla Brown, Rajeev Dehejia, and Raymond Robertson. 2012. "Public Disclosure, Reputation Sensitivity, and Labor Law Compliance: Evidence from Better Factories Cambodia." *Review of Development Economics* 16 (4): 594–607.

Anner, Mark. 2012. "Corporate Social Responsibility and Freedom of Association Rights: The Precarious Quest for Legitimacy and Control in Global Supply Chains." *Politics & Society* 40 (4): 609–44.

———. 2018. "CSR Participation Committees, Wildcat Strikes and the Sourcing Squeeze in Global Supply Chains." *British Journal of Industrial Relations* 56 (1): 75–98.

Appelbaum, Richard. 2016. "From Public Regulation to Private Enforcement: How CSR Became Managerial Orthodoxy." In *Achieving Workers Rights in the Global Economy*, by Richard Appelbaum and Nelson Lichtenstein (eds.). Ithaca and London: ILR Press and Imprint of Cornell University Press.

Appelbaum, Richard, and Nelson Lichtenstein. 2016. *Achieving Workers' Rights in the Global Economy*. Ithaca and London: ILR Press and Imprint of Cornell University Press.

Barrientos, Stephanie, Gary Gereffi, and Arianna Rossi. n.d. "Economic and Social Upgrading in Global Production Networks: A New Paradigm for a Changing World." *International Labour Review* 150 (3–4): 319–40.

Bartley, Tim. 2007. "Institutional Emergence in an Era of Globalization: The Rise of Transnational Private Regulation of Labor and Environmental Conditions." *American Journal of Sociology* 113 (2): 297–351.

Bartley, Tim, and Niklas Egels-Zandén. 2015. "Responsibility and Neglect in Global Production Networks: The Uneven Significance of Codes of Conduct in Indonesian Factories." *Global Networks* 15 (s1): S21–44.

Bartley, Tim, Sebastian Koos, Hiram Samel, Gustavo Setrini, and Nik Summers. 2015. *Looking behind the Label: Global Industries and the Conscientious Consumer*. Indiana University Press.

Baumann-Pauly, Dorothée, Christopher Wickert, Laura J. Spence, and Andreas Georg Scherer. 2013. "Organizing Corporate Social Responsibility in Small and Large Firms: Size Matters." *Journal of Business Ethics* 115 (4): 693–705.

Boxenbaum, Eva, and Stefan Jonsson. 2017. "Isomorphism, Diffusion and Decoupling: Concept Evolution and Theoretical Challenges." In *The SAGE Handbook of Organizational Institutionalism*, edited by Royston Greenwood, Christine Oliver, Thomas Lawrence, and Renate E. Meyer, 77–101. London: Sage.

Briscoe, Forrest, and Chad Murphy. 2012. "Sleight of Hand? Practice Opacity, Third-Party Responses, and the Interorganizational Diffusion of Controversial Practices." *Administrative Science Quarterly* 57 (4): 553–84.

Bromley, Patricia, and Walter W. Powell. 2012. "From Smoke and Mirrors to Walking the Talk: Decoupling in the Contemporary World." *Academy of Management Annals* 6 (1): 483–530.

Chan, Anita, and Kaxton Siu. 2010. "Analyzing Exploitation." *Critical Asian Studies* 42 (2): 167–90.

Distelhorst, Greg, Richard M. Locke, Timea Pal, and Hiram Samel. 2015. "Production Goes Global, Compliance Stays Local: Private Regulation in the Global Electronics

Industry." *Regulation & Governance* 9 (3): 224–42.
Drebes, Maike J. 2014. "Impediments to the Implementation of Voluntary Codes of Conduct in Production Factories of the Global South: So Much to Do, so Little Done." *Third World Quarterly* 35 (7): 1256–72.
Egels-Zandén, Niklas. 2007. "Suppliers' Compliance with MNCs' Codes of Conduct: Behind the Scenes at Chinese Toy Suppliers." *Journal of Business Ethics* 75 (1): 45–62.
Egels-Zandén, Niklas, and Henrik Lindholm. 2015. "Do Codes of Conduct Improve Worker Rights in Supply Chains? A Study of Fair Wear Foundation." *Journal of Cleaner Production* 107 (November): 31–40.
Elliott, Kimberly, and Richard B. Freeman. 2003. "Can Labor Standards Improve under Globalization?" Washington, D.C.: Institute for International Economics.
Esbenshade, Jill Louise. 2004. *Monitoring Sweatshops: Workers, Consumers, and the Global Apparel Industry*. Temple University Press.
Fitjar, Rune Dahl. 2011. "Little Big Firms? Corporate Social Responsibility in Small Businesses That Do Not Compete against Big Ones." *Business Ethics: A European Review* 20 (1): 30–44.
Fülöp, Gyula, Krisztina Szegedi, and Robert D. Hisrich. 2000. "Business Ethics and Social Responsibility in Transition Economies." *Journal of Management Development* 19 (1): 5–31.
Fung, Archon, Dara O'Rourke, and Charles Sabel. 2001. *Can We Put an End to Sweatshop?* Boston, MA: Beacon Press.
Greenwood, Royston, Mia Raynard, Farah Kodeih, Evelyn R. Micelotta, and Michael Lounsbury. 2011. "Institutional Complexity and Organizational Responses." *Academy of Management Annals* 5 (1): 317–71.
He, Guojun, and Jeferey Perloff. 2013. "Does Customer Auditing Help Chinese Workers?" *Industrial & Labor Relations Review* 62 (2): 511–24.
Jiang, Ruihua Joy, and Pratima Bansal. 2003. "Seeing the Need for ISO 14001." *Journal of Management Studies* 40 (4): 1047–67.
Kern, Anja, Aziza Laguecir, and Bernard Leca. 2018. "Behind Smoke and Mirrors: A Political Approach to Decoupling." *Organization Studies* 39 (4): 543–64.
Knudsen, Jette Steen. 2013. "The Growth of Private Regulation of Labor Standards in Global Supply Chains: Mission Impossible for Western Small- and Medium-Sized Firms?" *Journal of Business Ethics* 117 (2): 387–98.
Koçer, Rüya G., and Luc Fransen. 2009. "Codes of Conduct and the Promise of a Change of Climate in Worker Organization." *European Journal of Industrial Relations* 15 (3): 237–56.
Locke, Richard M. 2013. *The Promise and Limits of Private Power: Promoting Labor Standards in a Global Economy*. Cambridge University Press.
Locke, Richard M., Fei Qin, and Alberto Brause. 2007. "Does Monitoring Improve Labor Standards? Lessons from Nike." *Industrial & Labor Relations Review* 61 (1): 3–31.
Locke, Richard M., and Monica Romis. 2010. "The Promise and Perils of Private Voluntary Regulation: Labor Standards and Work Organization in Two Mexican Garment Factories." *Review of International Political Economy* 17 (1): 45–74.
Lund-Thomsen, Peter, Khalid Nadvi, Anita Chan, Navjote Khara, and Hong Xue. 2012. "Labour in Global Value Chains: Work Conditions in Football Manufacturing in China, India and Pakistan." *Development and Change* 43 (6): 1211–37.
Meyer, John W., and Brian Rowan. 1977. "Institutionalized Organizations: Formal Structure as Myth and Ceremony." *American Journal of Sociology* 83 (2): 340–63.
Moran, Theodore H. 2002. *Beyond Sweatshops: Foreign Direct Investment and Globalization in Developing Countries*. Washington D.C.: Brookings Institution Press.

Mosley, Layna. 2010. *Labor Rights and Multinational Production*. Cambridge University Press.
Ngai, Pun. 2005. "Global Production, Company Codes of Conduct, and Labor Conditions in China: A Case Study of Two Factories." *The China Journal* 54 (July): 101–13.
Nova, Scott, and Chris Wegemer. 2016. "Outsourcing Horror: Why Apparel Workers Are Still Dying, 100 Years after Triangle Shirtwaist." In *Achieving Workers' Rights in the Global Economy*, by Richard Appelbaum and Nelson Lichtenstein (eds.), 17–31. Ithaca: Cornell University Press.
Oka, Chikako. 2010a. "Channels of Buyer Influence and Labor Standard Compliance: The Case of Cambodia's Garment Sector." In *Advances in Industrial and Labor Relations*, 17:153–83. 17.
———. 2010b. "Accounting for the Gaps in Labour Standard Compliance: The Role of Reputation-Conscious Buyers in the Cambodian Garment Industry." *The European Journal of Development Research* 22 (1): 59–78.
Orton, J. Douglas, and Karl E. Weick. 1990. "Loosely Coupled Systems: A Reconceptualization." *The Academy of Management Review* 15 (2): 203–23.
Oxfam. 2010. *Better Jobs in Better Supply Chains. Oxfam Briefings for Business.* Oxford: Oxfam International.
Quinn, John J. 1997. "Personal Ethics and Business Ethics: The Ethical Attitudes of Owner/Managers of Small Business." *Journal of Business Ethics* 16 (2): 119–27.
Riisgaard, Lone. 2009. "Global Value Chains, Labor Organization and Private Social Standards: Lessons from East African Cut Flower Industries." *World Development* 37 (2): 326–40.
Short, Jodi L., Michael W. Toffel, and Andrea R. Hugill. 2016. "Monitoring Global Supply Chains." *Strategic Management Journal* 37 (9): 1878–97.
Short, Jodi L., Andrew R. Hugill, and Michael Toffel. 2017. Beyond Symbolic Responses to Private Politics: Codes of Conduct and Improvement in Global supply Chain Working Conditions. Working Paper 17-001, Harvard Business School, pp1-62
Toffel, Michael W., Jodi L. Short, and Melissa Ouellet. 2015. "Codes in Context: How States, Markets, and Civil Society Shape Adherence to Global Labor Standards." *Regulation & Governance* 9 (3): 205–23.
Stroehle, Judith C. 2017. "The Enforcement of Diverse Labor Standards Through Private Governance: An Assessment." Transfer: European Review of Labor and Research, 23(4): 457-493.
Wijen, Frank. 2014. "Means versus Ends in Opaque Institutional Fields: Trading off Compliance and Achievement in Sustainability Standard Adoption." *Academy of Management Review* 39 (3): 302–23.
Yu, Xiaomin. 2008. "Impacts of Corporate Code of Conduct on Labor Standards: A Case Study of Reebok's Athletic Footwear Supplier Factory in China." *Journal of Business Ethics* 81 (3): 513–29.

Table 1. Overview of Audits Experienced by Supplier ZZZ in 2014-2015

Item	All Customers of Supplier ZZZ	Factory A	Factory B
Number of global customers with no known P-R program (percent of total customers).	24 (32%)		
Customers who provide ZZZ with CoC, but does not audit.	9 (12%)		
Customers who provide CoC but conducts audits regularly.	11 (15%)		
Customers who provide CoC, but accepts a generic audits or audits of other brands.	20 (27%)		
Customers who provide CoC, audit regularly, but also request other programs and initiatives.	10 (14%)		
Total	74 (100%)		
Number of customers		14	18
Number of audits 2014-2015		24	32
Brand conducted audits		7	11
Third party audits		15	18
Number of third party audit firms		9	9
Announced audits		19	20
Surprise audits		5	11
Audit fee paid by customer		15	13
Audit fee paid by factory		9	18
Person -days per audit		Range: 1-5 Mean : 2.2	Range: 1-9 Mean : 2.6
Mean cost per audit		$1,782	$1,398
Mean cost per auditor		$737	$632

Table 2. Variation in Rating Scales Used by Brands in Supplier ZZZ Audits*

Rank of customer by volume	Number of points on rating scale	Scales
1	2	Acceptable-Needs improvement
2	6	Gold-Green-Yellow-Orange1-Orange2-Red
3	5	Good-Satisfying -Improvements needed-Risky-Insufficient
4	5	Gold-Silver-Bronze-Yellow-Red
5	4	Accepted-Developmental-Pending rejection-Rejected
6	-	No scale
7	4	0-15, 16-49, 50-99, 100 + (not acceptable)
8	-	No scale
9	3	Green (86-100), Yellow (65-85), Red (0-64)
16	5	SAT (Satisfactory)-NI (Needs improvement)-NIM (Needs major improvement)-DIA (Demands immediate action)-ZT (Zero tolerance)
< 20	4	Excellent-Good-Fair-Poor
< 20	6	CAT1 (Excellent)-CAT2 (Good)-Cat3 (Fair)-Cat4(Needs improvement-Cat5 (unacceptable)-CAT6 (Absolutely unacceptable)
<20	4	Green (Satisfactory)-Yellow (Needs improvement) -Orange (Temporary)-Red (Unacceptable)
<20	4	Green (Low risk)- Yellow (Medium risk)-Orange (High risk) -Red (Zero tolerance)
<20	5	Green (Satisfactory)-Yellow (Moderate violations)-Orange (Needs significant improvement)-Dark Orange (Substantial remediation required)-Red (Immediate remediation required)
<20	5	A (Green meeting compliance)-B (Yellow approaching compliance)-C (Orange substantial improvement required) - D(Red immediate remediation required) - F (Grey zero tolerance).

Note: *The Brands below 20 change in the relative standing of volumes, year by year.

Table 3. Audits at the Same Factories, During the Same Time Frame, by DIFFERENT Auditing Firms, Produce Different Findings, Factory A, 2015

Date	Audit org	Man days	CoC category	Violation	Rating
3/16	3rd Party A	2	W&B	1 week delay in payment to resigned employee	Major deficiencies
			Hours of Work	Exceeded overtime extension permits	
3/18	3rd Party B	2	Hours of Work	Monthly overtime hours exceeds legal maximum	Acceptable rating (No corrective action required)
			W&B	Wage to terminated employee not paid in 7 days	
			Hours	Buffer time exceeded 15 minutes	
			EHS	Rolling door not working properly	
7/7	Brand A	2	EHS	No eye protection on grinding machine	Brand has rating system, but no rating given by auditor
				No sandbag in chemical storage room	
				Door to dyeing room broken	
				Poor housekeeping issues	
			ER	Code of Conduct not posted in location	
7/21	Brand B	1	W&B	Commercial accident insurance not yet paid for new workers	Developmental
			EHS	Smoke detector not working dormitory	
				3rd Party water testers not from approved list	
			ER	Joint fire safety program for 2 subunits not established, only individual fire safety program	

Table 4. Audits by the Same Auditing Company, During the Same Time Frame, produce Differing results and Ratings, Factory B, 2014

Date	Audit org	CoC category	Violation	Rating
9/22	3rd Party Auditor C Auditing for Brand A	EHS	-fire extinguishers blocked by table in floor 2 -Electricity switch boxes in major bulkhead were missing covers.	Major deficiencies, Must improve
		HRS	-50% of workers had conducted consecutive work of 7-13 days in Jan, Feb and March 2014 -Weekly work of some employees more than 60 hours.	
9/23	3rd Party Auditor C, auditing for Brand B	HRS	Monthly OT exceeded 36 hours for employees in June-Aug 2014, with max 92 hours in July and 79.5 hrs in August.	Zero tolerance, may result in immediate termination
		EHS	-Lower pulley guard missing for at least 10 viewed sewing -Need rolling doors or sliding doors for safety exits on work floors. Need it for 90% of cases.	
		W&B	Too much delay in severance payment detected	
10/6	3rd Party Auditor C Auditing for Brand H	EHS	-Smoke detector Missing -Warning sign not standard -not using protective equipment -health certificate of canteen staff had expired -electrical switches not explosive proofed -sewing machines without needle guards.	Good (Yellow rating), one step below highest Green
		HRS	-12/15 sample were working in excess of statutory OT limits in August 2014. Some worked for 70.5 hrs -working continuously without rest	

Table 5a. Relationship between Number of Audit Violations and Audit Ratings, Factory A, 2015

Date	Audit org	Audit man-days	Type of violations	Total violations	Rating
1/7	Brand A	2	2 HRS	2	CAT 3
3/16	Brand B	2	1 HRS, 1W&B	2	Major Deficiencies
3/18	3rd Party A	2	2 HRS, 1 EHS, 1 W&B	4	Acceptable
4/14	3rd Party B	2	2 EHS	2	Rating system exists but not communicated
6/18	3rd Party C	3	4, EHS, 2 HRS, 1 W&B	7	Rating system exists but not communicated
6/23	Brand C	2	14 EHS, 7 ER, 5 W&B, 5HRS	32	Good
7/7	Brand D	2	7 EHS, 1 ER	8	Rating system exists but not communicated
7/21	Brand E	1	1W&B, 2 EHS, 1 ER	4	Developmental
9/23	3rd Party D	2	2 EHS, 1HRS,1 Harassment	4	Orange
11/4	3rd Party A	4	1 EHS, 1 HRS, 1 W&B	3	No rating
12/17	Brand F	-	10 EHS, 2 W&B, 2 HRS	14	Labor:Bronze; EHS: Yellow
12/23	3rd Party E	2	4 EHS, 1 W&B, 1 HRS	5	Green

Table 5b. Relationship Between Number of Audit Violations and Audit Ratings, Factory B, 2015

Date	Audit org	Audit man-days	Type of violations	Total violations	Rating
1/27	3rd Party D	1	2 EHS, 1 W&B, 1 hrs	4	Zero tolerance
2/4	3rd Party D	2	3 EHS, 1 HRS	4	Yellow
3/16	3rd Party A	2	2 EHS, 1 HRS	3	Needs improvement
5/19	3rd Party B	2	2 EHS, 2 W&B	4	Acceptable
5/26	Brand E	2	3 W&B, 2 EHS	5	Developmental
6/3	3rd Party F	2	7 EHS, 3 HRS, 2 W&B, 2 Others	14	Needs improvement
6/24	Brand C	2	40 EHS, 5 HRS, 3 W&B 2 ER, 1 others	51	Needs improvement
10/15	3rd Party G	4	5 EHS	5	Good condition
10/26	3rd Party H	2	6 EHS, 2 W&B, 2 HRS	10	Needs improvement
11/17	Brand D	2	9 EHS	9	Rating not communicated
12/1	Brand E	2	3 EHS	3	developmental
12/17	3rd Party 4	2	2 EHS, 3 HRS, 1 W&B, 2 others	8	Needs improvement
12/29	Brand F	9	7 EHS, 3 W&B, 2 ER 1 HRS	13	Labor: Yellow; EHS: Bronze

Table 6. Audit Scores and Payslip Violations of Wages & Hours Compared

Supplier ID	6-item audit score wages & hours	# of violated items reported by audit (out of 6 items)	# of violated items revealed from payslips (out of 4 items)	% of hourly wage violation	% of monthly hours violation*	% of overtime pay violation	% of social security contribution violation
1	***83.3***	***1***	***2***	***0***	***63.3***	***0***	***100***
2	83.3	1	0	0	0	0	0
3	83.3	1	2	0	0	18	62.2
4	83.3	1	0	0	0	0	0
5	50	3	0	0	0	0	0
6	66.7	2	1	0	0	0	8.2
7	66.7	2	1	0	0	0	2.0
8	***83.3***	***1***	***2***	***0***	***10***	***0***	***2***
9	***83.3***	***1***	***2***	***0***	***0***	***2***	***6***
10	66.7	2	0	0	0	0	0
11	83.3	1	1	0	12.7	0.0	0
12	83.3	1	0	0	0	0	0
13	83.3	1	1	0	0	0	42.4
14	83.3	1	0	0	0	0	0
15	83.3	1	0	0	0	0	0
16	83.3	1	1	0	1.9	0	0
17	***83.3***	***1***	***2***	***0***	***2***	***0***	***4.26***
18	83.3	1	0	0	0	0	0
19	83.3	1	0	0	0	0	0
20	83.3	1	0	0	0	0	0
21	***83.3***	***1***	***2***	***0***	***74***	***0***	***100***
22	33.4	4	0	0	0	0	0
23	33.4	4	2	0	10	0	100
24	66.7	2	1	0	0	98	0
25	83.3	1	1	0	0	0	21.4
26	66.7	2	2	0	18.3	0	1.8
27	83.3	1	1	0	0	0	88.1
28	***83.3***	***1***	***2***	***0***	***0***	***2***	***10.2***
29	***83.3***	***1***	***2***	***0***	***14***	***0***	***71.4***
30	***83.3***	***1***	***2***	***0***	***88***	***0***	***100***
Average of suppliers or workers	75.2	1.4	1.00	0	8.8	3.9	23

Note: *BBB's Codes of Conduct limits maximum weekly work hours to 60 which translates into approximate 257 hours monthly.

Table 7. Characteristics of 30 BBB Suppliers, 2012—2013

Supplier ID	City/Province	Industry	Ownership	Firm age (years)	Total workers	BBB share (%)	Years supplying BBB
1	Suzhou/Jiangsu	Lighting	HMT	6	228	90	6
2	Jiangyin/Jiangsu	Textile	DPE	8	1700	100	11
3	Shanghai	Textile	FIE	22	485	35	6
4	Kunshan/Jiangsu	Misc	FIE	8	65	60	15
5	Shanghai	Metal	FIE	13	1560	50	7
6	Yuyao/Zhejiang	Misc	FIE	8	122	20	4
7	Wuxi/Jiangsu	Furniture	DPE	7	99	90	2
8	Changshu/Jiangsu	Metal	DPE	21	330	40	7
9	Shaoxing/Zhejiang	Misc	FIE	5	120	40	5
10	Jiangyin/Jiangsu	Textile	DPE	12	470	10	4
11	Yichang/Hubei	Metel	FIE	6	175	40	6
12	Xiaoshan/Zhejiang	Textile	DPE	10	200	100	14
13	Liyang/Jiangsu	Misc	DPE	24	260	30	1
14	Yuyao/Zhejiang	Furniture	FIE	7	500	100	8
15	Ningbo/Zhejiang	Furniture	FIE	28	300	40	6
16	Anji/Zhejiang	Furniture	DPE	2	106	100	4
17	Ningbo/Zhejiang	Misc	DPE	45	242	80	4
18	Yuyao/Zhejiang	Textile	FIE	8	500	30	15
19	Jiangyin/Jiangsu	Misc	DPE	20	350	80	4
20	Yuyao/Zhejiang	Metal	FIE	14	550	100	6
21	Xiamen/Fujian	Lighting	HMT	13	200	80	9
22	Ningbo/Zhejiang	Lighting	DPE	20	1050	20	1
23	Tonglu/Zhejiang	Furniture	DPE	8	300	30	8
24	Hangzhou/Zhejiang	Metal	DPE	24	95	80	10
25	Ningbo/Zhejiang	Metal	DPE	13	150	65	6
26	Ningbo/Zhejiang	Metal	DPE	18	132	60	8
27	Jiaxing/Zhejiang	Furniture	DPE	10	360	80	8
28	Yangzhou/Jiangsu	Metal	DPE	11	350	80	3
29	Jinjiang/Fujian	Furniture	HMT	14	570	70	6
30	Jiaxing/Zhejiang	Misc	DPE	14	324	15	3
Average				14	400	60	7

Note: HMT = Hong-Kong, Marcao, or Taiwan-invested; DPE = domestic private enterprise; FIE = foreign-invested enterprise; Misc = miscelleous

Table 8. Worker Level Compliance: Private Regulation Variables, Firm Characteristics, and Worker Attributes

IV	DV: individual compliance inde	
Private regulation variables	Model 1	Model2
6-item audit score on wages & hours	-0.014	-0.026
BBB share	0.000	0.001
Years supplying BBB	-0.007	-0.004
Ownership (base group is Taiwan or Marco-invested enterpris		
Joint venture		**.382*** **
Foreign invested enterprise		**.362*** **
Domestic private enterprise		0.209*
Location (base group is Shanghai)		
Jiangsu province		**.321*** **
Zhejiang province		**0.205***
Non-Yantz River (Fujian & Hubei)		0.217
Industry (base group is textile)		
Metal		0.01
Lighting		-0.046
Furnitures		-0.015
Miscellaneous		-0.057
Total workers		0.000
Firm age		0.001
Worker individual attributes		
Male		.011**
Education (years)		0.002
Urban Hukou		**.025****
Age (years)		.001*
Tenure (months)		.0003***
Constant	.987***	.435**
N	1491	1489
Log likelihood	1485	1520

Note: Results based on multilevel linear regression; * p< 0.1, ** p< 0.05, *** p< 0.01.

Table 9 . Long-term Relationships and Auditing Intensity

Rank of customer by volume	Years of business relationship	Number of audits in Factory A & B	Rank of customer by volume	Years of business relationship	No audit or accept any audit
Relationships with relatively little "trust"			*Relationships with more "trust"*		
# 1	15 years	6	# 2	10 years	Accepts supplier's own audit
# 3	15 years	5	# 6	10 years	Accept a WRAP audit
# 4	10 years	5	# 10	10 years	No audit required
# 5	10 years	10	# 12	10 years	No audit required
# 7	10 years	7	# 13	3 years	No audit required
# 8	10 years	3	# 14	10 years	Accept any brand audit
# 9	10 years	10	# 15	<10 years	No audit required
# 11	10 years	9			

Appendix : A Sample Pay Check

Date	Department	Employee ID	Employee name	Wage standard	Scheduled work days	Scheduled work hours	Actual work days	Actual work hours	Basic wage
25/04/2013	Packaging	1259	XXX	1320	22	176	22	176	1320

Overtime days	Overtime hours	Overtime pay	Overtime on weekdays	Weekday OT pay	Overtime on weekends	Weekend OT pay	Overtime work on holidays	Holiday OT pay
7.06	57	814	22.5	270	34	544	0	0

Performance pay	Paid leave days	Leave pay	Total wage	Skill allowances	Other allowances	Social security	Other deduction	Take-home wage
1049	1	60.69	3244	300	0	198	0	3346.00