APPLE, FOXCONN, AND CHINA'S NEW WORKING CLASS

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China's pivotal role in export-oriented industrialization has reshaped electronics production networks previously dominated by Japan and its former colonies Taiwan and South Korea. Central to China's export surge since the 1980s has been the role of rural migrant workers. As of early 2015, 274 million Chinese rural migrants had been drawn into the manufacturing, service, and construction sectors in booming towns and cities, an increase of 48.5 million from 2008, when the National Bureau of Statistics (NBS) began to monitor the work and employment conditions of the rural migrant labor force in the aftermath of the global financial crisis (NBS 2014, 2015). Labor unrest across China has been growing steadily for more than a decade, fuelled in part by a younger and better-educated cohort of migrant workers who are less tolerant of injustice and highly motivated to demand higher wages and better working conditions and benefits. A study of the labor conditions of one-million-strong Foxconn workers—most of them a new generation of rural migrants who were born after 1980-enable us to draw out the deep contradictions among labor, capital, and the Chinese state in the world economy.

Giant manufacturers, rather than small workshops, are better able to respond to increasing product complexity and shortening product cycles in global production. Not only the big ones, which eat the small ones, but also the fast ones, which eat the slow. Foxconn's extraordinary growth is built on its cheap, big, fast, and efficient production model. It provides advanced engineering services, component processing, and final assembly in one-stop shopping to technology firms and retailers. In a nutshell, Foxconn has risen to become the "electronics"

workshop of the world," with small and medium competitors squeezed out of the market.

Apple, together with other technology giants, has created global consumers with its products, and through Foxconn and other major subcontractors it has simultaneously contributed to the creation of a new Chinese working class. Not only production tasks, but also inventory management and logistics, are concentrated in strategic factories, resulting in ever-stronger interdependent relations between "big buyers" and "big suppliers" in the consumer electronics industry (Appelbaum 2008; Starosta 2010; Lee and Gereffi 2013; Chan, Pun, and Selden 2013, 2015, 2016). The mystery that our sociological investigation seeks to explore looks beyond the "inside story" of the horrific reality of life for workers who produce Apple iPhones and other electronic products emblematic of the digital age. It also seeks to address central features of contemporary global capitalism through a focus on the relationship between the richest global technology corporation (Apple) and the world's largest industrial employer (Foxconn), as well as that between Foxconn and the Chinese state. Examination of a young generation of Chinese workers' lived experience provides new light on the dialectical character of corporate domination and labor resistance in global electronics production.

The Rise of Foxconn in Greater China

Terry Tai-ming Gou (b. 1950), the founder and CEO of Foxconn Technology Group (registered as Hon Hai Precision Industry Company in Taipei in 1974), was quick to seize the new opportunities created by Taiwan's industrialization policy, the growth in international trade in the postwar geopolitical and economic order, and above all the opening to China in the 1980s (Chiang and Yan 2015). Before running his own business, he had served in the army and worked as a shipping clerk after graduating from a technical school in 1971. At that time, transnational corporations accelerated the export of capital in searching for cheap, disciplined, and productive labor, notably to East Asia, including Taiwan, Hong Kong, and South Korea. The resulting successive geographical relocations of industrial capital have been facilitated by efficient transportation and modern communications technologies, regional and international financial services, and access to immigrants and surplus labor that held down wage levels (Deyo 1989; Selden 1997; Smith, Sonnenfeld, and Pellow 2006; McKay 2006; Lüthje et al. 2013). In this context of industrial relocation, Taiwan and other emergent economies grew rapidly through global investment and subcontracting networks.

From the 1960s, IBM, the leader in business computing, shifted its labor-intensive production from the United States and Europe to East Asia to cut costs. The microelectronics components of IBM System 360 computers were assembled

by workers in Japan, and then Taiwan, because "the cost of labor there was so low" that it was cheaper than automated production in New York (Ernst 1997, 40). Radio Corporation of America (RCA), the consumer electronics firm, similarly moved to take advantage of Taiwan's cheap labor and loose regulatory environment in the export-processing zones in 1970 (Cowie 2001; Ku 2006; Chen 2011). In newly industrializing East Asian countries, most factory workers were young women migrants from the countryside, whose diligence and low-cost labor was a bulwark of the "economic miracles" across the region.

During the 1980s, many of the world's technology companies abandoned lowvalue-added hardware production and electronics assembly to concentrate on design, R&D (research and development), marketing, and customer service in order to cut costs. In 1981, for example, Apple Computer-later Apple, Inc.ramped up upgraded Apple II personal computers through contracting offshore facilities in Singapore (one of the original Four Asian Tigers, together with Taiwan, South Korea, and Hong Kong). Michael Scott, the first CEO of Apple Computer (1977-1981), commented: "Our business was designing, educating and marketing. I thought that Apple should do the least amount of work that it could and . . . let the subcontractors have the problems" (Moritz 2009, 208-9). In 1984, Apple launched Macintosh to compete with IBM in the fast-growing computer market. The 160,000-square-foot Fremont factory on Warm Springs Boulevard in California was opened in January: "The facility was one of the nation's most automated plants, utilizing manufacturing methods such as robotics, just-intime materials delivery, and a linear assembly line." Two years later, the assembly of Macs was relocated to Fountain, Colorado, Cork, Ireland, and Singapore (City of Fremont, California 2012). By the end of the 1990 decade, Apple, Lucent Technologies, Nortel, Alcatel, and Ericsson, among many others, had "sold off most, if not all, of their in-house manufacturing capacity—both at home and abroad—to a cadre of large and highly capable US-based contract manufacturers, including Solectron, Flextronics, Jabil Circuit, Celestica, and Sanmina-SCI" (Sturgeon, Humphrey, and Gereffi 2011, 236). To which we may add Foxconn, which has been growing steadily to climb the global value chain.

Small and medium-sized Taiwan and Hong Kong enterprises brought in capital to China totaling US\$107 billion between 1982 and 1994, more than 70 percent of the realized foreign direct investment during the period (Hsing 1998, 8). After the 1985 Plaza Accord, which caused Taiwan's currency to appreciate relative to the US dollar (up about 40 percent at the peak), entrepreneurs accelerated their move to China and Southeast Asia to reduce production costs and secure big international orders (Leng 2005; Hamilton and Kao 2011). In 1988, taking advantage of China's open-door policy encouraging foreign investment, Foxconn was among the first group of Taiwanese companies to invest in coastal Guangdong, South China.

The name Foxconn alludes to the corporation's claim to produce electronic connectors at "fox-like" speed. Connectors are tiny devices that connect parts such as motherboards, memory chips, and circuits in personal computers. Like nerves sending signals around the body, a computer's connectors must be highly precise. Throughout the 1990s, the company invested heavily in the plastic and metal molding equipment to lay a solid foundation for long-term development. In 2001, it pooled 300 million yuan as a cofounder of the Tsinghua-Foxconn Nanotechnology Research Center at Tsinghua University, Beijing, the capital of China (Foxconn Technology Group 2011, 24). The joint research center leverages Tsinghua University's scientific expertise and Foxconn's large-scale electronic technology. It emphasizes nanotechnology, heat transfer, wireless networks, optical plating techniques, new materials, new energy, biotechnology, advanced surface mount technology, network chips technology, and robot technology.

An army of a thousand is easy to get; one general is tough to find. In 2003, the Foxconn leader Terry Gou acquired handset assembly plants owned by Nokia and Motorola in Finland and Mexico, respectively, enabling him to branch out from computer to mobile communications equipment manufacturing (Foxconn Technology Group 2009, 10). CommonWealth Magazine reported: "That year, Gou presided over successive lightning quick acquisitions across Scandinavia, South America and Asia, becoming Taiwan's first business chief to complete mergers on three different continents within a single year" (Huang 2014). By 2004, Foxconn had become the industrial leader in electronics manufacturing, surpassing Nasdaq-listed Flextronics (Pick 2006). "Terry is the most aggressive business person I've met in my life," remarked Michael Marks, the former chief executive of Flextronics (Mac 2013). To eliminate major competition, Foxconn undercuts prices and upgrades production and engineering capacity.

Foxconn's expansion across the globe is aptly summarized in a corporate slogan, "China rooted, global footprint." Operations outside China, however, for the most part provide quick turnaround on orders, reduce transportation costs, and avoid import taxes, although China remains the heart of its global corporate empire and the core of its profitability. The *Fortune* Global 500 ranked Foxconn sixtieth in 2011, forty-third in 2012, thirtieth in 2013, thirty-second in 2014, and thirty-first in 2015, demonstrating the company's rapid ascent in revenue and profit. In 2013, even in the midst of European government austerity measures and international economic uncertainty, Foxconn attained far higher annual revenues (US\$133 billion) than many of its corporate customers, with the important exceptions of Apple and Samsung.² Although the yearly profit of Apple (US\$37 billion) far exceeds that of Foxconn (US\$3.5 billion) and any other company, Foxconn's growth has also been very strong (Foxconn Technology Group 2014a).

In many cities throughout China Foxconn runs multiple manufacturing facilities. But it initially centered its investment in Guangdong. In 2010, more than

five hundred thousand employees worked in two Foxconn factories in Shenzhen city (Longhua and Guanlan), on the northern border of Hong Kong (Foxconn Technology Group 2010, 1). Subsequently, tens of thousands of workers were transferred to lower-wage production sites in interior China, such as Taiyuan city where the iPhone metal and electronic parts are processed, and Zhengzhou city, where iPhones are assembled (see figure 9.1). By 2015, Foxconn had thirty-plus



FIGURE 9.1 Foxconn locations in Greater China, 1974–2015

Source: Foxconn Technology Group websites and annual reports

manufacturing complexes in four provincial-level municipalities (Beijing, Tianjin, Shanghai, and Chongqing) and in sixteen provinces throughout China. From raw material extraction to processing to final assembly, Foxconn has built a network featuring vertical integration and flexible coordination across different facilities and twenty-four-hour continuous assembly.

"In twenty years," some business executives suggested in 2010, just two companies will dominate global markets—"everything will be made by Foxconn and sold by Walmart" (Balfour and Culpan 2010). This is, of course, a wild exaggeration that ignores the central fact of Foxconn's dependence on Apple, HP, Dell, and other international electronics firms. But it underlies Foxconn's startling rise at the expense of powerful rivals in Taiwan, China, and around the globe. As Karl Marx observed in *Capital*, "one capitalist always strikes down many others" (1990, 929). Through a close-up study of Chinese workers—the direct producers—in the world's most powerful electronics contractor, we can begin to enter Foxconn's hidden abode of global production.

Apple Meets Foxconn

Apple's commercial success is paralleled by, and based on, the scale of production in its supplying factories. As of January 2015, 334 Apple suppliers were located in China, more than were located in all other countries combined (Apple 2015a). Jeff Williams, Apple's senior vice president of operations, affirmed that "more than 1,400 talented engineers and managers were stationed in China" to manage manufacturing operations, who worked and lived "in the factories constantly" (BBC 2014). Although Apple and its largest supplier, Foxconn, are independent companies, they are inextricably linked in product development and manufacturing processes.

As Apple achieved a globally dominant position as the world's most valuable brand, followed by Samsung, Google, and Microsoft (Brand Finance 2014), the fortunes of Foxconn have been entwined with its success. "Two 'Apple business groups,' iDPBG [integrated Digital Product Business Group] and iDSBG [innovation Digital System Business Group], have become rising stars at Foxconn in the past few years," a Foxconn production manager said. More than a dozen business groups compete within Foxconn on speed, quality, efficiency, engineering service, and added value to maximize profits. He elaborated: "Approximately 40 percent of Foxconn revenues are from Apple, and the remainder is divided among numerous clients. iDPBG was established at Foxconn in 2002. At the beginning, it was only a small business group handling Apple's contracts. We assembled Macs and shipped them to Apple retail stores in the United States and elsewhere. Later we had more orders for Macs and iPods."

The iPod digital music player, with a click-wheel interface and white earphones, was launched in 2001. Light, beautiful, and lovable, it changed the way music was personalized, just as the Sony Walkman had decades earlier. The iTunes Store allows consumers to instantly download and buy digital music, TV programs, and films.

Relentless consumer demand for the world's hot-selling gadgets means production lines never stop. If Apple's edge lies in technological innovation, design, and marketing, its success is inseparable from the ability of its large suppliers to produce efficiently to meet Apple's demands for high-quality new products. Jony Ive, Apple's senior vice president of design, recalled the original iPhone launch on June 29, 2007: "We were very nervous—we were concerned how people would make a transition from touching physical buttons that moved, that made a noise . . . to glass that didn't move. [But] it's terribly important that you constantly question the assumptions you've made" (Parker 2015).

Long-held assumptions about the phone user interface were shattered, giving way to a touchscreen interface. Moving fingers away from each other while keeping contact with the screen allows users to zoom into a map or a photo. We feel and touch our iPhones with the pinch-to-zoom technologies. Thousands of appealing apps, ranging from games to health care to self-learning, are downloadable to iPhones. By 2014, China had become Apple's second-largest market for app downloads, second only to the United States (Apple 2014a).

China's workers who produce the newest models of iPhones are as eager to buy them as Western consumers. One nineteen-year-old Foxconn worker dreamed about her future. "Someday," she mused, "I want to drive a brand new Honda and return home in style!" For the time being, dreaming of buying an iPhone, she is ready to work as hard as necessary to do so.

The iPhone is the biggest revenue generator for Apple. In 2010, Apple's strength was well illustrated by its ability to capture an extraordinary 58.5 percent of the sales price of the iPhone, despite (but also because of) the fact that manufacture of the product was entirely outsourced (see figure 9.2). Particularly notable is the fact that labor costs in China accounted for the smallest share, only 1.8 percent or nearly US\$10, of the US\$549 retail price of the iPhone. Other major component providers, mainly Japanese and South Korean firms that produce the most sophisticated components, captured slightly over 14 percent of the value of the iPhone. The cost of raw materials was just over one-fifth of the total value (21.9 percent). In short, although China has carved out a niche as a reliable assembler of the iPhone (and many other electronic products), the lion's share of the profits goes to Apple, and Japanese and Korean providers of the most sophisticated components obtain a significant share. Above all it is design, marketing, and business acumen that reap the richest rewards whereas the return



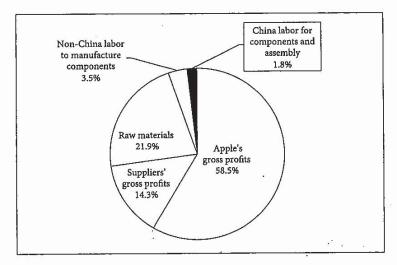


FIGURE 9.2 Distribution of value for the iPhone, 2010

Note: The percentage is calculated on the IPhone 4's retail price at US\$549 in 2010. No amount for "distribution and retail" is shown because Apple is paid directly by a cellular company, such as AT&T or Verizon, which then handles the final stage of the sale.

Source: Adapted from Kraemer, Linden, and Dedrick 2011, 5

TABLE 9.1 Apple's revenues by product, 2010-2014

	2011 (ENDED SEPTEMBER 24)		2014 (ENDED SEPTEMBER 27)	
	MILLIONS (US\$)	%	MILLIONS (US\$)	%
iPhone	45,998	42.5	101,991	55.8
iPad	19,168	17.7	30,283	16.6
Mac	21,783	20.1	24,079	13.2
iTunes, Software, Services	9,373 '	8.7	18,063	9.9
Accessories	4,474	4.1	6,093	3.3
iPod	7,453	6.9	2,286	1.2
Total	108,249	100	182,795	100

Source: Apple 2013, 27; 2014b, 27

to manufacturing ranks far below, with labor, the labor of more than one million Foxconn workers in China, receiving a pittance.

Apple's revenues reached US\$182.8 billion in fiscal year 2014, nearly twice as much as in fiscal year 2011. Table 9.1 shows revenues generated from sales of Apple-branded products and services: the signature Mac computer has now been far surpassed in value by the iPhone, with the iPad in second place (listed in the order of 2014 sales revenues).

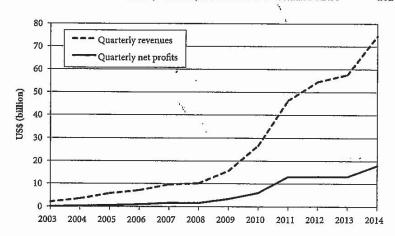


FIGURE 9.3 Apple's quarterly revenues and net profits (September–December), 2003–2014

Note: Apple's net profits grew from US\$63 million in the fourth quarter of 2003 to US\$1.8 billion in the fourth quarter of 2014—the largest quarterly earnings for any company ever. Quarterly revenues increased from US\$7.1 billion to US\$74.6 billion during the same period.

Sources: Apple's quarterly financial reports, various years

During September and December 2014, Apple posted record revenue of US\$74.6 billion (see figure 9.3)—an increase of 30 percent over the last year—of which US\$51.2 billion was from iPhone sales (Apple 2015b). Nevertheless, Apple faces aggressive competition in all products and services as Samsung, Google, Microsoft, and other giants race to upgrade personal technologies. It also faces price pressures from China's national champions. The advance of the start-up Xiaomi (meaning "small rice," founded in Beijing in 2010) and the heavy-weight Huawei (founded in 1987), for example, is indicative of China's growing technological and marketing capacity both in China and internationally.

Apple refused to disclose to us the specifics of its iPhone contracts. Jacky Haynes, senior director of Apple's Supplier Responsibility Program, responded in a February 18, 2014 e-mail concerning our question about the company's purchasing policies as they affect Chinese wages: "Over the years, we have increased the prices we pay to suppliers in order to support wage increases for workers. Confidentiality agreements prevent us from providing the data you're requesting." Stated differently, Apple, the world's most profitable technology company, provided no evidence to substantiate its claim of increasing unit prices in order to facilitate higher wages at its independently owned suppliers.

Our interviews with Foxconn management reveal some of the ways in which Apple squeezes suppliers to provide components and products. "During the 2008–2009 global financial crisis," a midlevel production manager explained, "Foxconn cut prices on components, such as connectors and printed circuit boards, and assembly to retain high-volume orders. Margins were cut. Still, the rock-bottom line was kept, that is, Foxconn did not report a loss on the iPhone contract. Foxconn was able to stay in the black while cutting its margins by charging a premium on customized engineering services and quality assurance. The upgrading of the iPhones has in part relied on our senior product engineers' research analyses and constructive suggestions."

Until 2010, amidst the string of worker suicides, Foxconn had been the exclusive contractor of the iPhone (Chan and Pun 2010; Pun and Chan 2012, 2013; Chan 2013; Pun et al. 2014). Subsequently, Apple split the orders between Foxconn and Pegatron to minimize disruption of production and maximize profits. Manufacturers, faced with buyers' ruthless demands, in turn place tremendous pressure on frontline workers and staff to retain contracts and stay profitable. Apple, although claiming to exercise corporate social responsibility in global supply chain management, never acknowledged its own culpability in squeezing suppliers and workers by imposing tight delivery schedules and high-quality demands at ever-lower prices.

iPhone Worker Protests

On the factory floor, the change in production requirements from iPhone 4 to iPhone 5 and the increase in output targets placed workers under intense stress. On September 23, 2012 a siren pierced the night at the eighty-thousand-worker Foxconn Taiyuan plant in north China as rioting erupted. By 3 a.m. on September 24, five thousand riot police officers, government officials, and medical staff had converged on the factory. Over the next two hours, the police took control of the dormitories and workshops of the Foxconn complex, detaining the most defiant workers and sending others back to their dormitory rooms. More than forty workers were beaten, handcuffed, and sent off in half a dozen police cars. In emergency mode, Foxconn announced a special day off for all workers and staff at the Taiyuan facility, where electronic components and magnesium-alloy parts for iPhones are manufactured.

On the same day, September 24, Apple CEO Tim Cook, who succeeded the late Steve Jobs in August 2011, assured the public that retail stores would "continue to receive iPhone 5 shipments regularly and customers can continue to order online and receive an estimated delivery date" (Apple 2012a). Apparently the

continuous flow of product, speedy shipment, and on-time delivery were Apple's top concerns.

Following the riot, Yu Zhonghong (pseudonym), a twenty-one-year-old high-school graduate who had worked at the site for two years, wrote an open letter to Foxconn's chief executive Terry Gou.⁶ The opening passage reads:

A Letter to Foxconn CEO Terry Gou

If you don't want to be loudly awakened at night from deep sleep, If you don't want to constantly rush about again by airplane, If you don't want to be investigated again by the Fair Labor Association, If you don't want your company to be called a sweatshop, Please treat us with a little humanity.

Please allow us a little human self-esteem.

Don't let your hired ruffians rifle through our bodies and belongings.

Don't let your hired ruffians harass female workers.

Don't let your lackeys treat every worker like the enemy.

Don't arbitrarily berate or, worse, beat workers for the slightest mistake.

You should understand that working in your factories: Workers live at the lowest level,
Tolerating the most intense work,
Earning the lowest pay,
Accepting the strictest regulation,
And enduring discrimination everywhere.
Even though you are my boss, and I am a worker:
I have the right to speak to you on an equal footing.

The sense in which the worker leader uses the term "right" is not narrowly confined to the realm of legal rights. On behalf of the shared interests of workers living "at the lowest level" in society, Zhonghong called for a public talk with CEO Terry Gou "on an equal footing." He also demanded that senior management and the company union act responsibly toward workers. His open letter ends with three reminders:

- 1. Please remember, from now on, to treat your subordinates as humans, and require that they treat their subordinates, and their subordinates, as humans.
- 2. Please remember, from now on, those of you who are riding a rocket of fast promotions and earning wages as high as heaven compared to those on earth, to change your attitude that Taiwanese are superior.

3. Please remember, from now on, to reassess the responsibilities of the company union so that genuine trade unions can play an appropriate role.

Zhonghong recalled, "At about 11 p.m., a number of security officers severely beat two workers for failing to show their staff IDs. They kicked them until they fell to the ground. This brutality by security officers touched off the ensuing riot. Over these past two months we couldn't even get paid leave when we were sick." The ever-tightening iPhone production cycle pressured workers to speed up under staggering overtime requirements. Workers could not even take one day off a week, and the sick were compelled to continue to work.

Our collection of pay statements reveals that workers clocked in as many as 130 hours overtime a month. This was more than three times the maximum 36 hours of overtime per month limit under Chinese law. Put in other way, workers were subjected to "13-to-1" and, under extreme conditions, "30-to-1" work-to-rest schedules.

At midnight, tens of thousands of workers smashed security offices, production facilities, shuttle buses, motorbikes, cars, shops, and canteens in the factory complex. Some grabbed iPhones from a warehouse, where Zhonghong and his coworkers were on duty during the night shift. Others broke windows, demolished company fences, and pillaged factory supermarkets. Workers also overturned police cars and set them ablaze. The security chief used a patrol car public address system in an attempt to get the workers to end their "illegal activities." But more and more workers joined the roaring crowd.

Justifying the use of force, Foxconn managers blamed the workers, alleging that they were fighting among themselves. A worker retorted, "Foxconn didn't admit the daily bullying of workers by its security force but shifted all the responsibility to us. Line leaders coerced us to meet the extremely tight deadlines, generating heated conflicts." Foxconn's investigation of the mass incident concluded that it was the result of a "personal dispute," allowing the company to ignore shop-floor conditions. Workers' concerns over wage and promotion inequalities, as well as undignified treatment including sexual harassment and other forms of humiliation, were quickly suppressed. Above all, the demand for a reorganization of the company union was ignored.

With Apple pressing Foxconn to fulfill targets as demand for the new models exploded, the time was ripe for workers to display their power, although management's heavy-handed response only made worker communications more difficult. Less than two weeks after the Taiyuan workers' riot, in early October, over three thousand Foxconn workers from one production department in the Zhengzhou factory protested against management's "unreasonable demands for quality control." The Taiyuan plant manufactures iPhone casings that are sent to a larger Zhengzhou complex in adjacent Henan province for final assembly.

CEO Tim Cook announced: "We are in one of the most prolific periods of innovation and new products in Apple's history. The amazing products that we've introduced in September and October [2012], iPhone 5, iOS 6, iPad mini, iPad, iMac, MacBook Pro, iPod touch, iPod nano and many of our applications, could only have been created at Apple" (Apple 2012b). Perhaps. But what is certain, and tragic, is that the great pressure faced by the workers could only have been created at Apple. The global sale of iPhones reached an unprecedented level of 150,257,000 units in the fiscal year 2012–2013, a stunning 20 percent growth over the previous year (Apple 2013, 27).

After the iPhone 5 debut, consumers in the United States complained about scratches on the casing of a particular batch of the new iPhones, leading to product quality control investigations of final assembly at the Zhengzhou plant in central China. New quality standards contributed to workers' eye strain and headaches. A worker explained, "We had no time off during the National Day celebrations and now we're forced to fix the defective products. The precision requirement for the screens of the iPhone 5 measured in two-hundredths of a millimeter cannot be detected by human eyes. We use microscopes to check product appearance. It's impossibly strict." In the case-manufacturing process, workers were also instructed to use protective cases to prevent scratches of the ultra-thin iPhone 5 and to pay close attention to detail at a fast working pace. When several workers were penalized for not meeting the 0.02-millimeter standards, quarrels erupted between workers and quality control team leaders.

Workers understand that they stand at a strategic production point, given the tight delivery schedules for the iPhones, which are precisely timed to holiday seasons and new product launch dates. Foxconn is a key node in the Asian and global production networks, where the processing of components, final assembly, and shipment of finished products to world consumers continues around the clock, 24 hours a day, 365 days a year. This awareness potentially enhances their workplace bargaining power and empowers workers to schedule strikes and other forms of resistance at times of crisis for maximum impact and leverage. Frances Piven has succinctly examined the nature of "interdependent power," highlighting the fundamental fact that employers are dependent on workers' consent to labor, perhaps more dependent than ever before in our closely connected economy. She writes: "Distinctive features of contemporary capitalist economies make them exceptionally vulnerable to the withdrawal of cooperation; in other words, to the strike power in its many forms. These features include extended chains of production, reliance on the Internet to mesh elaborate schedules of transportation and production, and just-in-time production doing away with the inventories that once shielded corporations from the impact of the production strike" (2014, 226).

On October 5, a Friday afternoon, when production managers yelled at workers and threatened to fire them if they did not "cooperate and concentrate," workers would tolerate no more management abuse. They walked out of the workshop. The impromptu strike paralyzed dozens of production lines in Zones K and L from late afternoon to night. After the disruptions in the afternoon, senior managers imposed stringent quality standards on night-shift workers. The brief work stoppage failed to win the reasonable rest periods that workers sought.

Foxconn aims to ensure high-speed production at all times. "When work stoppages or accidents occur, we can shift orders to other facilities to minimize losses and reduce vulnerability to worker actions," a production manager explained. Meanwhile, new sources of labor anxiety and open conflicts soar.

In February 2015, on the twentieth anniversary of the passage of the national labor law, Guo Jun, the head of the legal department of the All-China Federation of Trade Unions (ACFTU), commented on the "excessive overtime" and "health and safety problems" at surveyed enterprises. He blacklisted Foxconn: "Many companies even learn from Foxconn how to make more profits" by imposing "illegal overtime work" on employees (Zhang 2015). Unfortunately, the union leader did not explain what actions would be taken to protect workers' legal rights. Without meaningful representation and organizing support from the company union, workers improvised organizing and negotiation methods. Foxconn workers have condemned and bypassed the management-controlled union to fight for their rights and interests, opting for independent collective actions including riots and strikes.

Labor Challenges to the Chinese Trade Union

The Foxconn trade union, like unions throughout China, is directly subordinate to management. The union organization mirrors the company hierarchy, from the assembly lines, business units, and business groups to the central administrative level. Chen Peng, special assistant to Foxconn CEO Terry Gou, has chaired the union since its inception. Under her leadership, Foxconn's union executive committee expanded from four representatives at its start in January 2007 to twenty-three thousand representatives in December 2012, with membership reaching 93 percent of its million-strong workforce in China (Foxconn Technology Group 2014b, 14). With this impressive growth, Foxconn has risen to become the country's biggest union—and one of the most effective in serving the corporation.

From 1988 (when it set up its offshore factory in Shenzhen) through 2006, Foxconn simply ignored its responsibility under Chinese law to set up a trade

union. The Taiwanese giant established a union at Shenzhen Longhua only on the last day of 2006, submitting to municipal government requirements (IHLO 2007). In a broader sociopolitical context, the state stepped up its mobilization efforts when the total number of trade union members decreased sharply during the 1990s during the radical market reforms and layoffs, resulting in the loss of at least seventeen million union members in the state sector between 1997 and 2000 (Traub-Merz 2012, 28). In the 2000s, the ACFTU—the only official union body in China—pressed for the establishment of trade unions wherever there were workers.

The union mission statement tells workers, "when there's trouble, seek the trade union." Clearly, this government top-down action seeks to preempt the growing tide of strikes and protests across China. Enterprise-level or grassroots unions must legally register under supervision of upper-level trade unions. New union members comprise direct employees, including rural migrants but excluding student interns (whose legal status remains that of students). By December 2009, "unions had been set up in 92 percent of the Fortune 500 companies operating in China" (Liu 2011, 157). As of 2013, China had a total union membership of 280 million—in which nearly 40 percent (109 million) were rural migrant workers—by far the largest unionized workforce in the world (Xinhua 2013). This stands in sharp contrast to the United States, Europe, Australia, and many other countries, where labor unions have shrunk to a small percentage of the industrial workforce, owing to corporate restructuring, downsizing, and job export. In few countries, however, does organized labor in a bureaucratic form display a powerful presence in support of worker rights.

China's law ostensibly gives workers basic rights, including the right to elect union representatives, the right to vote union representatives out of office if they do not represent them, and protection against discrimination for participation in union activities. In the example of Foxconn, formal rights inscribed in the law are one thing, but securing the reality of those rights is another. Critically, the labor struggle is not only to get rights articulated in the trade union law, but also to translate those rights into the material reality of lived experience (Lee 2007; Chan 2009; Wang et al. 2009; Gallagher et al. 2015). Under public pressure, Foxconn has proclaimed that workers would hold genuine elections for union representation. A December 2013 Foxconn statement reiterated that "we have worked hard to enhance employee representation in the [union] leadership" and to raise employee awareness of the union's role in "promoting worker rights."8 As of spring 2015, however, Foxconn had disclosed neither specifics of a timetable for democratic union elections nor clarified the rights and responsibilities of worker representatives. All available evidence suggests that Foxconn unions remain firmly in the grip of management.

In response to growing labor unrest, experienced officials often mediate at the site of protest to prevent labor conflict from escalating. The state seeks to channel worker grievances with bosses and/or local governments out of the streets and into court and judicial channels. Outside of the arbitration and jurisdictional procedure, as Mary Gallagher observes, "the state has struggled to maintain its labor system through more direct management of labor disputes" (2014, 87). She characterizes this as "the activist state" in which Chinese officials make extensive use of discretionary power to intervene in labor disputes, particularly when the caseloads are excessive. One frequently used strategy, analyzed in-depth by Ching Kwan Lee and Yonghong Zhang (2013), is to "buy stability" through brokering cash settlements to resolve immediate grievances, with funds directly paid by the company and by local government. Protest, if handled in this way, can provide a safety valve that preserves the authoritarian aura of the party-state (Chen 2012a, 2013). Fundamentally, the power between labor and capital remains highly imbalanced, engendering open defiance and deepening the crisis of production and social reproduction (Selden and Perry 2010; Chan and Selden 2014).

Given China's position as the "workshop of the world," victories by and defeats of its working people assume world historical significance. "If past patterns are any guide to the future," Beverly Silver concludes in her survey of world labor movements since 1870, "then we should expect major waves of industrial labor unrest... to occur in those regions that have been experiencing rapid industrialization and proletarianization" (2003, 169). In the twenty-first century, China's centrality in electronics manufacturing and exports opens possibilities that workers can build on their grassroots organizing experience to expand labor rights, while the iron triangle of Foxconn, the company union, and the Chinese state sustains the unequal power structures.

Analyzing the interdependent Apple-Foxconn supply chain, we examined the working lives and collective struggle of internal Chinese migrant laborers, who are living with cosmopolitan consumerism and much wider class differentiation and social inequality than the previous generation. In the course of repeated protests and strikes, Foxconn workers have exposed the high-pressure conditions under which many work extremely long hours for low wages, drawing attention from image-conscious global companies and stability obsessed government officials. Unable to turn for support to company unions, they have repeatedly chosen direct actions, resulting in uncertain outcomes.

The fragmentation of labor and the diversification of ownership in the hands of Chinese and international capital profoundly challenge proponents of expanded worker rights and democratic trade union support for those rights. Foxconn workers—some of whom have sacrificed their youthful lives as a means

of desperate resistance—spoke to the disturbing truth behind China's expansive national development. "Realize the great Chinese dream, build a harmonious society," intones a government banner. The definition of that dream and the determination of who may claim it are at stake in contemporary labor struggles. Will the current period of labor insurgency in localized sites of resistance develop further to encompass alliances across class lines and across the urban-rural divide into a broadly based social movement? To a significant extent, the answer will depend on the evolving consciousness and praxis of the younger cohort of rural migrant workers who have become the mainstay of the new labor force.