



**BETTER WORK**

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### **Sexual Harassment in Garment Factories: Firm Structure, Organizational Culture and Incentive Systems**

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March 2014



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**SEXUAL HARASSMENT IN GARMENT FACTORIES:  
FIRM STRUCTURE, ORGANIZATIONAL CULTURE AND INCENTIVE SYSTEMS**

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## **ABSTRACT**

Analyzing a micro-data set of worker demographics and workplace characteristics in Haitian, Jordanian and Indonesian apparel factories, we test four hypotheses concerning the determinants of reports of sexual harassment. These include the vertical alignment of incentives within the factory, the level of organizational awareness, sexual harassment as a form of worker discipline and sexual harassment as a form of supervisor compensation.

Empirical analysis indicates that sexual harassment arises in part when supervisors are charged with assessing the individual work performance of their subordinates for the determination of production-related pay incentives. Sexual harassment is positively correlated with presence of worker-level incentives, the level of worker compensation and complaints of supervisor behavior.

Sexual favors as a form of bribe for a positive work-effort report is more common in factories with low organizational awareness, as reflected in the human resource manager's perception of sexual harassment as a concern, and supervisor training. Sexual harassment is also more common in factories lacking nearby competitors, suggesting that intensified competition among factories for labor deters sexual harassment.

There is some evidence that sexual harassment is a form of worker discipline but little evidence that sexual favors are a form of supervisor compensation.

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## 1. INTRODUCTION

Sexual harassment in the workplace including unwelcome sexual advances contributes to a hostile work environment and falls under the United Nations Declaration on the Elimination of Violence against Women (1993) as

“any act of gender-based violence that results in, or is likely to result in, physical, sexual or psychological harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life.”

Although the majority of victims of sexual harassment are women, some groups of men are also vulnerable to such harassment. In developing countries, the garment industry presents a critical employment opportunity for women. However, data suggests that harassment is endemic in the sector.

Sexual harassment in the workplace has far-reaching consequences for organizational health and labor productivity beyond the potentially devastating physical and psychological effects sexual harassment has on its victims. Sexual harassment can lead to broader changes in workforce behaviors that reduce work effort and disrupt effective communication systems.

It is a common view that the form and extent of compelled sexual interaction among employees in a workplace is embedded in the local culture and not easily remediated. However, there is significant cross-firm variation in the incidence of sexual harassment within a single industry or even ownership group (Better Work 2011), suggesting that certain organizational characteristics predispose a workplace to coercive sexual interactions. Before developing a remediation strategy, therefore, it is important to begin with an inquiry into workplace characteristics that increase the incidence of sexual harassment and to understand the impact that sexual harassment has on worker-wellbeing. While it is possible that local cultural attitudes play a significant role, dimensions of workplace organization that provide opportunity to those with a predisposition to harass may be a significant and preventable contributing factor.

Our purpose is to explore the relationship between workplace organization and the prevalence of sexual harassment. Tufts University is undertaking an impact assessment of Better Work. In the course of the

assessment, a random sample of workers in Haiti, Vietnam, Jordan and Indonesia are surveyed on basic demographics, work experiences and life outcomes. The General Manager and Human Resource Manager are surveyed on firm and workplace characteristics.

Evidence of the impact of sexual harassment and other workplace characteristics on worker wellbeing is provided in Domat et al (2013). Here, we consider four workplace characteristics that are correlated with increased survey responses concerning the prevalence of sexual harassment in the workplace. At one end of the spectrum, sexual harassment may occur when managers and owners are unaware of the prevalence and impact of sexual harassment and an articulated policy defining appropriate sexual interactions between employees is absent. At the other end, the occurrence of sexual harassment may be a deliberate managerial disciplinary policy that reflects the power imbalance between supervisors and workers characteristic of apparel factories. Factory managers who exercise workplace discipline through fear or intimidation may condone several forms of harassment of line workers by supervisors. That is, harassment of a sexual nature may simply be one form of intimidation used to discipline employees.

More subtly, there may be an interaction between compensation and sexual favors. Harassment may be a result of deliberate managerial compensation policies. Compensation packages are typically multi-dimensional, designed to promote a range of firm objectives and provide pecuniary and nonpecuniary forms of compensation. Sexual favors may be a form of compensation in a multi-dimensional pay package for high performing supervisors. Alternatively, sexual harassment may be an adverse byproduct of misaligned compensation and productivity incentives between supervisors and workers within the workplace. Compensation may be high-powered, in which pay is closely linked to work effort and performance, or low-powered, in which employees are salaried or paid by the hour. Firms with high-powered incentives for workers but low-powered incentives for supervisors may inadvertently be diverting supervisor effort to the quest for sexual gratification or sex-linked power rather than production.

Indeed, the asymmetric configuration of incentives in which supervisors have the authority to determine whether a worker is hired, promoted or rewarded for meeting a production goal creates a power imbalance. The supervisor may exploit the power imbalance in the pursuit of sexual gratification, particularly sexual gratification that is enhanced by a feeling of power over a sexual partner. In the case in which power imbalances and compensation structure are facilitating a power imbalance, remediation

maybe accomplished by institutional settings that support victims and reduce their vulnerabilities and a competitive labor market environment that improves their alternatives.

Analyzing data from Haitian, Jordanian and Indonesian apparel firms, we do not find evidence that sexual favors are a managerial disciplinary policy or a form of explicit supervisor compensation. Rather, sexual harassment is a function of organizational awareness and a factory's incentive structure. Organizational awareness concerns the extent to which managers and supervisors are aware and tolerant of sexual harassment in their workplace. Organizational awareness can be increased through reporting and monitoring mechanisms, hotlines and other complaint channels. The incentive structure concerns the link, or lack thereof, between compensation and managerial goals. Two workplace organizational features provide supervisors an opening to seek sexual gratification in the workplace. These are asymmetries in the power of incentives for supervisors and workers and the vulnerability faced by migrants who lack freedom of movement.

Supervisors are more likely to extract sexual favors in firms that provide production incentives to line workers. Supervisors who are charged with monitoring the productivity of individual workers for the purpose of determining the production bonus appear to extract some portion of the bonus in the form of sexual favors in exchange for reporting work effort that is bonus-eligible. In this *quid pro quo* form of sexual harassment, supervisors exchange a favorable or qualifying worker report for sexual favors from that worker. Put another way, supervisors whose pay incentives are misaligned with worker productivity incentives exploit this incentive differential through sexual favors.

Such behavior may be reducing factory productivity by diluting the power of production incentives offered to line workers and increasing the turnover rate of the most productive workers in the factory. Sexual harassment can also lower morale and inhibit work-related communication, thereby interfering with organizational effectiveness. More effectively aligning the incentives of individuals with broader organizational objectives will induce employees engaging in productivity-reducing harassment to direct more effort to productive activities. This isn't to suggest that harassment should be controlled by increasing the compensation of perpetrators but only to increase the goal dependence of the perpetrator and the firm and divert effort away from seeking sexual gratification and power toward production.

The rest of this paper is organized as follows: Section II provides an overview of the literature treating sexual harassment in the workplace, drawing from organizational psychology, economics and anthropology. Section III proposes a theoretical framework of sexual harassment in a firm as well as



several hypotheses concerning the structural antecedents of sexual harassment to be explored in the rest of the paper. Section IV reports the first analysis of our data set with a focus on structural antecedents of sexual harassment in Haitian, Jordanian and Indonesian apparel factories. Section V concludes and proposes some directions for future work.

## **2. LITERATURE REVIEW**

Analysis of the of the determinants of sexual harassment has been explored using the tools of economics, psychology, anthropology and sociology. Dina Siddiqi (2003) studies sexual harassment of garment workers in Bangladeshi factories using an anthropological frame. In her analysis, she compares female Bangladeshi workers from three different factories: women who work at a garment factory in an Export Processing Zone (EPZ), women who work in a garment factory outside an EPZ and women who work in an electronics factory. Her analysis comes from qualitative conversational interviews with each of the women (n = 80). Broadly, Siddiqi makes the argument that sexual harassment faced by women in Bangladesh has two important sources: societal norms surrounding women and factory work and a factory context that allows coercive disciplinary practices.

The labor opportunities available to women in Bangladesh are often within a narrow range of occupations characterized by high risk factors for workplace violence and sexual harassment such as high job insecurity, low pay, bad working conditions, low status and minimal bargaining power (Di Martino et al., 2009). Such job characteristics often leave women too vulnerable to seek any recourse for acts of harassment. Siddiqi also concludes that organizational characteristics such as company size, internal operating autonomy, financial stability, distance from operational control, structure of production process and nature of the end product determine to what extent sexual harassment is incorporated as a method of labor discipline and coercion.

Finally, Siddiqi argues that in the context of Bangladesh, evaluating the costs of sexual harassment goes beyond lost productivity on an organizational level. Siddiqi finds evidence that sustained harassment generates depression, fatigue, anger and hopelessness, which are manifested in the form of lower individual productivity.

Siddiqi recommends that a first step to dealing with sexual harassment in apparel factories would be to address informal human resources systems which allow for increased vulnerability and lower recourse for action or accountability. She notes that often this requires no new regulation but only compliance with existing labor laws.

Many of Siddiqi's conclusions are echoed in Better Work Jordan's 2012 report, which addresses sexual harassment in the Jordanian garment industry in the context of sexual harassment globally. Based on data from the Better Work Impact Assessment survey, 25 percent of workers assert that sexual touching or sexual harassment is a concern for workers in their factory.

The authors of the study note that sexual harassment is endemic to the garment industry due to three structural features: gender differences in power, stereotypes about garment workers and high production targets coupled with thin profit margins. This report draws on analyses of data from countries including Bangladesh, the Dominican Republic, Kenya, Mexico and Cambodia that suggest high levels of sexual harassment in the garment industry globally.

The Better Work Jordan report echoes a common concern about collecting reliable data, both because legal and cultural definitions and perceptions vary, and because there is a stigma attached to discussing experiences of a sexual nature. The report cautions against relying on survey results for a complete and accurate picture, suggesting that they are all subject to under-reporting.

With few exceptions (Kisa et al., 2002), studies using the methodology of psychology rely on survey data, principally in developed countries, to identify instances and outcomes of sexual harassment. Outcomes include individual indicators, such as mental and physical health, and workplace measures, such as productivity, job satisfaction and intention to quit. Analysis has also addressed organizational and situational contexts within which sexual harassment takes place as well as victims' coping mechanisms and utilization of formal processes for reporting incidents (Fitzgerald et al. 1997; Schneider et al. 1997).

Sexual harassment is typically categorized as *quid pro quo*, in which there is some expectation of a work-related benefit in exchange for sexual relations, or unwelcome sexual advances leading to a hostile work environment. Due to its subjective and sensitive nature, empirically identifying and analyzing sexual harassment poses several methodological difficulties, such as identifying victims and incidents.

Collecting data on sexual harassment is particularly challenging. Many episodes of sexual harassment are not identified as such by victims (Di Martino et al., 2009; Fitzgerald et al., 1997; Kisa et al., 2002). Further, when study participation is voluntary, the sample may suffer from selection bias. Selection bias may occur because the decision to report sexual harassment may be more likely for workers who are generally dissatisfied at work (Fitzgerald et al., 1997) or victims may fear repercussions even when assured of confidentiality by data collectors. Further, there is evidence that survey format plays a role in how respondents characterize their experiences. Legal and cultural differences may affect survey

responses, though increased awareness, landmark court cases and semantic fusion of terminology across countries suggest convergence to a shared understanding. (Di Martino et al., 2009).

Schneider et al. (2007) examine the impact of sexually harassing behaviors on job attitudes, job behaviors, psychological wellbeing and coping responses of employed women in the United States in two independent samples: a private sector organization (n = 300) and a large research university (n = 447). Randomly selected employees in both samples were told they were participating in a study of the quality of working life. The authors believe that the high participation rate allows them to avoid selection bias. To gauge sexual harassment experiences, the survey included a revised version of the *Sexual Experiences Questionnaire*.<sup>1</sup> The survey also included questions to evaluate respondents' sensitivity to harassment, general predisposition to complain and general job stress as controls. Effects of harassment on job-related and psychological outcomes were estimated through multiple group discriminant function analyses, with women grouped on the basis of frequency of reported experiences (rather than type of incident).

The authors find that sexual harassment exerts significant negative impact on psychological wellbeing, job attitudes and work behaviors (absenteeism, work withdrawal, desire to leave), even at low frequencies of incidence. The authors also find that a majority of women do not discuss the incidents with a supervisor nor lodge a formal complaint. Notably, though, respondent characterization of their experience (as sexual harassment or not) did not alter the psychological impact.

Fitzgerald et al. (1997) develop a conceptual model of the antecedents and consequences of sexual harassment in organizations and test it empirically using a survey of employees of a large, regulated U.S. utility company (n= 357). Sexual harassment is modeled as a function of two conditions: organizational culture and job gender context. Organizational culture refers to the level of tolerance of sexual harassment on an organizational level and job gender context refers to the gendered nature of the working group. Individual consequences fall into three categories: job outcomes (satisfaction, job and work withdrawal), individual psychological outcomes (distress, trauma) and health outcomes (physical outcomes and health satisfaction).

In their model, sexual harassment is understood as an incident of occupational stress, rather than a specific traumatic experience. Their empirical evidence generally supports the conceptual model. The authors found that a perception that the organization tolerates sexual harassment in the workplace was positively correlated with experiences of sexual harassment, as was the likelihood of working in a male

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<sup>1</sup> Fitzgerald et al (1997).

dominated job context in which supervisors and co-workers are predominantly male. Furthermore, as predicted, experiencing sexual harassment was directly related to job and psychological outcomes and indirectly related to health outcomes. In a specification check, selection bias is eliminated by using a work-group-based measure of perceptions of harassment rather than an individual one.

The meta-analysis presented by Willness et al. (2007) uses the above conceptual model as a foundation to analyze data from 41 studies of consequences and antecedents of sexual harassment in the workplace. They find that organizational climate has the largest effect on occurrence. The effect of job gender context is smaller but still important. For consequences, the strongest effects were again job satisfaction and psychological outcomes. The authors note the importance of cultural context surrounding the interpretation of sexual harassment.

Di Martino et al. (2003) address sexual harassment within a comprehensive report treating violence in the workplace, drawing mostly from European studies and legal and legislative sources. In their formulation, violence in the workplace deals not only with traditional concerns like physical safety and quality of work but also dignity of work and human rights. Both *quid pro quo* sexual harassment and a hostile workplace are captured by this formulation. In a section reviewing legal definitions of and laws relating to sexual harassment, the authors underline the cultural and linguistic differences leading to different perceptions of behavior that make cross-national comparisons difficult.

In considering factors contributing toward workplace violence, Di Martino et al. suggest several factors that are relevant to sexual harassment. Situational factors contributing to instances of sexual harassment include the gendered nature of work as well as large power differentials and job insecurity. The latter imposes cost-benefit considerations on both victims and perpetrators. Organizational factors include work culture and climate as well as job complexity and control. Work situations characterized by monotonous tasks and low control over work environment are linked to incidence of bullying and intimidation. The report also notes that women tend to report being subjected to sexual harassment at much higher rates than men. A possible reason for this finding is that women are more likely to be segregated into precarious employment characterized by low skill, low wage and low status employment with an immediate male supervisor.

Kisa et al. (1993) study sexual harassment and its effect on job performance and productivity in the health delivery sector in Turkey. The authors catalogue the number and type of sexual harassment incidents reported, along with reactions, symptoms and related consequences via a questionnaire given to 353 nurses. They find that 73 percent of the sample report having been sexually harassed at work and

45 percent of those who report harassment also report a drop in productivity and various health-related symptoms.

The survey also collected information about coping mechanisms. Most incidents were not reported to a supervisor. The authors conclude that sexual harassment is a pervasive problem in the health delivery sector in Turkey that may affect patient outcomes through reduced productivity. While underscoring the need to contextualize the definition of sexual harassment in a more traditional, developing country setting, the authors report that most women find that the “Western” sexual harassment legal framework adequately describes their experiences.

Conclusions from the social psychology literature point to the importance of organization-specific antecedents, especially the level of acceptance of sexual harassment in a working environment, and consistently show the significance of both individual and organization-level consequences.

Economists have generally contributed less than other academics to the study of sexual harassment in the workplace. Antecol and Cobb-Clark (2006) explore the relationship between sexual harassment and job outcomes, specifically job satisfaction and intended turnover of 19,467 active-duty women in the American Armed Forces. As do the scholars in the psychology literature, they identify sexual harassment by using reported instances of gender-related behavior rather than explicitly reported sexual harassment. Results from a probabilistic model suggest that significant determinants of reporting unwanted gender-related behavior are marriage status, pay grade, race, education, gender composition of work group, years of duty and nature of job assignment.

The existence of dedicated sexual harassment hotlines and offices or publicized complaint channels are also significant and negatively correlated with sexual harassment. Such findings are consistent with the hypothesis from the psychology literature that organizational climate and tolerance play a central role. Single-equation probit analysis indicates that sexual harassment is a significant determinant of job satisfaction and remaining in the military for all categories of sexual harassment. These results from women in the military are consistent with the results from the civilian population.

However, the authors note that reported sexual harassment is likely endogenous to reported lower job satisfaction and intent to leave, suggesting that endogeneity leads to estimates biased upwards. In a second step, they specify a bivariate probit model that accounts for this correlation and controls for whether women who report gender related behavior also indicated that they have been sexually harassed. With this specification, estimates of the marginal effects of harassment on job satisfaction were reduced, while the effects on intent to leave disappear altogether. The authors conclude that the

experience of harassment alone does not have a direct effect on job satisfaction. Rather, the critical determinant of job satisfaction is how women perceive their individual experiences.

In the single formal theoretical treatment of the subject, Basu (2002, 2003) explores the economics of sexual harassment as a condition of work. Sexual harassment can be conceptualized as an occupational hazard that is known to the firm and worker. A contract in which the worker is compensated for the possibility of being harassed is Pareto-efficient. By incorporating sexual harassment into the contract, Basu addresses the puzzling results of Antecol and Cobb-Clark (2006) who suggest that women who experience sexual harassment and decreased job satisfaction nevertheless did not have increased intention to leave their jobs. Basu suggests that a normative argument for banning sexual harassment exists nonetheless. While individual contracts involving sexual harassment may be Pareto-efficient, they drive down the wages of those who would not choose it. As a consequence, the cost of sexual harassment is borne by all workers.

Hersch (2011) looks for a compensating differential suggested by Basu (2002) by analyzing individual claims filed with the U.S. Equal Employment Opportunity Commission and data from the U.S. Census Bureau's Current Population Survey. She first calculates the risk of sexual harassment by industry and then estimates a wage equation controlling for risk of harassment and other determinants of wage. If sexual harassment has an effect on worker productivity, this should be evident in lower wages. If, alternatively, there is a compensating differential, then jobs with higher risk of harassment should have a wage premium. Hersch finds an hourly wage premium for risk of exposure to sexual harassment that varies by gender: 25 cents for women and 50 cents for men, on average. Hersch comments on the nature of sexual harassment in the workplace from the perspective of the perpetrator, noting that sexual harassment is often an instrument of power and intimidation rather than an expression of sexual desire.

### **3. DATA AND ANALYSIS**

The following analysis will first consider the basic worker characteristics that predict the presence of sexual harassment. In particular, we will be concerned with the characteristics that increase the probability of reporting sexual harassment. These factors included marital status, pay grade, education, years of experiences and job type. We then address four hypotheses about firm structure that determine the presence of sexual harassment:

**H1: Organizational awareness** – incidents of sexual harassment occur because of a lack of organizational awareness or managerial oversight.

**H2: Incentive structures** – sexual harassment occurs because of a misalignment of incentives between production workers and supervisors or between supervisors and factory management or owners.

**H3: Disciplinary policy** – sexual harassment of workers is a condoned disciplinary measure.

**H4: Compensation** – extracting sexual favors from workers is condoned behavior and is counted as a compensation benefit for supervisors.

### **Descriptive statistics**

Table 1 reports descriptive statistics for the sample of 669 workers from 23 Haitian factories that participated in the Better Work impact assessment surveys in 2011 and 2012. 500 workers were interviewed in 2011, and an additional 169 workers from seven factories were interviewed in 2012. Seven factories had a second visit in 2012, for a total of 30 factory visits.

Workers who report not getting regular paychecks were dropped from the daily wage calculation, as were those with a constructed daily wage below 10 Haitian gourd (approximately 0.25 USD). The average constructed daily wage for workers in this sample is 280 Haitian Gourde, approximately 6.58 USD.

Nearly 70 percent of the sample is female and between 25 and 35 years of age. Over half of the sample (53%) report being single, and 70 percent have children. The majority of workers (73%) report having a secondary school education, the highest level of education attained by a worker in this sample.

Seventy-two percent of workers in this sample report being in a savings and loan circle (SOL member), and 13 percent hold a leadership position in such a group (SOL mama). Table 1 also includes individual worker characteristics including debt, wages, job description and duration of employment. Average factory tenure in this sample is between 19 and 24 months. Thirty-seven percent of workers report being in debt to the factory, a moneylender or a friend. In terms of job type, 47 percent of the sample work as a sewer, by far the most common job description. Eleven percent work as checkers, three percent of workers surveyed report holding supervisory positions, 16 percent report their job as “other” and 10 workers in the sample declined to give their job title. Workers were asked how often they were paid, how much money they received the last time they were paid and how many days per week they worked. The majority of workers (64%) report working six days per week, while an additional 11.3

percent report working seven days per week. A measure of daily wage was constructed from these three wage questions.

**Table 1: Haiti Sample Characteristics**

	Mean	Standard Deviation	Max	Min	Count
<b>Demographic</b>					
female	0.69	0.46	1	0	669
age	5.59	1.31	8	3	669
education	2.72	0.49	3	1	666
married	0.21	0.41	1	0	667
placee	0.26	0.44	1	0	667
single	0.53	0.50	1	0	667
have kids	0.70	0.46	1	0	667
live with family	0.74	0.44	1	0	669
SOL member	0.72	0.45	1	0	582
SOL mama	0.13	0.34	1	0	581
<b>Job characteristics</b>					
owe debt	0.37	0.48	1	0	666
years worked	6.59	3.30	12	1	667
daily wage	280.14	320.69	2793.5	16.1	565
<b>Job Description</b>					
sewer	0.47	0.50	1	0	659
cutter	0.07	0.26	1	0	659
spreader	0.01	0.11	1	0	659
checker	0.11	0.32	1	0	659
mechanic	0.00	0.07	1	0	659
packer	0.03	0.18	1	0	659
quality control	0.09	0.28	1	0	659
supervisor	0.03	0.16	1	0	659
helper	0.04	0.19	1	0	659
other	0.16	0.37	1	0	659
<b>Sexual harassment</b>					
worker concern with sexual harassment	0.38	0.49	1.00	0	413
quid pro quo sexual harassment	0.09	0.29	1.00	0	257
informant	0.21	0.18	0.83	0	674
N	669				



Table 2 reports descriptive statistics for the sample of 970 workers from 23 Jordanian factories that participated in the Better Work impact assessment survey administered from 2010 to 2012. Seventy-one percent of the sample are female and the average age is between 25 and 35 years. Nearly 70 percent of the sample report having completed upper secondary school or less; though, 28 workers report having a bachelor's degree. Foreign workers constitute the majority of the sample. Only 34 percent of workers report being Jordanian. Sri Lankan nationals are the largest group, at just under 40 percent of the total. 15 percent of the sample is Bangladeshi, and 3 percent report being from China. A full 11 percent of the sample reports "other" as their country of origin. This includes one worker who reports their country of birth as Pakistan. Seventy-two percent of migrant workers report living in dorms. Table 2 also includes individual worker characteristics including wages, job description and duration of current employment. Average factory tenure in this sample is between 19 and 24 months. In terms of job type, 49 percent of the sample work as sewers, by far the most common job description. Eleven percent work as helpers, four percent hold a supervisory position, and 15 percent report their job as "other."

As with the Haitian sample, participants were asked how often they were paid, how much money they received the last time they were paid and how many days per week they worked. A measure of daily wage was constructed from these three responses. The majority of workers (76%) report working six days per week, and 4.7 percent report working seven days per week. Workers who report not getting regular paychecks were dropped from the daily wage calculation, as were those whose reconstructed daily wage exceeded 70 Dinar per day.

Table 2 also contains several possible indicators of forced labour. All summary statistics are restricted to the subsample not born in Jordan. It should be noted that most workers included in this sample have thus far been reached for a baseline survey only. First Job is the percentage of workers who report that their current job at the factory is the first one they have had in Jordan. For 87 percent of the migrant workers in this sample, their current job is their first experience working in Jordan. Decide work is an indicator if someone besides the worker made the decision about taking the job in Jordan.

Twenty-one percent of workers report that a family member, friend, acquaintance or recruiter made the decision for them to work in Jordan. *Factory doc* indicates that the worker reports that some or all of their legal documents are being held by the factory.

**Table 2 : Jordan Sample Characteristics**

	Mean	Standard Deviation	p50	Max	Min	Count
<b>SH variables</b>						
SHconcern	0.34	0.47	0	1	0	724
informant	0.39	0.31	0.35	1	0	970
<b>Demographic Characteristics</b>						
Female	0.71	0.45	1	1	0	970
Age	5.18	1.30	5	8	3	970
education	4.34	2.05	4	9	1	962
livedorm	0.48	0.50	0	1	0	964
Jordan	0.34	0.47	0	1	0	969
bangladesh	0.15	0.36	0	1	0	940
Srilanka	0.39	0.49	0	1	0	940
China	0.03	0.16	0	1	0	940
Other	0.11	0.31	0	1	0	940
<b>Job Characteristics</b>						
owedebt	0.21	0.41	0	1	0	448
daily wage	10.07	10.48	6.50	66.625	2.10	791
dailywage jordan	8.29	7.29	6.25	50	2.46	284
dailywage migrant	11.07	11.80	6.67	66.625	2.10	506
years worked	6.79	3.24	7	12	1	967
<b>Job Description</b>						
sewer	0.49	0.50	0	1	0	964
cutter	0.06	0.24	0	1	0	964
spreader	0.02	0.15	0	1	0	964
checker	0.04	0.19	0	1	0	964
mechanic	0.01	0.11	0	1	0	964
packer	0.06	0.24	0	1	0	964
quality control	0.07	0.26	0	1	0	964
supervisor	0.04	0.19	0	1	0	964
helper	0.11	0.31	0	1	0	964
other	0.15	0.36	0	1	0	964
<b>Forced Labour indicators</b>						
First job	0.87	0.34	1	1	0	640
decideworker	0.21	0.41	0	1	0	642
factorydoc	0.24	0.43	0	1	0	647
contractmoney	27076.07	64806.40	10000	650000	0	627
factorypaid	0.08	0.28	0	1	0	641
home	0.54	0.50	1	1	0	618
travelQIZ	0.28	0.45	0	1	0	625
nophone	0.03	0.18	0	1	0	631
<b>N</b>	970					

Nearly a quarter of the migrants in the survey sample report that some of their documents are being kept by the factory. Eight percent of workers report that the factory paid for some or all of their fees for traveling to Jordan and obtaining work documents (*factory paid*). Fifty-four percent of workers feel that they could not return home if they wanted to (*home*). Of these, about seven percent (43 workers) report that the reason they cannot return home is that the factory will not let them or the factory has their documents. Twenty-eight percent of migrants report never having traveled outside the Qualifying Industrial Zone (QIZ), and three percent have no access to a phone to call home.

For the Indonesian sample, the data used consist of survey responses from 1,248 workers at 44 Indonesian garment factories monitored by the Better Work program. Table 3 presents a summary of demographics. Eighty-nine percent of participants surveyed are female. The average education level falls between the junior high and high school groups. Age falls approximately at the 26- to 30-years-old group and time worked at the factory averages at 19 to 23 months.

**Table 3 : Indonesia Sample Characteristics**

	Mean	Standard Deviation	Max	Min	Count
<b>Demographic</b>					
female	0.89	0.31	1	0	1456
age	4.99	1.22	8	3	1456
education	4.18	0.75	6	1	1454
have kids	0.60	0.49	1	0	1451
live with family	0.82	0.38	1	0	1455
<b>Job characteristics</b>					
owe debt	0.19	0.39	1	0	1354
years worked	6.33	3.59	12	1	1446
daily wage	180.81	387.59	4475	0.04	1100
<b>Job description</b>					
sewer	0.49	0.50	1	0	1437
cutter	0.08	0.27	1	0	1437
spreader	0.01	0.09	1	0	1437
checker	0.03	0.16	1	0	1437
mechanic	0.01	0.07	1	0	1437
packer	0.03	0.18	1	0	1437
quality control	0.09	0.29	1	0	1437
supervisor	0.01	0.10	1	0	1437
helper	0.10	0.31	1	0	1437
other	0.16	0.37	1	0	1437
<b>Sexual harassment</b>					
SHconcern	0.82	0.39	1	0	605
informant	0.25	0.24	1	0	1456
<b>N</b>	1470				

## Measuring Sexual Harassment

Tables 1-3 also include descriptive statistics of various measures of sexual harassment. Following Fitzgerald et. al's perceptions approach, participants were asked, "Is sexual harassment or sexual touching a concern for workers in your factory?" In Haiti, 62 percent of workers (n = 413) responded to the question; of those 413, 38.5 percent (n= 159) report that sexual harassment is a concern. It is important to note that this does not mean that 38 percent of workers who responded to this question have experienced sexual harassment, as workers may be expressing a concern about observing or being aware of sexual harassment in their factory without having been victims themselves.

Furthermore, workers who are themselves victims of sexual harassment may be choosing not to answer or may not identify their experience as sexual harassment. Workers in Haiti were also asked directly if they had to be "somebody's boyfriend or girlfriend" to keep their job. Of the 257 workers who gave a response, 23 (9%) report being victims of such *quid pro quo* sexual harassment.<sup>2</sup>

Table 4 is a two-way table of responses to the two sexual harassment questions. Note that there are many missing observations, as only 170 workers (25% of the full sample) chose to answer both questions, reflecting a discomfort with answering sensitive questions. 5.4 percent (6 of 11) of those who report not being concerned with sexual harassment also report being the victims of *quid pro quo* sexual harassment. Put another way, 30 percent of individuals who do report *quid pro quo* sexual harassment (6 out of 18) report that sexual harassment is not a concern. This outcome is not surprising given the findings from the psychology literature that many individuals who report incidents that qualify as sexual harassment do not identify them as such (Antecol and Cobb-Clark, 2006; Fitzgerald et al., 1997; Schneider et al., 1997).

**Table 4 : Haiti *Quid Pro Quo* Sexual Harassment and Worker Concern**

Worker concern with sexual harassment	No	105	6	111
	Yes	47	12	59
	Total	152	18	170

For Jordan and Indonesia, participants were asked only the "concern" version of the sexual harassment question. In Jordan, 25 percent of the sample chose not to respond to the question. Non-respondents

<sup>2</sup> The reported percentages of workers in Haiti who expressed concern with sexual harassment are based on baseline surveys collected from March–December 2011. A total of 413 workers responded to the survey question about concern with sexual harassment, and 257 workers chose to respond to the survey question "Do you need to be someone's boyfriend or girlfriend to keep your job?". Following baseline survey collection and consultation with stakeholders in the country, slight revisions to the Creole translations of these survey questions were made for future data collection, in order to more accurately capture and understand the incidence of sexual harassment in garment factories.

are more likely to be female, slightly older and slightly more educated than respondents. Of those who responded, 34 percent believe that sexual harassment is a concern. Indonesian participants were much more likely to report sexual harassment, with 81 percent responding in the affirmative, as can be seen in Table 3.

In the analysis that follows, the dependent variable used is “sexual harassment concern,” a dummy variable coded 1 if a worker reports some level of concern with sexual harassment in their factory.

### **Informant Index**

A challenge in interpreting survey responses is that it is not obvious whether those who are reporting are victims or informants, as many victims of sexual harassment may be unwilling or unable to classify it as such (Siddiqi, 2003). To address the first of these issues, a rudimentary *Informant Index* is created to control for how likely the participant is to report concerns with the factory when given the opportunity. Throughout the impact assessment survey, workers were given 12 opportunities to report concern with wages, working conditions and factory conditions other than sexual harassment. The index is simply the number of questions to which they reported some level of concern. Summary statistics for the variable *informant* are given in Tables 1-3. In Haiti, 22 percent of the sample (n = 151) report no concerns about their factory. The average rate of complaint was 0.21, implying that out of 12 opportunities to report concern, workers reported some degree of concern on an average of 2 to 3 times. Slightly higher levels of informant behavior are reported in Jordan (0.39) and Indonesia (0.25).

### **Demographic Characteristics and Sexual Harassment**

A first step to understanding sexual harassment is to determine whether there are individual demographic or job characteristics that render some workers more vulnerable to sexual harassment than others. Tables 5-8 report the results of OLS regressions of demographic characteristics and individual job characteristics on the dependent variable indicating concern with factory sexual harassment for Haiti (Table 5), Jordan nationals (Table 6), Jordan migrants (Table 7) and Indonesia (Table 8). Aside from gender and age, there appears to be no reported individual characteristic that predicts a reported concern with sexual harassment.

Much of the reporting of sexual harassment is not by the victim but rather by an informant. Note, for example that the coefficient on female in Haiti is negative and quite large (-0.192, Table 5 column 2), implying that women are less likely to report sexual harassment than men. The coefficient on cutter is positive and weakly significant in some specifications (0.173, Table 5 column 2) suggesting that workers who describe their job as cutter are more likely to report factory concern with sexual harassment. Other

positions that predict reporting on sexual harassment are spreader and mechanic in Jordan. It is possible, though unlikely, that a spreader is a woman; mechanics are overwhelmingly male.

Specific positions that predict informing on sexual harassment are cutters (0.173, Haiti, Table 5 column 2; 0.144 Jordan migrants, Table 7 columns 3-5), supervisors (0.410, Jordanian, Table 6 column 5), mechanics (0.384, Jordan migrants, Table 7 column 2), spreaders (0.512; Jordan migrant, Table 7 column 2) and helpers (-0.110; Jordan migrant, Table 7 column 2). The predominance of participants who are male, holding a male position of authority or a supervisor strongly suggests that many of the positive responses to the sexual harassment question are from informants rather than victims. Indeed, the coefficient on the informant index is persistently significantly positive and larger than the other participant characteristics.

When the *informant* variable is included explicitly, the size and significance of other variables typically decline. Note, for example, that the coefficient on *female* in Haiti is still negative and significant (-0.124, Table 5 column 3) but smaller in magnitude, suggesting the possibility that some of the effect can be attributed to men who are reporting sexual harassment of their female coworkers. The coefficient on *cutter* in Haiti is no longer significant and is smaller in magnitude, compared with previous specifications (0.136 versus 0.173), again suggesting that people who hold that job are reporting sexual harassment in their factory but are not themselves victims.

**Table 5: Haitian Participant Characteristics and Reports of Sexual Harassment (SH)**

	SH concern (1)	SH concern (2)	SH concern (3)
female	-0.205 (3.68)***	-0.192 (3.27)***	-0.124 (2.34)**
age	-0.030 (1.34)	-0.035 (1.46)	-0.000 (0.00)
education	-0.042 (0.78)	-0.041 (0.75)	-0.022 (0.45)
placee	0.081 (1.23)	0.080 (1.21)	0.066 (1.11)
married	0.067 (0.93)	0.056 (0.76)	0.045 (0.69)
kids	0.019 (0.30)	0.013 (0.20)	0.019 (0.33)
live with family	-0.035 (0.59)	-0.044 (0.74)	-0.048 (0.90)
owe debt	-0.002 (0.04)	0.012 (0.21)	-0.019 (0.39)
SOL member	0.036 (0.61)	0.040 (0.65)	0.018 (0.33)
SOL mama	-0.121 (1.45)	-0.125 (1.47)	-0.114 (1.51)

**Table 5 continued**

	SH concern (1)	SH concern (2)	SH concern (3)
years worked		0.001 (0.06)	-0.005 (0.59)
cutter		0.173 (1.73)*	0.136 (1.52)
checker		-0.035 (0.39)	0.003 (0.04)
quality control		-0.073 (0.73)	-0.060 (0.67)
supervisor		-0.076 (0.47)	-0.078 (0.55)
helper		-0.082 (0.54)	-0.132 (0.98)
other		-0.066 (0.82)	-0.063 (0.88)
informant			1.131 (9.00)***
_cons	0.767 (3.46)***	0.794 (3.54)***	0.272 (1.30)
R <sup>2</sup>	0.06	0.07	0.26
N	346	343	343

Notes: \*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

**Table 6 : Jordanian Participant Characteristics and Reports of Sexual Harassment**

	SH concern (1)	SH concern (2)	SH concern (3)	SH concern (4)	SH concern (5)
	Basic	Extended	Informant	Year FE	Factory FE
female	0.0817 (0.91)	0.0655 (0.70)	0.0110 (0.11)	-0.00154 (-0.02)	-0.0663 (-0.55)
age	-0.0350 (-1.51)	-0.0476* (-2.08)	-0.0213 (-1.03)	-0.0243 (-1.23)	-0.0162 (-0.82)
education	-0.0280 (-1.57)	-0.0273 (-1.54)	-0.0306 (-1.58)	-0.0310 (-1.59)	-0.0410 (-1.98)
cutter	-0.00264 (-0.02)	0.0156 (0.12)	-0.00993 (-0.08)	-0.00324 (-0.03)	0.00775 (0.05)
spreader	0.0850 (0.48)	0.0945 (0.53)	0.0305 (0.30)	0.0326 (0.33)	-0.0700 (-0.38)
checker	-0.240 (-1.55)	-0.219 (-1.83)	-0.150 (-0.76)	-0.129 (-0.70)	-0.143 (-1.11)
mechanic	0.133 (0.44)	0.158 (0.44)	0.0280 (0.19)	0.0602 (0.36)	0.111 (1.10)
packer	0.0958 (0.79)	0.124 (1.00)	0.0848 (0.68)	0.0898 (0.73)	0.123 (1.03)
quality control	-0.109 (-0.55)	-0.123 (-0.65)	-0.160 (-0.95)	-0.157 (-0.90)	-0.0435 (-0.28)
supervisor	0.190 (0.81)	0.138 (0.58)	0.256 (1.86)	0.257 (1.84)	0.410** (3.72)
helper	0.00787 (0.07)	0.00275 (0.02)	-0.0358 (-0.38)	-0.0239 (-0.26)	-0.0794 (-0.78)

**Table 6 continued**

	SH concern (1)	SH concern (2)	SH concern (3)	SH concern (4)	SH concern (5)
other	-0.0778 (-0.87)	-0.0729 (-0.85)	-0.00659 (-0.08)	-0.00460 (-0.06)	0.00283 (0.04)
years worked		0.0172 (1.86)	0.0118 (1.41)	0.0121 (1.29)	0.0130 (1.90)
informant			0.860*** (11.62)	0.861*** (11.88)	0.880*** (11.79)
_cons	0.735*** (4.65)	0.684*** (4.02)	0.175 (1.03)	0.196 (1.21)	0.239 (1.70)
<i>N</i>	216	216	216	216	216
<i>R</i> <sup>2</sup>	0.042	0.055	0.290	0.292	0.334

Notes: t-statistics in parentheses, all SE robust, clustered by factory; \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

**Table 7 : Jordanian Migrant Participant Characteristics and Reports of Sexual Harassment**

	SH concern (1)	SH concern (2)	SH concern (3)	SH concern (4)	SH concern (5)
	Basic	Extended	Informant	Year FE	Factory FE
Female	0.0132 (0.27)	0.0305 (0.60)	0.0169 (0.46)	0.0204 (0.56)	0.00723 (0.15)
Age	-0.0272 (-1.93)	-0.0248 (-1.69)	-0.0169 (-1.39)	-0.0177 (-1.42)	-0.0236 (-1.74)
Education	0.0162 (1.28)	0.0164 (1.24)	-0.00490 (-0.38)	-0.00509 (-0.41)	-0.00741 (-0.54)
bangladesh	0.0569 (1.04)	0.0800 (1.46)	0.105 (1.90)	0.119 (1.81)	0.139 (1.50)
china	-0.0184 (-0.12)	-0.0558 (-0.35)	0.110 (1.41)	0.134 (1.64)	0.273* (2.51)
other	0.000672 (0.01)	-0.00513 (-0.08)	0.0646 (1.36)	0.0717 (1.54)	0.0837 (1.35)
yearsworked		-0.000233 (-0.02)	0.00413 (0.54)	0.00461 (0.61)	-0.00183 (-0.20)
jobcutter		0.105 (1.16)	0.144* (2.13)	0.145* (2.12)	0.128 (1.81)
jobspreader		0.512* (2.24)	0.269 (1.80)	0.278 (1.83)	0.213 (1.30)
jobchecker		-0.0501 (-0.73)	-0.00395 (-0.06)	-0.00780 (-0.12)	0.0146 (0.21)
jobmechanic		0.384* (2.71)	0.145 (0.95)	0.133 (0.86)	0.132 (0.87)
jobpacker		0.00339 (0.04)	0.0332 (0.53)	0.0407 (0.69)	0.0566 (0.98)
jobqcontrol		0.0480 (0.47)	0.0667 (0.95)	0.0611 (0.85)	0.0860 (1.18)
jobsupervisor		-0.0201 (-0.25)	-0.0987 (-1.50)	-0.0926 (-1.42)	-0.112 (-1.67)
jobhelper		-0.110* (-2.20)	-0.0113 (-0.25)	-0.0202 (-0.43)	-0.0186 (-0.43)
jobother		0.0527 (0.73)	0.0337 (0.62)	0.0307 (0.58)	0.0208 (0.38)



**Table 7 continued**

	SH concern (1)	SH concern (2)	SH concern (3)	SH concern (4)	SH concern (5)
informant			0.849*** (15.39)	0.836*** (14.27)	0.826*** (13.37)
_cons	0.333** (3.39)	0.296* (2.57)	-0.0138 (-0.17)	-0.0134 (-0.16)	0.0654 (0.71)
<i>N</i>	501	498	498	498	498
<i>R</i> <sup>2</sup>	0.013	0.051	0.352	0.345	0.330

**Notes:** t-statistics in parentheses, all SE robust, clustered by factory; \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

**Table 8 : Indonesian Participant Characteristics and Reports of Sexual Harassment**

	SHconcern (1)	SHconcern (2)	SHconcern (3)
female	0.025 (0.54)	0.003 (0.06)	0.015 (0.35)
age	-0.032 (2.07)**	-0.050 (2.93)***	-0.042 (2.70)***
education	0.018 (0.82)	0.042 (1.69)*	0.008 (0.38)
kids	0.016 (0.38)	0.013 (0.31)	0.009 (0.25)
livefamilydum	0.070 (1.67)*	0.071 (1.68)*	0.049 (1.29)
owedebt	-0.017 (0.44)	-0.025 (0.61)	-0.069 (1.89)*
yearsworked		0.011 (2.15)**	0.007 (1.67)*
sewer		-0.039 (0.41)	-0.069 (0.80)
cutter		-0.081 (0.77)	-0.094 (0.99)
spreader		-0.458 (1.62)	-0.401 (1.59)
checker		-0.107 (0.92)	-0.097 (0.93)
mechanic		-0.132 (0.79)	-0.100 (0.67)
packer		-0.199 (1.51)	-0.171 (1.46)
quality control		-0.152 (1.49)	-0.129 (1.42)
supervisor		-0.148 (0.91)	-0.193 (1.33)
helper		-0.110 (1.11)	-0.112 (1.27)
other		-0.082 (0.82)	-0.086 (0.95)
informant			0.770 (11.64)***
_cons	0.826	0.848	0.669

**Table 8 continued**

	SHconcern (1)	SHconcern (2)	SHconcern (3)
	(6.05)***	(4.94)***	(4.33)***
R2	0.02	0.04	0.24
N	561	558	558

Notes: \*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

### Organizational Awareness

Organizational awareness is one of the often-cited antecedents for the presence of sexual harassment in the work environment (Fitzgerald et al., 1997; Schneider et al., 1997; Topa Cantisano et al., 2008; Willness et al., 2007). Rather than an outcome of misaligned incentives or a part of the compensation package, the high rate of reported sexual harassment in factories may be due to a low level of awareness or a high level of tolerance on the part of management.

A measure of manager awareness can be obtained from the human resources manager survey. HR managers were asked to what degree workers are concerned with “sexual harassment or sexual touching” in the factory. A one-sided test for lack of institutional awareness on the incidence of sexual harassment would be indicated if there is a negative correlation between worker concerns and manager concerns. That is, the less aware a firm is of sexual harassment the more it occurs.

Tables 9 to 14 explore the role of factory workplace relations on reports of sexual harassment concern. In each case, we begin with the basic model and add various workplace relationship characteristics.

**Table 9 : Haiti Workplace Relations w/out Informant**

	SHconcern (1)	SHconcern (2)	SHconcern (3)	SHconcern (4)	SHconcern (5)
female	-0.257 (2.94)***	-0.205 (3.48)***	-0.203 (3.46)***	-0.174 (2.96)***	-0.209 (3.66)***
age	-0.057 (1.59)	-0.032 (1.35)	-0.035 (1.50)	-0.036 (1.51)	-0.040 (1.74)*
placee	0.123 (1.35)	0.077 (1.17)	0.063 (0.95)	0.077 (1.17)	0.059 (0.92)
SOL mama	-0.299 (2.03)**	-0.109 (1.29)	-0.118 (1.40)	-0.114 (1.36)	-0.085 (1.03)
cutter	0.184 (1.23)	0.161 (1.62)	0.167 (1.68)*	0.193 (1.94)*	0.177 (1.83)*
quality control	-0.306 (1.73)*	-0.092 (0.92)	-0.050 (0.50)	-0.094 (0.94)	-0.068 (0.70)
SH concern HR	-0.095 (1.12)				
supervisor average		0.270 (1.84)*			
unfair					

**Table 9 continued**

	SHconcern (1)	SHconcern (2)	SHconcern (3)	SHconcern (4)	SHconcern (5)
complaint A			0.510 (2.14)**		
supervisor barrier to promotion A				1.121  (2.37)**	
distrust factory A					0.806 (4.48)***
_cons	0.895 (2.76)***	0.679 (2.93)***	0.692 (3.04)***	0.712 (3.16)***	0.643 (2.92)***
R2	0.17	0.08	0.08	0.09	0.12
N	168	343	343	343	343

Notes: \*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

**Table 10 : Haiti Workplace Relations with Informant**

	SHconcern (1)	SHconcern (2)	SHconcern (3)	SHconcern (4)	SHconcern (5)
female	-0.124 (2.34)**	-0.130 (2.43)**	-0.130 (2.43)**	-0.118 (2.20)**	-0.137 (2.58)**
age	-0.000 (0.00)	0.001 (0.03)	-0.001 (0.04)	-0.001 (0.06)	-0.005 (0.24)
placee	0.066 (1.11)	0.065 (1.09)	0.059 (0.99)	0.065 (1.09)	0.058 (0.97)
SOL mama	-0.114 (1.51)	-0.108 (1.42)	-0.112 (1.48)	-0.110 (1.45)	-0.098 (1.29)
cutter	0.136 (1.52)	0.132 (1.47)	0.134 (1.50)	0.146 (1.63)	0.141 (1.58)
informant	1.131 (9.00)***	1.117 (8.80)***	1.112 (8.73)***	1.107 (8.69)***	1.043 (7.88)***
supervisor unfair average		0.111  (0.83)			
complaint average			0.207 (0.95)		
supervisor barrier to promotion average				0.517  (1.20)	
distrust factory average					0.356  (2.04)**
_cons	0.272 (1.30)	0.231 (1.07)	0.239 (1.13)	0.245 (1.17)	0.246 (1.18)
R <sup>2</sup>	0.26	0.26	0.26	0.26	0.27
N	343	343	343	343	343

Notes: \*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

**Table 11 : Jordan Workplace Relations w/out Informant**

	SHconcern (1)	SHconcern (2)	SHconcern (3)	SHconcern (4)	SHconcern (5)
female	0.016 (0.28)	0.039 (0.85)	0.038 (0.83)	0.034 (0.74)	0.049 (1.07)
age	-0.044 (2.37)**	-0.029 (2.03)**	-0.030 (2.08)**	-0.030 (2.12)**	-0.029 (2.02)**
education	0.001 (0.13)	0.001 (0.06)	-0.001 (0.09)	-0.000 (0.01)	0.001 (0.06)
livedorm	-0.134 (2.26)**	-0.137 (3.01)***	-0.136 (2.98)***	-0.137 (3.00)***	-0.136 (2.99)***
srilanka	-0.107 (1.50)	-0.105 (1.81)*	-0.095 (1.66)*	-0.100 (1.75)*	-0.115 (2.01)**
years worked	0.017 (2.15)**	0.006 (1.02)	0.007 (1.17)	0.006 (1.08)	0.007 (1.27)
spreader	0.303 (1.57)	0.301 (2.30)**	0.297 (2.27)**	0.297 (2.27)**	0.301 (2.31)**
mechanic	0.210 (1.18)	0.313 (2.23)**	0.314 (2.23)**	0.310 (2.21)**	0.318 (2.27)**
helper	-0.154 (1.97)*	-0.095 (1.71)*	-0.091 (1.63)	-0.094 (1.70)*	-0.085 (1.53)
year2011	-0.176 (3.09)***	-0.123 (3.07)***	-0.125 (3.03)***	-0.124 (3.10)***	-0.139 (3.43)***
SHconcernHR	0.076 (1.39)				
supervisor unfair A		-0.118 (0.88)			
complaint A			0.134 (0.59)		
supervisor barrier to promotion average no pay A				-0.590 (1.51)	1.106 (2.43)**
_cons	0.636 (4.35)***	0.655 (5.26)***	0.594 (4.83)***	0.633 (5.48)***	0.562 (4.83)***
R <sup>2</sup>	0.12	0.09	0.09	0.09	0.10
N	411	688	687	688	688

Notes: \*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

**Table 12 : Jordan Workplace Relations with Informant**

	SHconcern (1)	SHconcern (2)	SHconcern (3)	SHconcern (4)	SHconcern (5)
female	-0.028 (0.54)	0.013 (0.35)	0.009 (0.24)	0.008 (0.21)	0.013 (0.34)
age	-0.025 (1.56)	-0.013 (1.05)	-0.016 (1.30)	-0.014 (1.19)	-0.014 (1.14)
education	-0.019 (1.94)*	-0.014 (1.86)*	-0.016 (2.12)**	-0.016 (2.12)**	-0.016 (2.09)**
livedorm	-0.088	-0.084	-0.083	-0.083	-0.082

**Table 12 continued**

	SHconcern (1)	SHconcern (2)	SHconcern (3)	SHconcern (4)	SHconcern (5)
yearsworked	(1.74)* 0.015	(2.19)** 0.006	(2.15)** 0.007	(2.15)** 0.007	(2.12)** 0.008
jobqcontrol	(2.25)** 0.186	(1.23) 0.034	(1.38) 0.033	(1.50) 0.035	(1.56) 0.038
jobsupervisor	(2.13)** 0.048	(0.57) 0.040	(0.56) 0.038	(0.59) 0.033	(0.64) 0.026
jobhelper	(0.42) -0.061	(0.48) -0.046	(0.45) -0.039	(0.39) -0.038	(0.31) -0.035
jobother	(0.91) -0.041	(0.99) 0.011	(0.84) 0.017	(0.81) 0.014	(0.73) 0.015
informant	(0.74) 0.832	(0.23) 0.855	(0.38) 0.848	(0.30) 0.842	(0.33) 0.840
SHconcernHR	(12.40)*** 0.074 (1.65)	(16.80)***	(16.64)***	(16.58)***	(16.43)***
supunfairA		-0.276 (2.44)**			
complaintA			-0.276 (1.51)		
promobarriersup A				-0.482 (1.46)	
nopayA					0.221 (0.58)
_cons	0.106 (0.87)	0.185 (1.78)*	0.161 (1.53)	0.106 (1.09)	0.082 (0.83)
R <sup>2</sup>	0.36	0.35	0.35	0.35	0.35
N	411	688	687	688	688

Notes: \*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

**Table 13 : Indonesia Workplace Relations w/out Informant**

	SHconcern (1)	SHconcern (2)	SHconcern (3)	SHconcern (4)	SHconcern (5)
female	-0.013	0.029	0.02	0.021	0.021
	-0.22	-0.6	-0.46	-0.47	-0.46
age	-0.023	-0.028	-0.027	-0.025	-0.027
	-1.53	(2.00)**	(2.16)**	(2.04)**	(2.16)**
cutter	-0.028	-0.01	-0.014	-0.025	-0.016
	-0.45	-0.16	-0.24	-0.44	-0.28
quality control	-0.057	-0.108	-0.068	-0.073	-0.068
	-0.91	(1.87)*	-1.28	-1.37	-1.29
SH concern HR	0.026				
	-0.71				
supervisor unfair average		0.167			
		(2.45)**			
complaint average			0.027		
			-0.3		
supervisor barrier to promotion average				1.223	
				-0.96	
distrust factory average					-0.022
					-0.11
_cons	0.972	0.885	0.947	0.942	0.956
	(9.46)***	(10.48)***	(12.21)***	(12.54)***	(12.54)***
R <sup>2</sup>	0.01	0.03	0.01	0.01	0.01
N	377	482	588	588	588

Notes: \*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

**Table 14 : Indonesia Workplace Relations with Informant**

	SHconcern (1)	SHconcern (2)	SHconcern (3)	SHconcern (4)	SHconcern (5)
female	0.038	0.038	0.039	0.037	0.035
	(0.96)	(0.87)	(0.99)	(0.95)	(0.9)
age	-0.026	-0.03	-0.026	-0.025	-0.026
	(2.36)**	(2.46)**	(2.34)**	(2.20)**	(2.38)**
cutter	-0.015	-0.002	-0.019	-0.026	-0.018
	(0.3)	(0.04)	(0.38)	(0.51)	(0.35)
informant	0.749	0.763	0.756	0.751	0.754
	(12.09)***	(11.40)***	(12.12)***	(12.12)***	(12.13)***
supervisor unfair average		0.144			
		(2.39)**			
complaint average			-0.077		
			(0.97)		
supervisor barrier to promotion average				1.417	
				(1.24)	
distrust factory average					-0.182
					(1.03)
_cons	0.607	0.548	0.625	0.592	0.622

**Table 14 continued**

	SHconcern (1)	SHconcern (2)	SHconcern (3)	SHconcern (4)	SHconcern (5)
R <sup>2</sup>	(8.46)*** 0.21	(6.83)*** 0.23	(8.44)*** 0.21	(8.12)*** 0.21	(8.50)*** 0.21
N	588	482	588	588	588

Notes: \*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

Turning first to institutional awareness, we find that HR manager awareness of sexual harassment does not predict reports by workers in any of the populations studied at a statistically significant level. See for example, Table 9 Haiti column 1. The coefficient on SH concern HR, our measure of sexual harassment awareness by the HR manager, -0.095, while negative is not statistically significant. The estimated coefficient for Jordan (0.076; Table 11 column 1 SHconcernHR) is not even negative. Similar findings emerge for Indonesia. The estimated coefficient for HR manager awareness is 0.026 (Table 13 column 1 SHconcernHR), which, again, is not statistically significant.

We do, however, identify one aspect of HR manager perspectives on behavior that significantly predicts a reduction in sexual harassment concern on the part of workers. In Tables 15 and 16, measures of HR concern about the labor management skills of its supervisors (-0.0462 Table 15 column 1) and the stress of supervisors (-0.0493 Table 15 column 4) are negatively correlated with sexual harassment concern on the part of workers in Jordan. It is worth pointing out that the significance of these two HR manager perceptions variables persist even when the informant index is included in the regression, as can be seen in Table 16.

**Table 15 : Jordan Manager Awareness w/out Informant**

	SHconcern (1)	SHconcern (2)	SHconcern (3)	SHconcern (4)	SHconcern (5)	SHconcern (6)
female	0.0249 (0.56)	0.0388 (0.79)	0.0542 (1.17)	0.0376 (0.85)	0.0263 (0.60)	0.0238 (0.55)
age	-0.0405* (-2.66)	-0.0440* (-2.62)	-0.0370* (-2.34)	-0.0368* (-2.23)	-0.0403* (-2.73)	-0.0418* (-2.49)
srilanka	-0.214** (-3.43)	-0.173* (-2.67)	-0.185** (-3.04)	-0.210** (-2.94)	-0.165** (-2.83)	-0.194** (-2.92)
bangladesh	-0.0977 (-1.17)	-0.0908 (-1.06)	-0.0937 (-1.22)	-0.0952 (-1.25)	-0.152* (-2.10)	-0.0491 (-0.65)
china	-0.0147 (-0.08)	-0.00126 (-0.01)	-0.0453 (-0.24)	-0.0262 (-0.15)	-0.207 (-1.44)	-0.179 (-0.99)
other	-0.147 (-1.48)	-0.108 (-1.04)	-0.121 (-1.24)	-0.127 (-1.28)	-0.157 (-1.65)	-0.0663 (-0.64)
yearsworked	0.00719 (0.99)	0.00797 (1.07)	0.00970 (1.36)	0.00562 (0.76)	0.0155* (2.18)	0.0175 (2.02)

**Table 15 continued**

	SHconcern (1)	SHconcern (2)	SHconcern (3)	SHconcern (4)	SHconcern (5)	SHconcern (6)
managementconcern	-0.0462* (-2.17)					
turnoverconcern		0.00356 (0.12)				
efficiencyconcern			-0.0348 (-1.17)			
supstressconcern				-0.0493* (-2.50)		
HRawareness					0.125 (1.20)	
SHconcernHR						0.117 (1.55)
<i>N</i>	521	498	543	521	544	414
<i>R</i> <sup>2</sup>	0.077	0.066	0.073	0.081	0.081	0.094

**Notes:** t-statistics in parentheses, all SE robust, clustered by factory; \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

**Table 16 : Jordan Manager Awareness with Informant**

	SHconcern (1)	SHconcern (2)	SHconcern (3)	SHconcern (4)	SHconcern (5)	SHconcern (6)
female	-0.00346 [-0.11]	0.00113 [0.03]	0.0327 [0.94]	0.00695 [0.24]	0.00322 [0.09]	-0.0196 [-0.51]
age	-0.0256* [-2.69]	-0.0260* [-2.47]	-0.0219* [-2.20]	-0.0226* [-2.24]	-0.0241* [-2.31]	-0.0241 [-1.86]
yearsworked	0.00784 [1.21]	0.00799 [1.23]	0.00940 [1.50]	0.00655 [0.98]	0.0136* [2.23]	0.0167* [2.51]
informant	0.864*** [17.10]	0.853*** [19.35]	0.857*** [17.66]	0.863*** [16.95]	0.839*** [17.15]	0.839*** [15.80]
managementconcern	-0.0378* [-2.44]					
turnoverconcern		-0.0215 [-0.82]				
efficiencyconcern			-0.0385 [-1.42]			
supstressconcern				-0.0404** [-3.21]		
HRawareness					0.0876 [1.40]	
SHconcernHR						0.0778 [1.44]
<i>N</i>	521	498	543	521	544	414
<i>R</i> <sup>2</sup>	0.363	0.340	0.357	0.366	0.348	0.351

**Notes:** t-statistics in parentheses, all SE robust, clustered by factory; \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$



**Table 17 : Indonesia Manager Awareness without Informant**

	SHconcern (1)	SHconcern (2)	SHconcern (3)	SHconcern (4)	SHconcern (5)	SHconcern (6)	SHconcern (7)
female	0.015 (0.24)	0.013 (0.22)	0.029 (0.47)	0.006 (0.10)	-0.018 (0.31)	-0.023 (0.39)	-0.065 (1.02)
age	-0.054 (3.12)***	-0.051 (3.01)***	-0.054 (3.14)***	-0.055 (3.24)***	-0.045 (2.64)***	-0.047 (2.81)***	-0.050 (2.78)***
yearsworked	0.019 (3.35)***	0.020 (3.51)***	0.019 (3.48)***	0.019 (3.51)***	0.014 (2.57)**	0.016 (2.85)***	0.016 (2.84)***
managementconcern	0.028 (1.62)						
turnoverconcern		0.016 (0.86)					
efficiencyconcern			0.021 (1.09)				
supstressconcern				0.034 (1.67)*			
NGOtrain					0.002 (0.04)		
HRawareness						-0.005 (0.09)	
SHconcernHR							0.032 (0.85)
_cons	0.960 (6.83)***	0.992 (6.88)***	0.963 (6.65)***	0.977 (7.07)***	1.081 (8.12)***	1.082 (7.76)***	1.122 (7.95)***
R <sup>2</sup>	0.06	0.05	0.05	0.05	0.04	0.04	0.05
N	418	425	416	427	421	431	377

Notes: \*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

**Table 18 : Indonesia Manager Awareness with Informant**

	SHconcern (1)	SHconcern (2)	SHconcern (3)	SHconcern (4)	SHconcern (5)	SHconcern (6)	SHconcern (7)
female	0.019 (0.33)	0.013 (0.23)	0.025 (0.44)	0.010 (0.17)	-0.001 (0.02)	-0.006 (0.11)	-0.040 (0.71)
age	-0.042 (2.67)***	-0.040 (2.54)**	-0.043 (2.68)***	-0.044 (2.74)***	-0.039 (2.52)**	-0.041 (2.67)***	-0.045 (2.78)***
jobpacker	-0.206 (1.59)	-0.217 (1.70)*	-0.204 (1.58)	-0.221 (1.74)*	-0.187 (1.52)	-0.194 (1.56)	-0.206 (1.74)*
yearsworked	0.013 (2.41)**	0.014 (2.59)***	0.013 (2.51)**	0.013 (2.52)**	0.009 (1.88)*	0.011 (2.11)**	0.010 (1.98)**
informant	0.631 (8.35)***	0.619 (8.28)***	0.622 (8.25)***	0.628 (8.44)***	0.672 (9.28)***	0.666 (9.35)***	0.690 (9.66)***
managementconcern	0.013 (0.81)						
turnoverconcern		0.020 (1.14)					
efficiencyconcern			0.014 (0.79)				

**Table 18 continued**

	SHconcern (1)	SHconcern (2)	SHconcern (3)	SHconcern (4)	SHconcern (5)	SHconcern (6)	SHconcern (7)
supstressconcern				0.031 (1.68)*			
NGOtrain					-0.060 (1.14)		
HRawareness						-0.011 (0.23)	
SHconcernHR							0.048 (1.41)
_cons	0.740 (5.58)***	0.722 (5.24)***	0.732 (5.34)***	0.718 (5.47)***	0.798 (6.39)***	0.807 (6.19)***	0.825 (6.36)***
R <sup>2</sup>	0.20	0.19	0.19	0.19	0.20	0.21	0.24
N	418	425	416	427	421	431	377

Notes: \*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

An alternative test for a lack of institutional awareness would be to look for evidence that sexual harassment is more likely to occur in factories that have multiple organizational failures. Several questions address similar concepts such as firm organization, structure, conflict and problem solving.

It is possible that a worker's level of trust in the factory and perception of their supervisors serve as good indicators of the quality of the factory as an employer who maintains regular discipline among employees. Several variables that provide an indication of workplace practices also reflect worker-manager relationships and transparency.

All of these variables can be calculated both as measures as perceived by individual respondents and as factory averages. Factory averages are interpreted as measures of factory atmosphere with respect to the variable in question and provide a measure of factory quality. Factory averages are also useful as they allow for a greater number of observations to be included in the estimated models, increasing statistical power. The following list of variables is not exhaustive, but it is an important first look at the role of worker-supervisor interactions and manager awareness in the presence of sexual harassment in factories.

- *Supervisor Unfair* – a binary variable coded as 1 if workers respond to the question “Does your supervisor correct a worker who has made a mistake with fairness and respect” with “sometimes,” “rarely,” or “never.”
- *Complaint* – a binary variable coded as 1 if the worker reports having complaints about work in the factory in the last year.
- *Supervisor barrier to promotion* – a binary variable coded 1 if the worker reports that their relationship with their supervisor is a barrier to promotion.

- *Distrust Factory* – a binary variable coded as 1 if the worker responded to the question, “Do you trust the factory to pay you all the money that you have earned?” with “some of the time,” “rarely” or “never.”

In contrast to the HR awareness measures, other measures of human resource organizational characteristics exhibit a very strong relationship with sexual harassment. In Haiti, an unfair supervisor (0.270, Table 9 column 2), incidence of complaints (0.510, Table 9 column 3), supervisor barrier to promotion (1.121, Table 9 column 4) and distrust of factory to pay as promised (0.806, Table 9 column 5) all predict complaints of sexual harassment at the 10 percent level of significance or higher. The statistical significance of some of the HR organizational characteristics decline when the informant variable is introduced, though an important exception is distrust in the factory to pay as promised (0.356, Table 10 column 5). In the case of Indonesia, unfair supervisor (0.144, Table 14 column 2) is significant as is supervisor stress (0.031 Table 18 column 4).

One possible interpretation of the results in Tables 9 to 18 is to attribute the complaints of sexual harassment to a general climate of tolerance of inappropriate behavior and a failure to appropriately manage supervisors. However, we must also consider the possibility that the underlying issue is, in fact, the structure of incentives.

### **Incentive Structure**

Apart from organizational awareness, sexual harassment may be the result of a misalignment of incentives within the factory, between workers and supervisors or supervisors and managers, or a tool of labor discipline when production incentives are insufficient to produce the targeted level of productivity. As discussed above, asymmetry in the power of incentives between workers and supervisors can create an environment which exposes workers to sexual harassment. If workers have high-powered incentives, supervisors have low-powered incentives, and supervisors have some responsibility for assessing and reporting individual worker performance, supervisors may focus their effort on extracting bribes in the form of sexual favors rather than enhancing the productivity of their line.

The following variables measure factory organization and incentive structure from the worker survey.

- *Production target* – a binary variable coded 1 if workers report having a production target.
- *Tariff Bonus* – a binary variable coded 1 if a worker reports getting a pay bonus for reaching their daily production target “sometimes” or “always.”
- *Contract* – a binary variable coded 1 if worker reports having a formal work contract. 59 percent of

workers in the sample report having a work contract.

- *Daily wage* – as previously described.

Tables 19 to 24 report results from OLS regression of each of the factory organization variables on sexual harassment concern, along with the demographic and individual job characteristics. Production-linked incentives for line workers and reports of sexual harassment are strong predictors of sexual harassment. For example, in the case of Haiti the presence of a tariff bonus (0.253, Table 19 column 1) and production target (0.489, Table 19 column 2) positively predict sexual harassment. Note further that the introduction of the informant index as a control in Table 20 increases the size and statistical significance of the production target. Such an outcome indicates that the issue in the factory is related to the structure of incentives rather than a spurious correlation between the use of production incentives and general dissatisfaction among workers.

**Table 19 : Haiti Production Incentives without Informant**

	SHconcern (1)	SHconcern (2)	SHconcern (3)	SHconcern (4)
female	-0.213 (3.64)***	-0.224 (3.85)***	-0.228 (3.87)***	-0.220 (3.76)***
age	-0.045 (1.93)*	-0.046 (1.94)*	-0.047 (1.97)**	-0.043 (1.84)*
SOL mama	-0.131 (1.58)	-0.115 (1.38)	-0.123 (1.48)	-0.121 (1.46)
cutter	0.173 (1.76)*	0.166 (1.69)*	0.152 (1.54)	0.159 (1.61)
Second MNE	0.277 (3.80)***	0.237 (3.49)***	0.222 (3.27)***	0.209 (2.97)***
tariff bonus average	0.253 (1.94)*			
production target average		0.489 (1.79)*		
contract average			-0.112 (0.86)	
daily wage average				0.000 (0.77)
_cons	0.715 (3.03)***	0.474 (1.51)	0.972 (3.88)***	0.787 (3.16)***
R <sup>2</sup>	0.11	0.11	0.10	0.10
N	343	343	343	343

Notes: \*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

**Table 20 : Haiti Production Incentives with Informant**

	SHconcern (1)	SHconcern (2)	SHconcern (3)	SHconcern (4)
female	-0.123 (2.30)**	-0.124 (2.35)**	-0.131 (2.45)**	-0.125 (2.36)**
age	-0.000 (0.00)	-0.001 (0.07)	-0.004 (0.19)	-0.001 (0.05)
SOL mama	-0.115 (1.52)	-0.105 (1.40)	-0.115 (1.51)	-0.112 (1.48)
cutter	0.138 (1.53)	0.149 (1.68)*	0.134 (1.49)	0.141 (1.57)
informant	1.130 (8.97)***	1.148 (9.16)***	1.130 (8.99)***	1.121 (8.90)***
tariff bonus average	0.021 (0.19)			
production target average		0.523 (2.12)**		
contract average			-0.113 (0.96)	
daily wage average				0.000 (1.18)
_cons	0.258 (1.16)	-0.168 (0.57)	0.373 (1.59)	0.168 (0.74)
R <sup>2</sup>	0.26	0.27	0.26	0.26
N	343	343	343	343

Notes: \*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

**Table 21 : Jordan Production Incentives without Informant**

	SHconcern (1)	SHconcern (2)	SHconcern (3)	SHconcern (4)
female	0.035 (0.76)	0.040 (0.88)	0.035 (0.76)	0.036 (0.79)
age	-0.028 (1.94)*	-0.027 (1.91)*	-0.026 (1.83)*	-0.027 (1.87)*
education	0.001 (0.11)	0.001 (0.10)	0.001 (0.14)	0.001 (0.13)
livedorm	-0.133 (2.90)***	-0.137 (3.00)***	-0.123 (2.68)***	-0.125 (2.74)***
srilanka	-0.100 (1.80)*	-0.101 (1.83)*	-0.118 (2.08)**	-0.107 (1.93)*
other	-0.111 (1.48)	-0.082 (1.08)	-0.135 (1.78)*	-0.136 (1.80)*
years worked	0.006 (1.08)	0.006 (1.00)	0.006 (1.04)	0.007 (1.26)
spreader	0.306 (2.33)**	0.310 (2.37)**	0.296 (2.26)**	0.302 (2.31)**
mechanic	0.326 (2.31)**	0.320 (2.28)**	0.325 (2.30)**	0.336 (2.38)**
helper	-0.100 (1.78)*	-0.095 (1.70)*	-0.090 (1.61)	-0.084 (1.51)
other	0.020 (0.36)	0.016 (0.30)	0.015 (0.28)	0.014 (0.26)

**Table 21 continued**

	SHconcern (1)	SHconcern (2)	SHconcern (3)	SHconcern (4)
production target average	-1.170 (1.62)			
contract average		0.474 (2.74)***		
piece rate average			0.247 (1.25)	
daily wage average				0.003 (1.52)
_cons	1.703 (2.33)**	0.130 (0.71)	0.515 (4.59)***	0.492 (4.32)***
R <sup>2</sup>	0.08	0.09	0.08	0.08
N	688	688	687	688

Notes: \*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

**Table 22 : Jordan Production Incentives with Informant**

	SHconcern (1)	SHconcern (2)	SHconcern (3)	SHconcern (4)
female	0.009 (0.23)	0.014 (0.37)	0.011 (0.29)	0.011 (0.29)
age	-0.015 (1.25)	-0.014 (1.20)	-0.014 (1.16)	-0.014 (1.15)
education	-0.016 (2.16)**	-0.016 (2.14)**	-0.017 (2.16)**	-0.016 (2.14)**
live dorm	-0.090 (2.34)**	-0.092 (2.38)**	-0.083 (2.15)**	-0.082 (2.13)**
other	0.020 (0.45)	0.017 (0.36)	0.019 (0.41)	0.018 (0.39)
informant	0.847 (16.71)***	0.839 (16.58)***	0.846 (16.49)***	0.843 (16.47)***
production target average	-1.485 (2.45)**			
contract average		0.405 (2.78)***		
piece rate average			-0.086 (0.51)	
daily wage average				-0.000 (0.05)
_cons	1.575 (2.57)**	-0.251 (1.60)	0.097 (0.99)	0.093 (0.94)
R <sup>2</sup>	0.35	0.35	0.35	0.35
N	688	688	687	688

Notes: \*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

**Table 23 : Indonesia Production Incentives without Informant**

	SHconcern (1)	SHconcern (2)	SHconcern (3)	SHconcern (4)
female	0.012 (0.27)	0.019 (0.42)	0.011 (0.25)	0.016 (0.35)
age	-0.025 (2.05)**	-0.025 (2.00)**	-0.026 (2.12)**	-0.024 (1.97)**
cutter	-0.010 (0.18)	-0.010 (0.17)	-0.006 (0.10)	-0.010 (0.18)
tariff bonus average	-0.130 (1.81)*			
production target average		0.381 (0.54)		
contract average			-0.113 (1.05)	
daily wage average				0.000 (0.90)
_cons	1.006 (12.51)***	0.565 (0.80)	1.048 (8.67)***	0.920 (11.54)***
R <sup>2</sup>	0.01	0.01	0.01	0.01
N	588	588	588	588

Notes: \*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

**Table 24 : Indonesia Production Incentives with Informant**

	SHconcern (1)	SHconcern (2)	SHconcern (3)	SHconcern (4)
female	0.034 (0.87)	0.044 (1.11)	0.037 (0.94)	0.038 (0.96)
age	-0.026 (2.31)**	-0.024 (2.18)**	-0.026 (2.36)**	-0.023 (2.09)**
cutter	-0.016 (0.33)	-0.017 (0.34)	-0.015 (0.29)	-0.018 (0.36)
informant	0.748 (12.09)***	0.753 (12.13)***	0.749 (12.02)***	0.761 (12.26)***
tariff bonus average	-0.121 (1.88)*			
production target average		0.739 (1.17)		
contract average			-0.008 (0.08)	
daily wage average				0.000 (2.09)**
_cons	0.662 (8.56)***	-0.136 (0.21)	0.614 (5.38)***	0.546 (7.04)***
R <sup>2</sup>	0.21	0.21	0.21	0.21
N	588	588	588	588

Notes: \*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

It is important to note, however, that production incentives do not predict sexual harassment in Indonesia. In fact, the correlation runs in the opposite direction. A tariff bonus lowers the probability of sexual harassment reports (-0.130, Table 23, column 1) and the negative relationship persists when the informant variable is included, (-0.121, Table 24, column 2). A likely explanation for the contrary evidence for Indonesia is that production incentives for workers are a necessary but not sufficient condition for sexual harassment. Production incentives create a vulnerability. However, supervisors must be motivated to exploit the vulnerability. Low-powered incentives for supervisors provide the motivation. That is, it is explicitly the misalignment of incentives that leads supervisors to focus their effort on sexual gratification. By contrast, if supervisors are as highly incentivized as workers, then their effort will be targeted on production. We will turn to the issue of misalignment below.

These findings, while not definitive, are strongly consistent with the hypothesis that production performance requirements for workers create vulnerability that exposes them to sexual harassment. One possible interpretation for the positive relationship between high-powered worker incentives and complaints of sexual harassment is that supervisors, who are in charge of monitoring individual work productivity and distributing bonuses, are taking advantage of workers' incentives to force workers into sexual encounters. This interpretation is consistent with the conclusions in the previous section, which suggest that poor or exploitative worker-supervisor relationships and a lack of managerial oversight of supervisors lead to higher concern with sexual harassment.

The presence of a production quota that is monitored by a worker's supervisor provides a point of leverage of supervisors over workers that can be used to extract sexual favors. A second dimension of vulnerability occurs for migrant workers who lack freedom of movement. Tables 25 and 26 introduce several indicators of limitations on free movement in Jordan as variables explaining sexual harassment. As can be seen, most variables are not statistically significant at the 10 percent level. However, workers who do not have access to a phone (0.348, Table 25 column 7) are more likely to experience sexual harassment. In addition, workers for whom the work decision was made by someone other than themselves (0.0876, Table 25 column 2) are also more likely to report sexual harassment, but the coefficient is only statistically significant from zero at the 20 percent level.



**Table 25 : Jordan Human Trafficking without Informant**

	SH concern (1)	SH concern (2)	SH concern (3)	SH concern (4)	SH concern (5)	SH concern (6)	SH concern (7)
female	0.0311 [0.60]	0.0302 [0.60]	0.0297 [0.58]	0.0274 [0.54]	0.0256 [0.50]	0.0301 [0.59]	0.0258 [0.52]
age	-0.0240 [-1.56]	-0.0257 [-1.80]	-0.0252 [-1.70]	-0.0242 [-1.61]	-0.0248 [-1.72]	-0.0288 [-1.88]	-0.0247 [-1.68]
bangladesh	0.0865 [1.50]	0.0586 [1.11]	0.0752 [1.38]	0.0733 [1.27]	0.0768 [1.25]	0.0838 [1.57]	0.0706 [1.33]
china	-0.0802 [-0.49]	-0.0771 [-0.53]	-0.0585 [-0.37]	-0.0705 [-0.45]	-0.0449 [-0.28]	-0.0297 [-0.19]	-0.0772 [-0.58]
other	-0.00188 [-0.03]	-0.0474 [-0.70]	-0.00733 [-0.11]	-0.00451 [-0.07]	-0.00511 [-0.07]	-0.0000564 [-0.00]	-0.0165 [-0.24]
jobmigrant	0.0341 [0.61]						
Decidework other		0.0876 [1.77]					
factorydoc			0.0203 [0.37]				
Contract dummy				-0.0465 [-0.71]			
factorypaid					-0.0321 [-0.40]		
Travel QIZ						-0.0563 [-1.69]	
No phone							0.348** [3.16]
<i>N</i>	496	497	498	493	496	487	495
<i>R</i> <sup>2</sup>	0.054	0.057	0.052	0.053	0.051	0.054	0.070

**Notes:** t-statistics in parentheses, all SE robust, clustered by factory; \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

**Table 26 : Jordan Human Trafficking with Informant**

	SH concern (1)	SH concern (2)	SH concern (3)	SH concern (4)	SH concern (5)	SH concern (6)	SH concern (7)
female	0.0191 [0.50]	0.0169 [0.46]	0.0177 [0.47]	0.0127 [0.34]	0.0107 [0.30]	0.0170 [0.45]	0.0162 [0.44]
age	-0.0142 [-1.09]	-0.0173 [-1.42]	-0.0164 [-1.33]	-0.0157 [-1.27]	-0.0167 [-1.31]	-0.0190 [-1.47]	-0.0175 [-1.42]
bangladesh	0.114* [2.09]	0.0974 [1.89]	0.110 [1.99]	0.102 [1.75]	0.100 [1.71]	0.107 [1.88]	0.101 [1.84]
china	0.0760 [0.90]	0.102 [1.37]	0.113 [1.44]	0.101 [1.23]	0.111 [1.39]	0.121 [1.58]	0.0976 [1.37]
other	0.0709 [1.41]	0.0500 [1.04]	0.0673 [1.38]	0.0662 [1.33]	0.0627 [1.27]	0.0612 [1.24]	0.0611 [1.23]
informant	0.852*** [14.85]	0.845*** [15.53]	0.851*** [15.23]	0.846*** [15.04]	0.850*** [15.33]	0.841*** [14.58]	0.835*** [15.00]
jobmigrant	0.0639 [1.23]						
decideworkot her		0.0292					

**Table 26 continued**

	SH concern (1)	SH concern (2)	SH concern (3)	SH concern (4)	SH concern (5)	SH concern (6)	SH concern (7)
factorydoc		[0.73]	-0.0233 [-0.49]				
contractdummy				-0.0340 [-0.86]			
factorypaid					-0.0443 [-0.93]		
travelQIZ						-0.0245 [-0.70]	
nophone							0.142 [1.92]
<i>N</i>	496	497	498	493	496	487	495
<i>R</i> <sup>2</sup>	0.358	0.353	0.353	0.352	0.354	0.349	0.354

**Notes:** t-statistics in parentheses, all SE robust, clustered by factory; \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

### Sexual Harassment and Worker Discipline

A relationship between pay and sexual harassment raises the possibility that hostile working conditions of any sort are, in fact, a deliberate form of worker discipline. If sexual harassment is used as a form of labor discipline, then it should be negatively correlated with wages. That is, firms can pay below-average wages because threats and a hostile environment reduce worker assertiveness.

Further information about factory incentive structures and wages can be gleaned from the HR manager survey. Variables include:

- *Piece rate* – a binary variable coded 1 if the HR manager reports that individual productivity is important in setting wages. Forty percent of workers work in factories where wages are set based on individual productivity.
- *Group rate* – a binary variable coded 1 if the HR manager reports that line productivity is important in setting wages. Eighty percent of workers work in factories where wages are set based on line productivity.
- *Hourly wage* – a binary variable coded 1 if the HR manager reports that number of hours worked is important in setting wages. Seventy percent of workers work in factories where wages are set based on hours worked.
- *Supervisors' incentive pay* – the percentage of a supervisor's wages that are based on the production of their line, coded in 10 percent increments. Responses range from 0 percent (1) to 100 percent (11).
- *Workers' incentive pay* – the percent of a worker's wages that are based on their production line,

coded in the same way as supervisor incentive pay. This variable is probably capturing the same effect as group rate.

- *Supervisor daily pay* – the HR manager’s estimate of supervisor monthly wages and benefits, divided by 28.

Generally, we find some evidence to support the worker discipline hypothesis, as can be seen from Tables 27 to 32. In Haiti, the hourly wage is negatively correlated with sexual harassment (-0.228, Table 27 column 1). As can be seen from Table 28, the negative coefficient on the wage is robust to the inclusion of the informant index. In contrast, none of the worker discipline variables is significant for Indonesia (Table 29, 30) or Jordan (Table 31, 32).

Furthermore, the use of high-powered incentives for supervisors inhibits sexual exploitation. Incentive pay for supervisors focuses attention on production efficiency rather than the pursuit of sexual gratification. Jordan provides an important example. The coefficient on supervisor pay is negative (-0.017 Table 29 column 3) and significant at the five percent level.

### Sexual Favors as a Form of Supervisor Compensation

The alternative hypothesis is that sexual favors are a form of compensation for supervisors. Sexual favors in the compensation package would be indicated by a negative correlation between supervisor pay and sexual harassment. However, we find little evidence of a correlation between supervisor pay and reports of sexual harassment.

**Table 27 : Haiti Worker Discipline and Supervisor Compensation without Informant**

	SHconcern (1)	SHconcern (2)	SHconcern (3)	SHconcern (4)
female	-0.262 (3.73)***	-0.226 (2.06)**	-0.250 (2.62)***	-0.182 (2.23)**
age	-0.045 (1.71)*	-0.040 (1.04)	-0.056 (1.57)	-0.058 (1.72)*
placee	0.127 (1.71)*	0.093 (0.89)	0.076 (0.82)	0.060 (0.70)
SOL mama	-0.180 (1.86)*	-0.302 (1.90)*	-0.212 (1.69)*	-0.234 (1.85)*
cutter	0.166 (1.60)	0.073 (0.51)	0.173 (1.30)	0.061 (0.46)
Second MNE	0.167 (2.26)**	0.211 (2.15)**	0.192 (2.16)**	0.145 (1.72)*
hourly wage	-0.228 (3.24)***			
supervisor incentive pay		0.001 (0.12)		

**Table 27 continued**

	SHconcern (1)	SHconcern (2)	SHconcern (3)	SHconcern (4)
worker incentive pay			-0.005 (0.37)	
supervisor daily pay				0.000 (1.28)
_cons	1.049 (3.98)***	0.904 (2.35)**	0.887 (2.37)**	0.885 (2.59)**
R <sup>2</sup>	0.18	0.14	0.12	0.09
N	248	149	176	209

Notes: \*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

**Table 28 : Haiti Worker Discipline and Supervisor Compensation with Informant**

	SHconcern (1)	SHconcern (2)	SHconcern (3)	SHconcern (4)	SHconcern (5)	SHconcern (6)
female	-0.138 (2.36)**	-0.138 (2.32)**	-0.142 (2.46)**	-0.129 (1.70)*	-0.128 (1.68)*	-0.129 (1.63)
age	-0.022 (1.15)	-0.023 (1.15)	-0.032 (1.64)	-0.035 (1.44)	-0.035 (1.40)	-0.042 (1.57)
placee	0.112 (2.00)**	0.112 (1.99)**	0.100 (1.81)*	0.104 (1.48)	0.104 (1.47)	0.089 (1.22)
SOLmama	-0.143 (1.71)*	-0.143 (1.70)*	-0.149 (1.80)*	-0.380 (2.89)***	-0.380 (2.87)***	-0.366 (2.48)**
jobcutter	0.125 (1.44)	0.126 (1.45)	0.166 (1.92)*	0.118 (1.13)	0.118 (1.12)	0.076 (0.69)
informant	0.587 (6.93)***	0.587 (6.92)***	0.563 (6.77)***	0.551 (5.09)***	0.551 (5.07)***	0.548 (4.82)***
piecerate	0.055 (0.64)	0.064 (0.53)	0.095 (0.80)	0.015 (0.15)	0.014 (0.13)	0.019 (0.16)
grouprate		-0.011 (0.12)	-0.096 (1.01)			
hourlywage			-0.212 (3.77)***	-0.243 (3.21)***	-0.244 (2.87)***	-0.098 (0.51)
supincentivepay				0.004 (0.45)	0.004 (0.42)	0.008 (0.59)
workerincentivepay					0.001 (0.02)	-0.094 (0.96)
supdaily pay						0.000 (0.53)
_cons	0.266 (1.73)*	0.266 (1.73)*	0.521 (3.15)***	0.561 (2.82)***	0.555 (1.66)*	1.353 (1.64)
R <sup>2</sup>	0.21	0.21	0.24	0.25	0.25	0.25
N	308	308	308	197	197	182

Notes: t-statistics in parentheses, all SE robust, clustered by factory; \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

**Table 29 : Jordan Worker Discipline and Supervisor Compensation w/out Informant**

	SHconcern (1)	SHconcern (2)	SHconcern (3)	SHconcern (4)
female	0.047 (0.92)	0.030 (0.53)	0.017 (0.29)	0.014 (0.23)
age	-0.030 (1.86)*	-0.035 (2.08)**	-0.057 (3.26)***	-0.039 (2.12)**
education	0.007 (0.69)	0.002 (0.16)	0.004 (0.33)	0.007 (0.61)
livedorm	-0.136 (2.68)***	-0.159 (2.88)***	-0.124 (2.22)**	-0.125 (2.14)**
srilanka	-0.153 (2.32)**	-0.068 (1.04)	-0.137 (2.02)**	-0.143 (2.01)**
yearsworked	0.015 (2.14)**	0.009 (1.18)	0.011 (1.54)	0.004 (0.52)
jobspreader	0.212 (1.36)	0.397 (2.36)**	0.244 (1.71)*	0.223 (1.49)
jobmechanic	0.259 (1.77)*	0.282 (1.68)*	0.425 (2.56)**	0.524 (2.94)***
jobhelper	-0.142 (2.29)**	-0.149 (2.16)**	-0.133 (1.96)*	-0.122 (1.69)*
year2011	-0.191 (3.86)***	-0.115 (2.40)**	-0.098 (1.90)*	-0.139 (2.26)**
year2012	-0.165 (2.56)**	-0.051 (0.73)	-0.119 (1.90)*	-0.127 (1.77)*
hourlywage	-0.015 (0.34)			
supmonthlypay		0.000 (0.31)		
supincentivepay			-0.017 (2.14)**	
workerincentivepay				0.008 (0.79)
_cons	0.646 (4.85)***	0.620 (4.49)***	0.791 (5.72)***	0.687 (4.70)***
R <sup>2</sup>	0.12	0.09	0.12	0.11
N	523	499	472	427

Notes: \*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

**Table 30: Jordan Worker Discipline and Supervisor Compensation with Informant**

	SHconcern (1)	SHconcern (2)	SHconcern (3)	SHconcern (4)
female	0.023 (0.52)	-0.013 (0.28)	-0.010 (0.21)	-0.017 (0.33)
age	-0.016 (1.18)	-0.022 (1.56)	-0.028 (1.95)*	-0.017 (1.14)
education	-0.015 (1.68)*	-0.020 (2.20)**	-0.019 (2.11)**	-0.018 (1.84)*
livedorm	-0.091 (2.10)**	-0.109 (2.37)**	-0.102 (2.17)**	-0.099 (2.05)**
yearsworked	0.014 (2.34)**	0.008 (1.35)	0.008 (1.39)	0.003 (0.50)
jobmechanic	0.097 (0.77)	0.076 (0.54)	0.208 (1.49)	0.277 (1.87)*
informant	0.830 (14.14)***	0.869 (14.70)***	0.850 (14.04)***	0.871 (13.92)***
hourlywage	-0.000 (0.00)			
supmonthlypay		-0.000 (0.39)		
supincentivepay			-0.007 (1.07)	
workerincentivepay				0.011 (1.41)
_cons	0.071 (0.65)	0.154 (1.37)	0.210 (1.82)*	0.121 (1.03)
R <sup>2</sup>	0.35	0.37	0.38	0.39
N	523	499	472	427

Notes: \*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

**Table 31 : Indonesia Worker Discipline and Supervisor Compensation without Informant**

	SHconcern (1)	SHconcern (2)	SHconcern (3)	SHconcern (4)
female	-0.002 (0.03)	-0.003 (0.04)	0.014 (0.22)	-0.016 (0.26)
age	-0.029 (1.93)*	-0.035 (2.08)**	-0.041 (2.45)**	-0.03 (1.86)*
cutter	-0.049 (0.76)	-0.044 (0.63)	-0.087 (1.26)	-0.052 (0.79)
hourly wage	0.017 (0.43)			
supervisor incentive pay		-0.003 (0.66)		
worker incentive pay			-0.016 (0.94)	
supervisor daily pay				0 (0.61)
_cons	0.985 (10.24)***	1.048 (9.23)***	1.071 (9.67)***	1.026 (8.74)***
R <sup>2</sup>	0.01	0.02	0.03	0.01
N	384	287	300	365

Notes: \*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

**Table 32 : Indonesia Worker Discipline and Supervisor Compensation with Informant**

	SHconcern (1)	SHconcern (2)	SHconcern (3)	SHconcern (4)
female	0.034 (0.65)	0.022 (0.37)	0.025 (0.42)	0.026 (0.46)
age	-0.029 (2.12)**	-0.037 (2.52)**	-0.036 (2.40)**	-0.028 (1.96)*
cutter	-0.027 (0.46)	-0.017 (0.28)	-0.050 (0.80)	-0.025 (0.43)
informant	0.685 (9.17)***	0.704 (9.10)***	0.722 (8.38)***	0.722 (9.49)***
hourly wage	0.014 (0.38)			
supervisor incentive pay		0.001 (0.25)		
worker incentive pay			-0.015 (0.97)	
supervisor daily pay				-0.000 (0.20)
_cons	0.667 (7.12)***	0.719 (6.76)***	0.737 (6.86)***	0.663 (5.92)***
R <sup>2</sup>	0.19	0.24	0.21	0.21
N	384	287	300	365

Notes: \*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

## Supply Chain Characteristics

Based on her informational interviews with Bangladeshi factory workers, Siddiqi (2003) hypothesized that factory characteristics such as size, ownership structure and supplier relationships are important antecedents to the level of sexual harassment experienced by workers. These factory characteristics are explored in this section. Information about factory level characteristics such as ownership structure, size, age and location can be found in the General Manager’s survey, although not all impact assessment visits have associated manager surveys. As with the HR survey, we are concerned that a small number of observations result in a loss of statistical power. Relevant variables about each factory that can be found in the GM survey include:

- *Factory age* – recoded response to the question, “What year did this factory begin operations in the country?” The oldest factory in the sample is 28 years old. Average factory age is 11 years.
- *Competition* - response to the question, “Approximately how many other apparel factories are located within one kilometer of your factory?” 1 is coded as none, and 5 is coded as 11 or more.
- *Capacity* – reported monthly output in units when the factory is operating at full capacity. In the following analysis, the natural log of capacity is always used.
- *Supplier type: preferred, contractor, subcontractor* – binary variables coded one depending on how the manager characterized their relationship with their primary customer.
- *Ownership type: private, foreign* – binary variables coded one depending on how the manager characterized the ownership structure of the factory.

Supply chain characteristics are added to the basic regression for Haiti, Jordan and Indonesia as reported in Tables 33 to 35.

**Table 33 : Haiti Supply Chain Characteristics without Controls**

	SHconcern (1)	SHconcern (2)	SHconcern (3)	SHconcern (4)	SHconcern (5)	SHconcern (6)
female	-0.218 (3.02)***	-0.224 (2.98)***	-0.232 (3.07)***	-0.260 (3.00)***	-0.279 (3.23)***	-0.278 (3.19)***
age	-0.059 (1.87)*	-0.058 (1.73)*	-0.061 (1.81)*	-0.069 (1.91)*	-0.075 (2.09)**	-0.075 (2.07)**
placee	0.130 (1.61)	0.106 (1.25)	0.107 (1.26)	0.085 (0.91)	0.083 (0.91)	0.082 (0.88)
SOL mama	-0.186 (1.76)*	-0.176 (1.54)	-0.168 (1.46)	-0.226 (1.65)	-0.244 (1.79)*	-0.244 (1.78)*
cutter	0.135 (1.10)	0.092 (0.71)	0.090 (0.69)	0.161 (1.19)	0.155 (1.15)	0.155 (1.15)
factory age	-0.006 (1.07)	-0.006 (0.95)	-0.007 (0.97)	0.005 (0.57)	-0.007 (0.96)	-0.006 (0.52)
competition	-0.055 (2.43)**	-0.052 (2.16)**	-0.049 (2.05)**	-0.093 (3.10)***	-0.082 (2.97)***	-0.083 (2.72)***



**Table 33 continued**

	SHconcern (1)	SHconcern (2)	SHconcern (3)	SHconcern (4)	SHconcern (5)	SHconcern (6)
log capacity		-0.003 (0.19)	0.000 (0.03)	0.077 (2.16)**	0.039 (1.83)*	0.043 (1.02)
contractor dummy			-0.076 (0.98)	-0.058 (0.66)	0.094 (0.93)	0.085 (0.65)
factory private				-0.414 (2.32)**		-0.036 (0.11)
factory foreign					0.365 (2.76)***	0.344 (1.48)
_cons	1.061 (3.48)***	1.104 (2.66)***	1.122 (2.69)***	0.402 (0.75)	0.671 (1.45)	0.636 (1.15)
$R^2$	0.14	0.13	0.13	0.19	0.21	0.21
$N$	227	215	215	179	179	179

Notes: \*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

**Table 34 Jordan Supply Chain Characteristics with Controls**

	SHconcern (1)	SHconcern (2)	SHconcern (3)	SHconcern (4)	SHconcern (5)
female	0.031 (0.71)	0.026 (0.60)	0.030 (0.68)	0.030 (0.69)	0.034 (0.78)
age	-0.028 (1.98)**	-0.024 (1.75)*	-0.027 (1.92)*	-0.029 (2.05)**	-0.023 (1.63)
education	-0.009 (1.04)	-0.009 (0.96)	-0.009 (1.02)	-0.009 (1.03)	-0.007 (0.84)
livedorm	-0.088 (2.07)**	-0.088 (2.08)**	-0.084 (2.00)**	-0.088 (2.08)**	-0.091 (2.15)**
bangladesh	0.103 (1.58)	0.104 (1.62)	0.110 (1.70)*	0.102 (1.60)	0.102 (1.60)
china	0.232 (1.89)*	0.225 (1.84)*	0.218 (1.75)*	0.213 (1.74)*	0.220 (1.80)*
yearsworked	0.009 (1.51)	0.009 (1.52)	0.009 (1.53)	0.009 (1.51)	0.011 (1.88)*
year2011	-0.059 (1.52)	-0.070 (1.76)*	-0.057 (1.47)	-0.052 (1.32)	-0.044 (1.12)
year2012	-0.088 (1.65)*	-0.112 (2.02)**	-0.088 (1.64)	-0.079 (1.46)	-0.107 (2.00)**
informant	0.835 (14.58)***	0.829 (14.37)***	0.836 (14.60)***	0.831 (14.49)***	0.829 (14.41)***
competition	0.009 (0.62)				
logcapacity		-0.013 (1.63)			
factoryforeign			0.010 (0.27)		
preferredsupdummy				0.044 (0.98)	
factoryage					-0.017 (2.43)**
_cons	0.101 (0.86)	0.298 (1.86)*	0.118 (1.03)	0.106 (0.91)	0.251 (1.96)*
R <sup>2</sup>	0.36	0.36	0.36	0.36	0.37
N	538	530	538	537	530

Notes: \*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

**Table 35 : Indonesia Supply Chain Characteristics with Controls**

	SHconcern (1)	SHconcern (2)	SHconcern (3)	SHconcern (4)	SHconcern (5)
female	0.055 (0.95)	0.040 (0.69)	0.041 (0.70)	0.054 (0.89)	0.054 (0.89)
age	-0.033 (2.19)**	-0.032 (2.04)**	-0.031 (2.00)**	-0.037 (2.32)**	-0.037 (2.32)**
jobcutter	0.079 (1.03)	0.112 (1.44)	0.114 (1.47)	0.103 (1.26)	0.103 (1.26)
factoryage	0.000 (0.65)	0.000 (0.38)	0.000 (0.32)	0.000 (0.65)	0.000 (0.65)
competition	-0.001 (0.09)	-0.001 (0.07)	-0.000 (0.02)	-0.001 (0.06)	-0.001 (0.06)
logcapacity		-0.001 (0.05)	-0.001 (0.09)	0.001 (0.06)	0.001 (0.06)
contractordummy			-0.019 (0.35)	-0.009 (0.17)	-0.009 (0.17)
factoryprivate					0.073 (1.84)*
factoryforeign				-0.073 (1.84)*	
_cons	0.953 (9.77)***	0.975 (4.07)***	0.980 (4.08)***	1.000 (4.14)***	0.927 (3.83)***
R <sup>2</sup>	0.02	0.02	0.02	0.03	0.03
N	403	357	357	342	342

Notes: \*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

Not surprisingly, the larger the number of nearby competitor firms in Haiti, the fewer reports of sexual harassment. The estimated coefficient on the competition variable is negative, statistically significant and robust to the addition of several controls (-0.055, Table 33 column 1). In contrast and somewhat contrary to expectations, larger (0.077, Table 33 column 4), foreign-owned (0.365, Table 33 column 5) and publically owned factories have more sexual harassment reports than smaller, domestic-owned and privately-owned (-0.414 Table 33 column 4) firms. For Indonesia, the relationship between supply chain characteristics and reports of sexual harassment are also somewhat unconventional. Foreign ownership lowers the probability of SH reports (-0.073, Table 35 column 5).

#### **4. CONCLUSION AND DIRECTIONS FOR FUTURE RESEARCH**

There are several theories of sexual harassment in the workplace. At one end of the spectrum, sexual harassment may simply be a consequence of a lack of awareness or even indifference on the part of factory managers. At the other, factories may positively use sexual intimidation as a form of worker discipline.

Sexual harassment may arise as the consequence of a lack of competition in the labor market due to an absence of nearby competitors. Any workers who are vulnerable to human trafficking also lack the ability to evade sexual exploitation. More subtly, misaligned incentives within the workplace can predispose a workplace to sexual exploitation. High-powered incentives for workers and low-powered incentives for supervisors in an environment in which supervisors are charged with determining whether a worker has met the production goal distracts supervisors from the task of promoting production efficiency while simultaneously making workers vulnerable.

Our findings are somewhat consistent with organizational awareness theory, though the evidence is indirect. Sexual harassment is not less common in factories with an HR manager that is aware of sexual harassment as a factory challenge. However, we do find evidence that sexual harassment is less common when the HR manager shows an awareness of deficiencies in the labor management skills of supervisors and more likely to occur in factories in which workers generally have complaints about the fairness with which they are treated.

Evidence of conflictual relationships between workers and supervisors is also consistent with the hypothesis that incentives are misaligned within the factory. Sexual harassment is more common in factories in which workers have a production quota and less common in factories in which the supervisor faces significant production incentives. All three pieces of evidence suggest that properly aligning incentives within the factory is an important part of a strategy to control sexual harassment. Issues with competitiveness also arise outside of the structure of incentives. Sexual harassment is more common in factories that lack a nearby competitor and for workers who are vulnerable to human trafficking.

Indeed, our findings are highly consonant with evidence from social psychology that sexual harassment requires both a personality predisposition to harass on the part of the harasser and opportunity to harass. However, while it is common in the existing literature to focus on opportunity created by a lack of institutional awareness on the part of factory managers, opportunity has, in fact, many dimensions.

The structure of incentives in which workers are highly motivated by production incentives while supervisors are paid a salary, creates a vulnerability. Workers need supervisors to document their production performance. Supervisors may exploit the opportunity by seeking sexual favors in return. A lack of alternative employment opportunities which limits the ability of workers to leave firms in which sexual harassment is common provides further opportunity to engage in sexual exploitation by supervisors predisposed to do so.

There is little or no evidence that sexual hostility toward workers is a disciplinary mechanism or part of a supervisor's compensation package. However, low wage factories are more likely to have high reports of sexual harassment. In Haiti, where sexual harassment in factories increases as wages decrease, it is possible that sexual harassment may be used as a means to intimidate workers. We remain with a set of questions for future analysis. First, the analysis suggests considerable cross-country variation in the incidence and causes of sexual harassment. Workers in Indonesia, for example, are far more likely to voice concerns with sexual harassment than their counterparts in Vietnam. Cross-country differences in outcome may reflect a contrast in cultural context. Further, factory practices in some Haitian factories that increase sexual harassment may be completely absent in Jordan and Indonesia and, thus, not significant variable in explaining sexual harassment.

Second, the social psychology literature suggests a critical role of power imbalances in fomenting dehumanization and sexual harassment particularly for those supervisors who link the exercise of power and sexual gratification. Measures of power, dehumanization, perceptions of organizational tolerance and predisposition to sexually harass will elucidate the mechanisms at work.

Third, we have considered theories of sexual harassment from the fields of anthropology, sociology, psychology and economics. Sorting through the array of possible determinates of sexual harassment, eliminating spurious correlation, understanding the direction of causality and the possibility of a dynamic interaction between power relationships and sexual harassment requires a formal theory of the interaction between managers supervisors and workers. A formal theory can guide the empirical analysis and clarify the interpretation of results.

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