ANALYZING EXPLOITATION

The Mechanisms Underpinning Low Wages and Excessive Overtime in Chinese Export Factories

Anita Chan and Kaxton Siu

ABSTRACT: The codes of conduct of Western brand-name corporations normally require supplier factories in the Global South to comply with the local country’s minimum legal wage; the codes also often stipulate a maximum sixty-hour work week. But the problems of illegally low wages and overtime violations in supplier factories remain unresolved. This article uses survey data collected in a city in South China on workers’ wages and work hours to show how legal minimum wage rates, which normally are expressed in developing countries as a monthly wage, obfuscate the level of wages paid to workers. This will be demonstrated by comparing two different payment systems: time rates (which predominate in the toy industry) and piece rates (which predominate in garment manufacturing). The differences in the compensation rates and work hours resulting from the two systems lead the authors to contend that countries in the Global South and the implementers of corporate codes should calculate minimum wages in terms of hourly earnings in order to make wage payments more transparent and help reduce exploitative practices.

Many of the academic articles published on the impact of corporate social responsibility (CSR) initiatives are in basic agreement that the efforts to implement corporate codes of conduct are often ineffective, be it from a macro perspective in CSR global governance,¹ in social auditing,² or even in cases when trade unions have been allowed to function in factories.³ Even mass circulation magazines have been reporting on the “failure of the codes.”⁴ In particular, reports by NGOs (nongovernmental organizations) have been negative about CSR and have meticulously illustrated how wages and work hours continue to
fall far short of the legal minimum. None of the above, however, closely examine the mechanisms underpinning the excessively low wages and excessively long work hours.

This article will try to fill this gaping hole in CSR discourse by focusing on the relationship between wages and work hours among workers in the export industries of the Global South. Our hope is that our findings will lead to the development of a quantifiable instrument that can ultimately benefit workers and that can be applied to all global production chains.

While in today’s developed world calculating a legal minimum wage by the hour is conventional, this is not so in the developing countries that today are the manufacturing sites of the supplier chains. These countries normally use monthly wages when determining the legal minimum wage. We shall examine how this practice distorts and undermines legal efforts to protect low-paid workers, and similarly distorts and undermines CSR efforts to prevent labor exploitation. To demonstrate our point that a minimum hourly wage should be used in setting a minimum wage, we shall examine the payment systems that prevail in two different industries: time rates (which are widely used in the toy industry) and piece rates (which prevail in garment manufacturing). As will be seen, these two payment systems have engendered different work conditions for the workers, highlighting the importance of making payment schemes transparent by calculating them in terms of what they pay per hour.

The differences in the payment of piece rates and time rates have been of interest to specialist industrial engineers studying the issue from management’s perspective. The use of piece rates was found to be an effective monitoring system to prevent workers from “shirking.” Early in the twentieth century, this system was perfected under Taylor’s principle of “scientific management,” when management undertook time studies to set the most productive piece rates. In recent decades, empirical research on methods of payment have tended to conclude, from management’s vantage point, that the piece rate system with quotas is the most efficient system in terms of production output. We will address the question from a different perspective: Are piece rates more exploitative than time rates and if so are workers themselves aware of this?

China is an appropriate site for this case study as it is the “global factory,” deemed responsible for a “race to the bottom” in global labor standards. The CSR initiative was introduced into China in the mid-1990s when Western brand-name corporations responded to the criticisms of NGOs that the corpo-
rations were turning a blind eye to dangerous, inhumane conditions in the factories of their suppliers in China. In the past one and half decades many millions of dollars have been spent on monitoring and compiling factory compliance reports. Undeniably some improvements in factories have resulted from this effort, but as will be observed, the improvements have been minimal vis-à-vis wages and work hours. The findings of our survey of toy and garment factories reveal that wages are still excessively low and work hours are excessively long.

The Survey

Our questionnaire asked detailed questions to find out as precisely as possible the wages and work hours of workers and their attitudes toward these conditions. The field survey was carried out in 2006 in two stages in various districts of Shenzhen City in Guangdong Province at factories that produce for Wal-Mart: four garment factories in June and July and five toy factories in October 2006. We chose factories that supply Wal-Mart because we wanted to control the independent variables of buyer and product type. As the biggest buyer in China, pur-
chasing for a specific segment of the garment and toy market, Wal-Mart was a logical choice. The two industries, toys and garments, were chosen because such factories are numerous in this part of China, a region where production-line workers are all migrants from other provinces. The two industries provide an interesting contrast, given that the garment trade normally operates on piece rates, while toy production uses time rates. Since each of the factories had its own specific ways of rewarding labor, detailed questions had to be included to capture the complexity of the wage systems.

Collecting data on wages and labor conditions in these supplier factories proved to be difficult. For instance, the ideal would have been to interview both factory managers and workers, but we were not able to gain access to factory management. Information was collected from workers outside factory gates. The window of opportunity for surveyors to approach workers each day was quite short, usually not more than an hour between a worker clocking off for dinner and clocking in again for the night’s overtime. This meant each surveyor’s one- to two-hour bus ride to a factory could yield at best two answered questionnaires, or sometimes none. The surveyors needed great persistence to fill in eighty-eight questionnaires from nine factories (five toy factories and four garment factories). All of these factories supply multiple buyers, but a substantial percentage of their products are sold to Wal-Mart.

The respondents could not state the exact number of workers or the gender ratio at each factory. We overcame this problem as best we could by using the mean distribution of the estimates for each factory. Notably, too, due to the difficulty in obtaining respondents, the numbers of questionnaires that were filled in at each factory are not proportional to the size of the factories. To overcome this problem we have weighted the sample when we compare data between the toy and garment industries. Table 1 shows the number of respondents and the weighted means of respondents’ estimates of the size of their factory’s workforce.

<table>
<thead>
<tr>
<th>Factory (G=Garment; T=Toy)</th>
<th>Number of Respondents</th>
<th>Weighted Means of Factory Population Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>G1</td>
<td>3</td>
<td>550</td>
</tr>
<tr>
<td>G2</td>
<td>10</td>
<td>169</td>
</tr>
<tr>
<td>G3</td>
<td>19</td>
<td>3405</td>
</tr>
<tr>
<td>G4</td>
<td>8</td>
<td>900</td>
</tr>
<tr>
<td>T1</td>
<td>15</td>
<td>3600</td>
</tr>
<tr>
<td>T2</td>
<td>14</td>
<td>2733</td>
</tr>
<tr>
<td>T3</td>
<td>5</td>
<td>1950</td>
</tr>
<tr>
<td>T4</td>
<td>6</td>
<td>321</td>
</tr>
<tr>
<td>T5</td>
<td>8</td>
<td>301</td>
</tr>
</tbody>
</table>

12. At best we could only estimate each sampled factory’s number of workers by taking the mean of the answers provided by respondents from each factory to a question asking them to estimate the total number of workers at their factory.

13. The weight for each factory, say for garments, when used for making comparisons with toy factories is calculated as the following equation: Weight used for a particular garment factory = Estimated workforce provided by worker respondents from that garment factory divided by estimated total workforce provided by workers for all sampled garment factories.
The Monthly Wage Floor

Most of the factories in China’s export sector are owned and managed by corporations from Hong Kong, Taiwan, and South Korea that enter into contracts to manufacture for Western brand-names. In the 1990s, as these supplier companies moved much of their production into China, they were soon plunged into an intense competition among themselves to acquire orders by offering lower prices. In this competition, a common way to reduce production costs was to squeeze the Chinese workers, who were largely poor migrants from the countryside. One Hong Kong buying agent put it graphically to us, “Suppliers still have places where they can cut fat, but the easiest fat to cut is workers’ wages.”

The wages get squeezed down to what the manufacturers can legally get away with, the monthly legal minimum wage. Such minimum wage levels in China are set annually by city-level governments, supposedly in accordance with the prevailing wage and the cost of living in the city. The city’s legal minimum wage is then reported to the Ministry of Labor and Social Security in Beijing. Local governments, however, tend to be pro-business and eager to attract foreign investment. Setting legal minimum wages at the lowest possible level has been the policy for many years.

Through visits to many dozens of factories in this region during the past two decades, we have found that the monthly “basic wage” (jiben gongzi) paid to migrant workers for a 40-hour week is almost invariably the same as the legal minimum wage. In other words, for a standard 40-hour week they normally are paid at the legal minimum. Only when they work for more than forty hours a week can they make any money beyond the amount needed for survival, to begin to save or share it with their family members. That is why most of these workers are “willing” to labor far longer than forty hours a week, since money is needed beyond survival. They are required by law to be paid a higher wage per hour for all overtime and weekend work. In reality, however, most of them are paid for overtime at the basic rate or just a bit more, and many workers actually make even less per hour of overtime than they do during their first forty work hours. Because they are not paid enough for their overtime labor, the overall pay of some migrant workers can be much less than stipulated by law.

In the Shenzhen region, real pay for the first 40 hours declined slightly for a decade from the mid-1990s until 2004. But as a consequence of no real wage increase for so many years, by around 2003 many migrant workers no longer wanted to come to Guangdong Province. This caused a shortage of labor that was widely reported in the domestic and international press. In 2004, the authorities in Outer Shenzhen, the area where most of the sampled factories are located, raised the legal minimum wage by the largest margin ever, 120 yuan (about US$15 per month) at a time of substantial inflation in foodstuffs, and they raised it again in succeeding years. But when the world economic crisis ar-

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14. The exchange rate at the time when data was collected for this article was roughly US$1 to 8 yuan.
rived in late 2008, the Shenzhen authorities reacted by freezing the minimum wage in 2009 despite continuing inflation.

Notwithstanding the labor shortage that began to be evident around 2003, factories could still find sufficient workers to employ, but they no longer could be as choosy in whom they selected.\(^\text{15}\) Before, for most types of production work they were only willing to recruit what we call “prime labor,” young women between the ages of eighteen and twenty-three. In interviews with us during the 1990s and early 2000s managers explained that young female workers have nimble hands, are more obedient and easier to manage and are faster and more meticulous. The factories were not interested in women older than twenty-three because it was said that by the age of twenty-four, rural women would return to their home town to get married, and the factories did not want to deal with problems related to pregnancy. The factories also calculated that by the time a woman reached her late twenties she was too old to keep up with the rapid pace of work.

The hiring policy in these two industries has been discriminatory. Men had great difficulty finding production-line jobs. They were hired normally only for heavier manual tasks such as loading and unloading, or for tasks that required some technical skills, or in garment cutting, which requires taller and stronger workers due to the sheer bulk of the stack of material to be cut. Thus the male ratio among manual workers in these two industries was usually 10 percent or even less before labor shortages were reported in 2004.

Starting in 2003–04, however, with insufficient numbers of young women standing outside factory gates in search of a job, factories have had to hire older women as well as young men and even men older than thirty. This can be observed in our survey. As can be seen in table 2, the mean age of the sampled workers at these Wal-Mart suppliers is 23.8, which is older than the range of ages at which factories normally employed production-line workers in the 1990s.

Starting in the mid-2000s factory-gate recruitment posters in the Shenzhen region often read: “Ordinary workers needed: 18 to 30 years old. Positions open for either men or women,” whereas before a poster would read: “Women workers needed: 18 to 23 years old.” This change in gender recruitment is evident in our survey sample, in which the males make up 26 percent of the

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15. Chan, Madsen, and Unger 2009, ch. 15.
workforce. This percentage is considerably higher than we encountered in our visits to similar factories in the 1990s and early 2000s.

Figure 1 disaggregates the survey numbers. The widening age spread shown here reflects a shift in factories’ recruitment policy to alleviate the difficulty of recruiting young unmarried healthy high-school-educated females. Figure 1 shows that there were a few illegally under-aged workers (below sixteen years of age) and a sizeable proportion of workers older than twenty-five, up to forty-three years of age. As nonprime workers they feel vulnerable — especially since the downturn in the global economy that began in 2008. Management made use of the non-prime workers’ vulnerability to maintain cost competitiveness by continuing to force workers to do extensive overtime work at low hourly wages.

**Wages and Work Hours**

Managers invariably hold on to the argument that migrant workers are all eager to earn more money and welcome as much overtime work as is available. There is some truth to these claims because, as pointed out earlier, working for only forty hours a week can only support the worker’s own survival. In fact, one

16. This percentage is an estimate. Since only managers can provide precise figures on gender, we could only ask worker informants to estimate the gender ratio in their own factories. We then averaged out the estimates for each factory, and then again took the average for all the sampled factories.

17. We have anecdotal evidence that the same shift in the gender ratio is also found in the shoe industry. One of us collected data in 2003 at an enormous shoe factory in Fujian that produces for an international brand, and the male–female gender ratio at that time stood at 30:70. By 2007 it had become approximately 50:50.
method that management uses to penalize disobedient workers is to deny them any overtime work. But is it true that workers always want to work as much overtime as they can get? If so, why is it that, when workers’ complaints erupt into protest action, excessive overtime is almost invariably an issue? From the workers’ perspective, then, what is the optimal balance between wages and work hours?

Before proceeding further, we need to be more precise in our analysis by basing ourselves on concrete definitions and numbers. To do so, we will first need to define several terms that are used for our survey data:

- **Regular work hours**: work hours as defined by the labor law as forty hours per week. This amounts to 21.75 days per month or 176 hours per month.
- **Overtime**: All work hours beyond the regular hours of forty per week.
- **Overtime wage (OT wage)**: wages received by workers for work beyond the legally stipulated norm of forty hours. The legal rate for weekday OT is one-and-a-half times the regular wage per hour; double for Saturdays and Sundays; and three times for public holidays.
- **Legal maximum work hours per month**: 176 hours + 36 overtime hours = 212 hours.
- **Received wage**: the total wage received by workers after various kinds of deductions were taken by the factories in the month prior to the survey.
- **Desired wage**: the wage that workers wanted, when asked the question, “How high a wage do you wish to make each month?”
- **Legally entitled wage**: total wage to which workers are entitled by law for the regular hours and overtime hours (legal and illegal) that they have performed.

What does table 3 show us about the working conditions of the workers in the Wal-Mart supplier factories in these two industries? When the extremely long hours are taken into account, the wage figures lie below the amount stipulated in China’s labor law. On average the workers in the sample worked 302 hours a month; 126 of these were overtime hours (302 – 176 hrs. = 126 hrs.). This means that 90 hours (126 – 36 hrs. = 90 hrs.) of their overtime were illegally in excess of what China’s labor law stipulates as the allowed maximum. That is, their total work hours were 42 percent more than the legal maximum of 212 hours per month. The vast majority of the workers (88 percent) worked more than eleven hours per day, and 81 percent of them had fewer than four rest days a month. (A minimum of four rest days is legally required.)

**Piece Rate Payments versus Time Rate Payments**

As can be seen in table 3, garment workers work longer and have a lower hourly pay than toy workers, despite the fact that garment factories require a more skilled workforce than toy factories. What is the explanation? As will be seen, a salient factor is that garment workers are paid by piece rates and toy workers are paid by time rate. Many tasks in toy production are simple, require little skill, and can be performed on a production line (such as painting black dots as eyes
on toy soldiers or assembling different parts of the toys). Paying workers by time rate while setting a high daily quota for the production line will suffice to extract as much labor from the workers as is feasible. In contrast, in garment production each worker works with one sewing machine and often does a relatively complex set of sewing tasks. His or her productivity is based on personal skill and individual speed, which can vary by a large margin. In short, whereas piece rates are not applicable to production lines (toys), they are suitable to production that is organized around each worker’s own independent labor input and independent rate of production (garments). The nature of piece rates is to motivate the individual worker to work as fast and as long as possible to make more pieces in pursuit of higher pay.

What are the effects of these two different types of payment systems? To a striking extent, a piece rate system drives workers to labor for longer hours. Ninety percent of the garment workers stated that on an average workday in the past month, they had worked more than ten hours, while only 78 percent of toy workers claimed this. Seventy percent of the garment workers regularly worked five or more hours of overtime on a workday. This means that, for the majority of garment workers, a regular workday was thirteen hours or more, while for the majority of toy workers a regular workday was twelve hours or more. Sixty-one percent of the garment workers said that they had had fewer than two days off during the previous month, whereas only 15 percent of the toy workers made this claim. During peak seasons, 33 percent of the garment workers had no days off a month, up from 16 percent during off seasons. The peak season for toy workers was less intense: 25 percent had no days off, up from 0 percent in the off season. When asked what was the longest continuous stretch they had worked (in hours), close to two-thirds of the garment workers (64 percent)

<table>
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<th>Variable</th>
<th>Total Sample (N=88)</th>
<th>Garment Factories (N=40)</th>
<th>Toy Factories (N=48)</th>
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<td>0297.63</td>
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<td>Overtime Per Day</td>
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<td>0003.19</td>
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<td>Days Off Per Month</td>
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<td>Monthly Wage</td>
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<td>1007.00</td>
<td>1374.93</td>
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<tr>
<td>Hourly Wage</td>
<td>3.84</td>
<td>3.39</td>
<td>0004.17</td>
</tr>
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</table>

18. Our survey findings on Hourly Wages and Monthly Work Hours are consistent with the most updated reports by China Labor Watch. China Labor Watch conducted investigations from April to June 2009 at two Wal-Mart shoe supplier factories. Its investigations revealed that some workers made only 3.48 yuan per hour (US$0.51per hour) and worked 77 hours per week (308 hours per month). This means that the wage level of 2009 fell between our garment and toy wage levels. The report is available on-line at www.chinalaborwatch.org/20090727wal-mart.htm (accessed 8 April 2010).
Fig. 2. Monthly Work Hours Distribution for Garment and Toy Factories (N=88)

Fig. 3. Legal Minimum Wage, Received Wage, Desired Wage, and Legally Entitled Wage, per Month (N=88)
stated they had worked between twelve and fourteen hours nonstop, and 16 percent claimed they had worked for twenty-four hours or more nonstop. In comparison, the longest continuous hours of work among any of the toy workers was twenty-two hours, and about two-thirds of the toy workers (63 percent) said that the longest they had ever worked continuously was for twelve hours a day. Overall, garment workers work noticeably longer than toy workers.

The invisible hand of market forces is supposed to adjust for the supply and demand for labor and is supposed to set wages accordingly. Since garment workers are more skilled than toy workers and there is also said to be a labor shortage, according to economic logic garment workers should be paid more and have better conditions than toy workers. The results of the survey show, instead, what appears to be an irrational phenomenon. Fig. 3 shows that garment workers fall further behind their legally entitled wage than toy workers. (We surveyed garment factories several months earlier than toy factories, at a time of transition in government-set minimum wage standards, so the legal wage entitlements for the two industries differ.) If we compare their received wage as a percentage of their legally entitled wage, garment workers received 75 percent of what they were legally entitled to (1007 yuan ÷ 1343 yuan x 100 percent), while toy workers received 89 percent (1374 yuan ÷ 1537 yuan x 100 percent).

In addition, among the garment workers themselves the payment is also irrational. The correlated coefficient between monthly work hours and received wage was 0.02; for toy workers, 0.13. In all cases, the correlations were positive but weaker in the garment factories. Twenty-two of forty garment workers (55 percent) labored more than 300 hours a month, and eight out of the forty were paid less than three yuan per hour, which is less than half their legal entitlement. For toy workers, only sixteen out of forty-eight (33 percent) worked for more than 300 hours per month and only two workers out of forty-eight received less than three yuan per hour. The weak correlations indicated irrationality in wage setting across the two industries and, not unexpectedly, this was more pronounced in the garment industry. The maxim in China today of “more labor, more award” (duolao duode) does not apply.

Workers’ Desired Work Hours: Garments vs. Toys

The quantitative data presented above tell us the objective situation. Workers were forced to work those long hours and were paid illegally low remuneration. But what do the workers themselves want? What are their subjective conditions? How much do they desire to earn each month and, for that amount, how many hours do they want/expect to work?

Assuming that most workers want to make more money than they are presently getting, we asked: “How much in wages do you wish to make each month?” We have labeled this the “desired wage.” To see how this compares with the amount each worker was actually making, we constructed a variable “desired wage index” (desired wage ÷ received wage). When the index is equal to 1, it means the worker accepts the present wage level as appropriate. Those who want more than they are receiving will score greater than 1 on the index;
those who want less will score less than 1. Our hypothesis was that all workers would want to make more, and quite a lot more, as their wages are so low.

As daily and monthly wages are normally related to the number of work hours, we posed two questions to find out how long workers want to work every day and every month: “How many hours of work (including overtime) do you think would be suitable for you?” and “How many days of rest a month do you think would be suitable?” As shown in the survey figures we have presented, many of the supplier factories give workers only two days off or even no days off each month. Moreover, our interviews reveal that workers become physically and mentally exhausted after a few weeks without rest. Their desired length of work hours and desired number of rest days will give an indication of workers’ tolerance level for exhaustion and for robotic, simplistic, monotonous, repetitive physical movements.

Regarding the first question, 75 percent of all the sampled workers wanted to work for ten hours or less. Of these, if paid their current level of pay, 16 percent wanted to work for fewer than ten hours, 59 percent wanted to work for ten hours a day, and 26 percent wanted to work for eleven or twelve hours a day. On the second question, 50 percent wanted to have four days off each month, and another 12 percent wanted to have four to eight days off a month. That means 62 percent wanted to have four or more rest days each month, and 37 percent wanted to have fewer than four days off. Combining the answers to both questions shows that a clear majority of all the sampled workers (60 percent) desired a 10-hour day and a 6-day week, which amounts to 260 hours a month (a 30-day month = four 60-hour weeks + 20 hours). While the workers in our sample were chalking up 303 hours a month (table 1), they wanted to work 43 hours

| How many hours of work (including overtime) do you think is suitable for you? |
|-------------------------------|-----------------|-----------------|-----------------|
| Desired working hours          | Garment Workers | Toy Workers     | All Workers     |
| (including overtime) per day   | N=59            | N=48            | N=87            |
| Less than 10 hours             | 11 (28.3%)      | 3 (6.3%)        | 14 (16.1%)      |
| 10 hours                       | 16 (41%)        | 35 (72.9%)      | 51 (61.2%)      |
| 11 to 12 hours                 | 12 (30.8%)      | 9 (18.8%)       | 22 (26.2%)      |

<table>
<thead>
<tr>
<th>How many days of rest a month do you think is suitable for you?</th>
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<tr>
<td>Desired days off per month</td>
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<td>(including no days off)</td>
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<tr>
<td>Garment Workers N=40</td>
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<td>Toy Workers N=47</td>
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<td>All Workers N=87</td>
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<tr>
<td>4 to 8 days</td>
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<td>38 (80.7%)</td>
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<tr>
<td>54 (62.1%)</td>
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<td>2 days or less</td>
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<td>15 (37.5%)</td>
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<tr>
<td>6 (12.8%)</td>
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<td>21 (24%)</td>
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less, still 48 hours a month more than the 212 hour legal maximum stipulated by the Labor Law. We can conclude that 260 hours a month can be regarded as the tolerance level at which most of the workers reach exhaustion. Let us underline that desired work hours are not optimum work hours, but the maximum tolerance level for the workers. As interviews separately revealed, many workers felt that normal work days not exceeding ten hours and having at least one day off a week was essential, to enable them to recuperate physically and mentally from 6 days of repetitive motions and numbing boredom on the production line. A 60-hour week coincides with the maximum set by many transnational corporations’ codes of conduct. In that sense, the codes set the maximum work hours at the level of the workers’ physical tolerance. This also means that most of these Chinese workers are made to work many hours beyond their tolerance level.

Comparing toy and garment workers, we find that 69 percent (twenty-seven out of forty) of the garment workers wanted to work ten or fewer hours per day, compared to 79 percent (thirty-eight out of forty-eight) of the toy workers. On the second question, only 40 percent (sixteen out of forty) of the garment workers wanted to have four or more days off a month, compared to 81 percent (thirty-eight out of forty-eight) of the toy workers. Notably, 35 percent (fourteen out of forty) of the garment workers wanted only two or fewer days off per month. Clearly garment workers wanted to work more days, including all or most weekends, while the majority of toy workers wanted to rest at least every Saturday or Sunday. The factor, we think, that drove the garment workers to want to work such long hours was that their pay was too low for the work they put in, and the fact that they were on piece rates, which gave them the impression that the best way to resolve their financial difficulties was to work even longer.
Workers’ Desired Wage: Garments vs. Toys

Thus far we have looked at the distribution of the desired work hours of the sampled workers, but we still have to examine the variables that affected their desired wage. Why did some workers want to earn a lot more, and some just a bit more than they were making?

To understand this, we ran correlation tests for a number of variables: (1) received wage and desired wage index; (2) monthly work hours and the desired wage index; (3) monthly wage vs. hourly wage; (4) the hourly wage and desired wage index.

1. Received Wage and Desired Wage Index

It might be assumed that, since the received wage is low, workers’ desired wage index would invariably be higher, and vice versa. When correlating the two variables, the situation is more complicated, as fig. 4 shows.

There was a negative correlation between the two variables, with a correlated coefficient of -0.3643 (p<.005). Fig. 4 shows that, as might be expected, all but four workers wanted a desired wage higher than their current wage. Fig. 5 (facing page) shows that the mean of the desired wage index was 1.489, i.e., only 15 percent more than the received wage. This reflects the fact that workers generally had quite low expectations of making a lot more. Whereas only 19 percent of the workers thought that their present received wage was suitable, a further 35 percent wanted a wage only 10 to 20 percent higher. Thus it can be said that 55 percent, just over half the workers, have low expectations. Of those who

Fig. 4: Received Wage vs. Desired Wage Index (All Workers, N=88)
have much higher desired wage indexes, 11 percent wanted 21 to 39 percent more in wages; 13 percent wanted 40 to 80 percent more; and five workers wanted more than twice as much. We can conclude that the desire of workers to make substantially more money was not high.

What is most interesting, though, is the situation of workers at both extremes in the graph: those with unusually high desired wage indexes and those whose desired wage was lower than their received wage. The five workers with the highest desired wage index (more than double their received wage) were all paid well below the legal minimum wage level and were working extremely long hours. Two of them were working 340 hours a month, which is among the longest in the entire sample. These five workers all earned an extremely low hourly wage of 3.6 yuan, which was only about 60 percent of what they should legally have been getting. A possible explanation for this unrealistic dream of earning two, three, or even four times more than they were making is that their expressed desires were a sign of desperation.

Even more interesting are the four workers who wanted to make less than they were already earning (shown as black solid dots in fig. 4). This finding is unexpected and contradicts the all-too-common remark by managers that all workers want to do as much overtime as is available, to make more money. When we check these four workers’ total monthly work hours, their numbers of days off, and their hours of work per day, we find that three of them worked for at least 318 hours a month, and two of them for more than 342 hours (12-hour days and only 1.5 days off a month), which are also among the highest work-
loads recorded for the sample. They worked many hours above the average tolerance level. The overworked workers felt so exhausted that they would prefer to make less money, as a trade-off for a reduction in their excessive overtime.

2. Monthly Work Hours and the Desired Wage Index

The popular assumption is that because wages are low, workers want to work longer hours to make up for the low wage. This should lead to a situation where those who work fewer hours have a higher desired wage index and vice versa. The correlations between the variables of monthly work hours and the desired wage index, however, were not significant for (1) all the workers combined, (2) garment workers, nor (3) toy workers. The correlation coefficients were also very weak (-0.1467, -0.2772, and -0.2636). This demonstrates that length of work hours is not a determinant of workers’ desire to make more money. Compared to the received wage, the issue of working hours was less important as a factor affecting workers’ desire to make more money.

3. Monthly Wage vs. Hourly Wage

Since a monthly wage package does not reflect rationally the relationship between hours worked and monetary award, to find out whether the worker is paid up to the legal minimum wage level requires that the wage rate be expressed as an hourly wage. Not only are many workers currently not paid the legal overtime rate, but in some cases the longer a worker works, the lower is the worker’s hourly wage, a situation diametrically opposite to the principle that the longer the overtime one works the more one should be paid.

To find out where this is the case, we divided the sampled workers into three groups, for hours ranging from 202 to 360 hours per month — those with shorter work hours (monthly work hours <= 270 hrs), medium work hours (monthly work hours <= 300 hrs), and longer work hours (monthly work hours > 300 hrs). We then examined the relationship between the length of monthly work hours and the hourly wage.

First, the mean values of the hourly wage for all sampled workers in their respective work hour groups are: the group with shorter work hours = 4.05 yuan, the group with medium work hours = 4.02 yuan, the group with longer work hours = 3.56 yuan. Hence, for all cases we found that the longer the monthly work hours, the lower the hourly wage received. Second, when we split the whole sample into garment and toy workers, the trends were the same. The mean values of the hourly wage for toy workers in respective groups are: short = 4.32 yuan; medium = 4.19 yuan; long = 4.06 yuan; the mean values of the hourly wage for garment workers are: short = 3.83 yuan; medium = 3.47 yuan; long = 3.20 yuan.

The results clearly show that the more overtime the workers work, the lower the hourly wage. For garment workers, even though the minimum wage for the time when the survey was conducted was lower than for toy workers, the hourly wage was still extremely low. Our data show that garment workers who work longer hours than toy workers are in general exploited noticeably more, even though their tasks demand higher skills.
4. The Hourly Wage and Desired Wage Index

As discussed above, the hourly wage is an indicator that takes into account both wage and work hours, which by themselves do not fully reveal the level of exploitation. For our sample, when a worker’s hourly wage was correlated with the desired wage index, the outcome was also highly significant for all groups: (1) all workers combined, (2) garment workers, and (3) toy workers. The correlated coefficient for all workers combined was -0.1365; for garment workers it was 0.4037; for toy workers it was only -0.2661. Thus, the strength of correlation was far stronger for garments than for toys. Taking into consideration the findings of the relationship between monthly work hours and the desired wage index, the hourly wage rather than the length of work hours proves to be the more important factor affecting the workers’ desire to make more money (especially among garment workers). We believe this can be explained by the fact that garment workers, who were on piece rates, were under the illusion that they could make more money by either working longer hours or working faster. In either case, they believed that, if they tried hard enough, they might be able to augment their income through personal effort.

A worker might have a high received wage, but this could be a result of working very long work hours at a low hourly wage. The worker, in fact, could be terribly overworked and underpaid. The scatter plot of received wage against monthly work hours (see fig. 6) is more dispersed for garment workers because of an irrational wage structure and the individualistic nature of the workforce under a piece rate system. The scatter plot for toy workers, on the other hand, is more concentrated, at close to 300 work hours per month, due to a greater uniformity in payments based on a time rate.
Speed-ups and Labor Intensity

Thus far we have used quantifiable figures to argue that exploitation has been serious. However, there is one factor that we are unable to quantify: labor intensity. Quantitative data on this can only become available through access to factory records on work hours and production. Our assumption is that, as the increase in the legal minimum wage outpaced the rate of inflation starting in 2004, an employer seeking both to comply with the monthly legal minimum wage law and to maintain or increase his profit margin turned to the stratagem of speeding up the production line. We asked respondents, “In comparison to 2006, did your factory request you to speed up your production in 2007?” We found that about 42 percent of garment workers and 56 percent of toy workers responded that they had to work faster. Of these, 15 percent of both types of workers said that the work speed was a lot faster.

As management did not inform workers about the actual basis of their payments and their expected work speed, this was never made explicit in wage calculations. That is, workers were not paid more for working faster. In reality, greater labor intensity means increased exploitation, as workers were already exhausted at the previous speed.

The Code of Conduct and Workers’ Attitudes

The above statistical analyses provide evidence of prevalent, blatant labor violations in terms of illegally low payments and illegally long work days, especially in the garment industry. Wal-Mart’s code of conduct and its monitoring programs are supposed to rectify these widespread malpractices in supplier factories. On its website, Wal-Mart boasts that it performed 13,600 audits in 2005, the largest number carried out by any corporation in the world, yet legal violations are apparent in our survey data. Some of the answers provided by the workers in the survey explain why audits are not effective. The workers were aware of the auditing: in fact, 80 percent of the respondents knew that outsider auditors came to inspect their factory. Half of them stated that they had been informed by management in advance. The majority, though, had little idea of what was being audited. Of the 80 percent who knew of the audits, only 3 percent said that the auditors were concerned about labor standards and work conditions; others thought the auditors were concerned mostly with product quality and production safety. The workers saw the inspections as having little to do with their personal well-being. Only twenty workers (23 percent) thought that the inspections could improve workers’ work conditions or wages.

Relatively few workers knew that Wal-Mart had set labor and work condition standards that were supposed to be audited. Only 20 respondents (23 percent) said that the Wal-Mart code of conduct was put up as a poster on factory walls; 50 percent answered “no” and 24 percent “did not know.” Of the twenty who had seen a poster, only eight answered that they had read what it said, and of these, only one person answered “yes” to the question, “Do you feel the factory has implemented the code?” In short, only one worker out of eighty-eight knew of the code and thought it was implemented. These figures show that from the
workers’ perspective, the corporate code is of no relevance: most did not know about it, and almost no one who did know thought it had been implemented. Given their low wages and illegally long work hours, the workers were obviously correct in reaching this conclusion. The general failure of auditing to detect violations of vital labor standards means that the CSR program of which Wal-Mart boasts has had little impact on workers at the company’s supplier factories.

**Conclusion**

Our study views the problematic of wages and work hours from a workers’ perspective based on workers’ responses regarding their work hours and wages. While the anti-sweatshop NGOs and the stakeholders (minus the workers) in the global production chain debate the effectiveness of CSR initiatives and cor-
porate codes of conduct, the workers in this study either knew nothing about the codes or treated the codes and the monitoring as irrelevant.

Analysis of our survey data shows that the sampled factories’ wages are low and work hours are excessive. We have systematically analyzed the two forms of payments variously used at these factories — piece rates and time rates — with the intention of drawing up an instrument to measure wage standards, so that comparisons can be made at factory level, industry level (as in this study, the toy and garment industries), in-country regional level, and at the cross-country level. Significantly, our data show that calculating labor compensation using an hourly wage is a much more reliable and transparent tool than using a monthly wage. Unfortunately, the latter is normally used in the countries of the Global South that host manufacturing for the global production chain. As can be seen in this study, when the legal minimum wage is set by the month, even the workers themselves are unclear as to whether they are compensated up to the legal standard, especially for overtime work.

The problem is more serious among workers paid by piece rates, who do not think as directly in terms of hours. This gives management greater latitude to manipulate the wage package. If wages were expressed by the hour on pay slips, these workers would more easily become aware of underpayment. As has been seen, the garment workers in the survey not only made less per hour than toy workers paid on time rates but, worse still, their hourly rate actually decreased with longer working hours. They work at a rate of diminishing returns. In follow-up interviewing a year later, when we asked a number of garment workers whether their wages had gone up since the last minimum wage increase in mid-2006, they said that management had not informed them of an increase in the basic wage, and then followed up with, “since we are on piece rate it does not matter.” Their answers show their lack of awareness that their pay was illegally low, and that the more time they worked the less they were paid per hour. Labor NGO staff who work closely with garment workers remark that it takes more to convince garment workers to accept the fact that their pay is less than the legal wage. Because of their individualistic outlook they tend to believe that the solution to their impoverishment is working faster and for longer hours. One of the labor NGOs’ main tasks in promoting “rights protection” has been to inform workers what the official minimum wage is and to show them how to read the complicated wage slips and how to calculate their hourly entitled wage. Demonstrating to them how to work out the hourly wage enables workers to perceive that the more they work the less they make by the hour, which is a significant revelation to them.

Just as making payments transparent in terms of an hourly wage can benefit Chinese workers, we also hope that this approach can be popularized across the developing world, where countries compete with each other to offer cheap labor in exchange for foreign direct investment. If governments in the Global South begin to use the hourly wage as a tool to calculate labor rewards and also use hourly payments to calculate the legal minimum wage, as is common in the developed countries of the Global North, this would put legal pressure on the supply factories and international buyers to raise wages. We do not claim this is

the only measure that is needed to improve workers’ wages, but establishing a
transparent hourly minimum wage and helping workers to know exactly how
much they should be making is a first step on the road to higher compensation
and shorter working hours.

As regards China, discussions of wages and work hours have normally been
premised on the assumption that the legal minimum wage set by local govern-
ments is a fair minimum rate. Thus, the issue that gets discussed is whether
workers are compensated at a level guaranteed to them by law. But a question
that should be raised is whether this official minimum is pegged at the right
level. This study shows that workers have to work a great deal of overtime at
sub-legal levels of compensation before they can earn enough to live on, result-
ing in an abnormal wage structure made up of a large overtime component. In
other words, our study has shown that the monthly legal minimum wage has
been set too low, and that the complexities entailed by a monthly rather than an
hourly minimum wage system disguises this fact both from outside observers
and from the workers themselves.

Our survey includes questions about what workers desire as a wage and how
many hours they desire to work. When we asked the workers what they wished
to earn we obtained disconcerting responses: workers’ own wage aspirations
are low. Their desired wage was only a little bit more than the monthly legally
entitled wage even after accounting for a lot of overtime work. But their willing-
ness to work more overtime plateaued at about sixty hours of work a week,
which, we conclude, is their physical tolerance level. It should be emphasized
that their choice of a 60-hour week should be considered as a maximum, not de-
sirable or optimum from the workers’ perspective. Most Western corporate codes set the maximum at a 60-hour week, knowing full well that many supplier factories drive their workers to work many hours beyond that. Since sixty hours is equivalent to the physical tolerance level of workers, the maximum work hours in the corporate codes of the transnational corporations are clearly set too high. It is not by coincidence that in the past two hundred years workers have struggled hard to stabilize normal labor input at a 40-hour week.

A final question is why the workers in our study hold such low aspirations and accept such long hours and low wages. We believe that their expectations have been constrained by the shared sense in China that anything legal is just and fair. We have yet to learn of workers publicly demanding a higher legal minimum wage. The official minimum wage defines legality and illegality, and has gained an almost sacrosanct status. The government and the official trade union incessantly espouse the importance of “protecting rights” (weiqian) — including a right to be compensated up to the legal minimum wage for the first forty work hours per week. “To protect” that minimum legal right is in itself a passive outlook. Only if one’s legal rights are being violated does one need to be protected. “Rights protection” does not suggest an active assertion of rights beyond the bare minimum. Having heard and accepted the official “rights” discourse, most of the workers in our survey, aware of the legal minimum wage standard, were very modest in their aspirations. It is no coincidence, we believe, that the monthly desired wage of the toy workers (1,527 yuan) was so close to the legally entitled wage (1,537 yuan), and the difference for garment workers was also slight (see fig. 3 above). China’s legal minimum wage distorts the perceptions of the workers, the authorities, and even the critics. We, too, were caught up by this false paradigm when we began our project. When we first drew up our questionnaire, many of our questions revolved around whether wages were attained in keeping with the monthly legal minimum wage.

We hope that this study can contribute to a new direction in CSR research and debate and to a more accurate means to calculate labor standards at a global level. Of note is that even research reports issued by the ILO do not accurately compare minimum wage standards across countries, nor examine wages and work hours as interrelated but instead discuss them separately.19 We raise the prospect that expressing legal minimum wage figures by the hour may be a new first step.

Due to the lack of transparency and the deliberate complexity and arbitrariness in management’s wage setting, Chinese workers in export industries currently have great difficulty understanding how they are being paid. In societies where trade unions are active, the unions have the expertise to negotiate with management on the intricate details of wage setting. In China, where collective bargaining is nonexistent in the supplier factories, the shift to an hourly wage

yardstick will enable workers to calculate whether they are being paid at least the legal minimum. In fact, within the past few years the Chinese authorities have begun including information about minimum hourly rates when releasing new monthly minimum wages, but this needs to be popularized. Employers and local government agencies ignore it, and workers remain unaware of the hourly wage figures.

The same issue applies to vast numbers of workers in the Global South. Using an hourly wage as the benchmark can help workers better comprehend how they are being compensated for their work, and it can also help their advocates to better negotiate with the brand-name corporations. This is especially true for piece-rate workers who, as we have shown in this article, are commonly manipulated by the piece-rate system into ignoring how much they earn each hour.

There is a final important aspect. Developing countries are competing for foreign direct investment, which plays into the hands of the supplier firms and of buyers from the wealthy countries. The supplier firms sometimes threaten to relocate to other countries where labor is “cheaper,” which pressures governments of developing countries to keep their monthly minimum legal wages as low as possible. An international floor in wages is needed to stop this race to the bottom, and an hourly wage standard can provide a vital tool in establishing such a floor, since it creates a common accurate basis for evaluating wages across countries.

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