Improving the Conditions of Workers?

Minimum Wage Legislation and Anti-Sweatshop Activism

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I. Introduction

For many concerned citizens and consumers, international labor standards have a strong intuitive appeal as a remedy to address poor working conditions and low wages in developing countries. The underlying rationale is straight-forward: if we could pressure multinational corporations to significantly improve the working conditions and wages for unskilled workers in the developing world, we would not only improve the lives of hundreds of millions of the poorest workers, but companies operating in developed countries would no longer be forced to compete "unfairly" with developing country manufacturers who can draw on unlimited pools of cheap labor.

Others, including Jagdish Bhagwati at Columbia University, have argued that efforts to impose a "living wage" or improve working conditions in developing countries may lead to higher labor costs, which could in turn hurt the very workers these movements seek to protect. How? Companies may decrease employment, relegating these workers to even worse jobs or no jobs at all. Nicholas Kristof, editorialist for the New York Times, is probably the most visible proponent of this view. Kristof argues that what the world needs is not fewer sweatshops but more since they offer the only way out of crippling rural poverty for hundreds of millions of the world's poorest workers.[1]

Hand in hand with the rising interest in labor standards, many labor rights activists have turned to public relations campaigns that target multinational companies with strong name-brand recognition in order to pressure them to improve the conditions of their workers. Corporate giants such as Nike, Reebok, Adidas, and the Gap have all become

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[1] For another view that suggests that anti-sweatshop activism is bad for workers, see the work by the Academic Consortium on International Trade (ACIT) at www.fordschool.umich.edu/rsie/acit.

the focus of extremely well-coordinated ad campaigns and consumer boycotts that have spread throughout hundreds of college campuses. Surprisingly, however, there has been almost no research that analyzes how anti-sweatshop campaigns have affected the very workers that they are designed to assist.

This study is the first (we are aware of) that attempts to answer whether anti-sweatshop activism actually helps or harms workers in a developing country. We use data on Indonesian manufacturing from 1990-1996 to examine the extent to which anti-sweatshop activism affected wages and employment in districts where Nike, Reebok, Adidas, and other brand-name plants were located. We also compare these changes to changes brought about through the national Indonesian minimum wage legislation that affected all regions and all firms. This enables us to compare the effects (on both wages and employment) of government-mandated wage improvements with the effects of the more unconventional tactic of anti-sweatshop activism. The analysis ends in 1996 because the currency crisis that erupted in 1997 makes it almost impossible to disentangle macro-economic shocks from any policies targeted at the labor market.

Indonesia presents an ideal case study for two reasons. First, anti-sweatshop campaigns targeted a number of firms in Indonesia where Nike, Reebok, and Adidas all have multiple factories and contractors. Second, the Indonesian government was the target of United States government efforts to improve labor market conditions through the threat of trade sanctions. Several times during the 1980s and 1990s, the US government threatened to withdraw special privileges extended to Indonesian exporters through the Generalized System of Preferences (GSP) unless the Indonesian government responded with steps to improve working conditions. The government's main response was to make minimum wages a central component of its labor market policies in the 1990s.

We begin in Section II by outlining the different pressures faced by firms operating in Indonesia. We also present broad trends in manufacturing activity. In Section III we discuss minimum wage compliance for domestic, foreign, and exporting firms in Indonesia. We show that foreign enterprises are generally more likely to comply with local labor laws than other types of enterprises. This is primarily because multinational enterprises tend to pay higher wages than local firms. In Indonesia, however, the textiles, footwear, and apparel sectors were an exception to that rule: in those areas, foreign enterprises paid very low wages even by Indonesian standards.

We then turn to an examination of the effects of anti-sweatshop activism on the wages in "sweatshop" sectors in Indonesia. Section IV compares the impact on workers of the minimum wage increases which resulted from US government pressure with the effects of anti-sweatshop activism, while Section V looks specifically at the employment effects of both types of wage pressure. Section V concludes.

II. Pressures Faced by Manufacturing Enterprises in Indonesia in the 1990s

Our research focuses on the labor market in Indonesia from the late 1990 to 1996 (before the Asian financial crisis). Between 1987 and 1995, American groups filed seven petitions with the U.S. Trade Representative (USTR) claiming that Indonesian labor rights laws were not being enforced by the Indonesian government and that Indonesia's preferential trade status under the Generalized System of Preferences (GSP) should be revoked (Caraway 2001). These petitions focused on seven major labor rights' violations: obstruction of the right to organize, restrictions on civil servants, the right to strike, the intervention of security authorities in labor disputes, restrictions of workers' access to appeal, limited sanctions against employers, and unfair restrictions on the right to work.

Under the GSP system, participating countries face lower duties (or no duties at all) on their goods that are exported to the United States. Therefore, maintaining GSP status is economically important for recipient nations, and the threat of revoking it can apply significant pressure on governments to change their policies. One legal basis for revoking GSP status is evidence of human rights violations or violation of labor laws.

When President Clinton came into office in 1992 the USTR agreed to review Indonesia's GSP status. Although the Indonesian government flatly denied any violations of labor rights, for the next two years the Indonesian government took small steps to improve the conditions of workers by easing restrictions on unions and promising to enforce higher minimum wages. Although wages were not an issue raised in the GSP petitions, the Indonesian government decided to make improvements on the wage front instead of more comprehensive labor rights reform that had been highlighted by the American labor rights groups. This also allowed the government to quell rising labor unrest since the major demand in the growing number of strikes during this time period (fueled by the reluctance of the Indonesian government to crack down while under greater international scrutiny) was compliance with the legally mandated minimum wage. Although the U.S. did not revoke Indonesia's GSP privileges and the USTR's review process waned after Clinton's 1994 visit to Indonesia, from 1990 through1996 the average daily minimum wage in Indonesia (valued in $US) rose almost 150 percent (see

Figure 1), and the Indonesian government continued to issue promises to more strictly enforce minimum wage compliance.

At the same time as the minimum wage was soaring, Indonesia's entry into international markets also increased dramatically (See Figure 2). The manufacturing census shows that the percentage of manufactured output that was exported almost doubled between 1990 and 1996, from approximately 17 percent to 32 percent of final sales. In addition, the presence of foreign investors also increased. The percentage of manufacturing output accounted for by foreign firms rose from 13 percent of output in 1990 to 21 percent of total manufacturing output in 1996.

While all of this was occurring, the conditions of workers in Indonesia received increased media attention, and the anti-sweatshop movement gained significant momentum, particularly in the United States. Indonesia is home to factories that subcontract to some of America's most popular brand name footwear and apparel companies, such as Nike, Adidas, and Reebok. The mid-1990s witnessed the apex of the anti-sweatshop movement (Bullert 2000). Must of the focus on Indonesia (and Nike in particular) was initiated by Jeff Ballinger, who was awarded consecutive grants from U.S.A.I.D. to study the situation of Indonesian workers at Nike plants in the late 1980s and early 1990s. In 1992 Harper's magazine published a short piece by Ballinger entitled "The New Free-Trade Heel: Nike's Jump on the Back of Asian Workers." In 1993 CBS broadcast a report on the plight of Nike workers in Indonesia featuring Ballinger, while in 1994 many periodicals, including *The New Republic, Rolling Stone, The New York Times, Foreign Affairs,* and *The Economist* also ran articles criticizing Nike's labor practices (Locke 2003).

Figure 3 shows the number of articles in major newspapers just on Indonesia and "sweatshops" or Indonesia and "child labor" from a LexisNexis search for the years 1990-1996. Whereas the number of articles was essentially zero in 1990 they steadily increased, peaking in 1996. Figure 4 shows the number of articles in major newspapers around the world on "sweatshops" and "child labor" during this same period. The pattern is quite similar: while there were a relatively small number of articles in 1990, the volume of articles steadily increased to 1996.

In summary, during the 1990s Indonesia simultaneously experienced both inward pressure to increase wages (the increased national minimum wage) and direct external pressure to improve wages as well as working conditions (from anti-sweatshop activists). Most theories of labor markets would suggest that this upward pressure on wages and conditions of work could make labor more costly to employers and reduce the demand for labor, possibly leading to less employment. Our research decomposes the relative effects of these two forms of wage pressure on both average wages for (primarily low-wage) Indonesian workers and employment in Indonesia during this time period[2].

III. Minimum Wage Compliance Among Foreign, Exporters, and Domestic Firms in Indonesia

[2] The data for all of the analysis that follows comes from the annual manufacturing survey of Indonesia collected and compiled by the Indonesian government's statistical agency BPS (Badan Pusat Statistik). The completion of this survey is mandatory under Indonesian law and therefore the data captures almost the entire population of Indonesian manufacturing firms; which ranged from approximately 13,000 in 1990 to over 18,000 in 1999. The survey includes over 400 questions in any given year, the large majority of which remain constant although in certain periods additional questions are included and others removed. Over the ten year period there is an average of 4.5 observations per firm, reflecting the fact that some firms go out of business while others enter.

We begin by identifying broad trends in minimum wage compliance in Indonesia from 1990 through 1996. Using the plant-level data for Indonesia, we calculated average production worker wages relative to the statutory minimum from 1990 through 1996[3]. Since the minimum wage technically only applies to base wages, we computed compliance by using the plant's average wage, which is defined as basic annual monetary compensation divided by the number of workers. One shortcoming of this approach, which could only be addressed using employer-employee matched data, is that there could be a bias in average wages if new workers are paid less than existing ones. This could be a significant problem in growing establishments. However, the evidence suggests that the spread in wages between different types of unskilled workers became quite narrow due to the growing importance of the minimum wage.

Figure 5 compares compliance with minimum wage laws for firms with and without foreign ownership. As indicated in Figure 5, the percentage of domestic firms paying the minimum wage to production workers ranged from around 63 percent in 1990, to a low of less than 40 percent in 1995[4]. In the mid-1990s, significantly less than half of all domestic enterprises paid an average wage to production workers which exceeded the statutory minimum. Compliance rates for foreign firms during the mid-1990s were nearly double those for domestic enterprises. While less than 40 percent of domestically owned enterprises paid production workers average wages which exceeded the minimum wage in 1995, 70 percent of foreign firms did. At the beginning of the decade, almost 90

[3] The term "production worker" refers to unskilled workers, and "non-production" to skilled workers.
[4] Given that Indonesia has minimum wage laws there would appear to be an incentive for firms to exaggerate wages in order to feign compliance. However, whether due to ignorance of these laws or a lack of enforcement a very large percentage of firms reported wages significantly below the minimum for a number of years. These estimates of compliance are consistent with other studies which examine compliance with the minimum wage in Indonesia, including a study by the Indonesian SMERU Research Institute (2001) and Alatas and Cameron (2003).

percent of all foreign enterprises paid average wages which equaled or exceeded the statutory minimum. While compliance rates fell in the mid-1990s when real minimum wages soared, foreign firms still complied with minimum wage laws at rates 30 percent higher than domestic firms.

Figure 6 compares the extent of minimum wage compliance across plants that exported a percentage of their sales abroad versus those oriented exclusively towards the domestic market. Over the entire time period the percentage of exporters which complied with the minimum wage laws for production workers was 15 to 20 percentage points higher than for plants which only produced for the domestic market.

These broad trends suggest that multinationals and other firms exposed to international competition were more likely to comply with minimum wage legislation. However, none of the trends outlined above control for firm characteristics such as size, age of the plant, the level of technology, or worker characteristics such as gender or education, which oversimplifies the analysis. In our analysis that controls for these factors (Harrison and Scorse 2004) we still found that foreign and exporting firms were more likely to comply with the minimum wage. Our research suggests that if a foreign owner were to take over a domestic enterprise, compliance with minimum wage legislation for production workers would increase by 20 percent. We found that an exporting firm was 6 percent more likely to comply with minimum wage legislation for production workers than a non-exporter.

Unsurprisingly, the higher rates of compliance with the minimum wage for foreign and exporting firms correspond to overall higher wages paid by foreign and exporting firms. The first three columns of Table 1 show the average wages for firms outside of textiles, footwear, and apparel (TFA) in Indonesia in 1990 and 1996, as well as the change. The wages paid by foreign firms were on average more than three times those paid by domestic firms in 1990. For exporters, average wages were more than 70 percent higher than domestic firms in 1990.

In summary, foreign and exporting firms had overall significantly higher rates of compliance with the minimum wage in Indonesia during the period 1990-1996, and also paid significantly higher wages. We now look more closely at the textile, footwear, and apparel (TFA) factories, where wages were amongst the lowest in all of Indonesia in the early 1990s.

IV. The Effect of Anti-Sweatshop Activism on Wages in Indonesia

Average annual wages in Indonesia during the period 1990 to 1996 are reported in Table 1; all wages are in 1996 U.S. constant dollars. Column (1) of Table 1 shows that between 1990 and 1996, annual production worker wages in domestic enterprises outside of textiles, footwear and apparel (TFA) increased from about 483 US dollars to 661 US dollars. Column (2) reports wages for foreign-owned enterprises not in TFA sectors, while column (3) reports wages for non-TFA exporters. In 1990, non-TFA firms with foreign equity paid more than three times the wages of domestic enterprises. By 1996, however, the gap had decreased: foreign firms paid only about two and half times as much as domestic enterprises in the non-TFA sectors. Exporters also paid higher wages than firms producing solely for the domestic market: about 70 percent more in 1990, but only 40 percent more in 1996.

The story is completely different for firms in textiles, footwear and apparel (TFA). Columns (4) through (6) report average wages for domestic, foreign, and exporting TFA plants. The first thing worthy of note is that domestic TFA (column (4)) and domestic non-TFA (column (1)) plants paid remarkably similar wages. These results are reassuring because they suggest that the composition of workers across TFA and non-TFA plants was not too different. However, both foreign and exporting enterprises paid their unskilled workers significantly less in TFA plants than in other sectors. In 1990, workers in foreign TFA plants were paid half as much as workers at other foreign plants; exporters in TFA plants paid their workers 30 percent less than other exporters. These large differences were one of the primary factors that contributed to the focus of anti-sweatshop activists on workers in TFA plants. However, by 1996 the gap in wages between TFA and non-TFA plants had narrowed considerably, particularly among exporters.

The difference-in-difference (DID) is reported in columns (7) through (9). The DID technique makes it possible to isolates changes due to specific variables of interest from underlying trends, through the use of a control and a treatment group; in this case the TFA sectors is the treatment group and all other sectors are the control. The idea is that the *difference* in how these groups have changed over time can be attributed to specific differences between the control and the treatment groups. Using this technique, our results indicate that wage increases for TFA workers were significantly higher in exporting and foreign-owned establishments. In 1996, the difference in wages between exporting TFA and exporting non-TFA plants amounted to only 19 dollars per employee per year, and this difference—reported in row (2) column (9)—is not statistically significant. The gap between wages in foreign non-TFA firms and foreign TFA firms also narrowed, but by less: foreign non-TFA firms continued to pay about 650 dollars more per worker in annual salary in 1996 (row (2), column (8)). Although domestic TFA and domestic non-TFA plants continued to pay similar wages, domestic TFA plants received smaller wage increases than workers in the non-TFA sectors. This suggests that the wage benefits from anti-sweatshop activism were limited to workers in export-oriented or foreign-owned plants.

The results in Table 1 suggest very different patterns of wage growth for TFA plants in the 1990s; these are highlighted in Figure 7, which shows the changes in wages between 1990 and 1996 by foreign ownership, export status, and sector. While unskilled workers in other exporting and foreign owned plants generally received smaller wage increases than the rest of the manufacturing labor force, the *opposite* was true for workers in textiles, footwear, and apparel factories. One likely reason is that exporters and multinational firms outside of textiles and apparel factories already paid higher wages, and consequently did not have to increase wages as much to remain in compliance with minimum wage legislation. However, in TFA plants, unskilled wages grew 30 to 40 percent in real terms between 1990 and 1996.

This observation is striking: in only a few short years workers in some of the poorest paid sectors in Indonesia experienced extremely rapid wage growth. Given that it is unlikely that these workers experienced productivity increases at rates that could justify these wage increases, the question arises whether anti-sweatshop activism may have provided the pressure that led to these wage increases. As with the minimum wage compliance analysis above, in order to accurately address this question one must control for plant or worker characteristics across firms. Therefore, once again a multivariate regression analysis was necessary.

In order to accomplish this, we first had to create a variable to serve as a "proxy" for anti-sweatshop activism. We identified the districts throughout Indonesia where foreign and exporting TFA plants (e.g. Nike, Reebok, Adidas) were located that received media attention and were central to the anti-sweatshop campaigns. We then examined plants with foreign ownership and export status in these districts in order to identify the changes in wages in these "treatment" plants, controlling for all other factors that also influence wages.

We employed various regression specifications and the results were largely consistent throughout: *wages increased systematically more for exporting and foreign TFA plants in districts where activists concentrated their efforts*[5]. Real wages rose an additional 20 to 25 percent more between 1990 and 1996 for TFA foreign-owned plants and exporters in regions with activism relative to other foreign or exporting TFA firms. In addition, our results suggest that the increase in the real minimum wage accounted for an approximately 25 percent increase in real wages throughout the entire Indonesia manufacturing sector. We found no effect on the wages of skilled workers in foreign or exporting firms in these districts, indicating as predicted that the effects of activism were centered solely on the base wages of the lowest paid, unskilled workers.

In summary, the above analysis suggests that the combined effects of the minimum wage legislation and the anti-sweatshop campaigns led to as much as a 50

[5] The stronger wage increases documented for foreign plants and exporters in districts with anti-sweatshop activity did not, however, carry through to exiting plants. Plants that exit the sample were less likely to respond to both minimum wage pressures and to anti-sweatshop activism. Entrants suggest a mixed story. While exporters in districts with anti-sweatshop activity systematically increased wages across all specifications, increasing wages for foreign TFA plants is confined to the balanced panel.

percent increase in real wages and a 100 percent increase in nominal wages for unskilled workers in targeted exporting or foreign-owned plants. Below, we explore whether these wage gains resulted in employment losses or led plants to shut down operations in Indonesia.

V. The Employment Effects of Rising Wages in Indonesia

Standard economic theory predicts that minimum wages increases should lead to a fall in employment, based on simple supply and demand[6]. If this is the case, then mandated wage increases may benefit workers who retain their jobs, but also lead to increased unemployment, and therefore overall effects on employees is unclear. In Table 2, we repeat the type of analysis presented in Table 1 to examine the changes in employment in Indonesia during the period 1990-1996.

Columns (1) through (3) in Table 2 report changes in employment for plants outside of the textiles, footwear, and apparel sector. Columns (4) through (6) report employment changes in the textile, footwear, and apparel plants (TFA), and columns (7) through (9) report the "difference-in-differences" between 1990 and 1996. While employment in domestic TFA firms remained essentially constant, both the exporting and foreign-owned TFA plants *experienced very large increases in employment*. In row 3 columns (8) and (9), we see that exporting and foreign TFA plants increased employment by 300 to almost 500 more workers than foreign-owned and exporting plants in the non-TFA sectors. These results, which are displayed in Figure 8, suggest that the targeted

[6] For alternative theories on employment responses to minimum wage increases see Card and Krueger (1994)

activism centered on TFA enterprises did not appear to hurt employment, at least relative to the growth in employment in other sectors. In fact, Figure 8 makes clear that employment growth was significantly higher within exporting and foreign TFA plants, relative to other plants outside of that sector.[7]

However, our results indicate a strong negative impact of the minimum wage increase on employment growth. The doubling of the real value of the minimum wage was accompanied by a 12-18 percentage point decline in employment in Indonesia. This represents a high cost in terms of foregone employment. The only enterprises not affected by the rising minimum were small plants, defined as enterprises with fewer than 100 employees. One reason is that rates of compliance with the minimum wage legislation among small plants were much lower.

Although minimum wage increases were responsible for significant declines in employment across virtually all of Indonesian manufacturing, activism targeted at surviving textiles, footwear, and apparel was not. Trends in aggregate employment for TFA and non-TFA firms confirm this. In Figure 9[8], we show total unskilled employment in Indonesia during the sample period. Employment growth for the foreign and exporting TFA sectors not only rose more in percentage terms than for non-TFA firms, but foreign TFA firms did not experience any decline in employment during the entire sample period.

The rather surprising finding that both wages increased dramatically in the foreign and exporting TFA sectors as well as employment can be (partially) explained by the fact

[7] We repeated all of the regression specifications that we used to identify the sources of wage increases (as discussed in Section IV) and substituted the change in employment as the dependent variable in order to analyze the specifics sources of employment changes. With or without control variables, the results are largely consistent across specifications: there is no evidence that the differential wage increases among TFA foreign-owned firms and exporters led to employment declines. In fact, it is clear from Figure 9 that employment growth was generally higher for exporters and foreign enterprises, including those operating in districts where anti-sweatshop activists targeted Nike, Reebok, and Adidas subcontractors.
[8] The left Y-axis is for all firms and the right Y-axis is for TFA firms only.

that Indonesia is one of the lowest cost producers in the world, with labor costs only a small fraction of the total costs of production. To put things in perspective, a nominal wage increase of 100 percent implies employers would have to double wages of around 50 cents an hour to one dollar an hour. Given that Nike shoes commonly sell from 100-200 dollars, this increase in labor costs is not likely to have a large impact on profits. Labor costs typically account for less than 5 percent of the sales price of a Nike shoe. The costs to Nike were further cushioned by the fact that product demand was growing. Throughout the 1990s, as Nike increased spending on wages and expensive public relations campaigns to mend its image, its market share of the global footwear market rose by almost 50 percent (Locke 2003).

V. Conclusions

During the 1990s, anti-sweatshop activists increased their efforts to improve working conditions and raise wages for workers in developing countries. Indonesia, home to dozens of Nike, Reebok, and Adidas subcontractors, was a primary target for these activists. At the same time, the Indonesian government (prompted by the U.S. government) greatly increased the minimum wage throughout Indonesia. This paper analyzes the impact of these two different types of interventions on labor market outcomes in Indonesian manufacturing. The results suggest that the more than doubling of the real value of the minimum wage resulted in a 50 percent increase in real wages for unskilled workers between 1990 and 1996. The anti-sweatshop campaigns also had a significant impact on wages. Our research suggests that unskilled real wages increased by an additional 20 percent for exporters and multinational plants in sweatshop industries, defined as textiles, footwear, and apparel (TFA).

The combined effects of the minimum wage legislation and the anti-sweatshop campaigns led to a 70 percent increase in real wages and a 140 percent increase in nominal wages for unskilled workers at targeted exporting plants. One question which naturally arises is how this could possibly be achieved without adverse consequences for employment[9]. In our research, we tested whether these higher wages led firms to cut employment or shut down operations. Our results suggest that the minimum wage increases led to employment losses of as much as 10 percentage points for unskilled workers across all sectors in manufacturing. Surprisingly, however, anti-sweatshop activism did not have significant adverse effects on employment in the TFA sectors. The fact that wages soared and employment remained steady in textiles and apparel suggests that the anti-sweatshop movement had a positive impact on workers in these factories. This is a surprising and unintuitive result which suggests that anti-sweatshop activism in Indonesia was a "win-win" situation. Despite the rising labor costs during this period, increased market demand for textile, footwear, and apparel products led to net employment increases in foreign and exporting firms.

Since our study focuses on a relatively small time period, such gains could be temporary. Foreign firms such as Nike have already begun shifting production to other low-wage countries throughout Southeast Asia, such as China, Vietnam, and Cambodia. It also remains an open question as to whether activism targeted at other sectors in

[9] It is important to keep in mind that for a well-known brand name such as Nike, labor costs from developing country factories in 1998 only accounted for about 4 percent of the total cost of a ninety dollar shoe. The internet link is http://cbae.nmsu.edu/~dboje/NIKfaqcompensation.html This interview with Nike is from 1998, but is no longer part of Nike's "official" website.

Indonesia could be as successful. Wages in apparel and garment factories were very low prior to the onset of the anti-sweatshop campaigns. This meant that subcontractors for Nike were able to implement significant wage increases before even approaching the average wages across the Indonesian manufacturing sector. One implication is that anti-sweatshop activists correctly targeted some of the lowest paid workers in the country. Another key consideration is that many of the goods produced in Indonesia's TFA sectors ultimately end up in expensive retail markets in the U.S. and the EU, where profit margins are relatively large, brand identity is paramount, and the firms clearly have the financial resources with which to improve both labor conditions in their factories[10]. In industries where more firms compete for market share, where profit margins are smaller, and there is no brand recognition, anti-sweatshop campaigns may not be as effective.

[10] One only needs to witness the many millions of dollars Nike has spent on trying to improve worker conditions as well as the money it has spent on public relations campaigns to improve its image. Nike employs 85 people full-time to maintain Nike's compliance with environmental and labor standards in the countries where Nike operates and Nike workers inspect apparel and footwear factories on a daily or weekly basis (Locke 2003).

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Figure 1: Daily Minimum Wage in Indonesia 1990-1996 in $US

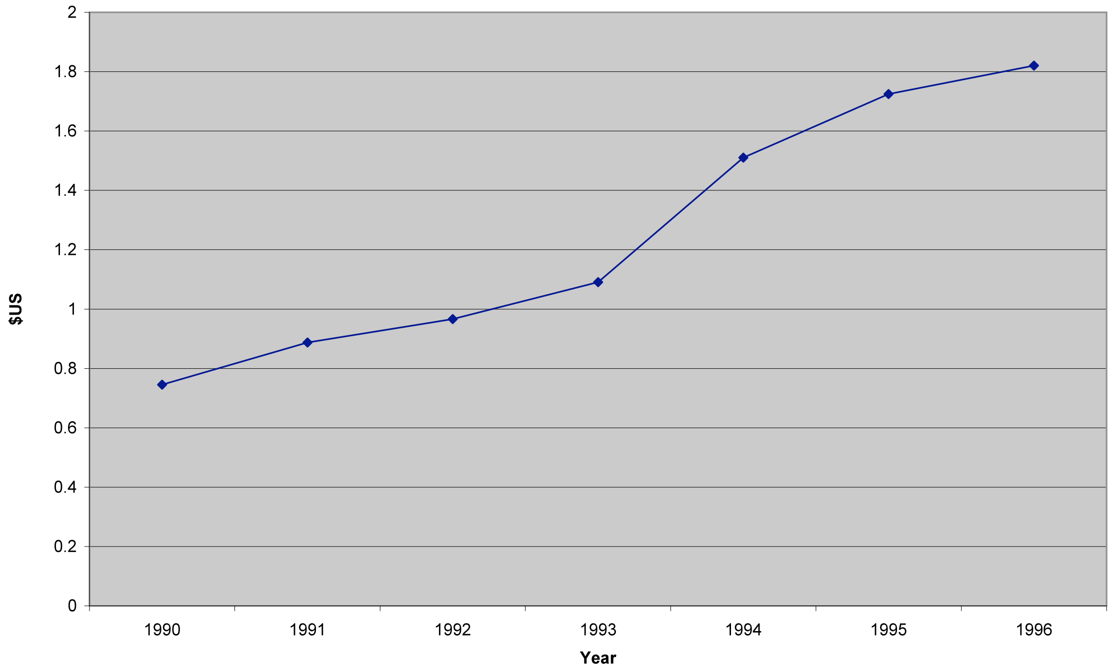

Figure 2:Output Generated by Foreign and Exporting Firms in Indonesia 1990-1996

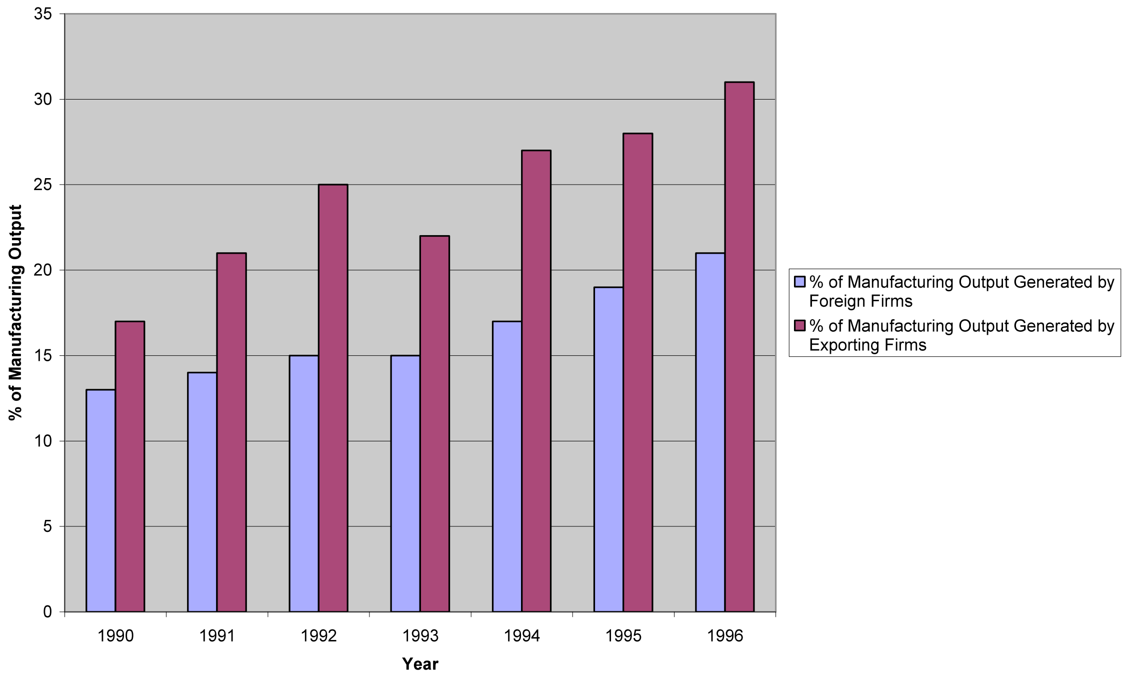

Figure 3:Articles about Indonesia and Sweathshops/Child Labor in Major Newspapers 1990-1996

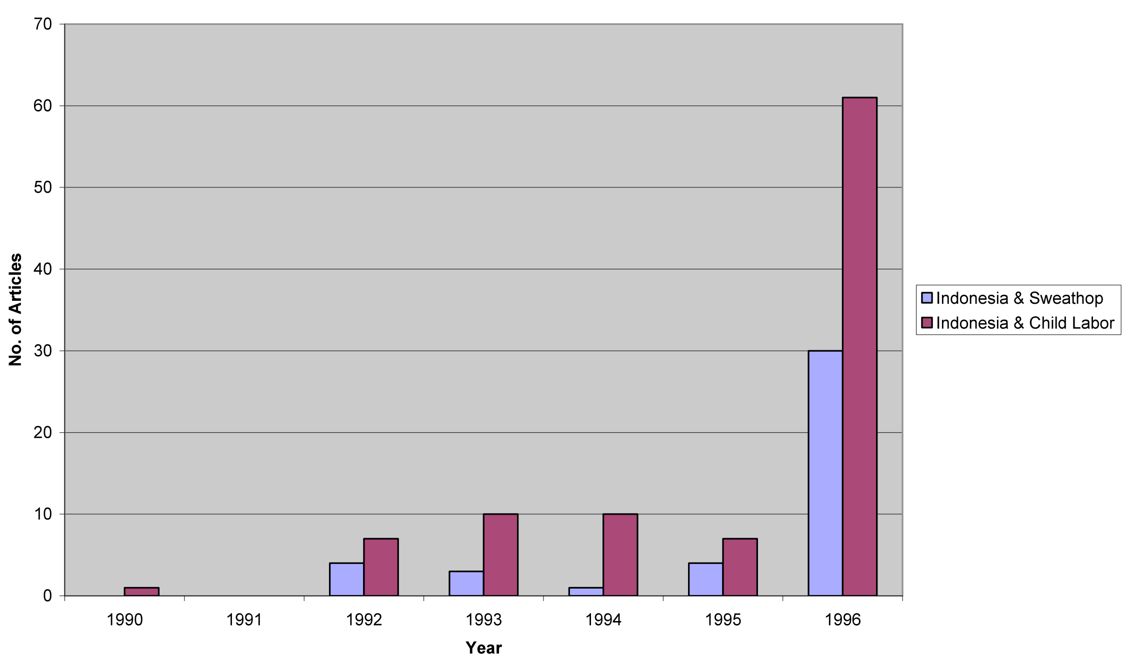

Figure 4:Articles about Sweatshops and Child Labor in Major Newspapers from 1990-1996

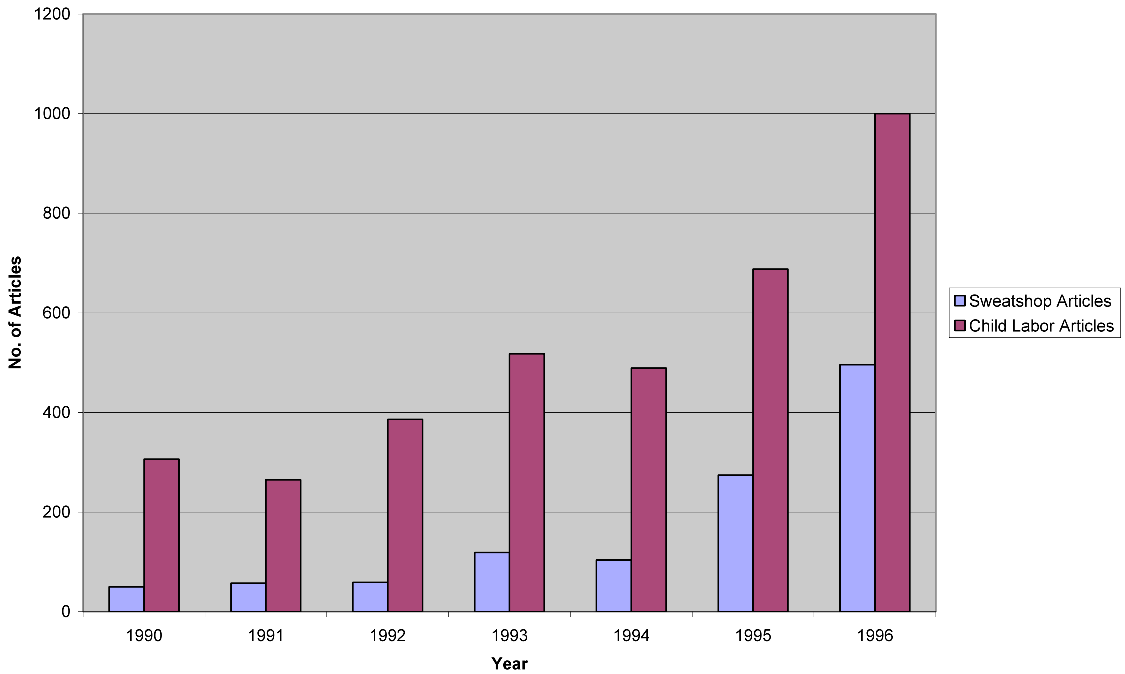

Figure 5: Firm Compliance with Minimum Wage Laws for Production Workers Based on Domestic or Foreign Ownership in Indonesia 1990-1996

Figure 6: Firm Compliance with Minimum Wage Laws for Production Workers Based on Export Status in Indonesia 1990-1996

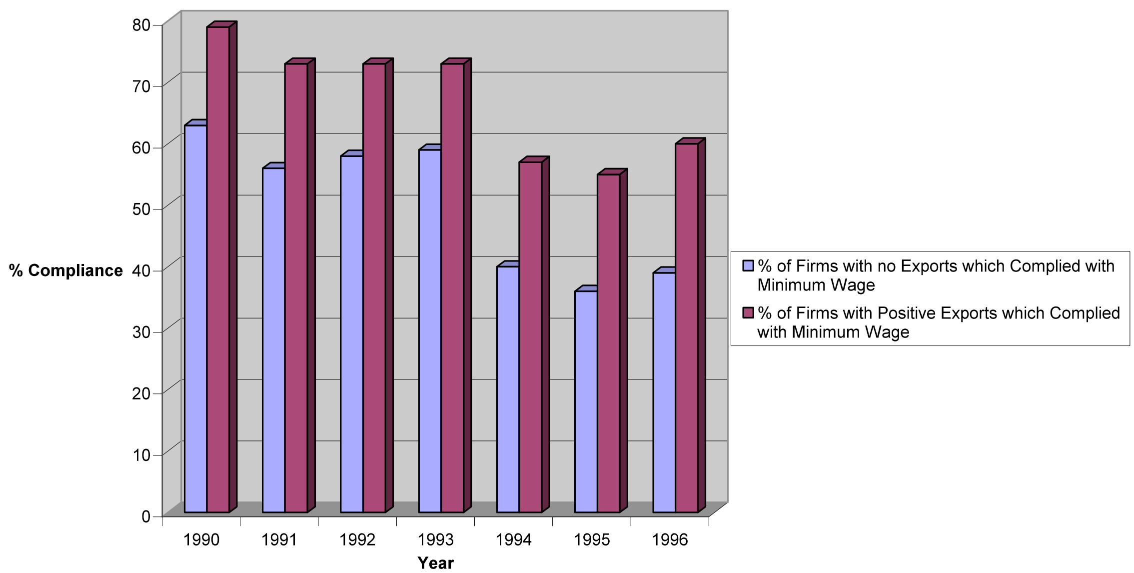

Figure 7: Average Change in Salary for Unskilled Workers in Indonesia between 1990 & 1996 ($US 1996 Constant) (By Foreign Ownership, Export Status, and Sector)

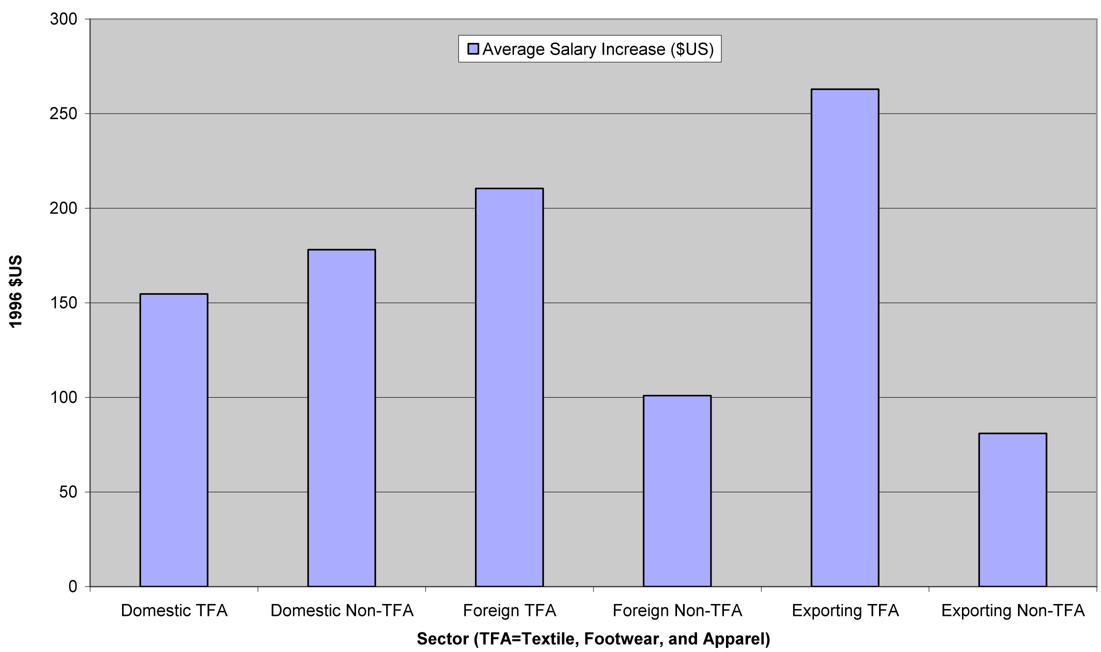

**Figure 8: Average Change in Employment for Indonesia Firms between 1990 & 1996
(By Foreign Ownership, Export Status, and Sector)**

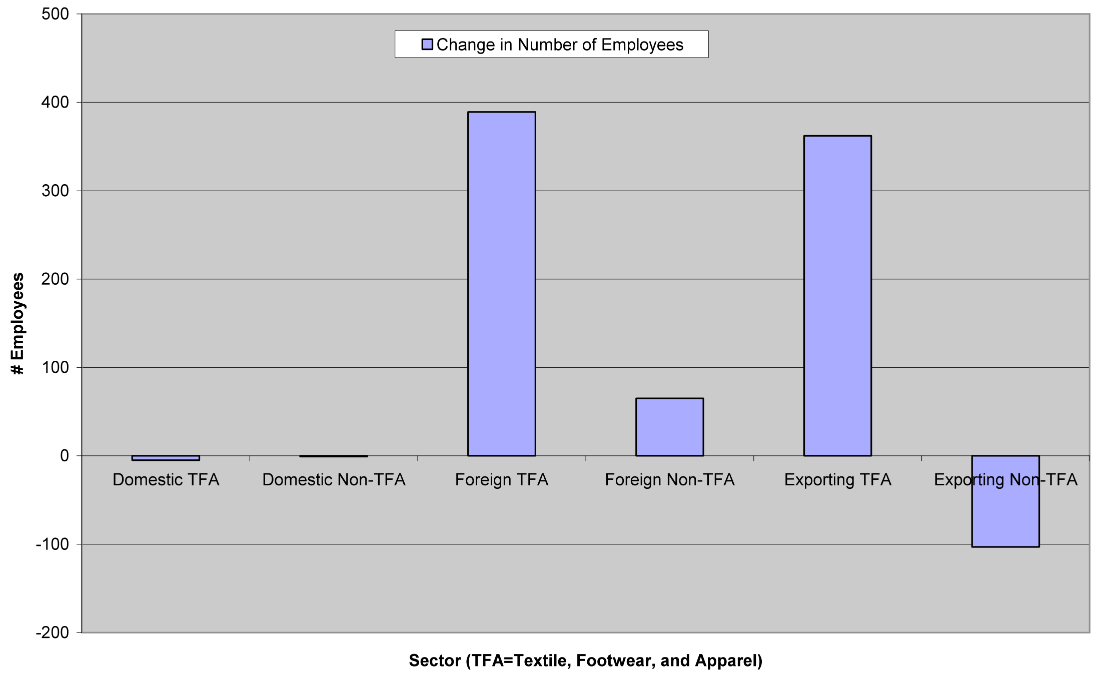

**Figure 9: Total Production Worker Employment 1990-1996
(TFA=Textile, Footwear, and Apparel Sectors)**

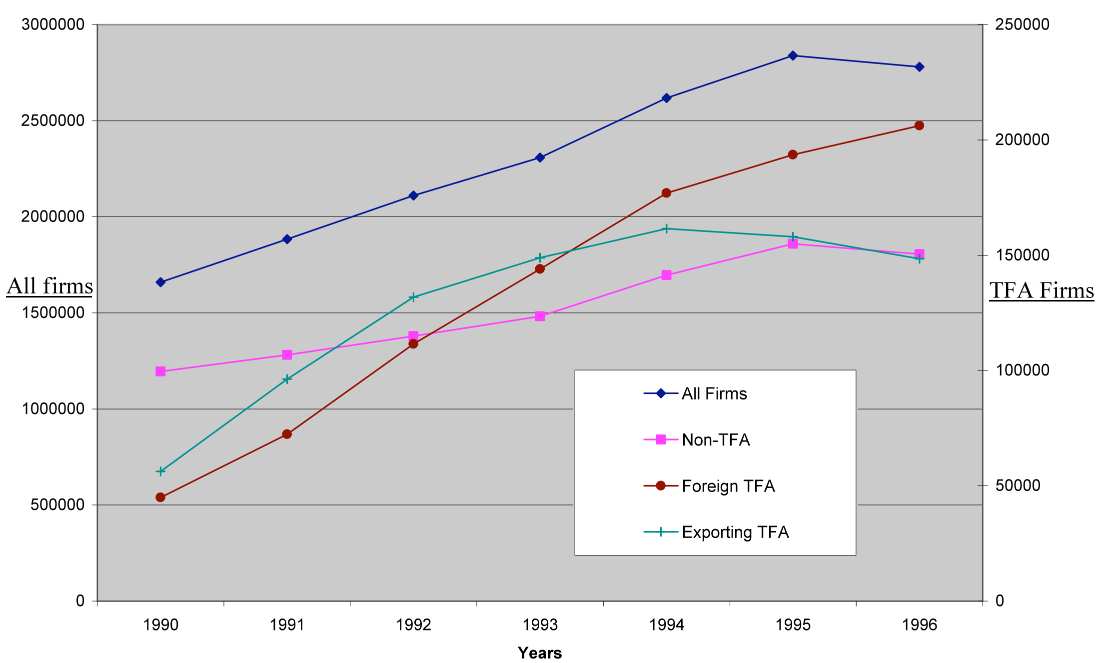

Table 1: Production Worker Wages In 1990 & 1996 ($US 1996)

	Non-TFA Plants			Textiles, Apparel, and Footwear (TFA) Plants			Difference		
	Domestic (a)	Always Foreign (b)	Always Exporting (c)	Domestic (a)	Always Foreign (b)	Always Exporting (c)	(4)-(1)	(5)-(2)	(6)-(3)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Mean Wage in 1990	$483	$1517	$824	$459	$756	$623	$-24*	$-761*	$-201*
2. Mean Wage in 1996	$661	$1618	$905	$613	$967	$886	$-48*	$-651*	$-19
3. Change in Mean Wage 1990-1996	$178*	$101*	$81	$154*	$211*	$263*	$-24	$110	$182*

* = differences are statistically significant at the 95% level or greater

Table 2: Average Number of Production Workers per Establishment 1990 & 1996

	Non- TFA Plants			Textiles, Apparel, and Footwear (TFA) Plants			Difference		
	Domestic (a)	Always Foreign (b)	Always Exporting (c)	Domestic (a)	Always Foreign (b)	Always Exporting (c)	(4)-(1)	(5)-(2)	(6)-(3)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Mean Employment in 1990	62	289	400	95	738	404	43*	449*	4
2. Mean Employment in 1996	62	354	297	90	1127	766	28*	773*	469*
3. Change in Mean Employment 1990-1996	0	65*	-103*	-5	389*	362*	-5	324*	465*

* = differences are statistically significant at the 95% level or greater