

A Comparative Study of Working Conditions and Benefits in Thai and Japanese Owned Textile Factories in the Greater Bangkok Area

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I. Introduction: Outline of Research

The textile and garment industry has represented the backbone of Thailand's economic development, providing good profits for companies and badly needed foreign exchange for the country. This industry at one time employed as many as 1 million people, about 1/3 of all industrial workers,¹ mostly young women with limited education drawn from the rural areas of upcountry provinces, particularly in the Northeast. The textile industry required a relatively small investment, was labor intensive, and demanded few skills, making it an ideal industry for a developing country.

At first Thailand aimed at the domestic market and export substitution. In the 1960s and early 1970s, many village women were still engaged in the laborious process of spinning, dyeing, and weaving cotton and silk and using these homespun fabrics for their families' clothing. The increasing integration of rural areas into the country's cash economy after 1960 led to a big demand for machine-made cloth with its smoother finish, bright chemical colors, and wide variety of printed designs. Mass production with cheap labor made ready-made textiles and garments affordable, and village women willingly gave up the burden of producing homespun clothing. Young women left the farms for factories in the Bangkok area and became part of the continuing shift from agriculture to industry.

Although these young women made little more than subsistence, a good part of their limited disposable income was sent as transfer payments to upcountry families for some years.² Many village families depended on these transfer payments to help meet living expenses and

¹ อดีตนักวิจัยโครงการญี่ปุ่นศึกษา สถาบันเอเชียตะวันออกศึกษา มหาวิทยาลัยธรรมศาสตร์

¹ Worawit Charoenlert, "Textile and Garment Industries under Globalization Process," in Worawit Charoenlert and Bandit Thanachaisertthawuth, *Report on Technological Development and Its Impacts on Employment*. Bangkok: Thai Labour Development Institute and Asian-American Free Labor Institute (mimeo), n.d., p.2.

² See Nukun Kokit, *The Expenses of Laborers in Industrial Sector*. Bangkok: Arun Phongphangan Foundation (mimeo), 1996.

pay for school fees for younger siblings. Thus textile workers' wages helped fuel the village economy as well.

By 1985, the emphasis had shifted from the domestic to the foreign market, and the Board of Investment offered significant incentives for export promotion, giving tax relief and exemption from import duties on machinery and raw materials for export production. Thailand quickly became more integrated into the world economic system, and the textile industry fueled a boom in exports, especially to Japan, the United States, and Europe. For a number of years, largely corresponding with the economic boom period 1987-1990, the textile and garment industry was the leading earner of foreign exchange from exports, representing about 15% of the value of total exports in 1992 and about [?] of the value of all production in the industrial sector.³

Thailand followed in the footsteps of Asian economic "tigers" like South Korea, Taiwan, and Hong Kong, which had relied heavily on export production of textiles and garments in the initial stages of their industrial development and then turned to more varied and sophisticated production as cheaper labor in countries like Thailand undercut their competitive position. Thailand's "golden age" of textile and garment exports lasted only about five years, however, from 1987 through 1991. Now Thailand too faces competition from even cheaper labor in China, Vietnam, and Indonesia. In addition Thailand is limited by textile quotas in major markets as part of the Multi-Fiber Agreement, which Thailand seeks to have overturned by the World Trade Organization.

Thailand's textile and garment industry is fully integrated, producing natural and synthetic fibers, thread, fabrics, and garments. Automation has cut labor costs, which represent only about 15% of the cost of production;⁴ quality has improved; and a wider range of goods are being produced. But Thailand will have to upgrade skills and efficiency to continue to compete in terms of fabrics, finish, quality, design, price, and on-time delivery. Textile exports are declining and the electronics industry has replaced textiles as the leading export earner.

This research aimed at looking at working conditions and attitudes towards management in a mature industry that had attracted both domestic and foreign capital, comparing Thai and

³ Worawit, "Textile and Garment Industries," p. 2.

⁴ Ibid., p.35.

Japanese owned textile factories from the point of view of their workers. Five factories were studied, three Thai-owned and two Japanese-owned. All the factories were in the Greater Bangkok area, three in Rangsit, one in Bangkok, and one in Samud Prakan. All had been long established and had unions. Each factory had a good number of workers, but as the textile industry has been declining since the end of 1991, most of the workers today have been with their firms for 10-15 years or longer. The typical textile worker is probably a woman in her thirties who comes from a village in the Northeast and has had 4-6 years of schooling. Her first industrial job was with her current factory and she has worked there continuously for more than ten years.

The five textile factories studied ran the gamut from model factory to a significantly substandard operation, another potential Kader tragedy in the making. Two factories specialized in the production of thread and will be referred to as Japanese Fiber and Thai Fiber. Three specialized in woven textiles though some also produced thread and will be referred to as Japanese Fabric, Thai Fabric, and Thai Weaving. The latter two are legally autonomous business organizations with separate managements, but are controlled by the same extended Chinese-Thai family. Thai Weaving locked out its workers and shut down suddenly at the end of November 1996, neither paying wages due nor offering the 30 days notification and the severance pay required by law. Thai Fabric closed without notice in May 1997.

Table 1 Date Factory Established and Estimated Workforce

Company	Jap. Fiber	Jap. Fabric	Thai Fiber	Thai Fabric	Thai Weav.
Date establ.	1970	1970	1977*	1966*	1965
Work force	1035	1000	510	8000**	1600**

* Companies have changed owners and names or been reorganized; date represents workers' estimate of original establishment.

** Company shut down; Thai Weaving in November 1996, Thai Fabric in May 1997.

Contacts with the labor movement led to lengthy interviews with 2-3 union representatives from each of the factories in October and November 1996. Follow-up phone queries supplemented the interviews. The interviewees appeared to speak frankly and openly of their concerns and opinions in a relaxed atmosphere. All this was due in large part to an NGO representative affiliated with the labor movement who accompanied the interviewer and helped

translate as needed. This NGO representative was well known to the workers interviewed and had been helpful to them.

Current and former workers from other textile factories were interviewed as chance permitted, as well as a few workers in Japanese owned factories in other industries. Additional interviews were conducted with officials from various labor federations and representatives of NGOs working with labor, asking about their attitudes toward Japanese companies, most particularly in comparison with Thai owned companies. A labor representative to the Labor Court and Thailand's leading authority on occupational health and safety were also interviewed.

Interviewees were promised anonymity for themselves and their factories. Most were interviewed in union offices or at labor conferences. In one case, a Japanese owned firm, union and management representatives were interviewed together at the factory at the suggestion of the union officers. The affability between union and management representatives, their open disagreement on some issues, and the overall strength of the union (which had called a strike two years earlier) led the interviewer to believe that their responses were as frank as those of anonymous union representatives interviewed away from their factories.

The consistency of responses led the researcher to believe that these factories, their working conditions, and management styles were representative of the textile industry as a whole and reflected the differing approaches of Thai and Japanese owned enterprises.

II. Wages, Benefits, and Adherence to Labor Legislation

A. Introduction

Although the Thai government has passed legislation regulating wages, hours, and benefits of workers, enforcement has always been half-hearted at best. Labor legislation has helped Thailand appear modern and staved off attacks from the International Labor Organization, but basically the Thai government has hoped to attract capital by offering a cheap and docile work force. Unions are generally weak and are offered few legal protections. Labor federations compete with each other, fragmenting the labor movement.

The former head of the textile workers federation has charged that 60% of the industrial establishments in Thailand do not pay the minimum wage nor is legislation on hours and

overtime pay observed.⁵ The director of the Labor Protection and Welfare Division of the Labor and Social Welfare Ministry admits that underpayment is prevalent.⁶ The labor courts are clogged with cases where workers have complained about not receiving the legal wage, but enforcement is deliberately very underfunded and understaffed, and courts are extremely slow to act.

Adherence to labor laws and regulations tends to diminish with the size and sophistication of the firms. Larger companies, especially Japanese, American, and European, generally adhere to the laws. The Japanese companies studied followed wages and hours legislation and observed labor contracts, but none of the Thai firms was in total compliance.

B. Hiring

None of the firms hired underage workers, 18 being the legal age for operating machinery. Women were generally age 18-25 when they were hired. The range for men was 18-28, some firms preferring to wait until men were 21 and had passed the military draft. Most new women hired in Thai factories came from rural villages, more from the Northeast than any other region, and had completed only the six years of free compulsory education. Older workers usually had just four years of schooling. For the most part women worked as machine operators while men worked as technicians, guards, and drivers. The men had a wider range of education, with some having had a little vocational high school training. The Japanese factories had become more automated and had upgraded skills, now hiring as a rule 9th - 12th grade graduates. At the same time, a manager at Japanese Fiber admitted that they turned away the brightest candidates and others with more education eager for a job, believing they would be less likely to stay (and perhaps more outspoken?).

Because jobs tend to be very sex stereotyped, there was a tendency to replace older women machine operators with male "technicians" when new machinery was introduced, rather than retraining the women to upgrade their skills. Hence, the workforce at Japanese Fiber had changed from predominantly female to predominantly male. Nonetheless, competition for male

⁵ Kiatisak Worathaweeethamrong, "Overworked, Underpaid," *The Nation*, December 9, 1996, p. C12.

⁶ Kiatisak Worathaweeethamrong, "'Bittersweet' Problem Worries Labour Officials," *The Nation*, December 9, 1996, p. C12.

workers was stiff enough that Japanese Fiber was now hiring some women for what were considered "male" jobs. This tendency to replace older female workers with young males has caused concern among female textile workers and women's groups and has led to complaints that employees are conceived of as "mechanical spare parts that can be discarded in old age."⁷

Table 2 Females and Males in Workforce, Age at First Hire, and Average Education

Company	Jap. Fiber	Jap. Fabric	Thai Fiber	Thai Fabric	Thai Weav.
Female %	26%	80%	70%	80%	70%
Male %	74%	20%	30%	20%	30%
Female age	18-25	18-25	18-25	18-25	18-22
Male age	18-28	21-30	18-25	18-25	21-25
Ave. yrs. education	9-12	9	6	4-6	4

All these factories had relatively low labor turnover; estimates ranged from 8-15% per year. When new workers are needed, a sign at the factory gate is usually all that is necessary to attract applicants. Current workers notify their relatives and friends and invite them to come and apply. In the past Japanese Fiber solicited workers in Khon Kaen, while Japanese Fabric sent representatives to look for workers in the poor upcountry provinces of Chaiyaphum, Srisaket, and Petchaboon. Today, however, a notice at the front gate announcing days when applications will be open is sufficient. The factories all preferred single young people with no prior experience fresh out of school or off the farm. Only Japanese Fiber had a rather involved application process that included an initial interview; a written test of math, Thai, and English; a second interview for those who passed the test; and a physical exam. Japanese Fiber offered food, dormitory accommodations, and round trip bus fare to those who applied and attracted more than six applicants for each opening during the two days they were open for hiring recently. No other company helped toward application expenses.

⁷ *Impact of Technological Changes on Employment Situations of Women Workers in the Thai Textile Industry*. Proceedings of seminar held November 1994, organized by the Women and Youth Studies Programme, Thammasat University. Bangkok: Friedrich-Ebert-Stiftung, n.d., p. 11.

C. Probation and Training

Thai law provides for a maximum probation period of 120 days. After that, workers are considered regular employees eligible for benefits and for severance pay if laid off. However, the government following the military coup in 1991 took several retrogressive steps as far as labor was concerned. Besides outlawing unions in state enterprises, the Anan government also allowed employers to evade labor law by signing individual contracts with workers for set periods.⁸ Thus the workers were regarded as temporaries and not deemed eligible for severance pay or benefits. (Anan himself is closely connected with a number of textile factories and took leave as chairman of Saha Union Company when he became prime minister.) Thai Fiber has continued this dubiously legal practice, and new hires must sign individual labor contracts for 350 days. The company can dismiss them at any time without severance pay.

Probationary workers are supposed to receive the minimum wage, but Thai Weaving paid slightly under the minimum wage for this period. Other factories paid only minimum wage with no increase at the end of the probationary period. Training varied from a couple days at Thai Fiber to a one-week orientation course followed by 2-3 months of training at Japanese Fiber. There, besides learning how to operate machinery, new hires also learned about the whole manufacturing process, quality control, and safety.

Ongoing training was minimal in the factories except at Japanese Fiber, where workers had regular quality control and safety training. Some workers were sent to Japan for 1-3 months for training on new equipment, and a few union representatives were sent to Japan each year for ten days for talks.

Japanese Fabric also sent ten good workers to Japan each year for 18 months of "training." But, in fact, there was no real training; rather the workers performed similar jobs in Japanese factories, where they served as cheap labor, paid less than their Japanese counterparts but more than they would have earned at home. Thai workers said they had to work harder in Japan, but they were willing enough to go in hopes of being able to build up some savings.

⁸ *From the Ashes: A Toy Factory Fire in Thailand*. N.p.: International Confederation of Free Trade Unions, n.d., p. 11.

A Thai manager at a Japanese firm acknowledged he had heard of jumbo jet loads of Thai workers from another firm being sent off to Japan for "training" at regular intervals. He said they worked in all Thai units with directions and signs written in Thai and with Thai-speaking supervisors. The pretense of training allows Japan to import cheap foreign labor for semi-skilled jobs that it is hard to find enough Japanese willing to do, while theoretically maintaining the integrity of the country's immigration laws. The Japanese government is also free to stop turning a blind eye on the practice at any point.

D. Wages and Bonuses

All factories except Thai Weaving started workers at the minimum wage, which in late 1996 was 157 baht in the Greater Bangkok area for an eight-hour day. The work week is 48 hours or six days, usually Monday to Saturday with the workers off and the factory getting cleaned on Sunday. Japanese Fiber alone operates 365 days a year. All factories operated around the clock with three shifts which rotated every week, usually 6 am - 2 pm, 2-10 pm, and 10 pm - 6 am. Thai Weaving paid no shift differential, while the rest paid a little extra for the graveyard shift at night, and Japanese Fiber also paid extra for the evening shift.

Workers are divided into a number of grades, often about six. The top two grades are management and clerical personnel. Grade 4 usually represents foremen and forewomen, and the bottom three are assigned to workers depending on their industriousness, rate of absenteeism, etc.

Most factories offered an annual increment to the minimum wage related to the worker's grade, but in the case of Thai owned factories the increment was either nil or so much smaller than the legal increase in the minimum wage for the year (12 baht in 1996) that many workers still received the minimum wage or barely above it after several years work. Thai Fabric paid no annual increment, and Thai Weaving had refused to pay an increment for the last three years although it had been specified in the legally binding labor contract. Japanese Fiber paid an increment plus a percentage increase weighted to favor the lowest paid workers while Japanese Fabric offered an increment plus a cost of living adjustment (COLA) of 1190 baht per month in 1996.

To push workers to perform, a bonus for industriousness is given at each company for those who show up to work on time and are not absent due to sickness, personal leave, or the like. These bonuses ranged from a low of 4 days pay every six months at Thai Weaving to 5 days pay per month at Japanese Fiber. As workers at Thai Weaving received so little and were not getting paid the annual increment and bonus agreed on in their labor contract, they felt freer to take sick days and do the minimum work to get by.

Thai workers look forward to the annual end of the year bonus to give them an extra lump sum, and the amount of the bonus is usually written into the labor contract. Thai firms were contractually obligated to pay 20-38 days pay as a bonus, although Thai Weaving failed to fulfill its obligations, while Japanese Fiber offered 2 - 3.2 months pay as a bonus.

Table 3. Wages and Bonuses in 1996

Company	Jap. Fiber	Jap. Fabric	Thai Fiber	Thai Fabric	Thai Weav.
Begin wage	minimum	minimum	minimum	minimum	< minimum
Annual increment	8.5 baht/day + 5.6-7%	.07-8 B/day + 1190 B/mo COLA	.25-6 B/day	none	(5.5-6.25 B/ day)* None
Industrious- ness Bonus	5 days/mo.	190-230 B/ 15 days	90 B/15 days	4 days/mo.	4 days/ 6 mo.
Annual Bonus	1.6 mo. pay in June & Dec.+ 1 mo. extra if profit	2 months pay	33 days pay	20-38 days pay	(20-38 days pay)* 10-14 days pay
Night shift differential	20 B/day (evening 15 B/day)	156 B/mo.	12 B/day	6 B/day	none
Usual pay period	Monthly wage	monthly wage	daily wage	daily wage	daily wage

* Figures in parentheses indicate labor contract. However, since 1994 workers at Thai Weaving have been unable to collect any annual increment or the full amount agreed to for the annual bonus.

At the Japanese companies the vast majority of workers are paid a monthly wage based on 30 days, in effect giving them several days bonus for their days off. There is a psychological

boost as well as an economic boost for the status conscious Thai to be paid like "salarymen." Should a worker be often absent or late, she or he would be dropped back to a daily wage and receive cuts in bonuses. At Thai factories only foreworkers and management are on monthly wages, and the rest are on daily wages based on actual days worked.

The grade classification system with its effect on annual increments and bonuses, the industriousness bonus, and the monthly wage with its bonus for days off are all incentives for workers to be prompt, work diligently, and please their bosses. A day off for sickness or personal leave has effects that reverberate through the pay system.

E. Benefits

1. Food, Clothing, and Shelter

One reason village girls feel comfortable moving from rural areas to the megalopolis of Bangkok is that they are freed from many of the problems of making living arrangements on their own. All of the factories provided dormitories for workers and all but one provided free cooked rice for meals. Workers had to buy their other food, but there were vending and dining areas within the factory compound. Factories also provided the uniforms (or material for them) that workers were required to wear.

It is exciting for teenage girls to leave their families and villages and come to Bangkok, the center of Thai life and culture. Generally they have a friend or relative already working for a company who advised them of openings. Living and working with others their own age away from the hard outdoor labor and social constraints of rural life is great fun at first. Having an independent income is exhilarating. Attending movies or rock concerts or strolling through shopping malls on their Sundays off makes these girls feel part of the modern world. Rural parents are reassured that their daughters are not living on their own in the wicked city.

Conditions in factory dormitories varied considerably, however. At Thai Fiber and Thai Fabric, women complained of being crammed into a room with barely space enough to lie down. The dorms are very hot, and often noisy if they are right next to an industrial building. In hot, crowded circumstances, arguments tended to be frequent, especially over space. Toilets were sometimes grossly inadequate for the number of people, and bathing facilities could be poor. Inadequate drinking water in dorms and factory was a complaint at another company. In all

factories women seemed to have more crowded accommodations than men as men were more likely to opt to live outside the factory. Japanese factories provided beds and cupboards, and Japanese Fiber added mosquito nets. Thai factories provided only sleeping platforms or space for a mat. Some had clothes lockers.

All companies but Japanese Fiber provided cooked rice for employees. A manager at Japanese Fiber said he thought people were wasteful when they got something for free. However, this company was the only one to provide a clean, air-conditioned building for use as a dining area and meeting hall. The other factories provided a roofed over open-air structure. Private food vendors sold meals at the factories. The Japanese companies tried to assure some standard of food quality, quantity, and price. Workers at Thai companies suggested that payoffs to company officials and monthly rent were more important factors there. 7-10 baht for a side dish to go with rice seemed fairly standard. Only at Japanese Fiber did management eat with the workers. At Japanese Fabric, Thai managers bought food at the factory dining area but ate in their offices while Japanese personnel tended to go out to eat or brought food from home and stayed in their offices.

Table 4. Dormitory Facilities

Company	Jap. Fiber	Jap. Fabric	Thai Fiber	Thai Fabric	Thai Weav.
# / room F	6	10	6	24	5-10
# / room M	4	3	?	?	2-3
Crowding			X	X	
Hot, poor ventilation			X	X	
Noisy			X	X	
Inadequate toilets					X
Inadequate bathing area				X	X
Inadequate drinking water				X	

All factories required uniforms. Some provided material for 2-3 uniforms a year with workers bearing the cost of getting uniforms made, while others paid for the completed uniforms. Japanese Fiber and Thai Fiber provided shoes as well, although Thai Fiber employees complained their shoes were ill-fitting and uncomfortable. At Japanese Fiber management personnel wore the same uniforms as workers.

2. Transportation

It was common for workers to marry within 2-3 years of coming to work, at which point they would leave the dormitories to set up housekeeping elsewhere. Some workers preferred to live away from the factory and chipped in together to rent a room; often 3 or more people crowded into a small, poorly ventilated room.⁹ Usually only 1/3 -1/2 of the workers at most lived in the dormitories. Some factories provided free buses to help their employees reach work.

Table 5. Bus for Employees

Company	Jap. Fiber	Jap. Fabric	Thai Fiber	Thai Fabric	Thai Weav.
# routes	6	1	3	none	none

3. Vacation and Leave

Thai law provides for six days paid vacation after a year of work plus 13 public holidays. Traditionally May 1, Labor Day, is a holiday for workers as well. Officially, workers cannot be required to work on holidays, but in practice, it may be hard to refuse. However, workers often welcome the opportunity to get double time for holiday work. The law also provides for up to 30 days paid sick leave a year, with the third day of sick leave in a row requiring a doctor's authentication of illness. In practice, however, an employee would find it difficult to take more than 10 days of sick leave a year, since work grade, annual increment, industriousness bonus, annual bonus, and monthly wage would all be affected by absenteeism, and employers would find some means to oust an employee who was absent frequently. Most factories allow a certain number of days for personal leave without pay.

The factories surveyed had varying leave policies. Usually workers gained an additional day off for each additional year worked up to a maximum of around 12-15 days. Japanese Fiber

⁹ Nukun, *Expenses of Laborers*, p. 12.

and Japanese Fabric provided the most generous leave policies, offering additional paid leave for weddings, funerals, and ordinations, and in the case of Japanese Fiber, which had a number of workers from the Malay Muslim South, for the hadj. Sometimes an additional payment was made to cover bus fare or help with expenses. (See Table 6) Japanese Fiber management reported that they had had a problem in the past with young men claiming to be ordained for 30 days, but in fact ordaining for 7-15 days and vacationing until the 30 paid days leave was up. Now the company demands to see the certificate that the men receive when they disrobe.

Thai law requires 90 days paid leave in case of pregnancy with the first 45 days of leave paid by the employer and the second 45 days covered by social security. Japanese Fiber pays for the full 90 days pregnancy leave for its employees, their payment being higher than what workers would receive from social security.

Table 6. Vacation and Leave

Company	Jap. Fiber	Jap. Fabric	Thai Fiber	Thai Fabric	Thai Weav.
Annual vacation	7-20 days	6-15 days	6-12 days	6-15 days	6-12 days
Personal leave	monthly pay*	Monthly pay*	6 days	6 days	5 days
Wedding	7 days paid + bus fare	7 days paid + 700 B	use personal leave, 600 B	7 days unpaid leave	use personal leave
Funeral	7 days paid + bus fare	7-8 days + bus fare**	use personal leave	7 days unpaid leave	3 days paid parents only
Religious	Ordination, 3 mos. leave 30 days pd, 2 mo. ? pay. Hadj – 2 mo. leave. 1 mo. paid, 1mo 1/2 pay	Ordination 3 mos. Leave 16 days paid	7 days leave unpaid	15 days leave, unpaid	none

* At Japanese Fiber worker cannot be absent more than 19 days in a year for sick leave and personal leave without dropping to a daily wage and maybe losing a grade. Similarly at Japanese Fabric, no worker would dare take many days off except for special circumstances and with factory consent.

** Extra day given if need to travel over 250 km.

4. Health Coverage

All factories had clinics staffed for part of the day at least, although not always with medically qualified personnel. Thai Fiber employees reported that workers filled in for nurses occasionally. Japanese Fiber had a nurse available for all shifts, an ambulance on the premises, and workers with some emergency first aid training. Doctors call by the factories for a few hours 2-3 times a week. Except for an obvious on-the-spot injury, company doctors never seem able to spot work-related illnesses.

Workers in business establishments of 10 or more employees are required to contribute 5% of their pay to the social security fund. The employer and the government both match this payment. Their social security card entitles workers to be treated for free at government hospitals. However, workers complain that health personnel at government facilities tend to treat social security and charity cases with disdain and often offer only cursory examinations. Some companies therefore have provided additional health insurance coverage for their employees, who still must go to government hospitals but can go as private patients.

Table 7. Health Insurance Coverage

Company	Jap. Fiber	Jap. Fabric	Thai Fiber	Thai Fabric	Thai Weav.
Coverage	19,000 baht + 4000 B for family	6,500 baht	None	3,000 baht	none

5. Miscellaneous Benefits

The Japanese factories offered recreational facilities for their workers. The Japanese Fiber factory compound is spacious and includes a soccer field, basketball court, tennis courts, and an indoor area with ping pong, chess and other board games, and television. There is a library and a meeting place for clubs. The factory has a culture club and music groups. Workers often play takraw over their lunch break. The company also owns a beachfront resort in Petchburi complete with swimming pool and meeting rooms. Workers can arrange to take their families there for a vacation for a nominal fee, and the union could arrange meetings there.

Japanese Fabric provided a playing field and an exercise room for its workers. In addition, each year the company takes the workers on a two-day trip providing transportation, food, and lodging.

Thai companies by contrast did not provide any recreational facilities for workers. Thai Fiber offered its workers a meal on the King's Birthday some years; other years they gave each worker 75 baht then.

Japanese Fiber provided a fund to help with the educational expenses of workers' children. About 80 awards were made a year ranging from 1,200-2,000 baht for tuition.

Japanese Fiber also provided loans on easy terms to workers, who could borrow an amount up to a year's pay at 8% interest; a co-signer was required. An emergency loan fund also let workers borrow up to 10,000 baht for a month. Loans had to be paid back immediately if the worker left the company.

Table 8. Miscellaneous Benefits

Company	Jap. Fiber	Jap. Fabric	Thai Fiber	Thai Fabric	Thai Weav.
Recreation	X	X			
Education	X				
Loan Fund	X				

Workers at Japanese Fabric had access to a cooperative credit union with payments deducted from their paycheck, while workers at Thai Weaving had a union sponsored private credit union. Interest was about 9% per year at credit unions.

6. Severance Pay and Retirement

Under Thai law, workers are eligible for severance pay when they are laid off. The law requires one month's pay for workers with 120 days - 1 year with the company; three months pay for workers with 1-3 years with the company; and six months severance pay for workers with 3 or more years tenure. The factory is also required to give 30 days notice of layoffs to workers or pay an additional month's severance pay to them. With automation, increased competition, and declining exports, the textile workforce has been dwindling yearly since the boom times of 1987-1991. Most textile workers are now over 30, and many have work-related health problems,

although these are not acknowledged by their companies. In Thai companies in particular, older workers felt under pressure to leave, especially if they had gained a little edge in pay through annual increments and lost a lot of their stamina over the years. The women in particular felt it was extremely difficult for those in their 30s and 40s or older to find new jobs. They clung desperately to their employment, despite having to put up with unsanitary and uncomfortable living conditions, an unsafe and unhealthy work environment, an increased work load with more machines to tend than in the past, frequent transfers within the plant, and other forms of harassment aimed at getting them to quit and hence be ineligible for severance pay.

Japanese Fiber has replaced its older female workforce, but Japanese companies are more likely to use carrots rather than sticks initially, seeking volunteers, sweetening severance pay, and offering incentives for early retirement.

Thai Weaving workers have been battling in the courts for the past two years for severance pay for laid-off workers. In 1995, 220 workers were laid off and had to go to labor court with the assistance of their union and members of the Lawyers' Council of Thailand working for a nominal fee to get their legal due. Again early in 1996, an additional 650 workers were laid off and again the union had to appeal to the Labor Relations Board and the Labor Relations Court before severance pay was received. In October 1996 Thai Weaving demanded that 450 workers accept transfer to another legally unrelated factory the owners had or be dismissed for insubordination. As the company expected, workers resisted the move to a plant nearly an hour away as they had children in school and spouses with jobs nearby their current factory. The union thought the company was looking for an excuse to fire workers for refusing the order to transfer; although, since the factories are legally distinct, the demand was illegal. At the end of November the company shut down suddenly without notice, throwing 1,600 workers out of their jobs. The workers last two weeks wages were unpaid and no severance pay was offered. Only a handful of workers transferred to the other factory, but they said they were put to work on outdated machines that their former factory had discontinued using two years ago. Basically they expected to get the ax there too. The remaining workers were allowed to stay on in the dormitories temporarily and were divided over battling through the courts for their legal due, which might take some time, or transferring to an uncertain future at the other company and losing their claim for severance pay. Few workers had any significant savings, and the company

probably expected that lack of income would soon force people to return to their home villages or seek work elsewhere, thus leaving "voluntarily."

Thai Weaving was established in 1965 in the Bang Khen area when land was plentiful. As Bangkok has mushroomed around the plant site, the land has greatly increased in value and the owners reportedly now want to develop it. They hope to make a financial killing, but begrudge their long-time workers who helped build their wealth their wages and severance pay.

In February 1997 hundreds of workers from Thai Weaving demonstrated around the clock for over a week in front of Government House to demand their unpaid wages and severance pay according to the law. The resulting publicity ultimately led the company to pay the workers the two weeks of unpaid wages, and the government came up with money for severance pay. It is unclear if the government will recover this money from the wealthy owners of the now defunct company.

Thai Fabric, owned by the same family as Thai Weaving, had seen its work force drop sharply from 12,000 to 8,000 in the last few years. Women workers there reported harassment, such as workers docked to pay for an old machine that suddenly exploded one day. Living and working conditions were poor, unsanitary, and very unsafe. In early May 1997 Thai Fabric and another company owned by the same family shut down. The companies had not paid their electricity bills for months, and the Provincial Electricity Authority cut off power to the plants. The owners then claimed the shutdown was involuntary; therefore no workers were intentionally laid off by the company and no severance pay was due. The workers considered this a ruse to avoid severance pay. Unable to continue to compete, the owners are financially gutting their textile companies, ignoring the law, and leaving a burden for workers and the taxpaying public. With years of profits safely stashed away and a gold mine in the form of property in the metropolitan area, the owners now plead inability to pay.

Japanese Fabric union officers reported that their company asks for volunteers first if there is a layoff, but basically they try to get those with the longest tenure out, sometimes through harassment like frequent in-house transfers and increased workloads. The company also offers incentives for early retirement.

Factory work is physically demanding, especially for women workers, who are on their feet all day running from one machine to another. Many jobs require lifting 50-60 pounds regularly. Male jobs as technicians are usually less rushed and often less physically demanding. Textile factories in general and Thai-owned factories in particular are unhealthy and unsafe. Only a few workers can keep up the pace until retirement age.

Each factory sets its own mandatory retirement age. Women are often forced into retirement at 45 while the retirement age for men is generally 55. Thai factories offered few if any benefits on retirement while Japanese factories offered a lump-sum retirement bonus related to length of employment and also offered incentives for long-time workers who chose to leave before the mandatory retirement age. One month is open each year for workers to resign and receive benefits.

Forced retirement or layoffs are frightening to older women workers who realistically believe their chances of gaining new employment are dim. Few have real savings. Many have sent much of their disposable income to families back in their home villages, sometimes for over 20 years. It is somewhat doubtful, however, that families that have benefitted from these transfer payments would welcome them back with open arms as dependents, nor would they necessarily feel at home in villages they left as young women many years ago. Returning "home" has been a cruel disappointment to some laid-off workers. Many women workers have remained single and have spent their entire adult lives residing in factory dormitories, eating factory provided rice and purchasing meals. With limited contacts outside their factories, they have never really been integrated into modern competitive Bangkok life. Losing a job also means losing one's residence and the companionship of friends one has lived with for years. These women, who have contributed much to the Thai economy through their labor over the years, now face an uncertain and probably poverty-stricken future, no longer at home anywhere.

Table 9. Retirement Age and Benefits

Company	Jap. Fiber	Jap. Fabric	Thai Fiber	Thai Fabric	Thai Weav.
Mandatory retirement	F 45 M 55	F 45 M 55	F 45 M 50	F 55 M 55	F 55 M 55
Ret. benefits	yrs. worked x 1 mo. pay	yrs. Worked x pay factor		2 mo. pay after 10 yrs., 3 mo. pay after 20 yrs.	
Early retirement bonus	3 yrs. 2.3% annual pay, 5 yrs. - 5 % 12 yrs.-25% 17 yrs & age 40 -50% 25 yrs. - 28.5 months	F after 12 yrs and M after 16 yrs. 18,000 baht			

III. Health and Safety

Worker health and safety are major problems in Thailand, particularly in the textile industry. The health and safety of workers have not been of particular concern to the Thai government except for brief periods following tragedies like the Kader toy company fire that killed 188 and injured hundreds of others, bringing international notoriety in its wake. According to Workmen's Compensation Board statistics, close to 1,000 workers die due to job-related causes each year and over 200,000 or about 4.5% are injured on the job annually. This is an extremely high rate, yet these figures represent only reported injuries in legally registered businesses employing 10 or more workers. The textile and garment industry registered the third highest incidence of work-related injuries after the construction and food industries, approximately 12,000 legally recognized cases a year.¹⁰

¹⁰ Government Statistics on health and safety were provided by the Institute of Occupational and Environmental Health, Rajawithi Hospital, Bangkok.

A. Byssinosis

The leading problem in the textile industry is byssinosis or "brown lung," a disease common to textile workers around the world, caused by the constant inhalation of natural fibers. The lungs are irritated by the fibers which lodge there, and the victim coughs to try to rid the body of foreign matter. As inhalation of fibers continues, there is chronic respiratory distress with increased susceptibility to other diseases, especially respiratory diseases like colds and tuberculosis. There is increasing trouble breathing, weakness, and general debilitation. The disease is chronic and progressive with no cure. As most women textile workers have been employed for 10-20 years or more of constant exposure to airborne fibers on the job, the incidence of byssinosis is extremely high; an estimated 20-56% of all textile workers in Thailand suffer from the disease.

Prevention consists of factory measures to keep the work area clean and the air free of cotton dust and fibers and personal protection through the use of face masks. Some factories have downdraft air filtration systems but these are not always cleaned regularly or kept in good repair, so they don't always function. All the factories studied except for Japanese Fiber did real cleaning basically once a week on Sunday when the factory was closed. Byssinosis was considered a problem in all these factories although the problem was seldom officially diagnosed. Japanese Fiber never shut down but had ongoing cleaning and more advanced filtration systems. For the most part, this company produced synthetic fiber, which does not cause a problem. All workers in this plant were said to conform with safety regulations about wearing face masks. Union leaders agreed with management that byssinosis did not exist there, although it could not be totally ruled out.

Appropriate face masks are supposed to be provided to workers where a problem exists, but Thai Weaving had stopped providing them and workers had to furnish their own. Thai Fiber workers reported that each worker got two masks every two months, but they were too small or ill-fitting to cover both nose and mouth properly. Union leaders there claimed that 60-70% of the workers had respiratory problems. After 4 or 5 years work, problems became noticeable and after 10 years virtually all the workers suffered respiratory problems. Over 100 cases of

byssinosis had been officially diagnosed in workers at the plant who went to an occupational health clinic, although this diagnosis was not accepted by management.

Other factories provided light masks that looped over the ears. A common complaint was that the masks were too light and didn't filter well. This was confirmed by Thailand's leading authority on occupational health and safety, who is also an expert on byssinosis. The doctor reported that the masks meet Thai government standards but not accepted medical standards.

Compliance with wearing masks tended to be total for women working in carding rooms where the air was clouded with cotton dust and fibers. The vast majority of workers also wore them in the spinning room, but the proportion wearing masks in the weaving rooms was low.

The Thai government allows a maximum of 1 microgram of dust per cubic meter of air, but a government survey of textile factories found none of the factories surveyed was in compliance. A typical range was from 1.09 - 14.59 mcg/cu.m. depending on the operation. Thus at best, these factories exceeded the maximum and at worst were almost 15 times the maximum the Thai government considers safe.

Union leaders are trying to make their workers more aware of byssinosis, but factories continue to deny its existence and hence the possibility of work-related health claims and compensation for disability. Women who go to company doctors are told they have colds, allergies, or asthma. The Occupational Health Clinic at Rajawithi Hospital has diagnosed hundreds of cases of byssinosis, but companies dispute the diagnosis, charging that the doctor there, an expert in the field, is an unqualified hysterical crank. So far workers diagnosed with the disease and refused workmen's compensation have had to go to court. Over a hundred cases have been taken to court, but as of November 1997 only ten had been completed, but the workers won all of these and the verdicts were upheld on appeal.

It is difficult to find doctors willing to deal with the problem of byssinosis. Few doctors have expertise in this field and perform appropriate tests, although diagnosis is not that difficult. Other doctors find labor cases too "political" or are reluctant to take time to appear in labor court since companies will vigorously fight the diagnosis. Some recognize the disease but refer patients to the Rajawithi clinic for an official diagnosis to keep from being involved. Doctors are reluctant to take on the business and political interests involved and face the likely vilification

which would ensue, and/or they are unwilling to take time from their lucrative practices for the sake of women textile workers.

The Rajawithi clinic is swamped with cases of byssinosis and unable to accept new patients, since it can scarcely keep up with those already diagnosed. The doctor at the clinic there has been reaching out to educate workers and is well-known and respected by them. But as long as each case of byssinosis has to be fought one by one through the courts, doctors lack courage and compassion, companies totally deny the problem, and the government turns a blind eye to the appalling evidence of its own statistics, byssinosis will remain a major health problem for women textile workers, yet one that rarely appears in government statistics of work-related illnesses and disabilities.

B. Injuries

The nearly 12,000 legally recognized cases of work-related problems in the textile and garment industry probably are injuries with machinery, particularly the mangling of fingers and hands. The Japanese textile factories studied had automatic safety shutoffs on their machinery, but none of the Thai factories had these safety features. Workers at the Thai-owned factories cited frequent problems of hands caught in machinery leading sometimes to loss of fingers or the amputation of a hand.

Workers often had to lift 50-60 pounds of material into a hopper over their heads in a narrow space between machines and reported problems when the load fell back on them or they slipped and fell. Back strain was common.

Thai Fiber workers said there were 5-6 injuries a month at their factory, including a recent injury that led to amputation of a hand. Japanese Fiber, on the other hand, reported only 2 incidents in the last year in which a worker was injured enough to lose time from work. It was the only company to provide steel-toed safety shoes for some areas.

Japanese factories had special safety officers and safety training. Japanese Fiber in particular solicited safety suggestions from workers, receiving over 1,000 in the past year. The company has received awards for workplace safety.

C. Hearing Loss

Hearing loss is another problem common in the textile industry, where people work in large rooms full of clanking machinery. Women reported problems listening to a telephone conversation or having to have the television sound turned way up. According to a study done by Thai ear-nose-and throat specialists, an estimated 30% of workers in the textile industry suffer moderate to severe hearing loss.

Sound is measured in decibels. 70 decibels is already considered a loud noise. 80 decibels, 10 times the volume of 70 decibels on this logarithmic scale, is equivalent to a rock concert or a jackhammer drilling in the pavement. Ten times that level, or 90 decibels, is the maximum allowed by Thai law, but a government survey of textile factories showed a range of 90.8-106 decibels. 106 decibels is 16 times the 90 decibel maximum.

Ear plugs are required in noisy areas with the more effective ear muffs required in especially noisy areas. Ear plugs were given out in some departments in most factories, but weren't always worn by the workers. As with face masks, workers complained that ear plugs were uncomfortable, ill-fitting, and did little to cut noise levels; and again an occupational health specialist confirmed their impressions. The doctor said some factories bought only one size of ear plug, usually large. Ears were not checked first to see if there was an ear infection or other problem so that ear muffs would be more appropriate. Workers were not taught how to keep the ear plugs clean. Although the ear plugs may cut noise levels somewhat, the Thai government standard for noise levels and accepted medical standards are vastly different, and hearing loss would be likely at the Thai standard even if workers used ear plugs consistently.

In 1995 the Labor Ministry ordered Thai Weaving to provide ear plugs for its workers. The company bought them for workers in the spinning room only, not for workers in the weaving room, which was also very noisy. The union at the factory sent workers to a private doctor to check their hearing loss, which was considerable in many cases. Japanese Fabric encouraged workers, especially new workers, to use ear plugs, while at Japanese Fiber the company and union cooperated in enforcing use of ear plugs and ear muffs in noisy areas.

Workers clearly need more education in protecting themselves from hearing loss, and unions and management need to encourage, or require, the use of protective equipment.

However, more attention should be paid to proper fit. It would be helpful if the Thai government enforced the outrageously high standard that is now official, or even better, set a more reasonable maximum standard and required medically acceptable standard protection.

D. Chemical Injuries

Chemical injuries were common for workers dealing with dyes. Workers at Thai Fiber reported that they were given no protective equipment such as waterproof gloves and aprons and suffered from rashes, sores, and swellings caused by the chemicals in dyes. After a number of workers complained, the company did switch to different chemicals. Workers dealing with chemicals at Thai Fabric also reported problems with headaches and rashes and complained of the lack of protective equipment. Other factories rarely worked with dyes or had more automated processes and reported no problems.

E. Fire Safety

The tragic Kader factory fire in May 1993 that killed 188 and injured 469 workers when fire exits were locked or blocked shook Thailand and brought unwelcome attention as far as business and government were concerned to the low level of labor protection in Thailand. A flurry of inspections thereafter revealed that 60% of large companies in the Bangkok area violated safety standards for fire protection.⁷

Fire safety standards at the textile factories studied ranged from exemplary at Japanese Fiber to abysmal at Thai Fabric. Japanese Fiber had smoke and heat detectors, sprinklers, adequate exits, regular fire safety training, and its own fire truck with trained personnel on the premises. Their fire truck and personnel sometimes helped out at neighboring factories.

One of the neighbors is Thai Fabric, where fires have occurred several times. Workers reported all but one exit from the second floor of their building was locked, as managers complained they couldn't control workers otherwise. The forewoman had a key and unlocked the fire doors for one hour at lunch time. There were no smoke detectors and no sprinkler system. The workers were frightened, given that fires had occurred several times and they had to wait for someone to unlock the doors before they could escape. Given the large number of

⁷ *From the Ashes*, p. 19.

workers and only one unblocked exit, they feared a repetition of the Kader tragedy. Indeed, a spark in a room full of cotton dust can lead to an explosive inferno within seconds.

Table 10. Fire Safety

Company	Jap. Fiber	Jap. Fabric	Thai Fiber	Thai Fabric	Thai Weav.
Fire drills	X	X	X	X	X
Smoke detectors	X	new bldgs. only	X		X
Sprinklers	X	X	X		X
Open exits	X	X	X		X
Fire safety training	X	X			
Fire truck	X				

F. Other

Heat was a major problem at Thai owned factories. Workers said such air conditioning as existed was neither very effective nor well maintained. Thai Fiber workers reported temperatures in the factory of up to 38°C, and workers sometimes had to go outside to keep from being overcome by heat prostration.

The constant shift changes each week led to disrupted sleep patterns and further exhaustion. All factories rotated day, evening, and night shifts, usually on a weekly basis with Sunday off. Japanese Fiber had 4 days on, a day off; 4 evenings on, 1 day off; and 4 nights on with 2 days off. They operated every day year round, and workers liked the additional days off they got with this schedule. The extra day off after the night shift was particularly welcome.

Studies of workers who constantly change shifts have found a higher incidence of accidents, mistakes, misjudgements, and exhaustion, not to mention the impact on family life and child care. No one could explain why shifts changed so frequently except that it was "the system." More regular shifts with a sufficient pay differential to attract workers to evening and graveyard shifts might ultimately be beneficial to both workers and employers. However, companies would probably resist paying the additional cost for shift differentials, without considering the indirect cash costs of worker exhaustion, injuries, and errors.

IV. Management Styles

A. Relations with Unions

Thai owned and Japanese owned factories differed markedly in their management styles, with Thai owners being more autocratic and communication with workers being very one-sided. Although Japanese factories were run by Thai managers, they followed some of the practices common to their parent companies in Japan; that is, using psychology and incentives rather than just pressure to achieve goals. Japanese factories offered more in wages and benefits, provided safer and healthier living and working environments, and showed some respect for the opinions of their workers. Communication with union representatives was more frequent and cordial.

Labor leaders all believed that the Japanese opposed unions and would do their best to fire union organizers; but once unions were established, Japanese companies would work well with them. Union representatives at both Japanese factories felt they were listened to and taken seriously, and that attempts were made to address problems or some credible explanation was given for why changes could not be made. Unions at both Japanese factories were relatively strong as Thai unions go, and both had strike funds. A strike at Japanese Fiber in 1994 over the size of bonuses had thereafter led both sides to communicate more and compromise.

The Japanese at the factories were mostly technical personnel and kept a low profile. They tended to have only limited proficiency in Thai, and workers rarely had much direct contact with them. Thai managers were given a relatively free hand by their companies. Hence, when problems arose, workers tended to blame the Thai administrators, not the Japanese, suggesting that grievances were not passed on to Japanese personnel or parent companies if they might tend to embarrass the Thai managers. No one expressed any anti-Japanese sentiment.

Workers at Thai Fabric and Thai Weaving believed their complaints and suggestions fell on deaf ears. Older workers reported better worker relations in the past when the original owner would walk through the factory, check conditions, and talk to the workers. His children, graduates of universities abroad, are now the directors of the firm, but have no hands-on knowledge or experience and little interest in the day-to-day operation of the factories, depending on hired managers with little authority. Workers at both companies were completely demoralized, employees at Thai Weaving largely expecting the factory closure that occurred and

employees at Thai Fabric feeling that their days were numbered as well, which turned out to be the case. Unions at both factories were weak. Workers resented having to go to court constantly to get their legal due. The Thai owned factories depended on the desperation of older workers to keep their jobs to keep them working hard despite low wages, few benefits, unhealthy dorms, and unsafe factories.

Table 11. Labor-Management Relations

Company	Jap. Fiber	Jap. Fabric	Thai Fiber	Thai Fabric	Thai Weav.
Regular meetings	2-3 x/mo.	1 x/mo.	1 x/2-3 mo.		
Union dues checkoff	X	X	X		
Union strike fund	X	X	X*		
Good labor-mgmt. relat.	X	X	X		
Quality control circ.	X	X			

* Strike fund just started 1996.

B. Quality Control

Workers at all companies believed that Japanese factories were more concerned with quality and were more nitpicking in seeing that employees worked exactly to specifications. Both Japanese factories had quality control circles, with labor and management working together on problems like quality control, cost reductions, and safety. These circles function effectively only in a fairly free environment with good worker-management relations. This seemed to be the case at Japanese Fiber, which was proud of all the suggestions its workers made. Workers often have considerable expertise in the minute details of their particular part of the production process and can make valuable suggestions for improvements that management hasn't thought of, and they can point out flaws in proposed changes that planners had overlooked.

Workers at Thai owned factories recognized that quality was often poor. Management at Thai Fabric blamed workers when exports of thread were refused for not meeting quality standards; but workers said the thread making process was automated and that outdated machinery was to blame. One of their old thread making machines had recently exploded.

C. Japanese Practices

The Japanese are big believers in the power of positive thinking, and Japanese factories in Thailand copy their parent companies in being practically festooned with slogans. Many Japanese owned factories, such as Japanese Fiber, have employees line up for a few minutes of exercise before the start of work. Following exercises, workers at Japanese Fiber are asked to stop for a moment and think about zero accidents that day or zero defects in production. A worker in each unit is called on to provide a slogan for the day, such as "work according to standard" or "safety hat, mask, gloves, safety shoes, OK." If these group activities seem a bit alien to Thai adults, they are basically seen as harmless quirks of Japanese factories so workers at Japanese Fiber are willing to go along with them.

Workers at other Japanese companies sometimes resented the extra minutes added to the work day by the exercise period and reported that foremen and forewomen were often the only ones to faithfully do exercises and chant slogans. A metalworkers representative recalled that following a bitter two-month strike, the workers expressed their displeasure with the management of a Japanese owned firm by adamantly refusing to repeat the slogan of the day on trust and cooperation.

D. Worker Comparisons of Management in Thai and Japanese Owned Firms

Workers and labor leaders, both within the textile industry and in other industries, were asked to compare Japanese owned and Thai owned factories. Virtually all said Japanese owned factories were better managed, produced better quality goods, paid better wages and benefits, and communicated better with workers. This was often followed by a diatribe against Thai owners. Many complained that it was a shame and an embarrassment that Thai owners treated their workers so poorly. Complaints were also made against owners from Taiwan and Hong Kong, who were also said to squeeze the workers.

At no time was any anti-Japanese sentiment expressed. If anything, comments tended to be anti-Chinese since Thai owners were Sino-Thai and other disliked owners were Chinese as well.

V. Conclusion

How can Japanese companies afford to pay their workers more in wages and benefits, spend more on factory safety, and still compete with Thai companies that basically pay minimum wage, offer few benefits, and spend little on safety? Part of the answer lies in automation. All of the factories have upgraded their equipment, but Japanese factories have much more modern and efficient equipment. Thai factories are often using outdated equipment, sometimes purchased second-hand from Taiwan or other countries getting out of textiles and into more high-tech production.

Automation carries a cost, however, and companies like Japanese Fiber have already basically disposed of their less educated, older female workers. The shakeout in the textile industry in Thailand will probably mean the loss of tens of thousands of jobs by older workers, mostly women with few prospects for the future. By offering early retirement incentives and sweetening severance pay in layoffs, Japanese firms have been able to trim their workforce of older employees with somewhat less pain to workers.

A second factor is quality control. This requires a better trained, better educated workforce and cooperative labor-management relations. Japanese factories have emphasized quality control circles and have been willing to listen to worker suggestions; indeed, they have solicited them. Thai owned factories, on the other hand, have often paid insufficient attention to quality and blamed their shortcomings on workers, rather than on management priorities and failures.

A third factor is long-term planning. Thai factories are more given to short-term profit taking. Japanese Fiber has a research and development department and is taking over R&D work from its parent company in Japan. It has come up with new products like material for disposable garments, useful in places like hospital operating rooms.

Good employee relations is another important factor. Japanese factories have kept ties of communication open to workers and have tried to operate in a more cooperative and less

autocratic style. Regular meetings with labor representatives can forestall problems, deal with issues while they are still minor, and seek cooperative solutions. Japanese companies have also been willing to share some of the profits produced by Thai labor in the form of higher wages and more benefits. A contented workforce trying to solve problems cooperatively is likely to be much more efficient and productive than a dispirited workforce under autocratic management that makes little effort to talk to workers or take advantage of their expertise.

Worker rights and a safe working environment are becoming issues in marketing. There is increasing attention in major textile markets like the United States and Europe to conditions of labor. Many companies in Thailand have worked hard to meet the ISO 9000 standards relating to quality, but the new ISO 14,000 standards relate to the workplace and environment. NGOs are pushing for labels that show that basic standards have been met, and labor rights and human rights groups are trying to put pressure on and embarrass companies with well-known brand names that sell goods produced in substandard factories in developing countries.¹² Many Thai companies will not bear close scrutiny in this regard. Western labor groups have already begun some undercover checks of Thai factories in the garment industry.

In all these respects, Japanese owned factories seem better able to compete in the future than Thai owned companies. Nevertheless, Thai owners have grown rich off the boom years of the textile industry, and their factory landholdings have increased sharply in value. Should the Thai owned factories be unable to compete in textile markets in the future, their owners are unlikely to suffer. However, a bleak future seems in store for the textile workers, mainly middle-aged women who are about to lose their jobs after years of difficult, and sometimes dangerous, work. Neither business nor the Thai government seems interested in their future.

What are the implications of this research for those concerned about textile workers in Thailand? Responsibility for problems and solutions to them lie with the government, business, the medical profession, academia, NGOs, unions, the workers themselves, and with the general public.

¹² See, for example, Steven Greenhouse, "Apparel Industry Group Moves to End Sweatshops: Agreement to Bring Worldwide Inspection." *The New York Times*, April 9, 1997, p. A14.

First, the Thai government should be concerned not just with development and economic growth, but also with economic justice, education, and the health and safety of workers. Particularly with the passage of social security legislation, the government will face an increasing burden for sick, injured, and disabled workers. The government has only reluctantly and sporadically concerned itself with worker health and safety, and then often only after the shame of international notoriety in the wake of a disaster like the Kader fire. Health and safety standards should be enforced and improved to meet medically accepted standards. The cost of protection and treatment of work-related illnesses and injuries should be borne by the businesses involved, not by the taxpayer or the worker herself. Factory inspection should be more frequent and stringent, and laws regulating health and safety should have teeth.

Compulsory education needs to be extended and standards raised if Thai workers are to continue to compete. For many years Thailand spent a very large percentage of its budget on education, and Thai workers were comparatively well educated for a developing country. Today, however, Thailand is falling behind in its commitment to education and in the comparative advantage of its workers.

A more even distribution of economic wealth also leads to greater and more firmly based economic growth. Although the minimum wage has been raised slightly each year, economic disparities have grown. Workers should be allowed a somewhat greater share of the wealth their labor helps produce. The textile industry in particular depends on a growing internal market as exports decline.

Business needs to develop a sense of ethics. Japanese owned firms have been very profitable even as they paid more attention to worker safety and benefits. Safety shutoffs on machinery and protective safety equipment are cheap. If government forced business to pay the real costs of work-related illnesses and injuries, business would soon clean up its act as a cost-effective measure, quite apart from any sense of ethical responsibility.

As working conditions come under increasing international scrutiny, Thai firms will also find ethics can pay in marketing too. But workers' lives and well-being are not simply a matter of money. Workers deserve safe working conditions and a decent standard of living; particularly, as in the case of the textile industry, where owners have grown rich on their labor.

The Thai medical profession also needs a higher standard of ethics. It is unacceptable to dismiss work-related illnesses and injuries as "political" and hence untouchable. To ignore workers or deliberately misdiagnose them is also a political decision, one that pits doctors against the health and safety of Thailand's workers. Doctors and hospital personnel need to treat all patients with dignity and respect, not just high-paying private patients.

Academic institutions need to include more on ethics in the curriculum of their business and medical schools. Attention must be paid to the needs of flesh and blood people, and not just to profits, growth, and exports. Those who talk of the need for cheap labor are comfortably off and certainly don't refer to their own labor; nor could they imagine their families living on an income anywhere near the minimum wage. Students can play a role in educating themselves and others about working conditions and in joining others to press for change and fair standards.

Non-governmental organizations can also play a role in supporting workers, and in pushing for higher standards in education, health and safety, and law enforcement. Groups of doctors, lawyers, and educators could make a big difference in improving the lives of workers and in changing the social and ethical ethos in Thailand.

Unions need to show greater concern for health and safety standards and bargain vigorously for improvements in the work environment, insisting on proper protective equipment and helping to educate workers in its use.

Workers need to take responsibility for themselves as well. They should use protective equipment regularly, protesting when such equipment is missing, ill-fitting, or substandard.

The Thai public also bears responsibility for workers and working conditions, both as consumers and as citizens. Ideally, consumers should be as interested in the conditions under which goods are produced as in their price and quality. Citizens should be concerned about the well-being of their compatriots and about upholding legal standards. The public will also benefit from a healthy, educated, stable workforce with decent standards of living and with purchasing power.

The problems in the textile industry are probably not much different from the problems in other industries in Thailand. Only through a cooperative effort of government, business, labor, and concerned citizenry can problems be solved, workers protected, and industry made more competitive. But this must happen if Thailand is to become the respected economic "tiger" it has the potential to be.