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**Richard Locke, Fei Qin, and Alberto Brause**

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# **Does Monitoring Improve Labor Standards?: Lessons from Nike**

**Richard Locke, Fei Qin, and Alberto Brause**

Massachusetts Institute of Technology  
Sloan School of Management

10 July 2006

## **Abstract**

Using a unique data set based on factory audits of working conditions in over 800 of Nike's suppliers in 51 countries, this paper seeks to explore whether or not monitoring for compliance with corporate codes of conduct -- currently the principal way both global corporations and labor rights non-governmental organizations (NGOs) address poor working conditions in global supply chain factories -- actually leads to remediation in terms of improved working conditions and enforced labor rights. The evidence presented suggests that notwithstanding the significant efforts and investments by Nike and its staff to improve working conditions among its suppliers, monitoring alone appears to produce only limited results. Instead, our research indicates that when monitoring efforts are combined with other interventions focused on tackling some of the root causes of poor working conditions -- by improving the ability of suppliers to better schedule their work and improve their quality and efficiency -- working conditions appear to significantly improve. This suggests that the current (highly polarized) debates over monitoring and labor standards need to be recast and new, more systemic approaches towards tackling these problems need to be pursued.

**Keywords:** labor standards, monitoring, globalization

## Introduction

Globalization, with its volatile mix of economic opportunity and social disruption, has provoked a fierce debate over working conditions and labor rights in developing countries. On the one hand, foreign direct investment and the diffusion of global supply chains in an array of different industries – apparel, electronics, footwear, toys, etc. – have provided developing countries much-needed capital, employment, technology and access to international markets. Seen in this light, globalization is having a catalytic and transformative effect on local economies, allowing poor countries to finally achieve their long sought-after goal of development.<sup>1</sup> On the other hand, global corporations and their local suppliers are depicted as agents of exploitation, taking advantage of developing countries' low wages and weak social and environmental regulation to produce low-cost goods at the expense of the local workers' welfare. Numerous reports have described exploitative working conditions in global supply chain plants. Workers are paid only a few dollars and required to work excessive work hours, often in poorly lit and unsafe conditions.<sup>2</sup>

In the wake of several well-publicized scandals involving child labor, hazardous working conditions, excessive working hours, and poor wages in factories supplying the major global brands, multinational corporations have developed their own “codes of conduct”<sup>3</sup> as well as a variety of “monitoring” mechanisms aimed at enforcing compliance with these codes. In fact, given the limited ability of many developing country governments to enforce their own laws<sup>4</sup>, monitoring for compliance with codes of conduct is currently the principal way both global corporations and labor rights non-governmental organizations (NGOs) address poor working

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<sup>1</sup> See Collier and Dollar (2002) and Moran (2002) for more on the positive potential of globalization.

<sup>2</sup> See for example, Verité (2004), Pruett (2005), and Connor and Dent (2006).

<sup>3</sup> For a good description of this movement, see Jenkins (2001), Schrage (2004), and Mamic (2004).

<sup>4</sup> For more on this, see Baccaro (2001) and Elliot and Freeman (2003).

conditions in global supply chain factories. The logic behind this model of “private, voluntary regulation” is that monitoring should provide information useful to both consumer groups seeking to exert market pressure on global brands and to these same brands so that they can pressure their suppliers to improve factory conditions.

Given their widespread use, how effective are these monitoring systems? Aside from providing information about working conditions in various global supply chain factories, does this system actually promote change in working conditions? In other words, does monitoring lead to remediation in terms of improved working conditions and enforced labor rights? If so, under what conditions? Using a unique data set based on factory audits of working conditions in over 800 of Nike’s suppliers in 51 countries<sup>5</sup>, this paper seeks to address these questions. The evidence suggests that notwithstanding the significant efforts and investments by Nike and its staff to improve working conditions among its suppliers, monitoring alone appears to produce only limited results. Instead, our research indicates that when monitoring efforts are combined with other interventions focused on tackling some of the root causes of poor working conditions – by improving the ability of suppliers to better schedule their work and improve their quality and efficiency – working conditions appear to significantly improve. This suggests that the current, highly polarized debates over monitoring and labor standards, which revolve around a series of juxtapositions (i.e., state-mandated vs. private voluntary regulation, “internal” company-based vs. “independent” monitoring systems, etc.) are misguided.

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<sup>5</sup> The authors would like to thank Nike, Inc for their willingness to share these data. This paper is part of a larger project organized by Professor Richard Locke of MIT on globalization and labor standards. In addition to the data analyses presented in this paper, the research entailed field research in China, Turkey, Mexico, Europe and the United States as well as over 200 interviews with factory managers, workers, NGO representatives, union leaders, and Nike managers (both in the US and abroad). The authors would like to thank the other participants in this project: Jonathan Rose, Jennifer Andrews, Dinsha Mistree, Rushan Jiang, Monical Romis, and Alonso Garza for their helpful comments throughout this project.

We build on these results and more intensive case study data collected as part of this project (Locke and Romis, 2006) to suggest a reframing of the debate and the approach to monitoring and improving labor standards in global supply chains. We suggest the need for a more systemic approach, one that combines external (countervailing) pressure – be it from the state, or unions, or labor-rights NGOs, comprehensive and transparent monitoring systems, and a variety of “management systems” interventions aimed at eliminating the root causes of poor working conditions.

The remainder of this paper is divided into four sections. First we review in a highly synthetic way the major debates over monitoring. Second, we provide background information about the athletic footwear industry in general and Nike, Inc. in particular. The third section presents the data we collected and analyzed and addresses three questions: 1) How bad (or good) are working conditions among Nike’s various suppliers? 2) What determines variation in working conditions among these suppliers? (In other words, why do factories producing more or less the same products for the same brand manifest such variable working conditions?) 3) Are working conditions improving over time in these factories? We conclude by pondering the broader implications of our findings for the more general debates over labor standards in a global economy.

### **Monitoring: A Review of the Debates**

Corporate codes of conduct and various efforts aimed at monitoring compliance with these codes have been around for decades. Whereas initially, monitoring efforts focused primarily on corporate or supplier compliance with national regulations and laws, over time, they have become increasingly concerned with compliance to private, voluntary codes of conduct.

Moreover, if at first corporate codes were centered on redressing power imbalances between multinational corporations and developing countries and/or promoting “transparency” (in other words, preventing bribery), increasingly they have come to focus on the impact of globalization on labor and the environment.<sup>6</sup> Much of the recent literature on monitoring and other forms of “private voluntary regulation” focuses on either the particularities surrounding the actual process of monitoring (i.e., how these inspections are conducted, by whom, for what purposes) or their relation to other forms of regulation, especially state regulation.

Critics of voluntary monitoring regimes argue that they “crowd out” more thorough government and union interventions and are designed **not** to protect labor rights or improve working conditions but instead to limit the legal liability of global brands and prevent damage to their reputation (Esbenshade, 2004). Far from protecting workers, these monitoring schemes eviscerate state regulation and undermine union power without replacing them with a viable alternative regime. Others, however, argue that private monitoring is not an attempt to undermine the state but rather an appropriately flexible response to the reality of global production networks and the low capacity of developing country states to fully enforce labor laws and regulations (Nadvi and Wältring, 2004). According to this second group, **under certain conditions**, the monitoring efforts of brands, multi-stakeholder initiatives, and NGOs can work to strengthen government enforcement of national laws, particularly when states lack the capacity or the resources to carry out systematic factory inspections (Bartley, 2005; Fung et al., 2001; O'Rourke, 2003; Rodriguez-Garavito, 2005).

A second debate over monitoring focuses on whether those conducting the audits can be trusted to make accurate and honest assessments of factory conditions and transparently report

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<sup>6</sup> For an interesting historical review of corporate codes of conduct and their evolution over time, see Jenkins (2001). Another interesting historical parallel can be found in Seidman (2003)

their findings. Critics identify a number of important conflicts of interest that exist among the key actors involved in the monitoring process (National Research Council, 2004; Esbenshade, 2004; Pruett, 2005; Rodriguez-Garavito, 2005). Given that brands and their suppliers may have an interest in hiding labor violations rather than reporting them, how trustworthy are these internal audits? Wouldn't the incentives for moral hazard be too great for these interested parties? If these audits are, instead, contracted out to "third party" organizations, be they NGOs or private auditing companies, how competent are the NGOs in assessing certain technical issues (e.g., air quality) and how forthcoming will the private monitoring firms be if they hope to please their clients (the brands and their suppliers pay for these services) and generate future business? The scandal surrounding an Ernst & Young audit of a Nike supplier in Vietnam illustrates the dilemmas facing "independent" auditors and the incentives to bias reporting on key issues such as wages, overtime, and health and safety conditions (O'Rourke, 1997).

In response to these criticisms, various procedures and policies were established to promote greater transparency and oversight by "independent" organizations. Increasingly, external auditors, ranging from for-profit social auditing companies to local NGOs, are being certified by Multi-Stakeholder Initiatives (MSIs) like the Fair Labor Association and the Fair Wear Foundation. These institutional mechanisms are meant to bolster the creditability of monitors. Still, some (e.g., Workers Rights Consortium) argue that monitoring must be completely independent of brands and factories in order to be truly effective.

A third debate concerns the growing number and diversity of codes of conduct and auditing protocols as well as the uneven quality<sup>7</sup> of the audits being performed. The diversity of codes and monitoring schemes being applied to global suppliers are well documented (Brown, 2005a, 2005b; Jenkins, 2001; O'Rourke, 2003). Underlying these different codes and

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<sup>7</sup> For a critique of existing auditing practices, see Pruett (2005).

implementation systems are very different principles and goals. Whereas some codes emphasize freedom of association and anti-discrimination policies, others instead focus on “living’ (as opposed to minimum) wages, “excessive” work hours, and health and safety issues. Some codes are monitored by internal, company staff while other audits are conducted by third-party, external consultants or NGOs.

Less is known, however, about the overall impact of multiple codes of conduct and monitoring strategies on the factories and workers employed within them. A 2003 World Bank study estimated that there were over 1000 corporate codes of conduct in existence today (Smith and Feldman, 2003: 2). Many suppliers have to implement multiple codes of conduct, which causes inefficiency and confusion. Some factories complain of “monitoring fatigue” given that they are monitored multiple times a year on behalf of each of the global brands they work for. In addition, suppliers complain of being placed in “compliance limbo” between different and conflicting code requirements. Our interviews in the field revealed that many codes of conduct are accompanied by increasingly detailed guides, specifying, for example, the exact position of fire extinguishers or ratio of toilets to employees. The result is that the suppliers have to move the fire extinguishers depending on which auditor or which brand is coming to inspect the plant. Similar problems can occur with specifications for bottom-up worker involvement, which can differ from code to code, creating redundant systems.

A related criticism concerns the mixed quality of the audits and level of skill/experience of the auditors. Although some monitors are experienced professionals with training in various production and labor-related functions, others are often recent college graduates whose primary skill is either speaking a particular foreign language or possessing great passion for labor rights (Esbenshade, 2004; Pruett, 2005). Monitoring protocols vary tremendously in terms of issues

being investigated (e.g., wages, work hours, working conditions, child labor, freedom of association, health and safety issues, sexual harassment, etc.), methodology employed to collect information (e.g., documents, observations, interviews – with or without workers, on-site or away from the factory), length of time spent conducting the audit, level of skill/experience of the monitors, and the methods of reporting the information collected (Jenkins, 2001; O'Rourke, 2003). Given this incredible diversity in inspection protocols and auditors, the room for controversy over whose audit protocol is more thorough or more accurate or even truly independent is enormous.

The ability to collect accurate information about a facility and report it in a transparent manner is only one of many key requirements for upholding and improving labor standards. Because the debates over monitoring are so polarized, revolving around stark choices about what gets monitored, who does it and how it gets done, the question of whether or not monitoring is at all an effective strategy for improving labor standards has not been adequately evaluated<sup>8</sup>. This is the focus of our paper. But to better understand our findings, especially in light of the above debates, the next section provides some industry and company-level “context”.

### **Context: Nike and the Athletic Footwear Industry**

The athletic footwear industry experienced an explosive growth in the last two decades. In 1985, consumers in the United States alone spent \$5 billion and purchased 250 million pair of shoes (Korzeniewicz, 1994). In 2004, they spent almost \$15 billion and bought over 370 million pair of shoes (National Sporting Goods Association, 2005). Although the industry is highly segmented – by different sports, models and price – the branded shoe segment is

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<sup>8</sup> Noted exceptions include two studies on monitoring practices in the US garment industry. See Esbenshade (2004: Ch. 3): chapter 3; and Weil (2005)

dominated by a few large companies. Nike, Reebok and Adidas account for almost 60% of the global athletic footwear market (Petrecca and Howard, 2005). Since displacing Adidas in the early 1980s and Reebok in the early 1990s, Nike has become the largest and most important athletic shoe company in the world. Even after the recent merger between Reebok and Adidas, Nike still controls over 36% of the US athletic shoe market and over 33% of the global athletic footwear market (Petrecca and Howard, 2005).

Founded in 1964 through an investment of \$500 each by Phil Knight and Bill Bowerman, the company (then called Blue Ribbon Sports--BLS) has evolved from being an importer and distributor of Japanese specialty running shoes to becoming the world leader in the design, distribution and marketing of athletic footwear.

According to company legend, Nike's business model was developed by Knight while attending Stanford Business School in the early 1960s. Knight realized that while lower-cost, high-quality Japanese producers were beginning to take over the US consumer appliance and electronics markets, most leading footwear companies (e.g., Reebok and Adidas) were still manufacturing their own shoes in higher-cost countries like the United States and Germany. By outsourcing shoe production to lower-cost Japanese producers, Knight believed that Blue Ribbon Sports could undersell its competitors and break into this market. As a result, Blue Ribbon Sports began to import high-tech sports shoes from Onitsuka Tiger of Japan. As sales increased to almost \$2 million in the early 1970s, BLS parted ways with Onitsuka and began to design and subcontract its own line of shoes. The Nike brand was launched in 1972, and the company officially changed its name to Nike, Inc. in 1978.

Nike developed a strong working relationship with two Japanese shoe manufacturers, Nippon Rubber and Nihon-Koyo, but as costs increased in Japan over the course of the 1970s

(due to a combination of a tighter labor market, the impact of the first Oil Crisis on Japan's economy, and a shift in the dollar/yen exchange rate as a result of the so-called "Nixon shock"),<sup>9</sup> Nike began to search for alternative, lower-cost producers. During these same years, Nike opened up its own shoe factories in Maine and New Hampshire, hoping to develop a reliable local source to supply its growing domestic market. At the same time, the company also began to cultivate potential suppliers in Korea, Thailand, China and Taiwan. By the early 1980s, as costs continued to increase in both Japan and the United States, and as the Korean government created a number of incentives to develop Korea's footwear industry,<sup>10</sup> Nike closed its US factories and sourced almost all of its production from Asia. By 1982, 86% of Nike's athletic footwear came from Korea and Taiwan.<sup>11</sup>

Over time, as Korea and Taiwan also began to develop, costs began to rise in these countries as well. As a result, Nike began to urge its suppliers to re-locate their operations to other, lower-cost countries. The company worked with its lead suppliers to open up manufacturing plants in Indonesia, China and Vietnam. By guaranteeing a significant number of orders and by placing Nike employees at these new factories to help monitor product quality and production processes, Nike was able to help its lead vendors establish an extensive network of footwear factories throughout Southeast Asia.

Today, Nike's products are manufactured in more than 800 factories, employing over 600,000 workers in 51 countries. Nike has only 24,291 direct employees, the vast majority working in the United States (Nike, 2005: 3-4). Over the years, Nike has broadened its product

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<sup>9</sup> For more on these years, see Murukami (1987).

<sup>10</sup> These and other government incentive programs are nicely described in Amsden (Amsden, 1989).

<sup>11</sup> For more on the evolution of Nike's strategy, see (Christensen and Rikert, 1984; Rosenzweig, 1994; Strasser and Becklund, 1991).

range. Whereas in 1980, Nike sold 175 different styles<sup>12</sup> of shoes, it offered 772 different styles in its Spring 1990 collection and almost 1200 different styles in its Spring 2000 collection.<sup>13</sup> Nike has also moved into other sectors (apparel and sports equipment) and expanded its sales beyond the United States into Europe, Latin America and Asia. In 2004, the company made about US\$12.2 billion in revenues, of which \$6.5 billion came from footwear sales and \$3.5 billion from apparel (Nike, 2005: 2).

Important differences exist among the sectors in which Nike competes. Although still primarily known as a footwear company, only 70 out of its 830 suppliers are producing shoes. Most of these suppliers are located in Asia. In contrast, Nike apparel products are manufactured in 576 factories distributed throughout the world (Nike, 2005: 4). These differences are due both to the rules governing international trade in the two industries and to the underlying nature of these industries (footwear factories are usually large, capital-intensive facilities, whereas garment factories are usually smaller, easy to establish, and extremely labor-intensive operations). Whereas footwear quotas were eliminated by the mid-late 1980s (leading to a consolidation of the industry), trade in garments was until January 2005 very much shaped by the existence of quotas (Multi-Fiber Agreement). Still today, various tariffs and “voluntary” export restrictions between China and both the European Union and the United States have prevented the formation of a truly “free market” in garments.<sup>14</sup>

These industry differences have a significant impact on the kinds of relationships that Nike can develop with its various suppliers. For example, in footwear, Nike has been able to develop long-term relations with several large Korean and Taiwanese firms. With some of these

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<sup>12</sup> This includes different color combinations of shoes.

<sup>13</sup> These figures come from various Nike catalogues. We would like to thank Jody McFarland for helping us obtain these data.

<sup>14</sup> See Brown (2005a) for more on these issues.

firms, Nike designers create and then relay via satellite new footwear designs and styles for upcoming seasons to suppliers, who in turn, develop the prototypes. Once these prototypes are approved, these lead suppliers fax the product specifications to their various plants throughout Southeast Asia, where production can take place almost immediately. This level of trust and coordination facilitates both production and (presumably) compliance activities for Nike. In apparel, given short product cycles and volatile fashion trends, the situation is completely different. Nike works with numerous suppliers, most of whom are also producing apparel in the same factories for other (often competitor) companies. Given that different apparel suppliers specialize in particular products or market segments, shifts in consumer preferences or fashion trends could translate into very short-term contracts with and/or limited orders from Nike. This alters both the level of influence which Nike has with these suppliers as well as its ability to monitor on a regular basis the production processes and working conditions of these factories.

The same factors that permitted Nike to grow at an impressive rate over the last several decades – taking advantage of global sourcing opportunities to produce lower cost products and investing these savings into innovative designs and marketing campaigns – have also created serious problems for the company in recent years. Already in the 1980s, Nike had been criticized for sourcing its products in factories/countries where low wages, poor working conditions, and human rights problems were rampant. However, over the course of the 1990s, a series of public relations nightmares – involving underpaid workers in Indonesia, child labor in Cambodia and Pakistan, and poor working conditions in China and Vietnam – combined to tarnish Nike’s image. As Phil Knight lamented in a May 1998 speech to the National Press Club, “the Nike product has become synonymous with slave wages, forced overtime, and arbitrary abuse.”<sup>15</sup>

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<sup>15</sup> Detail about these events can be found in Locke (2003).

At first, Nike managers refused to accept any responsibility for the various labor, environmental and occupational health problems found at their suppliers' plants. Workers at these factories were not Nike employees, and thus Nike felt no responsibility towards them. By 1992, this hands-off approach changed as Nike formulated its Code of Conduct for its suppliers that required them to observe some basic labor, environmental and health/safety standards. (See Appendix 1 for the most recent version of Nike's Code of Conduct.) All suppliers – current and potential – are obligated to sign this Code of Conduct and post it within their factories. Since 1998, Nike has increased the minimum age for footwear factory workers to 18 and all other workers (apparel and equipment) to 16. It has also insisted that all footwear suppliers adopt US Occupational Safety and Health Administration (OSHA) standards for indoor air quality.

To enforce compliance with its code of conduct, Nike has conducted numerous trainings with its suppliers as well as assembled a team of 90 compliance staff based in 21 countries, to monitor these suppliers.<sup>16</sup> In addition to these compliance specialists, Nike has about 1000 production specialists working at/with its various global suppliers. All Nike personnel responsible for either production or compliance receive training in Nike's Code of Conduct, Labor Practices, Cross-Cultural Awareness, and in the company's Safety, Health, Attitudes of Management, People Investment and Environment (SHAPE) program.<sup>17</sup>

Aside from the initial, new source approval process that all potential suppliers of Nike must undergo<sup>18</sup>, all factories are subject to three different types of audits : a basic environmental, safety and health (SHAPE) audit, a more in-depth management and working conditions audit (M-Audit) and periodic inspections by the Fair Labor Association (FLA).

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<sup>16</sup> For more on Nike's current compliance activities, see Nike (2005: Ch. 4).

<sup>17</sup> The evolution of Nike's corporate responsibility practices is nicely described in Zadek (2004).

<sup>18</sup> In 2004, only 57% of factories that underwent this process were approved. See Nike (2005: 18) for more on this process.

The **SHAPE** inspection was first launched in 1997 and is typically performed by Nike's field-based production staff. The goal of this audit is to provide a very general picture of the factory's compliance with labor, environment, safety and health standards. SHAPE inspections take about a day and occur between once or twice yearly.

Launched in the summer of 2002, the **M-Audit (Management Audit)** is the most rigorous of Nike's audits and is seen as the core of its compliance program. The M-Audit provides in-depth assessment of the labor-management practices and working conditions at the factories. A typical M-Audit takes 48 hours to complete and thus the audit is spread out over several days. The M-Audit is always conducted by Nike's in-house compliance specialists. These inspections are announced beforehand. Following several scandals involving "third party" audits of Nike suppliers in the late 1990s, the company decided to conduct its own, in-depth audit, thus guaranteeing a certain level of consistency and quality to the information collected.

Independent monitoring by the **Fair Labor Association** is also conducted on a sample (5%) of Nike suppliers every year. The FLA is a multi-stakeholder initiative that brings together companies, universities and NGOs and supervises independent monitors to perform unannounced inspections of supplier factories. Nike is a member of the FLA and thus subject to these yearly inspections. Without revealing the identity of individual plants, all FLA reports are made public on the organization's web site ([www.fairlabor.org](http://www.fairlabor.org)).

## **Data and Methods**

Nike provided us with data from all three of the above audits, as well as from their Compliance Rating program. Starting in June 2001, Nike began a grading system (A-D) of all their suppliers. The letter grade reflects all the information about a factory collected from the

SHAPE inspections, M-Audits, FLA audits and factory visits and is assigned by the local compliance manager. (See Appendix 2 for an explanation of the different grades assigned to the factories.) The goal of the compliance rating system is to provide information to (and help shape decisions of) Nike sourcing and production managers. Because of the mixed quality of the SHAPE audits and the limited numbers of the FLA audits, we focus our analyses on data derived from the M-Audits and the Compliance Rating program. In addition, Nike provided us access to their sourcing data base which allowed us to collect descriptive information (e.g., age of facility, total number of employees working at the facility, nationality of the owners of the facilities, etc.) for each factory producing goods for the company.

### **Does Monitoring Work? A Look at the Data**

Using data from the M-Audits and the Compliance Rating program, this section seeks to address three questions: 1) How bad (or good) are working conditions among Nike's suppliers? There is tremendous debate over workplace conditions in global supply chain factories. Using systematic data collected by Nike's compliance staff, what can we learn about the actual conditions in these factories? 2) Should the data reveal variation in working conditions among Nike's suppliers, what accounts for this variation? Why do factories producing more or less the same goods for the same brand treat their workers so differently? 3) Are working conditions improving over time in these factories? Given how many resources have been dedicated by Nike to its various compliance efforts since the late 1990s, how successful at remediation have these monitoring efforts been?

## (1) How good or bad are working conditions?

To address this first question we first present some descriptive data on Nike's supply base, derived from the M-Audit data base. Each M-Audit reports a numeric score (0-100) that represents a percentage against a perfect compliance score. A score of 100 means that the individual factory is in full compliance with Nike's code of conduct. The M-Audit covers more than 80 items, focused on hiring practices, worker treatment, worker-management communications and compensation. Each item accounts for a specific weighting with respect to the overall score and all together sum up to 100.<sup>19</sup> Table 1 presents the mean scores and standard deviations for all factories (575) that underwent M-Audits in Nike's three major lines of business (footwear, apparel and equipment). Because this program was launched only in the summer of 2002 and because it is very time consuming, not all Nike suppliers have undergone an M-Audit. On average, the data presented below indicate that Nike's suppliers are performing not perfectly (a score of 100) but not so terribly either. The mean of their performance is at 65%, with a standard deviation of 16%.

**Table 1: Summary Statistics of M-Audit Scores<sup>20</sup>**

	<b>Mean</b>	<b>Standard Deviation</b>	<b>Number of Observations</b>
Apparel	0.66 (.008)	0.15	357
Footwear	0.68 (.02)	0.17	64
Equipment	0.64 (.015)	0.16	109
Total	0.65 (.007)	0.16	575 <sup>21</sup>
F(2,572)=1.35 Prob>F=0.26 Bartlett's test for equal variances: chi2(2) = 3.3183 Prob>chi2 = 0.190			

<sup>19</sup> For more on the M-Audit and its scoring system, see Nike (2005: 35-36).

<sup>20</sup> Standard Errors are in parentheses.

<sup>21</sup> 45 additional factories received an M-Audit but we were unable to classify them by industry. Thus, they are included in the total but not in the industry columns.

However, as shown in Figure 1, there is considerable variation in performance on the M-Audit across Nike’s supply base. Factories’ scores range from 20% to a near perfect (90%) score.

**Figure 1: The Distribution of M-Audit Score**

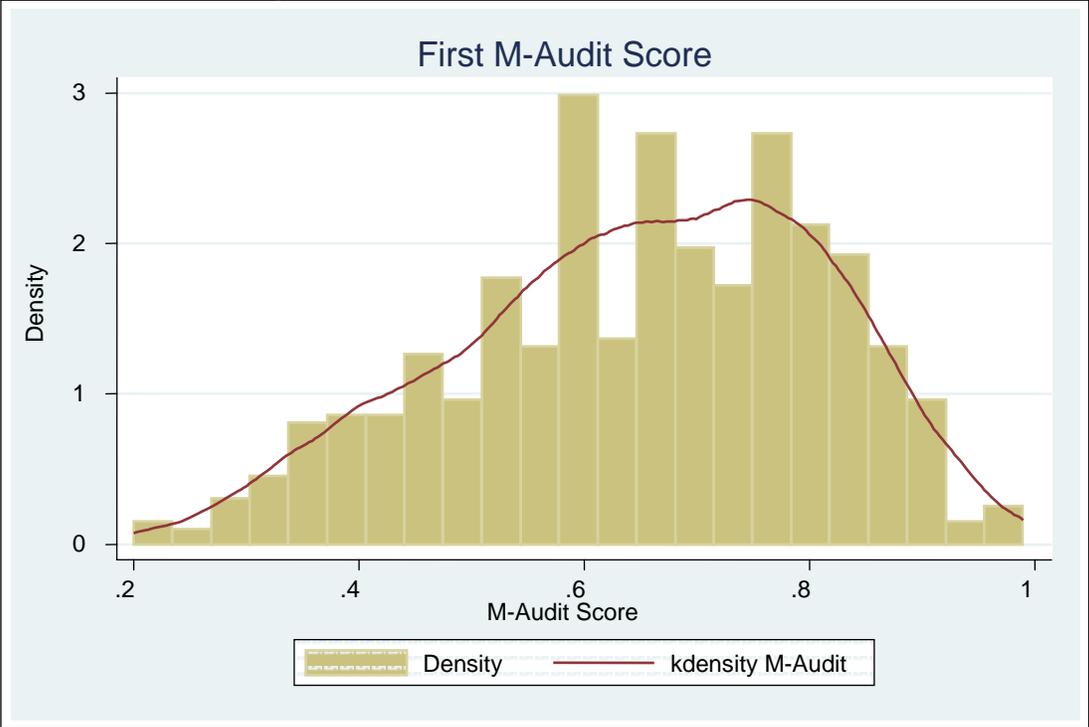
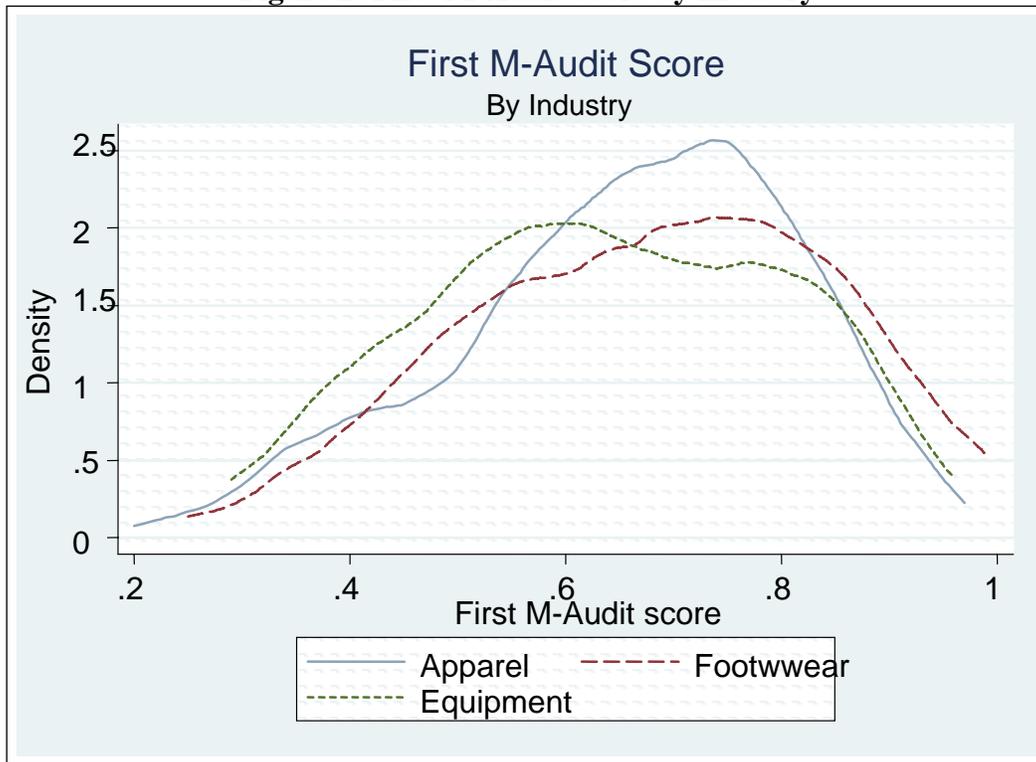


Figure 2 reveals that this pattern of variation cuts across the major product lines of Nike. In other words, regardless of what the factory is producing, be it garments or footwear or even some types of sports equipment, there appears to be a “normal” distribution of M-Audit scores.

**Figure 2: First M-Audit Score by Industry**



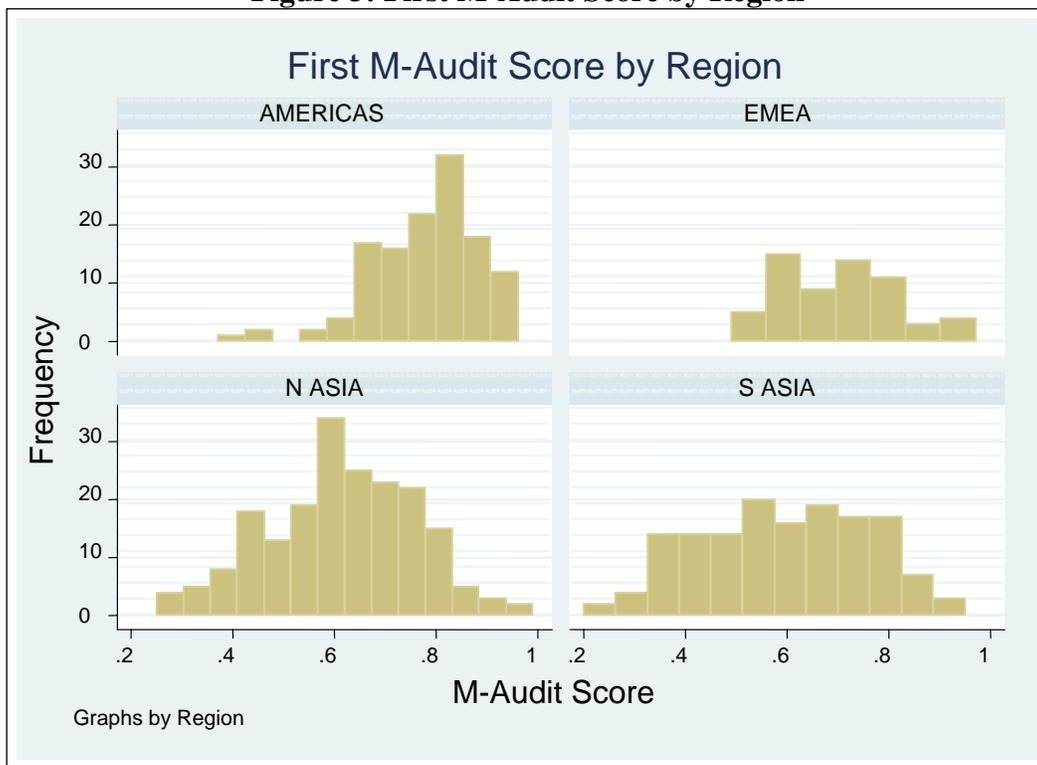
However, when analyzing these data along geographic lines, to see how factory performance on the M-Audit may be shaped by the region in which the factories are located, we find more pronounced variation. Factories in the Americas and the EMEA (Europe, Middle East and Africa) region almost always perform above 50% on the M-Audit and often closer to 100%. However, in the North Asian (which includes China and Vietnam) and South Asian (which includes Indonesia and India) regions, the M-Audit scores are much more dispersed. Table 2 and Figure 3 illustrate this greater variation across regions.

**Table 2: Summary Statistics for First M-Audit Score, by Region<sup>22</sup>**

	Mean	Standard Deviation	Number of Observations
Americas	0.77 (0.009)	0.10	134
N. Asia	0.61 (0.01)	0.14	198
S. Asian	0.58 (0.013)	0.17	181
EMEA	0.71 (0.015)	0.12	62
Total	0.65 (0.0067)	0.16	575

F(3,570)=56.307 Prob>F=0.0000  
 Bartlett's test for equal variances: chi2(3) = 38.01 Prob>chi2 = 0.000

**Figure 3: First M-Audit Score by Region**



Thus we observe that although on average Nike’s suppliers appear to be performing above average in terms of their M-Audit scores (65% out of a 100), which suggests that working conditions in these factories are not as terrible as one might fear, there nonetheless exists

<sup>22</sup> Standard Errors are in parentheses.

tremendous variation in M-Audit scores (hence working conditions) across factories in the world. Some factories appear to be almost in complete compliance with Nike's code of conduct while others suffer from endemic problems with poor wages, excessive work hours, harassment, etc. Even within regions – within individual countries in fact – working conditions, as captured by the M-Audit scores, vary tremendously. How do we explain this variation? In other words, why are factories making more or less the same products for the same brand treating their workers so differently?

## **(2) Explaining the Variation of M-Audit Score**

To explain variation in working conditions, as indicated by the M-Audit scores, we developed a two-step model. To isolate actual workplace conditions (compliance score) from the potential impact of the monitoring process, we examine the variation of the **initial** M-Audit scores across factories, using an OLS model. In this model, we consider two principal groups of independent variables:

### ***Factory-characteristics***

The first group of independent variables includes factory characteristics. The literature on labor monitoring suggests that a variety of factors – ownership, size of plant, type/complexity/price of the product being manufactured may all affect labor conditions in the factories. Some have speculated that factories owned/managed by foreigners treat their workers less well (for a variety of linguistic, cultural reasons) than do factories where the ownership/management of the plants share the same nationality as the workers. Likewise, others have claimed that larger, more bureaucratic, “modern” factories will be better able to introduce

modern management and personnel systems and thus, one would expect that larger factories would on average treat their workers better than smaller, less formally managed plants (Moran, 2002: 16). Finally, much has been written about the importance of skill and tacit knowledge in the production of high value added, differentiated products. From this we speculate that perhaps factories producing more complex (and expensive) products, which require greater skill, will treat their workers as valuable assets for the factory (Kochan et al., 1986; Piore and Sable, 1984). We investigate whether factory ownership (foreign-owned versus domestic-owned), factory size, and the type of product (footwear, apparel, or equipment) may all affect the performance of labor compliance.

### ***Relationship with Nike***

The second major dimension we investigate is the relationship between the supplier factory and Nike. Frenkel and Scott (2002) have argued that brands develop two distinct types of compliance relationships with their suppliers: a hands-on, cooperative relationship with some suppliers and an arms-length, more distrustful “compliance” relationship with others. These differences, according to these authors, can shape not just the style but also the substance of compliance programs within the factories. To get at this, we investigate both the **length of time** Nike has been contracting with the supplier (assuming that the longer the business relationship, the greater “trust” between Nike and the individual supplier) and whether or not the supplier has been designated by Nike as a “**strategic partner**”. Strategic partners are those suppliers that Nike has designated as tier-one suppliers. Some of them (in footwear) are involved in collaborative design and product development processes. Others (in apparel) are permitted to source their own materials and seen as long-terms partners in the future. Thus, one would expect

better labor compliance performance among strategic partners than other, less strategic suppliers.<sup>23</sup>

To further assess the relationship between Nike and its suppliers, we investigate the **amount of capacity the factory dedicates to Nike** (as opposed to other brands) and the **number of visits** Nike personnel (compliance and production) make to the factories on any one year. We hypothesize that the more capacity a factory dedicates to Nike, the stronger the relationship and thus the higher the labor compliance (M-Audit) score should be. In addition, given that some scholars have reported that increased frequency of labor inspections led to improved workplace conditions and code compliance (Esbenshade, 2004: Ch. 3), we hypothesize that the more frequent a factory is audited, the better its compliance (as expressed by the higher the M-Audit score).

### *Country and Industry Effects*

Earlier we saw that there existed tremendous variation in M-Audit scores by region. To investigate the “country effect” on compliance scores, we employ a rule-of-law indicator as a proxy for a country’s legal and regulatory environment. The rule of law index measures the extent to which agents have confidence in and abide by the rules of a given country (Kaufmann et al., 2004). These include perceptions of the incidence of crime, the effectiveness and predictability of the judiciary, and the enforceability of contracts. This is a percentile rank of countries ranging from 0-100. To control for the industry effect, we first look at all Nike suppliers and then insert industry dummy variables for footwear, apparel and equipment. We also look at within industry variation.

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<sup>23</sup> For more on how collaborative manufacturing/design practices between buyers and suppliers can lead to innovation and the development of trust-like relations, see Sabel (1994).

We combine the different variables in the following OLS model:

$$M\text{-Audit} = a_0 + a_1 \text{Log total employees} + a_2 * \text{ownership} + a_3 * \text{number of visit by Nike} + a_4 * \text{strategic partnership} + a_5 * \text{duration of relationship with Nike} + a_6 * \text{percentage for Nike} + a_7 * \text{rule of law} + a_8 * \text{aprl} + a_9 * \text{ftwr} + \varepsilon \quad (1.1)$$

**Table 3: Summary Statistics of Selected Independent Variables**

	<b>Mean</b>	<b>Standard Deviation</b>
Total number of employees	1095	1952
Ownership (1=Foreign, 0=Local)	0.37	0.48
Strategic partner (1=Yes, 0=No)	0.19	0.39
Number of Shape visits	5.52	4.49
Months with Nike	60.4	58.0
Percentage for Nike	47.3%	33.6%
Apparel	0.67	0.47
Footwear	0.12	0.33
Equipment	0.21	0.40
Index of Rule of Law of factory country	0.60	0.21

We next look into the relationship between the M-Audit scores and different dimensions of factory characteristics and different levels of relationship with Nike using OLS regressions. Consistent with our conceptual model, we focus on the initial M-Audit scores of the individual factories. The results are reported in Table 4.

**Table 4: Regression Result of First M-Audit Score on Selected Variables<sup>24</sup>**

	Coefficient (standard deviation)				
Rule of Law	0.0021**** (0.0003)	0.0014**** (0.0003)	0.0018**** (0.0004)	0.0013*** (0.0004)	0.0018**** (0.0004)
Log (Number of Employees)			-0.024**** (0.0065)	-0.0085 (0.0066)	-0.023**** (0.0065)
Ownership (1=foreign 0=local)			0.044 (0.0189)	0.0014 (0.017)	0.006 (0.019)
Number of Shape Visit			0.0045* (0.0025)	0.0068*** (0.0022)	0.0045* (0.02)
Strategic Partner (1=yes 0=no)			0.0358* (0.021)	-0.0089 (0.020)	0.039* (0.02)
Month with Nike			-0.0003** (0.0002)	-0.00006 (0.0001)	-0.0003* (0.00015)
Nike Percentage			-0.089**** (0.0276)	-0.045* (0.026)	-0.084**** (0.028)
Apparel			-0.0032 (0.0229)	-0.027 (0.02)	-0.002 (0.023)
Footwear			0.1161*** (0.0381)	0.078** (0.03)	0.11*** (0.038)
EMEA		-0.067*** (0.021)		-0.078**** (0.024)	
N. Asian		-0.105**** (0.018)		-0.14**** (0.02)	
S. Asian		-0.176**** (0.016)		-0.18**** (0.022)	
M-Audit Year 2003 (base year 2002)					0.043* (0.026)
M-Audit Year 2004 (base year 2002)					0.056* (0.29)
Constant	0.528**** (0.021)	0.681**** (0.24)	0.7264**** (0.0603)	0.75**** (0.056)	0.676**** (0.0658)
Number of Observations	468	468	311	311	311
R-square	0.09	0.28	0.22	0.37	0.22
F(1,466)/F(4,463)/ F(9, 301)/F(12, 298)/F(11, 299)	46.89****	44.76****	9.17****	14.96****	7.87****

<sup>24</sup> \* Statistically significant at the 0.10 level, \*\* at the 0.05 level, \*\*\* at the 0.01 level, \*\*\*\* at the 0.001 level. Standard Errors are in parentheses.

The regression analyses suggest the following findings:

- (1) **At the country level**, the strength of a country's regulations and institutions (using the rule of law index as a proxy) has a positive relationship with M-Audit scores. The first column in Table-4 shows that the rule-of-law index itself explains 9 percent of the variation in first M-Audit score. Even when controlling for regional effects (Americas vs Southern Asia), the coefficient on the rule of law finding is reduced by about one third but remains significant. This suggests that factories located in the countries with better legal or regulatory environments on average do better in labor compliance. This has potentially significant implications for both the sourcing decisions of global brands as well as future work for both companies and NGOs as they seek to tackle these issues.<sup>25</sup>
- (2) Controlling for country and industry variables, **at the factory level**, there exists a significant negative relationship between the size of factory, measured by total number of employees, and the M-Audit performance. This suggests that working conditions in smaller factories are better than in larger factories.<sup>26</sup> One possible explanation for this somewhat counter-intuitive finding could be that smaller factories are relatively easier to control and monitor than larger facilities – some of which can employ tens of thousands of workers.
- (3) After controlling for other variables (i.e., industry and factory location) our analyses suggest that ownership (foreign vs. national) does not have a significant relationship with

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<sup>25</sup> The importance of building state capacities, especially in the area of labor inspection, has been the focus of recent work by my colleague, Michael Piore (2005). See also Schrank (2005).

<sup>26</sup> To analyze the impact of factory size on M-Audit scores, we ran two tests. First we compared individual factories against the average size of plants in their respective industries to see if the individual plants were either above or below the industry average. Second we sorted our sample into 10 subgroups, according to their size (number of employees), the first subgroup containing the smallest 10% factories; the tenth subgroup containing the largest 10% of factories. We then ran regressions using these subgroup dummies. In both tests, the larger factories expressed significantly lower M-Audit scores.

M-Audit scores. In other words, it does not appear that foreign-owned factories treat their workers any better or worse than factories owned by compatriots.

- (4) Within the category of Nike-related variables, the number of visits by Nike personnel and whether or not a factory is a strategic partner are positively associated with M-Audit scores. However, the duration of the relationship with Nike and the percentage of capacity dedicated to Nike are negatively related to the M-Audit scores. All four coefficients are statistically significant. When analyzing the frequency of visits by Nike staff to individual factories, we were able to separate out different types of Nike personnel (e.g., compliance as opposed to quality specialists or sourcing directors). When removing compliance staff from the analyses, we still obtain the same significantly positive results. This suggests that this positive relationship **is not** the result of more frequent social audits and factory inspections. Instead, something else appears to be happening. One possible explanation for this apparently contradictory finding could be that those factories that have a closer relationship with Nike, are also those with more face-to-face contact with the Nike sourcing and production teams and engage in various process (e.g., Lean) and quality (e.g., TQM) initiatives aimed at improving production efficiencies. These, in turn, have positive spill-over effects on labor conditions. An additional explanation is that frequency of visit by production and sourcing staff (but not compliance managers) leads to greater trust and a better working relationship between the brand and its suppliers. This explanation is consistent with Frenkel and Scott's (2002) comparative case study of two Adidas suppliers. These relationships are explored in a related paper (Locke and Romis, 2006). Interestingly enough, frequency of visits is not a

function of whether a supplier is a strategic partner. The interaction effect of these two variables is not significant.

- (5) The negative relationship between the duration of the relationship between Nike and its suppliers and M-Audit scores could be explained in two ways. Perhaps those factories with a longer working relationship with Nike are also older factories (i.e., possess older plants and equipment) and this could explain why their working conditions are poor. An alternative possible explanation is that Nike has become increasingly demanding in terms of labor compliance and thus more recent suppliers, having surpassed more stringent selection criteria, are better equipped to comply with Nike's code of conduct. Interviews with Nike compliance staff indicate that the company has, in fact, become increasingly demanding of its suppliers in terms of compliance issues. This explains why 43% of potential suppliers fail their initial pre-sourcing approval process. More recent (newer) suppliers may also possess more modern technologies and factory structures and this too may contribute to the observed result.

The negative relationship observed between the percentage of capacity dedicated to Nike and the M-Audit score could suggest that in contrast to arguments that suggest that suppliers are suffering from "audit fatigue", multiple brands with different monitoring programs may be promoting improvements and learning within the factory. These different brands may also engage in informal cooperation with one another, thus presenting a more united face to the suppliers, who in turn, respond to these common pressures. Interviews with compliance managers at Nike and other brands confirm that informal information-sharing and coordination does in fact take place among brands sourcing from the same factories.

### **(3) The change of labor compliance performance overtime**

Since the late 1990s, Nike has been actively engaged in monitoring its supply base. Over time, it has significantly expanded its compliance staff, invested heavily in the training of its own staff and that of its suppliers, developed ever-more rigorous audit protocols and internalized much of the auditing process, worked with third party social auditing companies and NGOs to check its own internal audits, and spent millions of dollars to improve working conditions at its supplier factories. Interviews conducted during field research for this project with Nike monitors and compliance staff revealed that these people are serious, hard-working people with a genuine concern for workers and their rights. Given all that Nike has invested (in terms of staff, time and resources) over the last decade, have conditions at the factories improved? In other words, did monitoring lead to remediation/improvement of working conditions? We seek to evaluate this third question by examining historical data for both the M-Audits and the Compliance Rating scores.

#### **The change of M-Audit score**

We first analyze the changes in M-Audit scores over time. Table 5 summarizes the mean and standard deviation of the first, second and third M-Audit scores. One hundred and seventeen factories (117) underwent two M-Audits and 5 factories were monitored a third time. The descriptive statistics show an improvement.

**Table 5: Initial and Subsequent M-Audits**

	<b>Mean</b>	<b>Standard Deviation</b>	<b>Number of Observations</b>
First M-Audit Score	0.65	0.16	575
Second M-Audit Score	0.70	0.16	117
Third M-Audit Score	0.82	0.07	5

Table 6 presents the statistics of initial M-Audit scores year by year and shows that in general, the performance on the audits has improved from 2002 to 2004 (the 2005 number can be ignored since it has only a few observations).

**Table 6: Time Trend for M-Audit Score (First M-Audit Only)**

	<b>Mean</b>	<b>Standard Deviation</b>	<b>Number of Observations</b>
M-Audit in 2002	0.638	0.130	61
M-Audit in 2003	0.643	0.167	351
M-Audit in 2004	0.673	0.155	159
M-Audit in 2005	0.44	0.081	4

Thus, on average and over time, for both first-time audited factories and for factories that have been monitored more than once, it appears as if working conditions (as expressed in their M-Audit scores) are improving. This would suggest that monitoring works.

We conducted several tests to investigate whether there is a systematic upward or downward bias in the selection of factories audited a second or third time. First we compared the initial M-Audit scores of those factories that did not receive subsequent audits with the scores of the factories that did receive subsequent audits, to see whether or not Nike chose to re-audit those factories that did better the first time around. The comparison of the distribution of the M-

Audit scores of the single-audited factories against the distribution of the initial scores of the multiple-audited factories are illustrated in Figure 4. The T-test results are presented in Table 7.

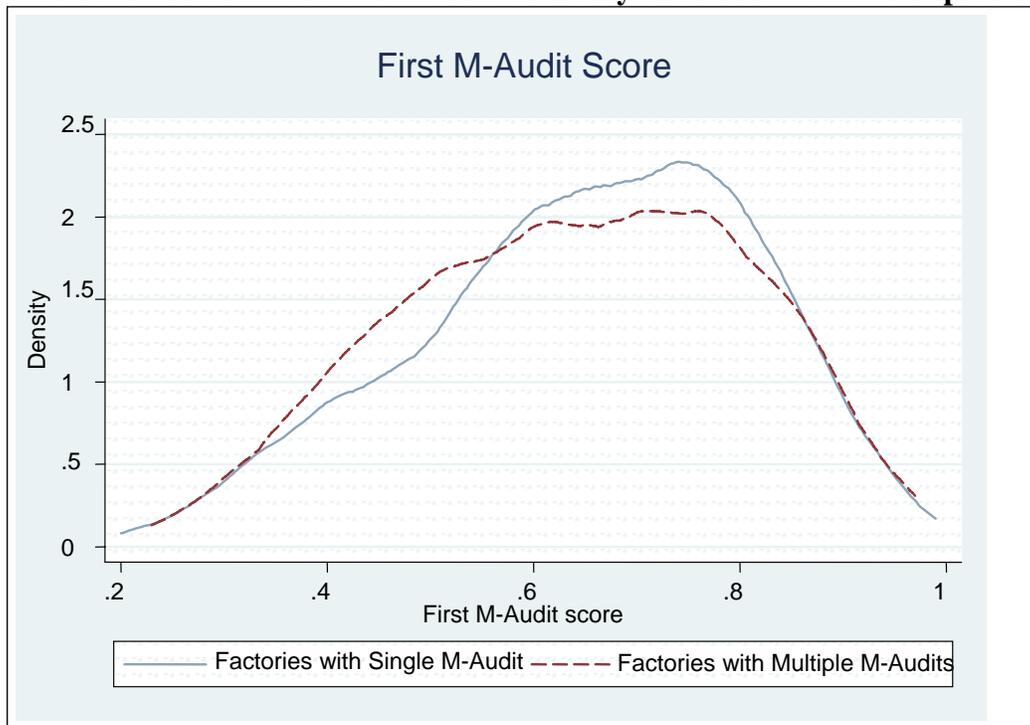
**Table 7: Comparison of the First M-Audit Score between Factories Monitored Once and Factories Monitored Multiple Times**

	First M-Audit Score		
	Mean	Standard Deviation	Number of Observations
Factories with only one M-Audit	0.65	0.16	458
Factories with more than one M-Audit	0.64	0.16	117
Test	diff=mean (First M-Audit Score of Single M-Audit Factories) – mean (First M-Audit Score of Multiple M-Audit Factories)		
	H0: diff=0		
	T= 0.7643 degrees of freedom = 573		

We see from Table 7 that there is no statistically significant difference between the two groups.

Figure 4 also shows that two waves of M-Audits have very similar probability densities.

**Figure 4: First M-Audit Score of Factories with only one M-Audit vs. Multiple M-Audit<sup>27</sup>**



<sup>27</sup> Note: the vertical axis denotes the probability density function.

We then explored whether or not the sample of factories that received second M-Audits was biased in any way towards certain factory characteristics (i.e., size, age, location). We conducted probit models with “whether a factory received a second M-Audit” as the dependent variable. The results are shown in Table 8.

**Table 8: Probit Regression of the Likelihood of Subsequent M-Audits<sup>28</sup>**

	<b>Coefficient (standard deviation)</b>		
First M-Audit Score	-.2802 (.6384)		-1.1666 *
Strategic Partner (1=yes 0=no)		1.3152 **** (.1436)	1.2625 **** (.2227)
Log Number of Employees			.0347 (.0747)
Ownership (1=foreign 0=local)			.3245 * (.196)
Number of Visits			.0065 (.0273)
Months with Nike			-.0010 (.0017)
Nike Percentage			.7229 ** (.3121)
Rule of Law			-.0099 ** (.0050)
Apparel			.6684 ** (.3126)
Footwear			.7288 * (.4360)
Constant	-.6481 ***	-1.1594 ****	-.8849 (.8465)
Number of Observations	575	575	311
R-square		.15	.26
LR Chi2(1)/ LR Chi2(10)		85.97 ****	92.13 ****

<sup>28</sup> \* Statistically significant at the 0.10 level, \*\* at the 0.05 level, \*\*\* at the 0.01 level, \*\*\*\* at the 0.001 level. Standard Errors are in parentheses.

The probit models show that, in fact, there does appear to be some bias in the sample of factories that received a second audit. Strategic partners and factories that dedicated a larger proportion of their capacity to Nike are more likely to receive a second M-Audit. In fact, strategic partnership itself explains a big proportion (15%) of the variation in the likelihood of a second M-Audit. Moreover, factories located in countries with a lower rule of law index, or with weaker legal and regulatory systems, were also more likely to be re-audited. This suggests that the biases go in two different directions and thus, more or less cancel each other out. We know from our analyses of the first round of M-Audits that strategic partners usually perform better (have higher scores) than non-strategic partners. However, we also learned from the analyses of the first round of M-Audits that factories located in countries with weaker legal/regulatory systems and factories with a greater percentage of capacity dedicated to Nike, also, in general, perform worse on the M-Audit. Interviews with senior compliance managers at Nike indicate that the company chose to concentrate its resources on both high risk factories and suppliers with which it hopes to develop more long-lasting relationships.

### **The Change of Compliance Rating (CR)**

To better assess whether or not factory conditions were improving over time, we also examined the Compliance Ratings that all Nike suppliers are assigned. Because these ratings are easier to understand, they are used more often by Nike managers to guide production and sourcing decisions. The goal of the Compliance Rating program is to develop a tool that integrates compliance and sourcing decisions. A grade (A-D) is given by the local compliance managers and is based on all audits and factory visits by Nike staff as well as by the FLA. (See Appendix 2 for an explanation of the grading system.) The most recent Compliance Rating

Database, in which over 700 factories have more than one CR rating, enables us to examine the change in workplace conditions as measured by the CR grade given to the factory over time. To assess change over time in the compliance rating, we first describe the overall ratings of all Nike suppliers and how they have evolved over time. We then compare the first grade ever recorded with the very latest compliance grade recorded.

Tables 9 and 10 present summary statistics for the CR grades assigned to Nike’s suppliers. There are 3,686 observations of CR ratings in total, with half of the factories receiving a B grade. From 2001 to 2004, the average CR score declined, and that was most obvious in 2003 and 2004.

**Table 9: Summary of CR-Rating by Score**

<b>Score</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>Total</b>
Counts	571	1,945	699	471	3,686
Percentage	15.49	52.77	18.96	12.78	100

**Table 10: Summary of CR Grading by Year<sup>29</sup>**

<b>Year</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>
Mean of CR Score	2.986	2.948	2.545	2.584
# of Observations	220	1132	1004	1323

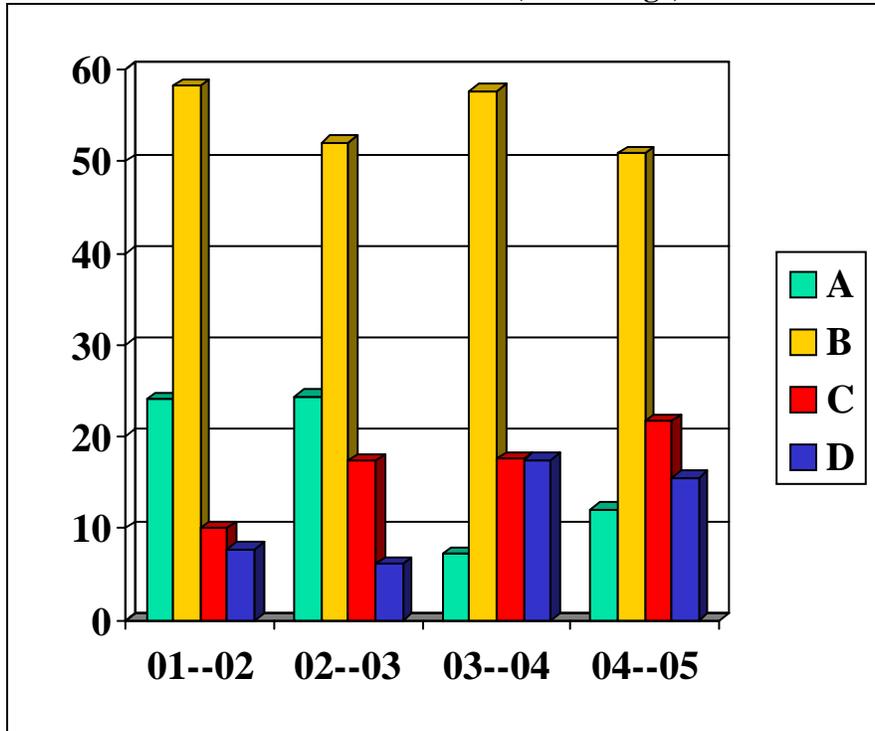
Figure 5 illustrates the shift in the distribution of grades over time. In 2003 and 2004, the numbers of factories that received an A grade dropped dramatically while the number of factories receiving a C or D grade increased. However, please note that the pools that received the CR scores were different from year to year. Thus, based on these aggregate data, we do not

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<sup>29</sup> In order to translate the letter grades into numerical scores, we assigned values to each letter: A=4, B=3, C=2, D=1.

know whether the overall CR performance of Nike’s supply base worsened over time or if Nike has paid increasing attention to poor performing factories.

**Figure 5: The Distribution of CR Grades (Percentage) from 2001 to 2004.**



However, when examining the **same factories** over time (that is comparing their very first CR grade with their last grade) a more pessimistic picture emerges. Almost half of the factories did not experience any change in their compliance rating and over 36% experienced a decrease in their CR grade. In other words, according to Nike’s own Compliance Rating system, workplace conditions in almost 80% of its suppliers have either remained the same or worsened over time. See Table 11.

**Table 11: Changes in CR Grades Over Time<sup>30</sup>**

<b>Change in CR Rating</b>	<b>Freq.</b>	<b>Percent</b>
-3 (Down by 3 degrees)	20	2.62
-2 (Down by 2 degrees)	74	9.70
-1 (Down by 1 degree)	181	23.72
0 (No change)	323	42.33
1 (Up by 1 degree)	116	15.20
2 (Up by 2 degrees)	42	5.50
3 (Up by 3 degrees)	7	0.92
<b>Total</b>	<b>763</b>	<b>100</b>

Thus we see that on one measure, the M-Audit score, factory workplace conditions appear to be improving over time while on another measure (also generated internally by Nike’s own staff), workplace conditions are either stagnant or getting worse. One possible explanation for this apparently contradictory finding is that the two tools are measuring different things. In other words, the M-Audit privileges documentary evidence and company records whereas the Compliance Rating program is a more subjective appraisal of factory management’s attitudes towards these issues. Interviews with Nike compliance staff suggest that these two tools are, in fact, picking up different facets of the factory reality. Another possible explanation for the divergence in results between these two compliance programs is that suppliers are “learning” how to perform on the M-Audit by better preparing their documents and perhaps even coaching their workers but that Nike’s local compliance staff is not fooled and thus are grading suppliers

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<sup>30</sup> The change in CR rating is calculated as the score from the most recent audit minus the score from the earliest audit.

on what is actually happening on the factory floor. This too was suggested to us in interviews with compliance managers in the field and at Nike headquarters.

## **Concluding Considerations**

Notwithstanding all the controversies over corporate codes of conduct and private voluntary regulation, monitoring for compliance with codes of conduct is the principal way both global corporations and labor rights NGOs currently seek to address poor working conditions in global supply chain factories. Using a unique data set based on factory audits of over 800 of Nike's suppliers located in 51 different countries, this paper has sought to analyze the effectiveness of this approach. There are several limitations to our data. The first is that they are based on internal, company-based audits and thus may be biased in favor of the company. As our analyses have illustrated, these data nonetheless reveal very serious issues with working conditions and labor rights among Nike's suppliers. A second limitation to our data is that they pertain only to one company, Nike Inc. However, given the central and highly controversial place Nike occupies in the debates over globalization and labor standards, we feel that Nike serves as an important "crucial case" through which to explore the effect of monitoring on workplace conditions.<sup>31</sup>

The data and analyses presented above show that working conditions at Nike's suppliers' (as indicated by a factory's score on the M-Audit) are quite mixed. Some factories appear to be in or close to full compliance with Nike's code of conduct while others appear to suffer from persistent problems with wages, work hours and health and safety issues. This variation in working conditions appears to be the result of **country effects** (the ability of the labor

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<sup>31</sup> For more on "crucial case" methodology, see Eckstein (1991).

inspectorate to enforce labor laws and standards in the country in which the factory is located), **factory characteristics** (the age and size of the factory) and the **relationship between Nike and the particular supplier** (whether or not the supplier is a strategic partner, how often Nike (non-compliance) staff visit and interact with the factory, and who else is sourcing product from the same factory).

The findings of this paper also suggest that notwithstanding Nike's very real interests in improving its image vis-à-vis these issues and the company's significant efforts and investments over the last decade to improve working conditions among its suppliers, monitoring alone appears to produce limited, and perhaps only mixed results. After years of developing ever more comprehensive monitoring tools, hiring growing numbers of internal compliance specialists, conducting hundreds and hundreds of factory audits, and working with external consultants and NGOs, analyses of Nike's own data suggest that conditions in some of its suppliers have improved somewhat but that in many of them, things have either remained stable or deteriorated. Interviews with other global brands, NGO representatives and leaders of the major multi-stakeholder initiatives indicate that Nike's experience with monitoring is by no means unique. In short, monitoring alone is not producing the significant and sustained improvements in workplace conditions that many had hoped it would. This has significant implications for company, NGO and government policy.

The above findings require greater analysis to better understand not simply their relational strength but more importantly, their causal linkages. Yet they also provide insights into (and ingredients for) what could be a different (although perhaps complementary) approach towards improving working conditions and labor rights in these factories. For example, if improved working conditions are the result of more stringent or capable state regulation and

monitoring, then proponents of international labor standards should focus their attention on helping developing countries build up this capacity. Likewise, if improved working conditions appear to be a by-product of more frequent and open interactions between the brands and their suppliers, and their assistance in improving production efficiencies and capabilities of their suppliers, then current arrangements which appear to be based on short-term contracts, arms-length relationships and ever-more sophisticated systems of policing and monitoring need to be re-thought.

Recall the positive relationship between the frequency with which Nike sourcing, production and quality personnel visited certain factories and the higher scores these same factories received on their M-Audits. During the field research for this project, we explored what might be behind this relationship. We found that some suppliers were collaborating with Nike personnel on introducing new quality improvement programs and/or lean manufacturing systems. This explains why these more technical and business-oriented staff (as opposed to the compliance specialists) were visiting these particular factories more often. As these particular suppliers improved the efficiency and quality of their own operations, they were better able to schedule their workload (hence, avoid excessive overtime) and increase the wages of their workers (sharing the efficiencies gains). Moreover, having invested tremendously in their workers in order to effectively operate their new production and quality improvement programs, managers at these factories were wary of mistreating them for fear that these highly skilled workers would leave and work for a competitor. Likewise, workers who have been trained to “stop the line” when they see a possible defect and/or work in more autonomous production cells, are also more likely to resist management abuses on the shop floor. These findings are further

developed in a companion paper (Locke and Romis, 2006) and appear to be corroborated by similar research on other global companies (Frenkel and Scott, 2002; O'Rourke and Sabel, 2006).

All of this suggests that global brands and labor rights NGOs would do well to complement their current emphasis on monitoring by providing suppliers technical and organizational assistance to tackle some of the root causes of their poor working conditions. Perhaps not all suppliers would be willing to collaborate with global brands and NGOs on these efforts but this could provide global brands with a justification to shift orders and consolidate production to certain, more efficient, cooperative, and perhaps even “ethical” suppliers. Some level of monitoring or compliance would still need to take place but perhaps this could be done in collaboration with and increasingly by developing country government authorities who could gain the capacity and legitimacy to exercise their rightful duty and enforce their own laws. This too could lead to all sorts of positive spill-over effects for the developing countries and their citizens.

Looked at in its full evolutionary context, the Nike case suggests a more systemic approach, one that combines external (countervailing) pressure – be it from the state, or unions, or labor-rights NGOs, comprehensive and transparent monitoring systems, and a variety of “management systems” interventions aimed at eliminating the root causes of poor working conditions, is required to promote improved labor standards and labor rights for the millions of workers employed in global supply chain factories. Nike was motivated to introduce a code of conduct and a monitoring system by the external pressures from NGOs and other advocacy groups. It took several years to develop its own internal standards, recruit and train a professional staff, and implement a monitoring system. The system provided the data needed to assess progress and identify areas needing further improvement. At the same time Nike’s efforts

to implement modern production and quality management practices served as a complement to its monitoring and labor standards' improvement efforts. The next phase in the evolutionary process is to address root causes in Nike's other business strategies and organizational processes.

This more systemic approach is precisely how previous issues (i.e., improving product quality, promoting occupational health and safety, redressing problems of equal opportunity in employment and promotion decisions) were tackled. In each of these prior cases, external pressures led to company-sponsored standards and compliance programs. The limited results of this initial response led to the adoption of new management systems that elevated and integrated these issues into the core operations of the business. Programs promoting basic compliance with OSHA and EEOC standards or even ever-greater demands for improved quality were replaced by new forms of work organization and human resource management systems that ensured not only more healthy and equitable workplaces but also new sources of competitive advantage for the firms embracing these policies.<sup>32</sup>

Improving labor standards in global supply chain factories will require a parallel journey. The hope is that this paper will provoke global companies, NGOs, governments, and even scholars (all of us) to take the first (collective) step down this path.

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<sup>32</sup> For more on the evolution of these practices, see Dobbin and Sutton (1998). The evolution of compliance with OSHA regulations is nicely described in Weil (1991; 1996). The evolution of the total quality movement is nicely described in Shiba et al (1993: Ch. 1 & 2), Cole (1999), and Weick(1999).

## **Appendix 1: Nike Code of Conduct**

### **Nike, Inc. was founded on a handshake**

Implicit in that act was the determination that we would build our business with all of our partners based on trust, teamwork, honesty and mutual respect. We expect all of our business partners to operate on the same principles.

At the core of the NIKE corporate ethic is the belief that we are a company comprised of many different kinds of people, appreciating individual diversity, and dedicated to equal opportunity for each individual.

NIKE designs, manufactures and markets products for sports and fitness consumers. At every step in that process, we are driven to do not only what is required by law, but what is expected of a leader. We expect our business partners to do the same. NIKE partners with contractors who share our commitment to best practices and continuous improvement in:

1. Management practices that respect the rights of all employees, including the right to free association and collective bargaining
2. Minimizing our impact on the environment
3. Providing a safe and healthy work place
4. Promoting the health and well-being of all employees

Contractors must recognize the dignity of each employee, and the right to a work place free of harassment, abuse or corporal punishment. Decisions on hiring, salary, benefits, advancement, termination or retirement must be based solely on the employee's ability to do the job. There shall be no discrimination based on race, creed, gender, marital or maternity status, religious or political beliefs, age or sexual orientation.

Wherever NIKE operates around the globe we are guided by this Code of Conduct and we bind our contractors to these principles. Contractors must post this Code in all major workspaces, translated into the language of the employee, and must train employees on their rights and obligations as defined by this Code and applicable local laws.

While these principles establish the spirit of our partnerships, we also bind our partners to specific standards of conduct. The core standards are set forth below.

### **Forced Labor**

The contractor does not use forced labor in any form -- prison, indentured, bonded or otherwise.

### **Child Labor**

The contractor does not employ any person below the age of 18 to produce footwear. The contractor does not employ any person below the age of 16 to produce apparel, accessories or equipment. If at the time Nike production begins, the contractor employs people of the legal working age who are at least 15, that employment may continue, but the contractor will not hire any person going forward who is younger than the Nike or legal age limit, whichever is higher.

To further ensure these age standards are complied with, the contractor does not use any form of homework for Nike production.

### **Compensation**

The contractor provides each employee at least the minimum wage, or the prevailing industry wage, whichever is higher; provides each employee a clear, written accounting for every pay period; and does not deduct from employee pay for disciplinary infractions.

### **Benefits**

The contractor provides each employee all legally mandated benefits.

### **Hours of Work/Overtime**

The contractor complies with legally mandated work hours; uses overtime only when each employee is fully compensated according to local law; informs each employee at the time of hiring if mandatory overtime is a condition of employment; and on a regularly scheduled basis provides one day off in seven, and requires no more than 60 hours of work per week on a regularly scheduled basis, or complies with local limits if they are lower.

### **Environment, Safety and Health (ES&H)**

The contractor has written environmental, safety and health policies and standards, and implements a system to minimize negative impacts on the environment, reduce work-related injury and illness, and promote the general health of employees.

### **Documentation and Inspection**

The contractor maintains on file all documentation needed to demonstrate compliance with this Code of Conduct and required laws; agrees to make these documents available for Nike or its designated monitor; and agrees to submit to inspections with or without prior notice.

Last updated March 2005

<http://www.nike.com/nikebiz/nikebiz.jhtml?page=25&cat=code>

Accessed June 21, 2006

## Appendix 2: Nike's Compliance Rating System

Grade	Compliance Rating Criteria	Description
<b>A</b>	No more than five minor issues outstanding on the Master Action Plan <i>and</i> no more than 20 percent of MAP items past due.	Non-compliance issues that do not reach levels defined as C or D issues (see below).
<b>B</b>	More than five minor issues, but no serious or critical issues outstanding on the MAP <i>and</i> no more than 30 percent of MAP items past due.	Non-compliance issues that do not reach levels defined as C or D issues (see below).
<b>C</b>	<b>One</b> or more C-level issues, but <i>no</i> D-level issues, outstanding on the MAP or more than 30 percent of MAP items past due.	<ul style="list-style-type: none"> <li>• Lack of basic terms of employment (contracts, documented training on terms, equal pay, discriminatory screening)</li> <li>• Non-compliance to local laws on treatment of migrant workers</li> <li>• Less-than-legal benefits not related to income security (e.g., leave)</li> <li>• Excessive hours of work: greater than 60 hours/week but less than 72 hours/week</li> <li>• Exceeding legal annual overtime work hour limit for 10 percent or more of the workforce</li> <li>• Not providing one day off in seven</li> <li>• Verbal or psychological harassment or abuse</li> <li>• Conditions likely to lead to moderate injury or illness to workers</li> <li>• Conditions likely to lead to moderate harm to the environment or community</li> </ul>
<b>D</b>	<b>One</b> or more D-level issues outstanding on MAP <i>or</i> Serious issues past due; or more than 40 percent of open MAP items past due.	<ul style="list-style-type: none"> <li>• Unwillingness to comply with Code standards</li> <li>• Denial of access to authorized Nike compliance inspectors</li> <li>• Falsification of records and coaching of workers to falsify information</li> <li>• Homework, or unauthorized sub-contracting</li> <li>• Underage workers</li> <li>• Forced labor: bonded, indentured, prison</li> <li>• Denial of worker rights to Freedom of Association where legal</li> <li>• Pregnancy testing</li> <li>• Confirmed physical or sexual abuse</li> <li>• Paying below legal wage</li> <li>• Denial of benefits tied to income security</li> <li>• No verifiable timekeeping system</li> <li>• Exceeding legal daily work hour limit or work in excess of 72 hours/week for 10 percent or more of the workforce</li> <li>• Not providing one day off in 14 days</li> <li>• Conditions that can lead to death or serious injury</li> <li>• Conditions that can lead to serious harm to the environment</li> </ul>

Source: Nike Corporate Responsibility Report: Part II. FY '04. p25. Accessed June 21, 2006.  
[http://www.nike.com/nikebiz/gc/r/fy04/docs/FY04\\_Nike\\_CR\\_report\\_pt2.pdf](http://www.nike.com/nikebiz/gc/r/fy04/docs/FY04_Nike_CR_report_pt2.pdf)

## References

- Amsden, Alice H. 1989. *Asia's Next Giant: South Korea and Late Industrialization*. New York: Oxford University Press.
- Baccaro, Lucio. 2001. *Civil Society, NGOs and Decent Work Policies: Sorting out the Issues*. International Labor Organization (International Institute for Labour Studies). Available at <http://www.ilo.org/public/english/bureau/inst/download/dp12701.pdf>.
- Bartley, Tim. 2005. "Corporate Accountability and the Privatization of Labor Standards: Struggles over Codes of Conduct in the Apparel Industry." in Harland Prechel, ed. *Politics and the Corporation, Volume 14 (Research in Political Sociology)*. Vol. 14. JAI Press. pp. 211-44.
- Brown, Dana L. 2005a. "Challenges and Opportunities for the Fair Labor Association in the post-MFA Period." Prepared under the supervision of Professor Richard Locke for The Fair Labor Association (FLA) Strategic Planning Meeting, July 26-27 at MIT Sloan School of Management, Cambridge, MA.
- \_\_\_\_\_. 2005b. "Cooperation without Trust? Reflections on the FLA's efforts to promote collaboration among its members and with other MSIs." Prepared under the supervision of Professor Richard Locke for The Fair Labor Association (FLA) Strategic Planning Meeting, July 26-27 at MIT Sloan School of Management, Cambridge, MA.
- Christensen, C. Roland and David C. Rikert. 1984. "Nike (A)." *Harvard Business School Case*, No. 9-385-025 (Oct 16), pp. 1-31.
- Cole, Robert E. 1999. "Market Pressures and Institutional Forces: The Early Years of the Quality Movement." in Robert E. Cole and W. Richard Scott, eds., *The Quality Movement and Organizational Theory*. Thousand Oaks: Sage Publications, Inc. pp. 67-88.
- Collier, Paul and David Dollar. 2002. *Globalization, Growth, and Poverty: Building an Inclusive World Economy*. Washington, DC: World Bank/Oxford University Press.
- Connor, Tim and Kelly Dent. 2006. *Offside! Labor Rights and Sportswear Production in Asia*. (Last Updated: May 2006). Oxfam International. Available at [http://www.oxfam.org/en/policy/briefingnotes/offside\\_labor\\_report/](http://www.oxfam.org/en/policy/briefingnotes/offside_labor_report/).
- Dobbin, Frank and John R. Sutton. 1998. "The Strength of a Weak State: The Rights Revolution and the Rise of Human Resources Management Divisions." *American Journal of Sociology*. Vol. 104, No. 2 (September), pp. 441-76.

- Eckstein, Harry. 1991. "Case Study and Theory in Political Science." in Harry Eckstein, ed. *Regarding Politics: Essays on Political Theory, Stability, and Change*. Berkeley: University of California Press. pp. 117-76.
- Elliott, Kimberly Ann and Richard B. Freeman. 2003. *Can Standards Improve Under Globalization?* Washington, DC: Institute for International Economics.
- Esbenshade, Jill. 2004. *Monitoring Sweatshops: Workers, Consumers and the Global Apparel Industry*. Philadelphia: Temple University Press.
- Frenkel, Stephen J. and Duncan Scott. 2002. "Compliance, Collaboration, and Codes of Labor Practice: The Adidas Connection." *California Management Review*. Vol. 45, No. 1 (Fall), pp. 29-49.
- Fung, Archon, Dara O'Rourke, and Charles F. Sable. 2001. *Can We Put an End to Sweatshops?: A New Democracy Form on Raising Global Labor Standards*. Boston: Beacon Press.
- Jenkins, Rhys. 2001. *Corporate Codes of Conduct: Self-Regulation in a Global Economy*. (Last Updated: April 2001). United Nations Research Institute for Social Development (UNRISD). Available at <http://www.eldis.org/static/DOC9199.htm>.
- Kaufmann, Daniel, Aart Kraay, and Massimo Mastruzzi. 2004. *Governance Matters III: Governance Research Indicator Country Snapshot (GRICS): 1996-2002*. (Last Updated: April 5, 2004). The World Bank. Available at <http://www.worldbank.org/wbi/governance/pubs/govmatters3.html>.
- Kochan, Thomas A., Harry C. Katz, and Robert B. McKersie. 1986. *The Transformation of American Industrial Relations*. New York: Basic Books.
- Korzeniewicz, Miguel. 1994. "Commodity Chains and Marketing Strategies: Nike and the Global Athletic Footwear Industry." in Gary Gereffi and Miguel Korzeniewicz, eds., *Commodity Chains and Global Capitalism*. Westport: Greenwood Press. pp. 247-66.
- Locke, Richard M. 2003. "The Promise and Perils of Globalization: The Case of Nike, Inc." in Thomas A. Kochan and Richard Schmalensee, eds., *Management: Inventing and Delivering Its Future*. Cambridge, MA: The MIT Press. pp. 39-70.
- Locke, Richard M. and Monica Romis. 2006. "Beyond Codes of Conduct: Work Organization and Labor Standards in Two Mexican Garment Factories." Working Paper, MIT.
- Mamic, Ivanka. 2004. *Implementing Codes of Conduct: How businesses manage social performance in global supply chains*. Geneva: International Labor Organization.

- Moran, Theodore H. 2002. *Beyond Sweatshops: Foreign Direct Investment and Globalization in Developing Countries*. Washington, D.C.: Brookings Institution Press.
- Murakami, Yasusuke. 1987. "The Japanese Model of Political Economy." in Kozo Yamamura and Yasukichi Yasuba, eds., *The Political Economy of Japan: The Domestic Transformation*. Vol. 1. Stanford: Stanford University Press. pp. 33-90.
- Nadvi, Khalid and Frank Wältring. 2004. "Making Sense of Global Standards." in Hubert Schmitz, ed. *Local Enterprises in the Global Economy: Issues of Governance and Upgrading*. Northampton: Edward Elgar Publishing.
- National Research Council. 2004. *Monitoring International Labor Standards: Techniques and Sources of Information*. Washington, D.C.: The National Academies Press.
- National Sporting Goods Association. 2005. Available at [www.sbrnet.com](http://www.sbrnet.com).
- Nike, Inc. 2005. *FY04 Corporate Responsibility Report*. (Last Updated: March 2005). Nike, Inc. Available at <http://www.nike.com/nikebiz/nikebiz.jhtml?page=29&item=fy04>.
- O'Rourke, Dara. 1997. *Smoke from a Hired Gun: A Critique of Nike's Labor and Environmental Auditing in Vietnam as Performed by Ernst & Young*. (Last Updated: November 10, 1997). Transnational Resource and Action Center. Available at <http://nature.berkeley.edu/orourke/PDF/smoke.pdf>.
- \_\_\_\_\_. 2003. "Outsourcing Regulation: Analyzing Nongovernmental Systems of Labor Standards and Monitoring." *Policy Studies Journal*. Vol. 31, No. 1 (February), pp. 1-30.
- O'Rourke, Dara and Charles F. Sable. 2006. "Lean or Clean?: Evaluating Global Supply Chains." Unpublished Manuscript, University of California at Berkeley.
- Petrecca, Laura and Theresa Howard. 2005. "Adidas-Reebok merger lets rivals nip at Nike's heels." *USA Today*, August 4, B1.
- Piore, Michael J. 2005. "Looking for Flexible Workplace Regulation in Latin America and the United States." Conference paper for Workshop on Labour Standards Application: A Compared Perspective, November 28-30, Buenos Aires, Argentina.
- Piore, Michael J. and Charles F. Sable. 1984. *The Second Industrial Divide: Possibilities for Prosperity*. New York: Basic Books.
- Pruett, Duncan. 2005. *Looking for a Quick Fix: How Weak Social Auditing is Keeping Workers in Sweatshops*. (Last Updated: November 2005). Clean Clothes Campaign. Available at [http://www.cleanclothes.org/ftp/05-quick\\_fix.pdf](http://www.cleanclothes.org/ftp/05-quick_fix.pdf).

- Rodriguez-Garavito, Cesar A. 2005. "Global Governance and Labor Rights: Codes of Conduct and Anti-Sweatshop Struggles in Global Apparel Factories in Mexico and Guatemala." *Politics Society*. Vol. 33, No. 2 (June 1), pp. 203-333.
- Rosenzweig, Philip M. 1994. "International Sourcing in Athletic Footwear: Nike and Reebok." *Harvard Business School Case*, No. 9-394-189 (Jul 14), pp. 1-17.
- Sable, Charles F. 1994. "Learning by Monitoring: The Institutions of Economic Development." in Neil J. Smelser and Richard Swedberg, eds., *The Handbook of Economic Sociology*. Princeton: Princeton University Press. pp. 137-65.
- Schrage, Elliot J. 2004. *Promoting International Worker Rights through Private Voluntary Initiatives: Public Relations or Public Policy ?* (Last Updated: January 2004). University of Iowa Center for Human Rights (UICHR). Available at [http://www.uiowa.edu/~uichr/publications/documents/gwri\\_report\\_000.pdf](http://www.uiowa.edu/~uichr/publications/documents/gwri_report_000.pdf).
- Schrank, Andrew. 2005. "Professionalization and Probity in the Predatory State: Labor Law Enforcement in the Dominican Republic." Paper presented for the MIT Institute for Work and Employment Relations Seminar, February 8, Cambridge, MA.
- Seidman, Gay W. 2003. "Monitoring Multinationals: Lessons from the Anti-Apartheid Era." *Politics & Society*. Vol. 31, No. 3 (September), pp. 381-406.
- Shiba, Shoji, Alan Graham, and David Walden. 1993. *A New American TQM: Four Practical Revolutions in Management*. Cambridge: Productivity Press Inc.
- Smith, Gare and Dan Feldman. 2003. *Company Codes of Conduct and International Standards: An Analytical Comparison. Part I of II: Apparel, Footware and Light Manufacturing; Agribusiness; Tourism*. (Last Updated: October 2003). The World Bank. Available at [http://siteresources.worldbank.org/INTPSD/Resources/CSR/Company\\_Codes\\_of\\_Conduct.pdf](http://siteresources.worldbank.org/INTPSD/Resources/CSR/Company_Codes_of_Conduct.pdf).
- Strasser, J.B. and Laurie Becklund. 1991. *Swoosh: The Unauthorized Story of Nike and the Men Who Played There*. San Diego: Harcourt Brace Jovanovich.
- Verité. 2004. *Excessive Overtime in Chinese Supplier Factories: Causes, Impacts, and Recommendations for Action*. (Last Updated: September 7, 2004). Verité. Available at <http://www.verite.org/news/Excessiveovertime>.
- Weick, Karl E. 1999. "Quality Improvement: A Sensemaking Perspective." in Robert E. Cole and W. Richard Scott, eds., *The Quality Movement and Organizational Theory*. Thousand Oaks: Sage Publications, Inc. pp. 155-75.

Weil, David. 1991. "Enforcing OSHA: The Role of Labor Unions." *Industrial Relations*. Vol. 30, No. 1 (Winter), pp. 20-36.

\_\_\_\_\_. 1996. "If OSHA is so Bad, Why is Compliance so Good?" *RAND Journal of Economics*. Vol. 27, No. 3 (Autumn), pp. 618-40.

\_\_\_\_\_. 2005. "Public Enforcement/Private Monitoring: Evaluating a New Approach to Regulating the Minimum Wage." *Industrial & Labor Relations Review*. Vol. 58, No. 2 (January), pp. 238-57.

Zadek, Simon. 2004. "The Path to Corporate Responsibility." *Harvard Business Review*. Vol. 82, No. 12 (Dec 1), pp. 125-32.