Professors Radhakrishnan and Rivoli on “the race to the bottom.”

**Recommendation:** Watch Professor Radhakrishnan’s 5 minute introduction to Pietra Rivoli’s Chapter 7, “Sisters in time” Or read this Chapter (below) and then watch this video as well as the Sociology 106x Wellesley video summary of “dependency theory” and Andre Gundar Frank (see the end of this chapter). Professor Radhakrishnan’s excellent EDx course *Introduction to Global Sociology* is highly recommended, and free [online here](#).


**Chapter 7 Sisters in Time:** from the farm to the Sweatshop and Beyond

Docility on a Leash

Jiang Lan works eight hours per day, six days per week in the Number 36 yarn factory in Shanghai. Her job is fixing broken yarn. She sits on a hard metal chair that is attached to tracks on the floor in front of a row of spindles. By depressing the pedal at her foot, Lan glides left and right along the tracks, stopping wherever she sees a flashing red light, the signal of broken yarn. With a deft and intricate move of her fingers, she repairs the yarn, then glides left or right to the next flashing light. Lan does this all day, wrapped in the steam and cotton flurries, blanketed by the metal noise. At the end of the day, Lan steps outside to the surprising quiet and walks across the gravel road to the company dormitory.

Yes, she says. She likes her job.

Jiang Lan, of course, is China's comparative advantage. Yet while the sheer number of Jiang Lans, as well as their low wages, are often put forth to explain China's dominance in light manufacturing, the truth is that these economic factors—the supply and price of labor—take us only part of the way toward understanding China’s leadership position in this industry. The whole story requires not only that we understand supply and price, terms that have meaning everywhere, but also that we understand Lan’s life in China, its limits and its possibilities. Since the rise of industry in
eighteenth-century England, ideal workers for low-end textile and apparel work have been those who endure repetitive drudgery not just cheaply, but willingly and uncomplainingly.

Researchers from a wide variety of backgrounds and nationalities, examining disparate regions and different centuries, come again and again to the D word in describing the ideal textile and apparel worker. Docility in turn in Lancashire, Massachusetts, South Carolina, Japan, Taiwan, and Hong Kong has been the product of a lack of alternatives, lack of experience, and limited horizons. Ironically, while the founding principles of the modern Chinese state rest on the rights of the working class, the Chinese government has at the same time engineered a system of laws virtually assuring an almost unlimited supply of docility. The Chinese government controls workers in ways that are bad for China's human rights record but very good for the production of T-shirts. Most Chinese textile and apparel workers are on a leash of sorts. It is not so much the labor market but the curse of anti-market forces in Chinese history that restricts the workers' lives and their possibilities.

Accidents of birth have always shaped destiny: race in America or class in England or caste in India. In China, the accident is hukou. To the worker, hukou is the leash, but to the textile industry, hukou is competitive strength, ensuring a stable and cheap labor force for the urban industry while at the same time ensuring that rural citizens bring their labor, but not themselves, to Shanghai. Roughly translated, hukou is a place of household registration. For a Chinese citizen today, the hukou specifies where you live, no matter where you actually are.

The hukou system was devised in the 1950s to support the economic development plans of the new Communist China. The great majority of the country's citizens were assigned rural hukous: Those with rural hukous were required to remain in the countryside to produce quotas of food within their communes, and were normally barred even from traveling to the cities. Rural dwellers who did manage to make it to the city typically could not buy staple foods, however, since these goods required ration tickets that were only obtainable to those with an urban hukou. Through the hukou system, China ensured a stable food supply for its cities while at the same time limiting the population of the urban areas. In reality, however, the masses in the countryside were “surplus labor,” an academic term for people with nothing to do, people so “surplus” that their presence had no effect on the output of the commune. And while forcing the masses to remain idle in the countryside, China devoted its resources to the urban population, developing the cities' housing, education, healthcare, and infrastructure while leaving the rural population to fend for itself. As the cities developed, hundreds of millions of unskilled, barely educated people were held captive in their rural villages by their hukou. One scholar has described the Chinese hukou system as “the broadest experiment in population control in human history.”

In the late 1980s, however, China began to gradually liberalize the hukou system, lifting up the land away from the coast and pouring the rural masses to the coastal areas to produce T-shirts and sneakers and plastic toys. But even today, each rural citizen rolling toward the coast is on a leash. They can visit the city but they cannot easily stay; they can bring their labor but not themselves or their families. These workers are liudong renkou, which translates roughly to “floating people.” The migrant workers represent 70 to 80 percent of China's textile, apparel, and construction workers./4 Human Rights Watch in China estimates that the rural migrant population in China's cities is between 60 and 120 million. 5 In
2003, the AFL-CIO charged that China's exploitive hukou practices constituted an unfair trade advantage. 6

The rural hukou defines and limits the worker's life in Shanghai. Floaters work 25 percent more hours per week but earn 40 percent less than those with urban hukous. 7 Because they are not residents of Shanghai, they do not have access to what is left of the urban residents' "iron rice bowl" services such as subsidized housing, education, childcare, healthcare, and pension benefits. 8 Most of the Shanghai floating population lives at work, in dormitories, makeshift shelters, or in the workshop itself. 9 The typical dormitory room is an 8 × 12-foot space shared by 12 workers. 10 Some floaters are able to rent housing, but they pay six times as much as urban residents for half as much space. Toilets and kitchen facilities are the norm for the city dwellers and the exception for the migrants. 11 The workers come to the city alone; there is usually no living space, schooling, or healthcare for their spouses and children, and their rural hukous mark them clearly as second-class citizens. 12 The floaters are China's Bracero workers. In a more recent analogy, China labor specialist Anita Chan has likened the hukou system to South African apartheid. 13 Economists who have studied the hukou system believe it is a leading cause of income inequality in China, and even college graduates see an urban hukou as necessary for upward mobility. 14

Sometimes China's floating workers show up in the city and hope for the best, but often the migrants have prearranged employment, especially in the textile and construction industries. Migrants risk not only economic failure but also detention and worse under China's regulations on "Custody and Repatriation" (C&R). Under these regulations, a rural visitor with the "three not haves" (sanwu renyuan)—no papers, no job, no address—can be forcibly detained in a C&R center, or sent home. At best, detention is costly (citizens detained must pay to be released); at worst, it is torturous. 15 And even those workers with employment live an uneasy life in the city, because the regulations governing migration to the cities are so byzantine that virtually every visitor is in violation of one rule or another. Depending on the city, a visitor might need an identity card, a temporary residence card, an employment registration card, a migrant identity card, a housing permit, and a family planning permit, each obtained from a different agency at significant cost. 16 In the cities studied by Knight et al., the permits necessary to avoid the C&R laws—if they can be obtained—cost more than half the monthly wage for the typical migrant worker. 17 Often, by the time the worker gets the final necessary document, the first has expired. 18

In 2007, Amnesty International reported that in China: ... migrants are denied rights to adequate health care and housing, and are excluded from the wide array of state benefits available to permanent urban residents. They experience discrimination in the workplace, and are routinely exposed to some of the most exploitive conditions of work. Internal migrants' insecure legal status, social isolation, sense of cultural inferiority and relative lack of knowledge of their rights leaves them particularly vulnerable, enabling employers to deny their rights with impunity. 19

Though China has recently increased migrant workers' protections under the C&R rules, many of these protections are only theoretical, because, as Anthony Kuhn found, often only those who surrender their protections are hired. 20 Even government officials acknowledge that migrants are often not paid: In one survey the government found that 72.5 percent of migrants were owed back wages by their employers. 21 In a tactic reminiscent of cotton sharecropping, withholding pay or requiring "
deposits’’ from workers limits their mobility and protects the factories from open competition in the labor market. 22 And though the law requires that the migrants have employment contracts, the majority do not. 23

The factories have an uneasy relationship with their floating workers. Managers report that the floating workers are critical to production, not only because they are cheaper than their urban counterparts, but, more importantly, because they ‘‘can bear more hardship’’ and are ‘‘more manageable.’’ 24 Managers report that they hire floating workers for the simple reason that city workers will not take the dusty, steamy, noisy work of the construction and textile trades, and, even if they would, the city folk not only talk back, but are physically not up to the work. 25 Yet the factories' ability to hire migrants is restricted: Only some jobs are open to floating workers, and enterprises may have quota limits on the number of floating workers they may employ. The government uses the quota system as a labor market intervention, expanding the quotas during boom times and restricting them during times of urban unemployment. The rural workers are the variable cost, ebbing and flowing with the American appetite for T-shirts.

While there are frequent calls for reform of the hukou system, the Chinese government at the same time relies on the inexpensive and temporary laborers to sustain China's manufacturing might. In summary, as Professor Fei-Ling Wang writes, ‘‘It is the constant and continued sacrifice of the excluded majority that makes the Chinese economic miracle possible.’’ 26 Until today, each stop in the race to the bottom has been more fleeting than the last. Today, however, China's lead in the race to the bottom in textiles and apparel is the same yet different from that of her predecessors. The characteristics of the ideal worker—particularly docility and desperation—have not changed, the repetitive drudgery of at least most of the work has not changed, the relentless cost pressure has not changed, and the role of the rural poor in powering the factories has not changed. Yet China's sheer size, and especially the remnants of the state-engineered hukou system, ensure that the supply of docile young women from the farm will be much greater than it was for China's industrial predecessors. China, for the foreseeable future, will likely lead in the race to the bottom.

As was the case for slaves, sharecroppers, and Bracero workers, it is not the perils of the labor market that block the path for Chinese textile and apparel workers. Instead, as was the case for these prior generations as well, it is a state-engineered system that limits the ability of these workers to participate in the market as full citizens.

Sure Beats the Farm

Like their sisters in time, textile and clothing workers in China today have low pay, long hours, and poor working conditions. 27 Living quarters are cramped and rights are limited, the work is boring, the air is dusty, and the noise is brain numbing. The food is bad, the fences are high, and the curfews inviolate. As generations of mill girls and seamstresses from Europe, America, and Asia are bound together by this common sweatshop experience—controlled, exploited, overworked, and underpaid—they are bound together, too, by one absolute certainty, shared across both oceans and centuries: This beats the hell out of life on the farm.
In mid-1800 Britain, a 9-year-old girl not engaged in textile work instead was busy: ... driving bullocks to field and fetching them in again; cleaning out their houses, and bedding them up; washing potatoes and boiling them for pigs; milking; in the field leading horses or bullocks to plough... mixing lime to spread, digging potatoes, digging and pulling turnips... I loaded pack horses; went out with the horses for furze. I got up at five or six, except on market mornings twice a week, and then at three.

Bertha Black was born in Trinity, North Carolina, in 1899, one of seven children of a rural family. Bertha's parents tried in vain to scratch a living from their 21 acres, and Bertha remembers well the family's exciting move up to the mill village, from picking cotton in the sun to spinning and weaving it in the shade: We all went to work in the Amazon Cotton Mill and we all worked there all our lives. We were all anxious to go to work because, I don't know, we didn't like the farming. It was so hot from sunup to sundown. No, that was not for me. Mill work was better. It had to be. Once we went to work in the mill after we moved here from the farm, we had more clothes and more kinds of food than we did when we was a-farmin'. And we had a better house. So yes, when we came to the mill life was easier.

And today, literally millions of young Chinese women choose the factory over the farm, apparently preferring even the most grueling, worst sweatshop work to life in rural China. Liang Ying, a young woman interviewed by sociologist Ching Kwan Lee, remembered the day she escaped to the Shenzhen factory zone in southern China:

That was the year when I turned sixteen. More than ten girls from my village planned the trip to Shenzhen. That day we went to do the farm work in the fields as usual. We even went back for lunch with our parents. After our parents left for the field again, we took our luggage and left notes saying, ‘‘Dear parents, when you see this note in the evening, I will have already left for Shenzhen to find work. Please don't worry.’’

For Liang Ying, almost anything was better than life on the family rubber farm and the choice between farm and factory was clear:

It is really hard work. Every morning, from 4 A.M. to 7 A.M. you have to cut through the bark of 400 rubber trees in total darkness. It has to be done before daybreak, otherwise the sunshine will evaporate the rubber juice. If you were me, what would you prefer, the factory or the farm?

He Yuan Zhi agrees with her sisters in time. Yuan Zhi has worked as a cutter at Shanghai Brightness for eight years. It was a good job for a girl from the farm, and it is an even better job now, she believes, as after several raises her pay in 2007 was nearly $300 per month. Yuan Zhi came to Shanghai from the mountainous area of Jiangxi province, because of the lack of opportunity at home in the village. She told me that she misses only two things about her home village: One is the spectacular scenery, and the other is her son, who is back in Jiangxi in the care of his grandparents. Everything else about life in Shanghai, she says, is better than that in the village. I have heard this sentiment, “My life is better now,” from innumerable garment workers in China. Each had a story, it seemed, of the drudgery of farm life.

I remember in particular Japi Fong. Japi wore fashionably streaked hair, sequined jeans, and four-inch heels as she sat at her sewing machine at an apparel factory near Shanghai in 2005. She would never have been able to find, or pay for, such an outfit had she stayed on her parents' duck farm.
The fact that low-skill factory work in textiles and apparel has represented a stepping stone from the drudgery of the farm is also illustrated by the manner in which many were denied the chance to step on the stone at all. In early New England, the Irish were denied any but the most menial work in the mills. In twentieth-century Shanghai, women from certain regions (in particular, Subei) who tried to make the move from night soil collector to cotton mill worker were openly discriminated against. And in the American South, spinning and weaving jobs, albeit with separate toilets and water fountains, were opened to African Americans only in the 1960s. Whereas in most cases the exclusion of blacks was simply inviolate custom, in South Carolina it was law. To assure plenty of agricultural production as well as domestic labor, and also to maintain workplace segregation, South Carolina law prohibited “anyone engaged in cotton textile manufacturing to allow... operatives... of different races to work together in the same room.” The law was on the books until 1960, but African Americans continued to be systematically excluded from the mills until the Civil Rights Act of 1965.

The Subei natives or the Irish or the African Americans could only walk by the cotton mills and think about what-ifs. At age 14, Billie Douglas started work, cooking and cleaning and looking after white mill workers' children. She would walk by the mill and think about what her life would be like on a mill worker's paycheck, where a day's work probably paid what she made in a week. Johnny Mae Fields remembers a lifetime of obeying the white people, with her head down, in the postwar South. She used a simple philosophy of life handed down by her mother (“If the white woman want salt in her pie, put salt in her pie”). When the mills opened to black women, things were different. Clest King remembered, too, “Before the mills opened up for black women, all they had was washing and ironing and cooking for white women.”

And in the late 1990s, Nicholas Kristof and Sheryl WuDunn, Pulitzer Prize–winning New York Times correspondents, found that for many poverty-stricken Asians working as garbage pickers, prostitutes, or not working at all, a job in a sweatshop, if beyond their reach, was an aspiration they held for their children.

For He Yuan Zhi and her sisters in time, factory work has provided not only a step up the economic ladder and an escape from the physical and mental drudgery of the farm, but also a first taste of autonomy and self-determination, and a set of choices made possible by a paycheck, however small. For some, it was a choice to escape boredom, for others to escape a betrothal or a domineering father, for still others the chance to choose their own clothing. In the 1840s, a New England mill girl wrote home to a cousin to try to explain the variety of push and pull factors that had led her boardinghouse mates to the cotton mills. As the writer circles the dinner table in the boardinghouse, the new freedoms are almost palpable:

I will speak to you of my acquaintances in the family here. One, who sits at my right side at the table, is in the factory because she hates her mother-in-law. The one next to her has a wealthy father but like many of our country farmers, he is very penurious.... The next has a “well-off” mother, but she is a very pious woman, and will not buy her daughter as many pretty gowns and collars and ribbons... as she likes.... The next is here because her parents and family are wicked infidels, and she cannot be allowed to enjoy the privileges of religion at home. The next is here because she must labor somewhere, and she has been ill-treated in so many families that she has a horror of domestic service. The next has left home because her lover, who has
gone on a whaling voyage, wishes to be married when he returns, and she would like more money than her father will give her. The next is here because her home is in a lonely country village and she cannot bear to remain where it is so dull. The next is here because her parents are poor, and she wishes to acquire the means to educate herself. The next is here because her ‘beau’ came, and she did not trust him alone among so many pretty girls. 40

In the early 1990s, sociologist Ching Kwan Lee went to live among migrant factory workers in southern China as part of her doctoral research. 41 For the young women from the rural villages, Lee found poor working conditions, limited freedoms, and a highly structured hierarchical labor system that limited the workers' conversations, their use of the toilet, and their diet. The conventional wisdom was that these women were an integral part of the family economy, sent to work in the city to send home money to keep the rural homestead afloat.

But as Lee gained the trust of the workers, much more complex motivations emerged. While the money sent home did indeed ease the burdens in the rural areas left behind, the women admitted, often embarrassed, that what had brought them to the factory towns was not so much money but autonomy of a kind that was impossible in the village, where they were dominated by fathers and brothers. Many, Lee found, were attracted to factories not only to escape agricultural work but to write their own destiny and to escape their parents' plan for their lives.

Chi-Ying, a young single woman from Hubei, was interviewed by Lee. 42 Though Chi-Ying makes seven to eight times as much money at the factory as her father does at home, money is not at the top of her list of reasons for leaving the village for the factory. Chi-Ying has delayed marriage and ultimately decided against the husband her parents had chosen for her. With her wages, she repaid the young man for the gifts he had given her parents. In the city, she feels modern, free, and young. She likes buying a pair of cheap earrings with her own money, seeing a movie, or visiting the shopping mall. Chi-Ying compares herself to her mother and grandmother, and the striking differences seem to her to be not income but horizons. Mom and Grandma never had their own jobs, or their own money. They never left the village, or saw a high-rise building. Actually, Mom and Grandma never saw a paved road.

The irony, of course, is that the suffocating labor practices in textile and apparel production, the curfews and locked dormitories, the timed bathroom visits and the production quotas, the forced church attendance and the high fences—all of the factors throughout industrial history designed to control young women—were at the same time part of the women's economic liberation and autonomy.

One payday, Lee went shopping with Hon-ling and Kwai-un, two migrant factory workers from the northern countryside. Walking into a boutique with money in their pockets, Hon-ling and Kwai-un were no longer peasants. Lee writes: A disposable cash income brought more than consumer items. It was a resource with which women workers from the north asserted their dignity in the face of society's imposition of an image of migrant peasant daughters as poverty-stricken and miserable. 43 Lee found the young migrant workers eager to expand their professional horizons as well. Evenings were often taken up with night courses in business, typing, computers, and English, and many had entrepreneurial ambitions. 44

More than 75 years ago, Ivy Pinchbeck closed her path breaking study of England's Industrial Revolution by concluding that its most significant legacy was the liberation of women. Similarly,
researchers have found that the young rural women who powered South Korea's and Taiwan's economic miracle in the 1980s benefited from income but especially from increased autonomy and a chance at self-determination. 45 And 75 years ago, in Shanghai, young cotton mill workers banded together in groups called pulochia. Roughly translated, these were independent women who had their own money and refused to get married, often, like Chi-Ying, repaying the bride price paid by her family. And 150 years ago, in Lowell, Massachusetts, the mill girls also gravitated to self-improvement opportunities: lectures, plays, and, most of all, the lending libraries. 46

In 1901, Sadie Frowne described her 12-hour days in a New York sweatshop. She made a dollar; 7 per week, but at the price of frequent injuries, brutal bosses, and the exhausting pace of the piecework sewing system. At the end of each day, Sadie was so tired she wanted nothing more than to go to sleep. But she resisted the temptation:

> One feels so weak that there is a great temptation to lie right down and go to sleep. But you must go out and get some air, and have some pleasure. So instead of lying down I go out, generally with Henry.

Sadie enjoys a good time, and especially enjoys the independence that comes with her paycheck. Though she is clearly fond of Henry, Sadie also likes to dance and to shop:

> I am very fond of dancing and, in fact, all sorts of pleasure. I go to the theatre quite often, and like those plays that make you cry a great deal....

> Some of the women blame me very much because I spend so much money on clothes. They say instead of &dollar; I a week I ought not to spend more than 25 cents a week on clothes.... But a girl must have clothes if she is to go into high society at... Coney Island or the theatre....

I have many friends and we often have jolly parties. Many of the young men talk to me, but I don't go out with any except Henry. Lately he has been urging me more and more to get married.

But the New York sweatshop, while brutal in some ways, is liberating in others. Her paltry paycheck has given her a choice. She considers marrying Henry, but then decides:

> I think I'll wait. 47

Exactly 100 years later, author Peter Hessler followed the fortunes of Ma Li, a young girl from rural China who had been in his English class when he served in the Peace Corps. Ma Li had left home and gone to the southeastern factory town of Shenzhen, where she worked in a jewelry factory with a lecherous boss and a night-time curfew. Hessler worried about how Ma Li was faring in the city and paid her a visit. He learned that:

> Since coming to Shenzhen, she had found a job, left it, and found another job. She had fallen in love and broken curfe. She had sent a death threat to a factory owner and she had stood up to her boss. She wasa twenty-four years old. She was doing fine.

Factory women the world over arrived at the factory with docility bred by a lack of alternatives, and it was docility rather than intelligence or creativity that was and is the defining character trait of the ideal sweatshop worker. Yet the factory work itself proffered alternatives to the young women: They
could choose a new hat or a new boyfriend or no boyfriend, and, as they became more skilled, even a new job. And just as their docility had been bred by a lack of alternatives, the choices presented by their new worlds gradually melted their passivity away. In country after country, and factory after factory, the women stood up and stared down the bosses, expanded their horizons, made their own choices. In the process, they became less ideal workers for the textile trade, but better workers for the expanding industries requiring initiative, decision making, teamwork—industries that moved in as the race to the bottom progressed and the cotton mills closed.

Amazon.com and Dell Arrive at the Mill

In 1748, philosopher David Hume extolled the virtues of the race to the bottom:

There seems to be a happy concurrence of causes in human affairs, which checks the growth of trade and riches, and hinders them from being confined entirely to one people.... When one nation has gotten the start of another in trade, it is very difficult for the latter to regain the ground it has lost because of the superior industry and skill of the former.... But these advantages are compensated in some measure, by the low price of labor in every nation which has not had an extensive commerce.... Manufacturers therefore gradually shift their places, leaving those countries and provinces which they have already enriched, and flying to others, whither they are allured by the cheapness of provisions and labor, till they have enriched those also, and are again banished by the same cause.... 49

Manchester, England, the birthplace of the Industrial Revolution, today produces little cotton cloth. Manchester is today a brash and slightly seedy place, producing hard-core music, and angry dances with names like trip hop and acid jazz. The young and raging underclass shoots up and sniffs and smokes in the boarded-up cotton mills. But there is an ego, an edge, to Manchester today. The descendants of the cotton mill workers learn in grade school that it all began here: factories, corporations, global industries, modern industrial capitalism. So today: Despite a century of decline and eleven years of Margaret Thatcher, despite lousy weather and even lousier prospects, despite the grim housing estates, the boarded-up buildings, the shallow obsessions of club culture, the drugs, the gangs, and garbage in the streets, Manchester still feels alive. That is an accomplishment, however long it lasts. The place survives through small acts of defiance. In and around the ruins of an empire, kids are dancing. 50

Yet Manchester dominates a new industry today. It is the main home of the European “call center” business where touch-tone phones the world over will connect you to a young woman who cares about you, the customer. This industry now employs more than 400,000 Britons, mostly young women seeking flexible hours as well as job security. Some people liken the call center jobs to work in the early textile mills: relentless pace, unreasonable supervisors, too-short breaks. The comparison, thankfully, is nonsense.

Across the Atlantic in Manchester, New Hampshire, the economy is now dominated by technology, health care, and education. Manchester is the state’s largest and most prosperous city, and frequently earns spots on national lists of “best places to live.” But if the Internet now dominates Manchester’s economy, the mammoth Amoskeag mills still dominate the skyline. In the mills are condos, offices, restaurants, and even a college campus. Today, what was the world’s largest textile factory produces no cotton cloth at all. In fact, the largest textile complex in New England today is the
American Textile History Museum, in Lowell, Massachusetts, the town named for the man who brought factories to America.

Charlotte, North Carolina, is also its home state's largest city. The former center of the Southern cotton mill kingdom today has one of the country's most robust growth records based on a diversified economy centered on the city's role as an international financial center. Bank of America and First Union Corporation, both headquartered in Charlotte, together employ more than 35,000 people, and IBM, BellSouth, and US Airways are also large employers. Charlotte has 23 colleges and universities in the surrounding area, and half a dozen advanced healthcare facilities. Just to the south, in Greer, South Carolina, is a new BMW manufacturing facility. The facility drew much of its labor force from the decaying cotton mills. Lane Jones, whose skin color would have kept her out of the cotton mills a generation ago, is an “associate” at BMW today, where she makes nearly $60,000 a year and drives a new BMW in the bargain. Lane came to BMW from a denim mill: hot, dusty, boring, and work that never seemed to pay the bills. It Pittsboro, North Carolina, the old brick building that once housed the Kayser-Roth Hosiery factory is the new home for Biolex Therapeutics, a firm developing drugs for liver ailments. The lowest-paid technicians—many former mill workers—make far more than they had in the hosiery business.

In Alabama, Honda, Toyota, DaimlerChrysler, and Hyundai have all built factories in former cotton mill country during the past decade, and there is little doubt that the former mill workers prefer the jobs in the auto factories. In Campbellsville, Kentucky, an old Fruit of the Loom plant was reopened, refurbished, and expanded in 1999.

The new tenant is Amazon.com. And in 2008, both Ikea and Rolls Royce announced plans to open assembly and manufacturing facilities in the shadows of the defunct textile mills in southern Virginia.

In Japan, the cotton mills around Osaka have made way for some of the world's most successful companies. Twenty-nine firms in the Fortune Global 500 are headquartered here, including Matsushita, Sanyo, Sharp, and Kyocera. Nearby is Toyota City, which began as a cotton-spinning factory but by the 1980s had revolutionized the global automobile industry.

And while Hong Kong remains a prodigious clothing exporter, the city's apparel industry has moved from the sweatshop to the high tech. TAL Apparel, Hong Kong's leading firm in the industry, is led by Henry Lee, who has a doctorate from Brown University. TAL has solved the age-old apparel problem of the puckering seam—caused by the fact that thread shrinks more than fabric—and has patented and licensed its “pucker-free” technology in countries throughout the world. The firm has not only seamstresses, but researchers committed to improving mechanical and chemical engineering in garment production. And as the firm perfects mechanical processes, it is also setting standards in logistics and supply chain management. As shirts sell from the shelf of JCPenney in suburban America, inventory data are relayed to Hong Kong, allowing TAL to restock a hot-selling product in 27 to 29 days, down from five months only three years ago. And the next major innovation in garment production—size customization for each consumer—is now close to a reality in Hong Kong. The world's best-selling garment-design computer program was developed in Hong Kong, and mass customization research is now under way at the Hong Kong University of Science and Technology.
And Taiwan today dominates the computer industry, producing more than half of the world's laptop computers and more than one-quarter of its desktops. South Korea, too, has grown out of the sweatshop and into a world-class competitor in electronics, film, and automobiles.

The countries that have lost the race to the bottom are some of the most advanced economies in the world today, but they share a common heritage in the cotton mill and the sweatshop as the ignition switch for the urbanization, industrialization, and economic diversification that followed, as well as for the economic and social liberation of women from the farm. The now high-income workers have priced themselves out of work in the sweatshops, and these countries no longer have the desperate rural poverty that pushed and pulled women from the farms to textile and apparel factories. The workers are now neither cheap nor docile, and offer comparative advantages to other industries, in auto manufacturing, financial services, and information technology. While it was never a happy day when the mill closed, a padlocked cotton mill is also a sign that the economies, and the workers, by losing the race to the bottom, have emerged as victors. 54

Of course, all is not rosy in the countries that have lost the race to the bottom. While some textile workers laid off in South Carolina will get a job in the BMW plant, many will not, and life after the mill closes often gets worse before it gets better, especially for the thousands who quit high school because their future in the cotton mills seemed secure. For the workers who are not equipped to move up to BMW or IBM, or those who do not wish to leave the mill towns that still pepper the South, the loss in the race to the bottom is of course not a victory. In Chapter 9, we will see the rather unbelievable lengths to which many will go to keep T-shirt production from moving on to the next stop in the race.

But of all the rallying cries of the anti-globalization movement, the call to “stop the race to the bottom” is both the scariest and the most nonsensical, especially when it comes from rich-country activists who owe their own prosperity to the very race they wish to halt for others. Who, we might ask, would these activists like to keep on the farm? Yet if some activists are misguided in their ideas about stopping the race to the bottom, others are a powerful force in changing the nature of the bottom itself.

Notes to Chapter 7 Sisters in Time
1. For a complete historical treatment of China's hukou system, see Solinger, Contesting Citizenship in Urban China.
8. Liang and Ma's “China's Floating Population: New Evidence from the 2000 Census” provides a survey of the hukou system and its effects. For a study specific to Shanghai, see Feng, Zuo, and Ruan, “Rural Migrants in Shanghai: Living under the Shadow of Socialism.”
Notes to Chapter 7 Sisters in Time

9. Ibid., 277.


11. Ibid., 278.


13. “Off to the City,” The Economist.


16. Ibid.

17. Knight, Song, and Huaibin, “Chinese Rural Migrants.”


21. Ibid., 30.


25. Ibid., 91–92.


27. For a survey of China labor issues, see Chan, China's Workers under Assault. For a recent account of the lives of young women in China's factories, see Chang, Factory Girls.


30. Lee, Gender and the South China Miracle, 78.

31. Ibid., 78.


34. Hall et al., Like a Family, 66.
35. See Minchin, What Do We Need a Union For? for an in-depth treatment of the integration of the Southern textile industry.

36. Hall et al., Like a Family, 157.


38. Ibid., 94.

39. Kristof and WuDunn, Thunder from the East, 128.


41. Lee, Gender and the South China Miracle.

42. Ibid., 5–9.

43. Ibid., 134–135.

44. Ibid., 130.

45. For Korea, see Kim, Class Struggle or Family Struggle? For Taiwan, see Kung, Factory Women in Taiwan.


47. Frowne (1902), quoted in Stein, Out of the Sweatshop.


52. Goodman, “In NC, a Second Industrial Revolution.”


54. For a discussion of the role of the apparel industry in broader development, see Schrank, “Ready-to-Wear Development? Foreign Investment, Technology Transfer, and Learning by Watching in the Apparel Trade.”


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