## BYD COMPANY LIMITED INVESTIGATIVE REPORT

An Investigation of BYD Co．，Ltd．Baolong District，Pingshan District（formerly known as the third and eleventh business group）and Huizhou Dayawan Campus

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## I. PREFACE

China Labor Watch (CLW) ${ }^{2}$ views Chinese workers' rights as inalienable human rights and is dedicated to promoting workers' fair redistribution of wealth under globalization. Since 2000, CLW has initiated independent investigations of many major brands"e supplier factories in China, including Wal-Mart, IKEA, Carrefour, Dollar General, Best Buy, and Target, among others. These investigations have led to over fifty investigative reports, which have been quoted by numerous international media sources and academic studies. In this report, China Labor Watch will focus on describing the labor conditions at some BYD facilities.

During the last ten years, BYD attracted numerous migrant workers to work in its factories in Guangdong Province. BYD became a low-cost supplier of Best Buy, Motorola, Nokia, Samsung, T-Mobile, Verizon, L'OREAL, Jabil and Vtech, by using low-wage workers while providing workers with subsidized housing in company-owned dorms and cheap, low-quality food. Workers contribute a large amount of overtime work, but the wages they earn do not amount to the statutory minimum wage standard of the area. Thus, workers must rely on the free room and board the factory provides. After working for some time in industrial areas, many migrant workers adapt to city life and lose their connections to the rural traditions and livelihoods they grew up with. Workers are unable and unwilling to go back to their hometown, yet the salaries they earn cannot support a reasonable standard of living in the city. As a result, despite the realization that their work is extremely underpaid, many workers find themselves reliant on the poor salary and cheap housing that BYD provides. This situation has an astonishing similarity to the $19^{\text {th }}$ century sweatshop factories in Britain. In such sweatshop factories, employees worked egregious amounts of overtime, earned less than the statutory minimum wage, and worked daily with hazardous materials in an unsafe work environment.

The word sweatshop first appeared in the early 19th century. It first referred to the garment workshops where workers toiled under arduous conditions overseen by agents called "sweaters." The production methods and quotas were strictly controlled by the sweaters. The relative success of the sweater system is the root cause of the popularity of sweatshops (as understood in contemporary terms) in the $19^{\text {th }}$ century.

After the British industrial revolution began, manufacturing machinery gradually replaced a large part of the manual labor workforce. At the same time, many young people lost their lands during

[^0]the enclosure movement and began to harbor hopes to live in cities．The first wave of these displaced workers flooded into London．But the garment sales industry，although it needed a large workforce to earn significant profits，was unwilling to hire young people directly．Instead， the sales industry preferred to subcontract orders to agents who would seek to lower production prices．The agents would pass these orders on to lower agents in order to reap profits from price differences．When the order finally reached a factory，the ordering price was already diminished to barely anything．Workers from the cities were reluctant to work for such low salaries，so the agents turned to the young men from the rural areas．They provided them with free meals and housing and a low base salary．In order to control them，they were locked in the factory and separated from the rest of society．The attraction of free room and board lured many young men to come work in these factories．Over the long－term，in light of the meager salary they earned， these young workers were not able to support a life outside the factory．Thus，they were forced to stay and work in the factories indefinitely．

Through literature such as Charles Kinsley＇s Cheap Clothes and Nasty and Charles Booth＇s Life and Labor of the People in London ${ }^{3}$ ，one can still picture the conditions of the sweatshop factories in the British garment industry during the 19th century．As we can see from the following comparison，the root causes of labor conditions in the 19th century sweatshops are remarkably similar to those at BYD＂s factories today．

| Root Causes |  |  |
| :--- | :--- | :--- |
|  | Textile and Garment Factories in 19th <br> Century，London | Four BYD Factories in 21st Century，China |
| I | After the first Industrial Revolution， <br> Britain became the first industrial <br> country in the world．Mechanized <br> production replaced small manual <br> workshop production．Those private <br> manual workshops that barely made ends <br> meet could no longer sustain themselves． | The＂Three－A＂（i．e．production automation， <br> office automation，and home automation） <br> revolution was followed by the new <br> technological revolution．The result of these <br> scientific and technological achievements has <br> transformed the speed of production of <br> commercial products．The Open Door Policy in <br> China has given rise to a massive surplus labor <br> force while attracting large amounts of foreign <br> capital． |

[^1]| II | The spinning and weaving industry developed rapidly. The increased speed of production and reduced cost led to rapid growth of the garment industry in the U.K. At the same time, the growing number of machines demanded a larger labor force to operate them. | In the electronics industry, integrated circuit (IC) manufacturing and product assembly are particularly labor-intensive and thus require a significant manual labor force. |
| :---: | :---: | :---: |
| III | The appearance of middlemen, the "sweaters," was the key reason for the emergence of sweatshops. Retailers subcontracted orders to sweaters, who in turn subcontract the work to yet another sweater. Sometimes a production order could be subcontracted through as many as eight sweaters until it ultimately reached a factory. | In order to reduce costs and evade social responsibilities, multinational corporations in the electronic industry have chosen to contract out the manufacturing side of their business. Beginning in the 20th century, electronics companies in developed countries have focused solely on design and sales and outsourced manufacturing to developing countries like China. |
| IV | The numerous sweaters were neither involved in production, nor engaged in sales. They made profits simply by lowering the price of an order when subcontracting it down to a lower tier sweater. | Transnational corporations hire Foxconn as a manufacturing subcontractor. Being a first-tier subcontractor, Foxconn offers extremely low prices to its buyers and makes profits by exploiting workers. |
| V | The lowest-tier sweater found the poorest and most desperate workers to manufacture their products so that the sweaters could pay them the lowest wage. | BYD recruits young, healthy migrant workers since only young workers are able to bear the intensity of work at BYD. BYD pays them the lowest minimum wage required, or lower. |
|  |  | BYD does not hire child laborers because China has a large agricultural surplus labor force. |
| VI | The majority of the workers were immigrants from Ireland, or unskilled women and children. | Following China"s Open Door Policy, the rural economy was ruined, which compelled numerous farmers to leave home for China"s developed coastal cities in search of employment. Throughout BYD"s period of rapid growth, the company has depended on the constant stream of migrant workers who pour into Guangdong in search of job opportunities. |


| VII | Isolated in the industrial labor chain， workers were unsure of their supply of work，and did not know where the products were sold．They were solely directed by the middlemen sweaters，and were unable to engage in collective bargaining with their true employers． | 力国劳工观室 <br> hina labor watch <br> Most workers are aware of the brands they are producing for．These brands all belong to foreign companies，which have contact with workers only during factory audits．Otherwise， the brand companies have few connections with workers．By law，workers do not have employment relationships with the multinational corporations．As a result， workers are not able to engage in collective bargaining with the buyer companies．At the same time，due to political constraints within China，the official trade union is unable to play its proper role，thus＂collective bargaining＂ between workers and the employer remains fallacious． |
| :---: | :---: | :---: |
| Labor Conditions |  |  |
| I | Generally，an ordinary garment worker in London earned no more than 5 shillings，which is to say 6 pennies，a week on average during the 1840s and 1850s． | According to the 31 random surveys China Labor Watch conducted at BYD Baolong in August 2010，and other 35 random surveys in March 2011，workers＂basic average hourly wage was less than $\$ 1$ USD． |
| II | Food and tea were supplied in sweatshops．However，workers were ＂only provided three thin slices of bread and butter，not sufficient for a child，and the tea was both weak and bad．＂ Furthermore，the workers had to pay a fee for this food． | BYD sometimes provides free working meals． All workers stated that they were able to eat enough．According to BYD，only workers who had eaten enough would have sufficient energy to perform under the extremely demanding conditions of the assembly line．However，a majority of workers also noted that the quality and nutritional value of the food was very low． |

The sweater＇s men generally lodged where they worked．A sweater usually keeps about six men．These occupy two small garrets；one room is called the kitchen，and the other the workshop；and here the whole of the six men，and the sweater，his wife，and family，live and sleep．＂One sweater I worked with had four children and six men，and they， together with his wife，sister in law，and himself，all lived in two rooms，the largest of which was about eight feet by ten．We worked in the smallest room， and slept there as well－all six of us．．．I was near losing my life there the foul air of so many people working all day in the place，and sleeping there at night，was quite suffocating．．．The room in which we all slept was not more than six feet square．＂${ }^{4}$
＂There was no chimney，and，indeed，no ventilation whatever．．．Almost all the men were consumptive，and I myself attended the dispensary for disease of the lungs．＂${ }^{5}$

The rent was also expensive．Food and rent cost almost all of the workers ${ }^{\text {ce }}$ wages．
There were a large number of Irish in the garment factories．

Workers，who were attracted by the IV ＂sufficient job opportunities＂and＂high wages＂available in the big city．
Although once they arrived，they found themselves earning so little that many could not afford to go home．

BYD provides free housing．The majority of workers live in communal housing situations and are unable to live with their family．

The March 2011 China Labor Watch random surveys revealed that at the BYD Baolong campus， $93.6 \%$ of workers were from other provinces in China．Their salaries are not good enough to support their life in the cities．

[^2]| V | In regards to the number of hours <br> worked each day，workers typically <br> worked 12－14 hours per day． | During the busy season，there are 0－3 rest days <br> each month．The average monthly overtime is <br> 144 hours，and the longest period of continuous <br> work is 14 days． |
| :--- | :--- | :--- |
| VI | Workers were allowed to spend 30 <br> minutes for breakfast．During this time， <br> machines would continue to run，so <br> workers were obligated to eat next to <br> them． | The workers work overtime．The factories <br> have a minimum output requirement for <br> workers，and reward workers with higher <br> output．The workers have to work overtime to <br> achieve the minimum output requirement to <br> maintain their salary． |
| VIII | Usually the factory stopped machines at <br> noon for 1 hour，during which workers <br> were able to take a break and have lunch． | The lunch break is approximately 1 hour． |
| The workshop was extremely crowded， |  |  |
| overheated，and had poor sanitation． | Workshop conditions are decent，sanitation and <br> safety measures systems are relatively sound． <br> To a large extent，the work environment <br> maintains anti－dust，sterile environment，and <br> non－static requirements of high－tech electronics <br> production workshops |  |
| IX | Most workers were paid a piece rate <br> wage． | Workers are paid by the hour．However，by <br> setting high production quotas，workers are <br> obligated to work at a high intensity．Those <br> workers who met the high production quota are |
| Oftentimes，workers had to work the |  |  |
| whole week，including Sunday，in order |  |  |
| rate．All workers must rely on overtime to make |  |  |
| to earn living wage． |  |  |

This comparison paints a clear picture of the situation that existed in these London sweatshops． Those who could not adapt to the heavy workload or got sick or injured were soon eliminated． The rest toiled in the factory but could barely earn a living salary for many years．A lifetime of work would not allow for any savings or a comfortable retirement．In the late stages of their lives， many lived in Church charities，relied on government relief，or became homeless．

In $21^{\text {st }}$ century Guangdong the future for the immigrant workers at BYD is even more uncertain． Labor intensity is very high，and most healthy young workers cannot keep up with the streamlined production speed after working for only two or three years．This intense work ethic demanded of employees has lead to a high turnover rate．Fresh workers energize production lines and give the factory a competitive edge．Those that leave BYD have no savings or any other skills to work in another industry．Furthermore，China＇s flawed social safety net does not provide for Chinese citizens to support themselves once unemployed．

We believe that the essential problem of sweatshops is that workers are not put in direct contact with their real employers（in BYD＇s case，the real employers are multinational companies including Nokia and Motorola）．Thus，workers do not have any organized collective bargaining power or opportunities for equitable conversations with the larger corporations that they are employed by．Rather，workers continue to be exploited in order to maintain profits for the BYD Empire．These hundreds of thousands of migrant workers do not know enough to see the injustices present in this system．

The secret to BYD＇s success is the never－ending wave of new workers that support BYD＂s cost－ oriented manufacturing strategy．Innumerable laborers work for extremely long hours under intense labor conditions for meager pay．BYD has designed its own semi－automatic assembly line by replacing some expensive machine work with manual labor．This strategy has quickly put BYD ahead of Japanese companies in battery production，where fully automated assembly lines are used at great expense．${ }^{6}$ In order to match the speed of machine output，BYD requires a high production pace．For example，on the E2 production line in the stamping workshop of Pingshan Campus No． 11 Enterprise Group，workers must complete a specific metal automobile component every 30 seconds，and must continue working at this speed continuously for 8 hours each day．The pace of the production line continually surpasses workers＂${ }^{\text {ec }}$ physical limitations． Only young and healthy workers are able to withstand this intense and monotonous work．BYD maximized the reduction of mechanization，and as a result has reduced the cost of maintenance and updating of the machines．


BYD workers fetching material from a large machine．

BYD workers only earn around \＄204 USD／month in base salary．They do not have the right to an equal dialogue，to form trade unions，or to collectively bargain．This salary is not enough to ensure an honorable or decent lifestyle．Compared to Shenzhen＇s $\$ 242.7$ monthly consumption expenditure ${ }^{7}$ ， $\$ 204$ can barely support a worker＂s existence．Meanwhile， workers have to toil over a 144 hour monthly overtime schedule and only have restricted access to drinking water and rest rooms during work．BYD has utilized China＂s large population of cheap labor to the greatest extent to create a production system that relies on extremely fast－paced human labor able to outpace the work of machines．BYD views workers as a mere extension of the factory＂s machines．BYD is only concerned with how to earn the most profit through the lowest possible production costs．Ordinary workers are not considered in the company＂s decision making strategies． Instead，they are treated as one part of a well－oiled machine， which does not have any maintenance costs．

BYD＂s multinational company clients，such as Nokia，

[^3]Motorola and Samsung，are solely concerned about manufacturing high quality products at a low cost．In order to bring products to the market as soon as possible，companies require an extremely fast paced rate of production．So，workers have to struggle through long working hours at an incredibly high rate of production．It may seem that these multinational corporations are concerned about supplier factories＇social responsibilities－－they publish industry－wide manufacturing rules and standards and monitor supplier factories＇social responsibilities through auditing－－but in reality，social responsibility rarely factors into their selection of supplier factories．Companies offer extremely low prices to supplier factories and，in order to secure business suppliers，must continue to exploit workers in order to maintain profits．

China＂s economic model exacerbates this situation．During the past thirty years of reform and opening up，the Chinese government has regarded economic growth as a national priority at the expense of individuals and many basic rights．In addition to the humble lifestyle required by workers＇petty salaries，the lack of any grievance system，social protection，or trade union，create adverse working conditions and masses of desperate and disaffected workers．

The predicament of Chinese labor is a complex problem collectively caused by Chinese companies such as BYD，multinational corporations，and the Chinese government．Through the analysis of the working conditions in BYD＂s Baolong Campus，Pingshan Campus and Huizhou Dayawan Campus，CLW has concluded that along with the oft－suspected state actors，foreign capital is often at the root of human rights violations affecting Chinese workers．The nature of foreign capital is to maximize its profits．So，companies will invest in factories where the highest profit can be earned．These companies enable these profit－oriented factories，usually at the expense of its workers，and encourage a trend towards＂sweatshops＂．Thus，the involvement and investment of international capital in China has fueled labor rights violations．

Chinese companies like BYD，multinational corporations，and the Chinese government have each continued to shift responsibility onto each other to resolve these problems instead of working together to generate a workable solution．We cannot solely blame BYD for the deteriorating manufacturing situation in China，as its actions are consequences of the larger industry－wide structure and a national economic policy that promotes practices of labor abuse． However，as the direct cause of labor rights violations，BYD itself has the greatest responsibility to adopt major reforms．

Meanwhile，China Labor Watch is also concerned about solving this labor problem under the backdrop of economic globalization．China is a developing country；as such，the influx of multinational capital plays an important role in China＇s economic growth．As is the nature of globalization，capital expansion accepts profit as its primary goal．Within these circumstances， we expect that the influx of international capital should not only seek to utilize China＂s cheap labor force for higher profits，but it should also promote higher labor standards．Finally，we continue to strive to create a climate where multinational capital can earn their profits by following an ethical stance that embraces＂employees，society，and the environment．＂

We also hope to see a similar transformation take place in the aforementioned supply system so that workers can lead decent，fulfilling lives promoted by BYD and the Chinese government．

We hope that Chinese workers can receive their share of a fair distribution of the fruits of globalization and China＇s economic growth．We also hope BYD can offer Chinese workers individual development pathways which can also provide a sustainable path for BYD itself．

## II．EXECUTIVE SUMMARY

Spanning from August 2009 through March 2010，China Labor Watch carried out an in－depth investigation of three BYD factory campuses：the Baolong and Pingshan campuses in Shenzhen， and the Dayawan industrial campus in Huizhou．The factory at the Baolong campus mainly produces cell phone shells，key boards，batteries，and other electronics accessories；the Pingshan campus produces automobiles；the Dayawan campus mainly produces cell phone，battery，and computer components for its major clients，namely Nokia and Motorola．

According to our investigation，BYD has numerous labor problems that are highlighted and must be immediately improved．Listed below is a summary of our findings：

| Problems | Situation |
| :---: | :---: |
| Recruitment and | The Baolong campus seeks primarily to recruit female workers；male workers can often only gain employment by offering bribes． |
|  | At the Pingshan and Dayawan campuses there is discrimination against pregnant applicants as well as candidates with scars or tattoos． |
|  | At the Baolong campus，rules state that workers who resign after working at BYD for less than 3 months or voluntarily resign can never be rehired at BYD again in the future． |
|  | The Dayawan campus prohibits workers who resign after less than one month or voluntarily resign from being rehired． |
| Resignation | The Dayawan campus requires workers to pay for a physical examination during the recruitment process． |
|  | Although BYD＇s resignation procedure complies with its legislation，through our investigation，workers on the Pingshan and Dayawan campuses found it extremely difficult to resign during the busy season at the factory．In general，they could only resign through a process that takes up to a month longer than its regulations suggest and require． |
| Wages and Benefits | The base wage at each of the three factories looked at in this investigation was found to be 1,320 RMB．The three factories pay the local minimum wage，but this salary still does not meet workers＂demands for a living wage（See Section Three）．As a result，at each of the three factories，overtime is a necessary part of nearly every |

workday．

Managers at the Huizhou Campus generally do not approve leave requests．
All interviewed workers reported that although they receive a pay stub each month， they are not clear about how wages are actually calculated．As a result，few workers can check to ensure that the salaries they are paid are calculated correctly and have to accept whatever amount they are paid．

Base wages at the Pingshan Campus are divided into 26 levels．Workers must be employed at the factory for at least six months before they can be promoted．Some workers，even after working at the factory for many years，never get promoted．Other workers report that receiving a promotion is very difficult．They can only gain a promotion through guanxi，i．e．having connections with someone higher－up in the factory．

Because orders usually need to be finished shortly after they are received，during the peak season，workers often receive less than three days off，and sometimes none at all，depending on the production speed of the worker．

At the Baolong campus，workers work for 144 hours of overtime per month on average．Monthly working hours thus reach 320 total hours．During the peak season， workers might work consecutively for 14 days．

Workers at Pingshan and Huizhou campuses must attend a 15－20 minute pre－shift

## Working Hours

 meeting before they start working everyday．The time spent at the meeting is not calculated into a worker＂s paycheck．Workers at the Pingshan campus are not paid for their statutory holiday overtime．
Workers at the Baolong campus factory must carry an＂off－post card＂to go to the bathroom or drink water．Each drinking or bathroom break must not exceed 10 minutes．Workers at the Dayawan campus must have someone replace them before they take a bathroom or drinking break．Under these conditions，breaks must not exceed 15 minutes．

Workers at the stamping workshop line at the Pingshan campus must finish a 3,000 piece production quota each day． 30 workers work three shifts a day，and each worker must work a minimum of 8 hours a day．In order to fulfill this quota，they must finish each piece in 30 seconds or less．Workers at the Huizhou campus sometimes are required to work from 12：30 to 6：00 without any break．

There have been few serious injuries or accidents in BYD factories．Workers who

Health and Safety

## Personal

and Sick
Leave
$\left.\left.\begin{array}{ll}\text { Forkers at Baolong and Pingshan campuses are provided with free food and board．} \\ \text { The value of a month of meals is around150 RMB．}\end{array}\right\} \begin{array}{ll}\text { Free board is not provided at the Huizhou campus．Workers are provided with food，} \\ \text { but the quality and nutrition level is relatively low．Dormitory environments are } \\ \text { acceptable．．}\end{array}\right]$ resign．The examination is only provided when they first begin work at the factory． At the Huizhou campus，there were 90 work－related accidents in 2010.

The approval process for sick and personal leave at BYD is very strict．It＇s very hard for workers to get requests approved，and even if a request is approved，the leave is unpaid．

$$
\begin{array}{ll}
\text { Two female workers at the Baolong campus jumped to their death in 2009. The trade } \\
\text { union did not function appropriately in order to reach out to these two workers and to } \\
\text { try to intervene and solve their personal and work-related problems. }
\end{array} \text { Grievance } \quad \begin{aligned}
& \text { Workers at the Huizhou campus are not sure about the function and responsibilities } \\
& \text { of a trade union. }
\end{aligned} \text { Mechanisms } \quad \begin{aligned}
& \text { BYD's factory hierarchy is very inflexible. The unspoken rule, according to some } \\
& \text { workers, is that promotions are only granted through guanxi, or connections to } \\
& \text { higher level employees. Bribery happens frequently and workers have no choice but } \\
& \text { to follow these practices. }
\end{aligned}
$$ are in contact with toxic material have no access to a physical examination once they

These problems，including recruitment discrimination，low salaries，long working hours，high work intensity and dysfunctional grievance systems，are all the result of BYD＇s global supply
chain system. At its root, BYD"s global supply chain system has substituted mechanized production with manual production to gain profits at while maintaining very low prices. If BYD and other companies do not seek to reform this system of manufacturing more for less, there will be no way to solve BYD"s ongoing labor problems.

## SECTION THREE: UNDERSTANDING BYD

## Section Introduction

This report highlights how BYD, a Chinese company with a growing global profile, is undermining workers " labor rights in order to minimize costs and maximize profits. As a result, the conditions of the factories overseen by BYD can be viewed as a modern-day electronics sweatshop.

This report is divided into three sections:
In the first section, our investigation reveals how a strategy that relies on the low cost of a massive pool of available labor takes unfair advantage of hundreds of thousands of workers' time and labor. Only young and healthy workers can bear BYD's production speed and labor intensity. According to our investigation, workers on the E2 production line of the stamp pressing workshop at the Pingshan campus have to work eight consecutive hours. They have to stamp press automobile components, such as metal body panels, at a rate of one every 30 seconds. In order to ensure that the factories have high production output all the time, BYD recruits fresh young workers all year-long. It also divides workers into 26 divisions to better manage them within an inflexible hierarchical system.

In the second section, we provide China Labor Watch's investigative report and statistics resulting from questionnaires taken at the three BYD factory campuses. The report reveals workers' payment, labor intensity and living conditions at BYD. The whole investigation took eight months, from August 2010 to March 2011.

Lastly, the third part analyzes BYD's general working income, and we found that BYD workers have sold their labor at an extremely low and unfair price. Their petty salaries are incapable of supporting a decent family life in the city.

## An Introduction to BYD

BYD Company Limited was established in 1995．The company grew from a small factory with only 20 workers and 2.5 million RMB in registered capital to a multinational company with over 130，000 workers．

Since 1995，BYD has grown tremendously and the scope of its manufacturing has expanded in kind．At present，BYD remains a major supplier of mobile phone components while also branching out into the fields of automobile manufacturing，information technology，and renewable energy．In IT and mobile，BYD produces rechargeable batteries，LCD modules， plastic cell phone casings，metal component parts，keyboards，flexible circuits，webcams，and battery chargers，while also specializing in cellphone design and assembly．Automobile production takes place on a variety of different levels，including production molding，the manufacturing of car components，the full production of a dual－function electric／gasoline hybrid car，and a fully electric vehicle．Its energy business focuses on solar and battery technology．

BYD＇s main clients include Nokia，Motorola，and Samsung．It gains profits through producing components for multinational companies．${ }^{8}$ In 2000，BYD became the first supplier of lithium－ion batteries to Nokia．In 2003，BYD purchased Xi＂an Qinchuan Automobile Co．，Ltd．and establish BYD Automobile Company Limited，further expanding BYD＇s development．

Since July 2002，BYD has been listed on the Hong Kong stock market（stock code 1211－HK）．Its subordinate company，BYD Electronic（International）Company Limited，was also successfully listed on the main board in Hong Kong（stock code 0285－HK）．

As a sign of further growth potential，BYD also attracted a significant investment in 2008 by noted investor Warren Buffett，which was widely reported in international media outlets．In September of 2008，Warren Buffett＇s investment company Berkshire Hathaway purchased \＄225 million of BYD stock，granting Berkshire Hathaway a $10 \%$ share in the company，thereby becoming its biggest foreign shareholder．

As of the end of 2008，BYD＂s total assets amounted to 32.9 billion RMB and with net assets of 13.3 billion RMB．BYD has regional offices and corporations in the US，Europe，Japan，Korea， India，Taiwan，and Hong Kong．In 2010，BYD was rated among China＇s Fortune 500 companies and the company＂s history and growth have become a popular case study to illustrate the potential for Chinese companies to move beyond their traditional roles as low－skilled，cheap manufacturers．BYD＂s founder，Wang Chuanfu，was also listed by Forbes magazine as the richest person in China in $2009{ }^{10}$ ．

[^4]But despite these valuations by Buffett and other admirers of BYD，this investigation of the working conditions at BYD＂s Baolong campus，Pingshan Campus and Huizhou Campus by China Labor Watch reveals that BYD＂s model of replacing machines with migrant labor comes at an extreme cost to workers＂health and ability to earn fair wages．

## Exploiting workers in exchange for uncompetitive low prices

At its start，BYD made a large effort to lower the prices of batteries in China to attract a broad customer base．To do so，Wang Chuanfu took advantage of China＇s biggest resource－－cheap labor． With cheap labor and a semi－automated production line，BYD could manufacture cheaper batteries than competitors in Japan that were fully－automated and relied on advanced and expensive robotics．BYD thrived and became a major producer of batteries in China for multinational and domestic producers．It soon received orders from Alcatel－Lucent，Sony， Panasonic，GE，AT\＆T and other major international telecommunication companies．Today， along with Foxconn and Flextronics，BYD is one of three largest major manufacturing companies operating in China．${ }^{11}$

In order to reduce manufacturing costs，BYD stresses the utilization of China＂s labor pool to the fullest extent．As a rule，BYD pays workers the smallest wages it can and attempts to suppress worker discontent by providing them free room and board．${ }^{12}$

In order to understand how BYD＇s labor costs affect individual workers，China Labor Watch investigated the battery packing line in the second enterprise group of BYD．This production line has a production quota of 15,000 batteries each day．Ten steps are designed to finish the circuit and each step takes 1－1．5 minutes．BYD does not provide the production line workers with insurance，and at the end of the month piece－wage workers earn a monthly salary of 2，000 RMB．Suppose that workers can take two days off a week（which in reality is impossible），then the percentage of possible revenue that workers earn would be the following：

Cost of Labor per day $=($ monthly salary＊number of workers）／number of working days per month $)=\mathbf{( 2 0 0 0} * \mathbf{2 5}) / 22=\mathbf{2 2 7 2 . 7 3} /$ day

[^5]China Labor Watch＇s investigation at BYD＇s three campuses found that workers＂actual salaries at the three campuses never exceed 2,000 RMB a month．Workers at Huizhou campus can only earn $1,800 \mathrm{RMB}$ a month，so the labor cost in Huizhou is an even smaller percentage of revenue．

So，is BYD unable to pay workers reasonable salaries because it is not profiting？According to BYD Company Limited Interim Report $2010^{13}$ ，BYD＇s half year operating income totaled over 24 billion RMB．

BYD＇s young workers are the real creators of BYD＇s speedy，highly praised development ＂miracle＂．Their efforts also helped Wang Chuanfu rise to become the richest person in China． But the workers earn only 2,000 RMB（at maximum）a month．All of the 130，000 workers combined earn 3.12 billion RMB a year，only $12.79 \%$ of BYD＇s annual operating income and $7.9 \%$ of Wang Chuanfu＇s 39.6 billion RMB ${ }^{14}$ in assets（2009）．For a company that relies on labor productivity，labor is the only resource BYD can rely on to ensure profits．It＇s obvious that BYD purposefully keeps labor costs low to create profits．Workers toil under tremendous pressure to produce，and in turn grant BYD its competitive advantage，but they earn very low wages in return for their efforts．Thus，it is hard not to conclude that BYD is a new kind of sweatshop．

## Squeezing the Youth Out of a Human Wave

Without a doubt，BYD＇s strategy of employing Chinese masses of migrant laborers brings huge profits．It has successfully won manufacturing orders from other Chinese companies such as Foxconn by offering lower prices，and was first listed on the Hong Kong stock market in 2007. In order not to be defeated by BYD，Foxconn has even sued BYD，accusing it of copying Foxconn＂s productions models ${ }^{15}$ ．But BYD＇s real secret to success is that it requires unrelenting hard work on the part of its workers for very little pay，and can count on a steady supply of new migrants to take the place of employees who eventually burn out．

BYD promotes production speed while keeping its investment and production costs low． Although it could follow Japanese models of investing in more advanced production lines， building new factories and training new recruits also increases expenses．Instead，BYD is committed to getting as much work out of individual workers as is humanly possible．

In order to cut costs and increase productivity，BYD divides factory production procedures into several distinct steps and replaces machines with human labor wherever possible．Each step is typically a very simple action that workers can learn in a short time；for example，a simple grinding motion or putting finished batteries onto a testing machine and then piling them into boxes．Thus BYD workers do not need detailed training．They need master only one or two movements in order to start working．As a result，BYD＇s production costs are far less than at Japanese factories，which used to dominate the battery production industry．Japanese factories needed 200 workers to produce 100,000 batteries and had to invest $\$ 100$ million USD to their automated production lines．BYD，however，hires 2,000 workers and only has to invest $¥ 50$ million RMB．Because of this，batteries produced by a Japanese factory might cost 5－6 RMB，

[^6]while those produced by BYD cost only $1 \mathrm{RMB}^{16}$ ．In essence，hundreds of thousands of workers at BYD work like machines on the production line but at a lower cost：repeating the same action day after day with extreme precision．BYD＂cs workers take on the responsibilities of machines， but their maintenance fees are lower than the cost of technicians to monitor machines．

One outcome of BYD＇s labor－intensive manufacturing strategy is the company＇s enormously high turnover rate．Rather than view this as a drawback，BYD considers the turnover rate beneficial， as it allows the company to continue extracting a maximum amount of labor from a constantly refreshed workforce．Viewing BYD＇s methods from an abstract level，the business press has lauded BYD＇s flexible and productive workforce and innovative manufacturing capabilities，but on a human level，the dull，repetitive work done at a highly stressful rate comes at great cost．The length of any worker＇s tenure at BYD is brief，as many feel that the conditions at BYD can only be considered as equal to that of a sweatshop．On BYD＇s production line，a worker might have a single simple and dull task such a tightening a particular screw again and again．BYD＇s management style fails to encourage workers to feel any connection to the company or the products they produce and workers are barely acknowledged as individuals．Thus，it is no surprise that the factories have such a high turnover rate．

According to our investigation，only workers under the age of 25 can sustain the intensity of work at BYD，and the company seldom hires older workers．Of these young workers，most of them，fully exhausted，leave the company within 2－3 years or earlier．At BYD，a worker employed for only half a year is already considered a veteran．Those who manage to stay for a year or longer are considered hardcore veteran workers．But from the company＇s perspective，the high turnover rate at BYD brings fresh blood to energize the production lines and grants BYD its competitive edge．Now，not only BYD，but Shenzhen Foxconn，Huawei，and other labor－ intensive companies are adopting similar methods．${ }^{17}$

BYD also subtly promotes worker turnover rate by connecting worker＇s income to their efficiency rates．After working at BYD for a year，a worker＂s health is often damaged by the high labor intensity，lack of rest，and pressure brought on by increasing quotas．Most workers cannot physically maintain the same production speed．Yet，BYD does not terminate workers＇ contracts．Rather，because salaries at BYD are connected to workers＇output，aging workers whose production capabilities decrease are demoted to lower pay scales and are unable to earn a decent living wage．The 26 －level wage hierarchy at BYD is corrupt in many ways，but for the average worker the only way to earn more is to work faster．But as workers continue at the factory，they tend to fall down the ladder，rather than proceed up，and are eventually forced to quit．Once young workers are exploited to the fullest advantage to the company，they are eliminated as quickly as possible．

During the course of our investigation at the Baolong campus，we found that among the interviewed sample group，workers were generally very young and stayed at the factory for only

[^7]a short time. Among the 31 workers, $73.6 \%$ percent were younger than 25 and the youngest worker was only 17 . Workers older than 25 were only $26.4 \%$ of the interviewed population, with the oldest being 39. Overall, the average age of workers at the Baolong campus is only 23. $41.9 \%$ of workers had only been at the factory between $2-6$ months and 77.4 percent had been there less than two years. The breakdown of how long workers had been at the factory is detailed in the table below:

| Workers time as employees at BYD <br> (interviewed population: 31) |  |  |
| :--- | :--- | :--- |
| Time as employees at BYD | Population | Percentage |
| Less than one month | 1 | $3.3 \%$ |
| 2 months to 6 months | 13 | $41.9 \%$ |
| 7 months to 1 year | 6 | $19.3 \%$ |
| 13 months to 2 years | 4 | $12.9 \%$ |
| More than 2 years | 7 | $22.6 \%$ |

It is usually uncommon for a factory in operation for over six years to have such a high turnover rate. In fact, half of the workers at BYD that have worked there for less than two years have been part of the migratory work force for quite some time and have changed jobs frequently. Clearly, these workers are not against the idea of working in manufacturing, but the specific conditions of BYD lead to workers only staying for a short period of time. As we have suggested in the analysis above, workers usually leave the factory because they cannot stand the high pressure and low salary.

| Comparison of Workers Serving Time at BYD and Their Total Length of Service |  |  |  |  |
| :--- | ---: | :---: | :---: | :---: |
| Workers serving time at Baolong campus <br> (Interviewed population: 31) |  |  | Workers total length of service <br> (Interviewed population: 31) |  |
| Working Time | Population | Percentage of the to <br> population | Population | Percentage of the tot2 <br> population |
| Less than one month | 1 | $3.3 \%$ | 1 | $3.3 \%$ |
| More than two month but less <br> than 6 months | 13 | $41.9 \%$ | 0 | $0 \%$ |
| More than 7 months but less | 6 | $19.3 \%$ | 6 | $19.3 \%$ |


| than one year |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| More than 13 months but less | 4 | $12.9 \%$ | 8 | $25.9 \%$ |
| than two years | 7 | $22.6 \%$ | 16 | $51.5 \%$ |
| More than two years | 7 |  |  |  |

BYD's production quotas are essentially the maximum work a worker can possibly sustain. Eventually, this quota becomes a heavy burden for workers. Workers have to finish standardized actions as fast as possible, and they have to stay focused and repeat the same action all day. It takes some departments ten hours to finish their production quotas with very few opportunities to rest. Since the work must be done at a high speed and the workers are always under pressure, even though the work is semi-automated and not intensely physical, workers are still constantly worn out and always bathed in sweat.

It's not hard for us to imagine the predicament of workers at BYD: they are offered the lowest standard of room and board and required to repeat a standard action every thirty seconds for ten hours a day. If they make mistakes, they are abused by managers, and if they fall behind in their work for any reason, their pay goes down. High-speed, streamlined manufacturing techniques require workers to be energetic all the time, so they must try their best to remain alert and engaged. But this kind of life is unsustainable, and explains why over $70 \%$ of BYD workers are below the age of 25 and that about $80 \%$ of them will work at BYD for less than 2 years. BYD's young workers are mostly from rural areas. They want not only the opportunity to work in a city, but they also want to find fulfilling lives there. But after arriving with energy and enthusiasm, long, dull days and the pressures of a dehumanizing work environment leave them exhausted. The strict and rigid management style forces workers to suppress their own desires and forces them to face the cruel realities of manufacturing efficiency and their own uncertain futures.

Finally, it is worth noting that despite these harsh working conditions, media reports often commend BYD's management style and the respect it pays its employees. But in fact, BYD's approach to skilled employees in engineering and design is totally different than the company"s attitude towards unskilled labor. Wang Chuanfu clearly knows that in order to move forward, the creativity and devotion of his upper-level employees usually requires that he show respect and some basic appreciation for the culture and values of these employees. But even these workers are "basically breathing, eating, thinking, and working at the company 24/7." ${ }^{18}$ But BYD's treatment towards plant workers is in drastic contrast to its treatment of more educated employees. The plant workers are treated indifferently, like soldiers in an army who must obey every order given by their officers.

[^8]
## III. BYD Factory Reports

## i. Baolong Campus

Investigation Time: August, 2010
Factory Name: Shenzhen Longgang Baolong BYD Co., Ltd.
Major Customers: Nokia, Motorola, Sony
Number of Campuses: 3 factories
Worker Population: More than 20,000 (estimated)
Male to Female Worker Ratio: 1:3
Number of Workers Interviewed: 35

## Major Problems

- During the busy season workers have to work 14 consecutive days
- Workers work 10 hours per day and 270 hours each month
- Workers work 80 hours of overtime each month
- Workers make less than 1 USD an hour
- The salary of a worker just beginning in the factory is the lowest rate in Shenzhen
- A worker's salary will be held for 22 days
- In 2010, the factory had numerous worker suicides


## A. Recruitment and Resignation

BYD Group No. 3 has two main methods for recruiting workers. The first method is that candidates go to the back gate of the factory where recruitment takes place and wait for an interview with the HR Department. The second method is for candidates to receive introductions from current factory staff to enter the factory.

BYD does not often use internal relationships to hire staff. Usually, potential workers choose the first method to seek employment. However, men previously hired by BYD who are seeking reemployment must use the second method and pay 700 RMB for the introduction. Allegedly, intermediary employment agencies and the HR Department staff share the profits from the introduction fees that they charge workers.

Additionally, after female workers leave BYD, if they want to re-enter the factory, they must wait three months after their resignation in order to apply for employment again. People who voluntarily resign cannot apply again to work at BYD unless they are introduced through an intermediary employment agency. In addition they must use another person"s identity card to seek another employment opportunity.

A worker who has re-entered the factory with a different ID card can request to change their identity after 6 months for a service fee of 400 RMB. Currently, the factory only recruits women and requires the workers to be aged between 18 and 35 . There are no restrictions on race, locality, religion, or educational background. The factory does not accept workers under 18 years old.

When new workers enter the factory, they must submit their original identification card for filing in the company archives. Workers are not required to pay a fee for documentation nor are they required to pay a deposit. After the worker enters the factory, there is a group physical exam organized for new workers so that they may obtain a health certificate. However, workers need to pay 30 RMB to receive this certification. Those who pass the physical exam are required to pay 10 RMB to obtain a bank account into which wages will be directly deposited. The worker also needs to pay 10 RMB for a residence permit. In total, before beginning work, new employees must pay 50 RMB in random fees.

After starting work, new employees are provided two days of paid training. The training includes an introduction to the factory, occupational safety, and factory regulations. When workers enter the factory, they are provided two free uniforms. If the worker needs another uniform, the worker must pay 45 RMB. When leaving the factory, the worker must return the free uniforms; otherwise 45 RMB is deducted from their wages for each missing uniform.

The factory has implemented a three month training period. Workers must apply for resignation three days in advance within the first two months of entering the factory; after two months, the advance resignation notice requirement is thirty days. General workers who resign may collect wages three days after their resignation.

## B. Labor Contract

After the training concludes, the worker signs a three year labor contract with the factory, with a three month probationary period. Workers are given a copy of the contract. The procedures to sign the labor contract are in accordance with the law. The contract includes: the length of the contract, the length of the probation period, the worksite location, workers" materials, three insurance options, information on rescinding the contract, breaking regulations, and other clauses.

## C. Working Hours

The factory runs for eight hours a day, five days a week, twenty-two days a month. During the off season from May to August, each day there are generally up to two hours of overtime, though there is rarely overtime on rest days. During the busy season from September to December, workers must work two hours of overtime every day. On every rest day they must work ten hours of overtime. Every fourteen days, workers receive one rest day. The average overtime over a month during the busy season is 144 hours.

## Day Shift

- 7:30-11:30
- 12:30-16:30
- 17:30-19:30

Night Shift

- 19:30-23:30
- 00:30-07-30

The busy season runs from September to December，during which time there is the most overtime work．Overtime is voluntary，but workers must verbally inform the line leader of their overtime preferences．Not working overtime does not result in a fine．

Electronic time cards are used to record working hours．
The working hour recording system is adequate．If a worker makes a mistake，they may find the manager and explain their situation．The manager will then go to the HR Department to handle the situation．Every month，employees are afforded 2－3 days of rest，and the longest continual number of working days allowed is fourteen．Two－shift workers are able to rest for 24 consecutive hours when they switch shifts．All workers have a one hour rest break for lunch and dinner；the nightshift also has a one hour rest break and meal．Every day，workers have at least ten hours of rest time．Every worker must fulfill their assigned production quota，but it is easily attainable．Once it is completed，workers can leave work．Wages are calculated by total hours worked．It is not possible to begin work early，and incomplete work extends the working day．

## D．Remuneration and Benefits

The factory distributes wages on the $22^{\text {nd }}$ of each month．The money is directly deposited into workers＂bank accounts．If the scheduled payment falls on a holiday or Sunday，wages will be distributed earlier．Wage distribution is always on time．

On average，workers earn between 1，700－2，500 RMB／month．Wages include：base salary（ 1,320 RMB），overtime wages（a variant of the base salary），bonuses（outstanding staff award of 60 RMB，outstanding performance award，and perfect attendance award of 60 RMB ），meal allowance（ 150 RMB ），and night shift snack subsidy（2 RMB／day）．

Expenses that are deducted include：social security（pension insurance is 78 RMB ，medical insurance is 5 RMB），accommodation and utilities fees，and fines．The factory implements both hourly and piece rate wage systems．Even workers in the same position may not earn the same wages if they have different ranks．

Those who receive hourly wages also have production requirements；if they meet the quota，they may stop working．These workers often complete production 1－2 hours in advance，and subsequently get off work early，which is reflected in their wages．

On payday，a pay slip is provided with a detailed account of what the wages and deductions should be．However，one worker reported that，＂I do not understand how wages are calculated，I only look at the pay slip to see how much was deposited to my bank account．＂Itemized wages are consistent with the pay slips that workers receive．

Leave for minor ailments is unpaid，however if the worker goes to a hospital and receives documentation，they may receive official sick leave．The factory offers paid annual leave， maternity leave，marriage leave，and paid non－working national holidays．

## E．Living Conditions

The factory provides accommodations for workers．They offer all workers a food and housing subsidy of $150 \mathrm{RMB} /$ month．Expenses that exceed this amount must be paid by workers themselves．Workers may freely choose to eat at the factory cafeteria or eat at small restaurants outside the factory．Eating at the factory cafeteria costs a minimum of 1.6 RMB per meal，with lunch and dinner also offering 2．5 RMB and 5 RMB options depending on the amount of meat served．Workers are required to deposit money directly onto IC cards（a type of payment card）． IC cards can be used to pay for food in the cafeteria and to purchase items in the factory supermarket．However，the prices of goods in the factory supermarket are 2－3 times higher than those of markets outside the factory．

The sanitary condition of the food is average，but its quality is not high．A majority of workers will choose to eat outside of the factory or make their food at home．

Dormitories accommodate eight workers per room；there is air conditioning，hot water，and a separate washroom and bathroom．The dormitory is free；there is only a fee for water and electricity usage．Each dormitory provides 300 kwh ，and after exceeding 300 kwh ，workers pay the difference of the remaining cost．Each month，the approximate utility cost is 50－100 RMB． The dormitory room does not have a wardrobe，table，or stool，and workers must place their clothing underneath their beds．The factory does not provide an outside housing subsidy．If workers do not live in the factory and only eat there，they still only receive a 150 RMB subsidy．

There are leisure facilities available at the factory including an athletics field and library．

## F．Occupational Safety and Worker Protection

The factory has a Labor Health and Safety Committee．After a worker is hired，he must pass a training course on environmental，health，and safety issues．During their employment，workers use alcohol to clean the oil from the electronic cell phones，keyboards，and other parts．The factory supplies workers with masks and gloves that are replaced every 3 days．

The factory＂s working conditions are average：there is air－conditioning，good sanitary conditions， and unobstructed walkways．Engineers regularly check the ventilation system＂s machinery and equipment every week．Workers who are exposed to toxic and hazardous materials may have an in－service health examination，but must cover the cost of the exam themselves．

There is required physical health examination when workers resign and leave the factory．
Workers can transfer jobs，but first a replacement must be available．During our interviews with workers，many reported that this process can take a long time．

Industrial accidents rarely happen and there are usually only minor injuries．There were no workers suffering from occupational diseases found at the factory．However，workers were also not clear about the concept of occupational health and lacked knowledge regarding both occupational safety and hazards．The workshops do not have a first aid kit；however the factory does have a clinic．The dormitories do not have first aid kits．

## G. Fire Safety

The factory organizes an annual fire drill, but only the security staff participates, and no production workers partake in the drills. Fire hydrants and fire extinguishers are inspected each month.

## H. Rewards and Punishment Measures

Workers can receive the following rewards: Perfect attendance bonus of $60 \mathrm{RMB} / \mathrm{month}$, outstanding staff prize: from every production line of about 50 people, 5 people are selected and awarded 60 RMB . The award for exceeding the production quota is according to individual production lines and the total production exceeded. The performance award refers to both individual and group performance, and the award amount varies.

Workers may be subject to four levels of punishment. The first level is a 5 RMB fine, the second level is a 20 RMB fine, the third level is a more significant fine, and the fourth level results in dismissal from the factory.

For example, if a manager discovers workers using their mobile phones in the workshop, they will receive a 20 RMB fine. Other issues are determined on a case by case basis. There are written rules to explain this system. During working hours, in order take a break to get a drink of water or use the restroom, workers must first obtain a station-leave pass, after which they can leave their post. Their break must not exceed 10 minutes.

After work, workers are free to enter and leave the dormitories as they see fit.

## I. Labor Relations

The factory has a labor union. Interviewed workers told investigators that they seek help from factory managers when a problem arises, because they are not sure how to work with the labor union.

Workers did not know whether or not worker representatives met with factory management and if they did, how often they did so. Interviewed workers had not heard of the worker hotline before.

In the past two years, two workers have tried to commit suicide. Both of the victims were women who allegedly attempted to commit suicide due to stress at work. One died and the other survived her attempt.

Factory workers are not searched when entering and leaving the factory.

For the most part, factory management does not abuse, threaten, assault or harass workers.
Interviewed workers told CLW investigators that their wages were very low compared to the average minimum wages present in Shenzhen. Workers said their salaries were lower than Foxconn wages, but the pressure at BYD is not as extreme as at Foxconn.

There is a high turnover rate for factory workers. Every month a large number of workers leave the factory. Some workers do not even wait for their final wages. The factory's original payday was on the $12^{\text {th }}$ of the month, but it was adjusted to the $22^{\text {nd }}$ of the month to try to keep workers from leaving halfway through the month.

## ii．Pingshan Campus

Investigation Date：October 2010
Employees Interviewed： 35
Total Employees：over 5，000（estimated）
Investigation Method：on－site interviews

## A．Recruitment and Resignation

BYD hires general workers primarily through two different methods：direct recruitment by the factory and indirect recruitment from employment agencies．In order to obtain a job interview and a possible factory position，candidates are required to bring their identification cards，be at least 16 years old，and have no tattoos or scars．Pregnant women are prohibited from being employed．Workers are required to pay a 40 RMB（US \＄6）health examination fee during the recruitment process．The exam examines workers＇chest，blood，and facial features．Many candidates are not recruited because of eye irritation．During the exam，male workers are examined while shirtless and are asked to raise their arms，bend their legs，and squat．Women are not asked to remove their shirts，but they will be checked for tattoos by male staff．

The orientation training for new factory workers is divided into three parts：the factory，working groups，and workshop trainings．Factory－wide training takes place over two days and covers safety training，an introduction to the company，an introduction to management systems，review of the employee manual，fire safety training，and 5 S ．The group occupational training lasts three days and covers culture，fire，5S，safety，environment，and the factory HR system．The workshop training primarily covers safety procedures and guidelines．Since attendance is not required for factory－wide training，workers receive no payment for their time．However，attendance is required for group and workshop training，so workers do receive compensation for their time． The factory distributes a copy of the employee manual，but when workers leave the factory it must be returned，or else they will be charged a 30 RMB（US $\$ 4.70$ ）fine．

Employees who are over 18 years old must apply for a residence permit and social security card． Residency permits and social security cards cost 20 RMB（US \＄3）per person．Workers under the age of 18 are not required to obtain a residency permit or social security card．Work uniforms and shoes are distributed by some departments the day that new employees arrive，but in Group 11 ，workers wait one week after initially entering the factory before receiving a uniform． Workers are not required to pay for their work uniforms，but must pay 200 RMB（US \＄31）for their work shoes．

During the probationary period，workers are required to give the factory three days advance notice before resigning．After the probationary period，workers are required to give one month＂s advance notice before resigning from the factory．Resignation is also often delayed one month． During the probationary period，workers will typically wait one month to resign，and after the probationary period will have to wait over two months．Workers are additionally required to fill out a resignation form，obtain their shift supervisor＂s signature，and then hand in the form to the factory departmental office for processing．Following this，workers must then report to the HR office the following Monday，Wednesday，or Friday to confirm what wages they are still owed．

If a worker is able to obtain their assembly line leader"s and shift supervisor"s signature, they will have no problem resigning from the factory. However, during the busy production season the factory is frequently short staffed, so the line leader and shift supervisor will be extremely hesitant to let anyone leave. If a workshop is short staffed and having trouble meeting its production quota, the assembly line leader and shift supervisor will face strong criticism from higher-up factory management.

Any remaining wages still owed to workers after their resignation are usually deposited directly into their bank accounts by the factory.

## B. Labor Contract

Workers sign a labor contract with the factory during their interview and recruitment process. Two copies of the labor contract are made, with one copy going to the worker and the other one kept by the factory. The duration of the contract is three years, with a probationary period of 60 days. The contract is very vague regarding wage standards. It stipulates that workers are to be paid according to a piece-rate system, but there are no clear provisions concerning minimum wage, overtime wages, and piece-rate wages.

## C. Working Hours

Assembly line workers rotate between three work shifts, changing shifts once every week. While each work shift is scheduled at different times, total working hours are still the same. Each work shift is a total of 8 hours long. The stamping departmentes $11^{\text {th }}$ production group switches between a morning work shift from 8:00am to $4: 30 \mathrm{pm}$, a middle work shift from $4: 00 \mathrm{pm}$ to $12: 30 \mathrm{am}$, and a night shift from 12:00am to $8: 30 \mathrm{am}$. Workers are given a 30 minute break during their shift to eat and rest. Morning shift workers are required to arrive 15 minutes ahead of their scheduled shift in order to attend mandatory meetings.Workers receive no compensation for time spent in these meetings.

Workers record their attendance and working hours on a factory IC card. Workers are required to swipe their IC card at the beginning and end of their work shifts, as well as during their 30 minute meal break. If a worker forgets to swipe their card or swipes their card incorrectly, they will be fined by the factory.

Workers generally have either a one or two-day weekend, but this solely depends on the number of production orders the factory receives. From October to March, the stamping department"s
$11^{\text {th }}$ production group receives a higher volume of production orders than at any other time of the year. As a result, there is no guarantee that workers will receive one day off per week. During the October 2010 holiday period, workers were given only one day of rest.

Each work shift is assigned their own production quota. Every shift of 30 workers on the E2 assembly line of the stamping department has a daily production quota of 3,000 pieces. This high production quota requires workers to produce a finished piece every 30 seconds, working without a break throughout their entire work shift. On average, these workers earn around 2,000 RMB per month.

## D. Wages and Benefits

BYD has a graduated pay scale corresponding to nine different pay grades, A through H. A is the highest salary level, with each succeeding level progressively decreasing from the maximum. Each wage level is further divided into a number of sub-wage grades. The higher the sub-wage grade, the greater the wage will be at that level. An employee"s salary will change depending on any promotion or demotions he or she may receive. The specific wage levels and gradations are as follows:

| Level | Degrees |
| :---: | :---: |
| Level A | $\mathrm{A}_{1}, \mathrm{~A}_{2}, ~ \mathrm{~A}_{3}$ |
| Level B | $\mathrm{B}_{1}, ~ \mathrm{~B}_{2}, ~ \mathrm{~B}_{3}$ |
| Level C | $\mathrm{C}_{1}, ~ \mathrm{C}_{2}, ~ \mathrm{C}_{3}$ |
| Level D | $\mathrm{D}_{1}, ~ \mathrm{D}_{2}, ~ \mathrm{D}_{3}$ |
| Level E | $\mathrm{E}_{1}, ~ \mathrm{E}_{2}, ~ \mathrm{E}_{3}$ |
| Level F | $\mathrm{F}_{1}, ~ \mathrm{~F}_{2}, ~ \mathrm{~F}_{3}$ |
| Level G | $\mathrm{G}_{1}, ~ \mathrm{G}_{2}, ~ \mathrm{G}_{3}$ |
| Level H | $\mathrm{H}_{1}, ~ \mathrm{H}_{2}, ~ \mathrm{H}_{3}$ |
| Level I | $\mathrm{I}_{1}, ~ \mathrm{I}_{2}$ |

Newly hired factory workers will initially receive a Level $\mathrm{I}_{1}$ salary. Only after new workers have been at factory for at least 6 months will they receive a promotion from Level $\mathrm{I}_{1}$ to Level $\mathrm{I}_{2}$. Every subsequent salary promotion after Level $\mathrm{I}_{2}$ requires at least half a year of work in the factory, as well as a positive factory assessment report. Some employees work in the factory for a number of years without receiving a promotion.

Level I hourly wage workers receive a minimum salary of 1,320 RMB per month (US \$204), while piece-rate wage workers have no guaranteed minimum monthly wage. According to the factory"s employee manual, a piece-rate worker"s monthly salary consists of the piece-rate wages earned during normal working hours, overtime piece-rate wages, performance rewards, and factory provided subsides. There are also deductions taken out for medical insurance, individual social insurance co-payments, personal income tax, and penalties. As the specific piece-rate wages and deductions vary from month to month, there is no way to guarantee a monthly minimum wage for piece-rate workers. Interviewed workers also told investigators that they did not know how their monthly salaries were calculated.

Workers receive a wage slip with their salary, but the wage slip does not include any information regarding overtime wages. Additionally, workers are not given an explanation of the breakdown of their salary on the wage slip, so many do not understand how their salaries are calculated or what numbers refer to which particular payments or deductions.

New factory employees are required to have a picture taken in order to process their social insurance documents. A deduction of 90 RMB (US \$14) is taken from workers " salaries
beginning in their second month at the factory to pay for social insurance. There are some workers who do not want to buy the insurance. In this case, there is a general factory medical fund uninsured workers can draw from in times of need. Workers are expected to contribute 10 RMB (US \$2) per month to this fund. The medical fund covers:

1. Illnesses, injuries and all hospital costs with a 1,000 RMB (US \$155) deductible.
2. Child delivery costs (the birth of a child must be in accordance with National Family Planning policies).
3. Medical expenses for accidents.
4. Post-surgery costs, cancer treatment, or treatment for other serious illnesses, as well as rehabilitation expenses as an out-patient for one year, cumulatively up to 2,000 RMB (US \$310).
5. Costs for extracorporeal lithotripsy for kidney stone surgery and gallbladder stone surgery as an outpatient treatment.

## E. Occupational Safety and Worker Protection

Factory safety guidelines and practices are heavily emphasized throughout the factory. The factory provides workers with safety training, fire safety training, environmental safety training, and 5S training. Workers are additionally required to watch safety training videos throughout their tenure at the factory. Workers assigned to the stamping department are required to wear safety helmets, gloves, wrist guards, aprons, and other safety gear. The stamping machine is fitted with infrared control equipment, so if a worker"s hand is placed under the stamp, it will not activate. Another manufacturing machine requires two workers operate the machine in unison, which again helps prevent workshop accidents from occurring.

According to the testimonies of interviewed workers, occupational accidents were much more common before the factory became equipped with assembly machinery with protective measures. However, workshop accidents still do occur from time to time in workshops and on the factory assembly lines. The E2 assembly line in the stamping department is made up of eight stamping machines. These machines perform the primary tasks in the production process. When a piece is stamped over the machine, it is quickly sent to a waiting area where any excess material is discarded and thrown out. If workers are not concentrating on their task or using excessive force during this stage in the production process, it is quite possible that they will throw discarded material at a fellow worker, seriously injuring them.

One such incident occurred in the stamping workshop when a worker threw a recently stamped product in the direction of a new worker who was picking up discarded material, seriously slashing his hand and arm. This new worker had to go to the hospital and receive 18 stitches. If an accident occurs on the factory floor, BYD regulations state that the machine operator, shift leader, and production line supervisor are each fined 300 RMB (US \$47) per month for three months and given a negative performance assessment report. If a worker"s injury is reported as work-related, they will only be reimbursed for medical fees by the factory after three months. It is not uncommon for an injured worker to receive intense pressure from the workshop machine
operator, shift leader, and production line supervisor not to report their injury to factory management. In return, all medical expenses this worker incurs are paid for by the machine operator, shift leader, and production line supervisor.

Interviewed workers told investigators that "skin trauma" related injuries were common at the factory and often went unreported. Workers complained that the factory does not do enough to address hearing safety in the factory. One interviewed worker stated, "Wearing earplugs is very uncomfortable. If you want some earplugs you can speak with your shift leader, otherwise workers are generally not forced to wear them." Investigators found that the majority of workers did not wear earplugs, even though the collective noise produced by stamping machines, forklifts, and workers shouting is often deafening.

Forklifts are constantly being used throughout the factory. While there is a separate pathway restricted only for operating forklifts, it is too small and often blocked by trash and other factory debris. As a result, forklifts often operate in close proximity to other factory workers and on occasion have caused accidents. Liu Xiaoqiang, a worker in the welding department, suffered a stress fracture when a forklift accidently ran into his heel. He did not report the injury at first, but later was compelled to notify factory officials when he discovered that his medical expenses were higher than he expected.

## F. Room and Board Conditions

The factory provides workers with room and board facilities. Workers are given two set-price dinner options of 4.2 RMB (US \$.65) and 2.75 RMB (US \$.43) to choose from, with the difference being that the higher priced meal contains an extra meat dish and tastes slightly better. Breakfast is 2.5 RMB (US \$.39) and consists of porridge, eggs, breakfast cakes, biscuits, and other foods. Workers are allowed to choose three items from among these options. The factory provides workers with a 150 RMB (US \$23) food subsidy per month. The cafeteria is very busy during mealtimes, often causing workers to wait in line for 10 minutes before receiving their food. Originally workers were only given 30 minutes to eat, which included the time spent walking to the cafeteria and waiting in line for food. This amount of time was later increased by factory officials to better reflect the average time needed to eat.

The factory provides free dormitory living facilities. Workers are only responsible for paying their monthly electricity and water bills. Each dormitory room houses 10 beds and includes an air conditioner and hot water dispenser. Each dormitory has a television room located on the first floor, which shows free movies for workers on the weekends. There is also a supermarket located on the factory grounds; however, their prices are slightly higher than markets located outside the factory.

## G. Miscellaneous

A stamping department worker expressed his genuine feelings regarding factory life in an original poem:
"The change of an era, the start of love, high production quota, high wages, no rest, meaningless, no features. As it is, I don"t want to do it, I just don"t want to do it, low wages, tiring work, low
quality of food in the dining hall, high risk of occupational injury, long waiting period for my wages. Nobody wants to work here, life without taste, only an idiot doesn't quit. Whates the significance, there is too much pressure, I want to resign. Liu Haiqing, boring, hasn"t finished yet, why do you have so much bullshit, are you in hell, tired, please dismiss us, damn it, hard and hard."

## iii. Huizhou Campus

Investigation Period: January 2011
Method of Investigation: Off-site interviews
Number of workers interviewed: 30 (female: male ratio, 1:4)
Number of total employees: around 45, 000 (estimated)
Address: BYD Industrial Campus, Xiangshuihe, West Campus of Dayawan, Danshui Town, Huizhou City, Guangdong Province

## Factory Introduction

As a corporation listed on the Hong Kong Stock Exchange, BYD Company Limited (BYD) is a high-tech private enterprise specializing in IT and automobile manufacturing. BYD initially invested $\$ 60$ million USD in its Huizhou plant, which is located in Xiangshui He, Dayawan, Guangdong, and covers 510,000 square meters. Its IT products include new electronic component parts, panel displays, GSM cell phones, semi-manufactured cell phones, cell phone components, batteries etc. for global clients such as Nokia and Motorola. As of today, BYD Huizhou has over 45,000 employees.

## A. Recruitment

Workers say that BYD recruits year-round. But because this factory is remotely located, it has difficulty recruiting workers. General workers are recruited at recruitment sites or are introduced by career agents. If the factory is in urgent need of workers, the factory will encourage their employees to recommend work in the factory to their friends and fellow villagers. The introduction fee of 30 RMB will be provided to the employees who introduced them if the introduced workers can work for 3 months. As at the Pingshan campus, in order to obtain a job interview and a possible factory position, candidates are required to bring their identification cards, be at least 16 years old, and have no tattoos or scars. Pregnant women are barred from employment. Workers are required to pay a 40 RMB (US \$6) health examination fee during the recruitment process. The exam looks at workers' chest, blood, and facial features. Many candidates are not recruited because of eye irritation. During the exam, male workers are examined while shirtless and are asked to raise their arms, bend their legs, and squat. Women are not asked to remove their shirts, but they will be checked for tattoos by male staff.

Occupational training is provided. It is similar to that given on Pingshan Campus.

## B. Working Hours

The factory operates 8 hours a day, 5 days a week and 22 days a month, according to its contract agreements. But in fact, overtime is all but mandatory. Currently, workers work 12 hours a day, divided between 8 hours of regular work, 2 hours for dining and 2 hours of overtime. Workers usually rest on Sunday, but sometimes they have to work on Sunday as well. The average amount of overtime worked by every worker is around 100 hours every month. Last August,
workers worked 30 days without a break. Technically, every 14 days workers can take one day off. Their working schedule is as follows:

| Working | Morning | Afternoon | Overtime |
| :--- | :--- | :--- | :---: |
| Electrical <br> Department Day <br> Shift | $8: 00-11: 00$ | $12: 00-16: 30$ | $17: 30-20: 00$ |
| All Department <br> Night Shift | $20: 00-23:$ | $00: 00-04: 30$ |  |

Workers record their work hours by using their work ID. They must swipe their card when entering and leaving every day. If someone forgets to swipe their card or is unable to swipe their card correctly, they can tell the group leader and the group leader will correct it for them. But the worker cannot do this more than twice a month without facing repercussions.

If workers are absent from overtime, they must request leave to do so from their superior. But workers say that their superiors rarely approve these requests.

There is a production quota for each production line. Workers whose salaries are calculated by a piece-rate system must finish their production quota before being allowed to leave work. Only a handful of workers are able to finish their work in advance and they all have overtime regardless. This overtime usually does not exceed 2 hours. A worker whose salary is determined by an hourly rate is not required to work overtime.

But early, uncompensated work happens every day. Workers are told that they to arrive 15 minutes earlier to attend morning meetings. The meeting time will not be calculated into one's salary. However, one male worker says that he never goes to these meetings and has not been punished yet.

## C. Salary and Benefits

The factory distributes worker salaries on the $22^{\text {nd }}$ of each month. If the $22^{\text {nd }}$ is a holiday, then the salaries will be distributed earlier. Salaries will be transferred to workers' bank accounts and workers will also be assigned a pay stub. But workers say they are not sure how salaries are calculated and workers working in the same position and with the same seniority can earn different salaries. These differences can be very big. Some workers have discussed this with their group leaders, who say they are not sure how salaries are calculated, either.

A worker"s salary is the sum of that worker"s base salary, overtime salary and performance awards. The base salary is $1,320 \mathrm{RMB}$. The regular overtime wage rate is calculated as 1.5 times the regular wage. The holiday overtime wage rate is calculated as two times the regular wage. A performance award can only be gained by workers who are promoted. It's between 100 to 300 RMB. Some workers say they can be promoted if they work for six months or more. Some workers dispute that view and think some workers can't even get promotion even after working for years. The promotion heavily depends on workers' positions, rather than just their performance. In other words, promotion in BYD is not easy and relies on Guanxi (networking skills). Workers said they hoped the salary calculation can be made more transparent and their value can be evaluated more impartially and openly.

Worker salaries range from 1,800 to 2,000 RMB a month. The deductions from this are 150 RMB for board (The boarding fee is altogether 300RMB/month, but the factory subsidizes worker for 150 RMB ), 88 RMB for utilities and 10 RMB for private pension and medical insurance.

The factory will purchase socialized pension and medical insurance for workers. But workers can choose whether to have the insurance or not. Half of the workers we interviewed preferred not to purchase that insurance because they were not familiar with the new insurance law and were confused about how to transfer their insurance. Workers think the factory should explain how to do this to them and encourage workers to purchase social insurance.

No salary will be provided for any sick leave a worker takes and it's almost impossible for a worker to ask for a day off. If workers take a day off, they will lose any performance awards they have. Salaries are provided during public holidays.

The factory campus has a basketball court and a library. During holidays, the factory will gather workers to dine together. The dinning fee is spared between workers. There is also a gala held during spring festival.

## D. Room and Board

The factory offers workers room and board.
The price of breakfast is 2.5 RMB , for three of the following dishes: porridge, eggs, cakes and pancakes. Two sets of meals are offered for both lunch and dinner, one for 4.2 RMB and another for 2.75 RMB. The factory gives workers room and board subsidies of 150 RMB. If workers choose not to eat in the factory, this subsidy and their salary remains unchanged.

No rental fee is charged for dormitory living. But if the electricity bill exceeds a certain level, the excess fee will be shared between workers. 8 people are assigned to live together in one dorm room. There are desks, chairs, fans, air conditioners, geysers and bathrooms in dorm rooms. Workers think the dormitory arrangement is not good enough. Workers who work in the day live with workers who work the night shift, thus they frequently disturb each other"s rest. There is a television room downstairs. If workers do not live in the factory dorm, they will not gain any subsidy for room and board.

## E. Occupational Safety and Protection

The factory puts some emphasis on production safety. Workers in electronics departments are constantly exposed to alcohol-based thinners, so they are assigned masks and gloves. New masks and gloves are assigned every day. The conditions in these electronics workshops are not dangerous and pretty clean. Cleaners are hired to tidy up workshops. Clear signs mark the workshop's pedestrian paths and emergency exits. In addition these passages are brightly illuminated and are not obstructed. Hallways and emergency exits in workers' dormitories are similarly well lit and unblocked.

No physical examinations are provided for workers when workers leave their position.
Workers are not sure whether or not First Aid Kits are installed on the factory grounds and in the dormitories.

The fire drill is only attended by security guards. No worker is allowed to attend.

## F. Awards and Punishments

Workers said they are only given performance awards and other awards that are par for the course at other factories -- like perfect attendance, end of year or seniority awards -- are not given out. Any fines will be taken out of a workers performance award. The deduction is not marked on a worker"s pay stub. This results in some workers" performance awards appearing to be less than those of other workers. But these workers will have no idea why their pay was deducted. As a result, workers are unclear about what actions are punished.

When production workers want to go to the bathroom or drink water, they must find a replacement to fill their position. These breaks can last a maximum of 15 minutes. If no replacement can be found, however, the employee wishing to take a break must continue working and suffer the consequences.

## G. Resignation

During the probationary period, an employee can resign with three days" notice. Afterwards, employees can resign with one month "s notice. To resign, workers must fill out a resignation form with an office clerk. Then, the employee"s line leader and group leader should confirm their salary records for that worker, at which point, the worker goes to the human resource department on Monday, Wednesday or Friday and presents their ID, Bank Card, Manual and Confirmation for Dormitory Check-Out.

In any circumstance that group leader and line leader approve the worker's resignation, the resignation procedures can usually go very smoothly. But in the busy season, when the factory is running short of labor, it is very hard to get their approval. The resignation can be postponed to as long as a month. Workers say if a worker is formally employed, his resignation can take two months slower than the procedures stipulate. Numerous workers choose to resign abruptly during Chinese New Year when they are unable to either take personal leaves or go through normal
resignation. Thus they have no choice but to give up 22 days" worth of salary in order to return to their hometowns for the holiday.

8 out of 10 people waiting at the gate of BYD are asking to resign.
A worker"s final salary is not given out in cash, but transferred to the worker"s bank account. It is usually transferred on the Saturday afternoon when workers' resignation is validated and is received by the worker no later than the next Tuesday morning. The worker"s bank account must be in either the Bank of China or the Shenzhen Construction Bank.

## H. Miscellaneous

Although a trade union exists within the factory, the workers we interviewed said if they had any thoughts or suggestions about their work, they are more willing to talk to their friends than the union. They also mention troubles they encounter in work to their supervisor. But the supervisors usually won't take action to solve these problems.

One worker who was transferred from the Shenzhen Baolong campus to the Huizhou campus complained that the social insurance he bought in Baolong campus hasn't been transferred to Huizhou campus. Although he pays the social insurance fee every month, he is unable to use it. He has already filed a complaint with the factory, but has yet to hear back from it.

## V. ANALYSIS OF BYD WORKER'S WAGES AND EXPENSES

All over China, provinces and cities are raising the minimum wage in order to improve the livelihood of blue-collar workers. BYD has also raised its minimum wage rate, but this rate is still not sufficient to live a comfortable life and support a family. On the next page, researchers for China Labor Watch have compared an average BYD worker's salary with daily consumption costs in Shenzhen.

| Shenzhen BYD Workers' Living Expenses in March 2011 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Interviewees" ${ }^{\text {c }}$ Situation | Income | Monthly Expenses |  |  |  |  |  |  |  |  |  | Balance |
| $\stackrel{\star}{*}$ |  |  | $\stackrel{\overrightarrow{\tilde{0}}}{\sim}$ | O |  |  |  | 0 0 0 0 | $\begin{aligned} & \ddot{0} \\ & 0.0 \end{aligned}$ | 砣 |  | Total |  |
| Male | No. 2 Enterprise Group | 1500 | 350 | 300 |  | 100 | 200 | 50 | 100 | 30 | 100 | 1130 | 370 |
| Male | Engineering Dept. | 3400 | 450 | 400 | 400 | 100 | 150 | 50 | 50 |  |  | 1600 | 1800 |
| Male | Engineering Dept. | 3000 | 500 | 450 | 800 |  | 100 | 50 | 50 |  |  | 1850 | 1150 |
| Female | No. 3 Enterprise Group | 1800 |  | 300 |  | 200 | 150 | 60 | 150 | 50 | 400 | 1510 | 290 |
| Male | No. 3 Enterprise Group | 2000 | 300 | 300 |  | 50 | 100 | 100 | 100 | 100 | 100 | 1150 | 850 |
| Male | No. 3 Enterprise Group | 1600 | 300 | 300 |  | 300 | 100 | 100 | 100 | 100 |  | 1300 | 300 |
| Female | No. 3 Enterprise Group | 2300 | 450 | 300 |  |  | 500 | 100 | 200 | 50 |  | 1600 | 700 |
| Female | No. 3 Enterprise Group | 2000 |  | 400 |  | 400 |  | 100 | 200 | 60 |  | 1160 | 840 |
| Male | No. 2 Enterprise Group | 2000 |  | 300 |  | 100 | 500 | 100 | 200 | 50 |  | 1250 | 750 |
| Male | No. 2 Enterprise Group | 1600 | 300 | 500 |  | 100 | 80 | 100 | 100 | 50 | 20 | 1250 | 350 |
| Male | Planning Material Dept. | 2400 | 300 | 300 |  | 150 | 170 | 50 | 100 | 50 | 80 | 1200 | 1200 |
| Male19 | No. 3 Service Dept. | 2100 |  | 300 |  | 50 | 200 | 100 | 50 | 20 |  | 720 | 1380 |

${ }^{19}$ This interviewed worker lives with his girlfriend. Therefore, the numbers under him actually include two persons"income, expenses and savings. Each of them spends about half of their total expenses.
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## Food

BYD workers receive a one hour lunch break, which doesn't allow them enough time to make their own meals. Therefore, nearly all workers choose to eat in the factory cafeteria. However, the food provided by the cafeteria lacks diversity and nutrition. After a period of time, the food becomes redundant and the lack of nutrition affects the health of the workers. Thus, many workers prefer to eat their breakfast and dinner outside of the BYD factory. According to our investigation, one meal in a surrounding restaurant costs between 5 and 10RMB. Although this is not very expensive, these meals still do not provide workers enough sustenance for the hard labor required of them.

China Labor Watch investigated two markets located near the Baolong campus. The price of rice ranges from 2.38 to 2.58 RMB per 500 grams; vegetable prices range from 1.38 to 6.98 RMB per 500 grams; meat prices range from 6 to 15 RMB per 500 grams. The following table lists prices for different raw food materials which were investigated in March 2011:

\$0.64USD food in BYD cafeteria

| Baolong BYD Nearby FuliGou and Bingkeng Market Price Level Excerpts |  |  |  |
| :---: | :---: | :---: | :---: |
| Product | Price(RMB/500g) | Product | Price(RMB/500g) |
| Live Anhui Fish | 6.00 | Fresh yam | 6.98 |
| Live Crucian Carp | 8.00 | Ginger | 8.98 |
| Live Carp | 6.50 | Turnip | 1.38 |
| Fresh Whole Chicke | 13.00 | Eggplant | 3.98 |
| Fresh Meat | 11.00 | Round pepper | 5.98 |
| Spareribs | 15.00 | Chinese cabbage | 2.68 |
| Garlic | 9.80 | Cabbage heart | 2.68 |
| Taro | 7.91 | Bok Choy heart | 3.98 |
| Purple yam | 3.98 | Lily root | 3.98 |
| Sweet potato | 2.98 | Radish sprout | 2.98 |
| Lotus root | 4.98 | Potato | 3.58 |

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| Yellow white leave | 1.98 | Watercress | 2.98 |
| :---: | :---: | :---: | :---: |
| Mustard leaf | 1.98 | Lettuce | 1.98 |
| Celery | 3.98 | Cucumber | 4.98 |
| Rice 1 | 2.38 | Rice 2 | 2.68 |
| Rice 3 | 2.88 | Rice 4 | 2.68 |
| 5L Fish Oil（bottle | 79.60 | 5L Corn oil（bottle） | 79.00 |



Food prices in the market

## Housing

Most workers choose to live in the free dormitories provided by BYD．Because workers cannot live with their own family， and have to live in a room with 8 tol0 others，this is a source of great stress for the workers．All personal privacy is basically surrendered．If workers want to live with their family，they must spend at least 600 RMB a month on food（as we have analyzed before）．The following chart details the costs of living outside of the factory．

| Rent（Each person <br> RMB／room／month $)$ | Size（ $\mathbf{m}^{2}$ ） | Distance from | Notes |
| :---: | ---: | ---: | :--- |
| 300 | $\sim 8$ | $\sim 100 \mathrm{~m}$ | The rent does not include electric and water <br> A bathroom is enclosed in the dorm． |
| 450 | $\sim 15$ | $\sim 100 \mathrm{~m}$ | The rent does not include electric and water <br> A bathroom is enclosed in the dorm． |
| 250 | $\sim 8$ | $\sim 800 \mathrm{~m}$ | The rent does not include electric and water <br> No bathroom is enclosed in the dorm． |
| 280 | $\sim 8$ | $\sim 800 \mathrm{~m}$ | The rent does not include electric and water <br> A bathroom is enclosed in the dorm． |
| 450 | $\sim 17$ | $\sim 800 \mathrm{~m}$ | The rent does not include electric and water <br> A bathroom is enclosed in the dorm． |

If a couple rents a $17 \mathrm{~m}^{2}$ room，it will cost around $450 \mathrm{RMB} / \mathrm{month}$ ．Electricity and water bills are on average $190 \mathrm{RMB} /$ month．When food，housing and utilities expenses are added up，it was found that if a couple wants to live near the BYD factory；it will cost at least 800 RMB a month，which is $40 \%$ of a 2,000 RMB salary．

Other Expenses
Besides room and board，there are other expenses that workers must support．A worker usually spends around 150 RMB on groceries， 50 RMB on transportation， 200 RMB on entertainment， 200 to 300 RMB on clothing，and 50 to 100 RMB on communication．These additional expenses，combined with basic living fees，can add up to over 1，500 RMB，nearly $75 \%$ of one＂s monthly salary．

It was concluded that BYD factory workers are not able to live frugally enough to be able to save any of their 2,000 RMB monthly salary for the future．As it is barely enough to sustain oneself，let alone one＂s family，it is nearly impossible to use this money to elevate one＂s
 social and economic position．

In reality，it is next to impossible to gain a promotion within the BYD factory．Further，since salary is based upon a piece－rate wage，as workers get older，their overall work capacity will decrease．Thus，as a worker＂s family grows and his health declines，it becomes increasingly harder to sustain all of the necessities needed to live a comfortable life．Even though BYD，s base minimum wage has been raised to comply with Shenzhen＂s local minimum wage，most workers are still＂forced＂to work overtime in order to support their family

In the short term，the intensity and pressure of this work can cause many short term problems， including lack of confidence and health issues．In the long term，the issue of low payment and absence of promotion opportunities will have a lasting effect on the lives of all of the BYD factory workers and their families．This may very well cause fierce social conflicts to arise within the labor force as this truth becomes more apparent．

## VI．Conclusion

As we have analyzed in this report，there are many consequences of BYD＇s transition to a semi－ automated production line．Not only is BYD in violation of China＇s national labor laws，but larger，more severe social conflicts are likely to arise out of this issue．

First off，BYD＇s minimum working wage，labor conditions，and excessive work hours directly affect the livelihood，health，and sanity of its employees．Paying workers the local minimum wage is forcing them and their families to live in the lowest standard of life．In order to support them and their families，workers are forced to work excessive overtime hours．Further，our investigation discovered that，even if laborers work the most possible overtime hours，they still can hardly lead a comfortable and stable life．In order to reduce living expenses，factory workers must leave their families and live at the factory．

Secondly，the demand for high efficiency labor from BYD creates a high employee turnover rate． Most workers have trouble maintaining efficient work pace after just a few months and are eventually forced to quit．Workers have no opportunities for promotion and their meager wages are too small to provide them with the opportunity to get an education or better their livelihoods． Thus，workers are extremely stressed and feel hopeless about the future．If these problems can＇t be solved，fierce social conflicts within the factory will arise．

Lastly，BYD＇s transition to a semi－automated production line，which is decreasing production costs and increasing factory revenue，will trigger vicious competition between both Chinese and foreign manufacturers．BYD＇s labor problems are rooted in the low－cost／high－output manufacturing model．This gives BYD a competitive advantage over other companies．Without any internal reforms and improvements，other companies will also begin to suppress their manufacturing costs in the same fashion．This vicious cycle will lead to even harsher working conditions in Chinese factories．BYD should be held to a greater responsibility to make positive changes to the working conditions in its factories．

China Labor Watch believes，while the working conditions at BYD are not the worst in China， their current state reflects a lack of concern for the personal development and living conditions of ordinary workers on their assembly lines．By establishing this kind of value－based factory， workers will be able to develop and expand along with the factory，and the factory will be able to provide a better life for its workers and their families．BYD cannot continue to make profits solely at the expense of their workforce＂s quality of life．By making improvements，BYD would be able to set an example，both within China and for multinational companies around the world， of the unavoidable social responsibilities these large corporations have to their workers．

Regarded as China＇s largest new energy resource enterprise，BYD＇s international publicity focuses on their image as a green and healthy business．On the surface，their system looks perfectly constructed，but as this report shows，this view is largely inaccurate．Going forward，we can only hope that BYD will devote more energy to changing its actual labor practices，rather than polishing its image．

In response to our report"s findings, China Labor Watch"s Executive Director, Li Qiang has made this statement, "BYD"s success is built upon the concept of sweatshop factories. A large portion of Wang Chuanfu's high net worth comes from the extremely low wages of BYD workers. Warren Buffet and other international investors should understand they are also profiting from sweatshops and making large profits off of workers. If workers do not stop getting exploited, even more enterprises will rely on the profits earned through sweatshops to give to philanthropic organizations. It is all nothing but „the hypocrisy of the rich "e".

We hope that BYD has also realized this and can make vast improvements in its corporate social responsibilities, and seek a forward-looking path of development for its 130,000 workers.


[^0]:    ${ }^{1}$ Li Qiang is one of the earliest labor rights activists in China, and is the Founder and Executive Director of China Labor Watch, an independent non-governmental organization.
    ${ }^{2}$ China Labor Watch is a New-York based not-for-profit organization. More information is available at http://www.chinalaborwatch.org.

[^1]:    ${ }^{3}$ Charles Booth，（1902）．Life and labor of the people in London．London：Macmillan．

[^2]:    ${ }^{4}$ Charles Kingsley，Cheap Clothes and Nasty，http：／／www．historyhome．co．uk／peel／economic／sweat．htm
    $5^{\text {蒋相泽主编，世界通史资料选辑近代部分上册（商务印书馆），第 } 37-38 \text { 页。 }}$

[^3]:    ${ }^{6} \mathrm{http}: / /$ money．cnn．com／2009／04／13／technology／gunther＿electric．fortune／
    ${ }^{7}$ Source：Shenzhen Bureau of Statistics http：／／http：／／www．sztj．com／main／include／month／viewarticle．jsp？artid＝4642． The monthly data is averaged from quarter data by China Labor Watch．

[^4]:    ${ }^{8}$ What is BYD＇s underlying motivation for producing home appliance：The expansion of processing for multinational companies，IT manager world，August 25， 2010 （the title is translated by China Labor Watch）， http：／／tech．sina．com．cn／e／2010－08－25／13144586733．shtml
    ${ }^{9}$ BYD Official Website，http：／／bydit．com／docc／about／dsj／
    ${ }^{10}$ Forbes Official Websitehttp：／／www．forbes．com／global／2009／1116／china－billionaires－09－chuanfu－yongxing－china－40－ richest－list．html

[^5]:    ${ }^{11}$ Zhong Liang，The Transformation of IT Tycoon：BYD challenges Foxconn on Lewis Turning Points， 21 Century Economic Reports（December 27，2010），http：／／tech．sina．com．cn／it／2010－12－25／00035026588．shtml 。
    ${ }^{12}$ According to China Labor Watch＇s investigation on October 2010，the minimum wage in Shenzhen is 1,320 RMB／month．In BYD＇s Pingshan campus，workers are provided a base salary of $1,320 \mathrm{RMB} /$ month． $1,320 \mathrm{RMB} / \mathrm{month}$ in Baolong campus； $1,320 \mathrm{RMB} /$ month in Huizhou campus．We can see that BYD＇s base wage is almost the same as the local minimum wage．

[^6]:    ${ }^{13}$ BYD＇s official Website：http：／／bydit．com／userfiles／attachment／BYD－Interim\％20Report\％202010．pdf
    ${ }^{14}$ Source ：http：／／baike．baidu．com／view／718627．htm
    ${ }^{15}$ Foxconn sue BYD pirate its commercial confidential document．The case is still under disposal．

[^7]:    ${ }^{16}$ Xiaoyu，Walking From Victory to Victory：Management Rule of Win More with Less ， http：／／xy．eywedu．com／endeavourers／A／\％E4\％BB\％8E\％E8\％83\％9C\％E5\％88\％A9\％E8\％B5\％B0\％E5\％90\％91\％E8\％ 83\％9C\％E5\％88\％A9\％EF\％BC\％9A\％E4\％BB\％A5\％E5\％B0\％91\％E8\％83\％9C\％E5\％A4\％9A\％E7\％9A\％84\％E7\％ AE\％A1\％E7\％90\％86\％E6\％B3\％95\％E5\％88\％99／chapter／chapter－3902－3－13．html。
    ${ }^{17}$ China Management Newspaper，January 25，2010，http：／／www．lwgcw．com／NewsShow．aspx？newsId＝1798\＆page＝2

[^8]:    ${ }^{18}$ Marc Gunther, Warren Buffett takes charge, CNN:
    http://money.cnn.com/2009/04/13/technology/gunther electric.fortune/

