

Occupational Health and Safety in China

Guest Editors

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The Race to China and Implications for Global Labor Standards

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The status of occupational health and safety conditions in China is an issue of growing importance to health professionals, labor rights organizations, local factory operators, multinational corporations, consumers, and, of course, Chinese workers. Over the last decade, China has emerged as the "world's factory floor." Occupational health and safety laws, regulations, and implementing agencies are struggling simply to keep up with the current explosive economic growth.

Occupational health and safety is, of course, not new to China. However, the dramatic economic and social changes occurring over the last 20 years in China are unprecedented in human history. No country has ever industrialized as fast as China. No country has ever faced as many new types of industries and hazards in such a short time. No country has ever experienced such a rapid transition from rural agricultural to urban industrial living. This industrialization is thus just now beginning to receive rigorous and sustained examination in terms of its impact on environmental and occupational health.

This special issue of *IJOEH* seeks to highlight some of these impacts, looking in detail at actual factory conditions, current regulatory laws and enforcement, occupational health and safety research, and emerging strategies for improving workplace health and safety in China. Naturally, it is impossible to cover all that is going on in China. This special issue is meant only to be a contribution to the limited literature available in English on China's factory conditions, their impacts on Chinese workers, and the broader impacts on workplace practices throughout the global economy.

Factories in China now produce 70% of the world's toys, 70% of photocopiers, 40% of microwave ovens

and sports shoes, and increasing shares of the world's videotape and DVD equipment, cell phones, electric lighting, and semiconductors and circuit boards. In 2002, China's exports reached \$322 billion, with an overall trade surplus of \$30 billion, and China became the fifth largest trading nation in the world behind the United States, Japan, Germany, and France. Shenzhen in the Pearl River Delta became the sixth largest port in the world in 2001, surpassing both Rotterdam and Los Angeles. Hong Kong alone sends 6,000 shipping containers of consumer goods to the United States every day. China's trade surplus with the United States was \$103.1 billion in 2002, and China has displaced Japan as the United States' number three trading partner, after Canada and Mexico.¹⁻⁷

In the midst of lackluster economic growth globally, China's economy grew 7.3% in 2001 and 8% in 2002, and is projected to grow another 7% in 2003. Foreign direct investment (FDI) amounted to \$52.7 billion in 2002, and is expected to increase by another \$86 billion in the next two years. In 2001, China received more FDI than South Korea, Thailand, Malaysia, Singapore, Vietnam, and Indonesia combined.^{3,8-10}

China has also made the crucial leap, which other export platforms such as Mexico have not achieved, to produce locally component parts for factories supplying global consumers, and to produce goods for an expanding "middle-class" domestic market. For example, Flextronics' export products now include 50-70% locally-made parts in China, up from 5-10% just four years ago.³ With a population of 1.3 billion, China is potentially the largest domestic market in the world, a market that increasingly demands goods and services of its own.

In the 2000 census, China reported an economically active population of 705.9 million people (which grew to 730.25 million by the end of 2001). These workers were 33% in urban areas and 67% in rural zones, with 50% (354 million) in agriculture, forestry, and fishing; 23% (162 million) in mining and manufacturing; and 27% (190 million) in services and government. Workers in state-owned and collective enterprises declined to 37.3% of the working population in 2001, from 98% two decades earlier. The number of workers migrating from the countryside to urban areas in search of work is estimated to be between 80 and 150 million people.^{11,12}

It is impossible to characterize in a brief snapshot the working conditions for such a large and varied workforce. However, a rough sense of the state of workplace health and safety can be gleaned from official statistics.

The International Labor Organization estimates that China's 2001 workplace fatality rate was 11.1 per 100,000 workers, compared with a rate of 4.4 per 100,000 in the United States. Industrial accidents rose by 27% between 2000 and 2001, while occupational diseases increased by 13% in the same period, according to government statistics. The government workplace health and safety agency reported that 140,000 workers died on the job in 2002, a rate of 380 deaths a day.^{11,13}

The impacts of occupational health and safety conditions in China, however, are not simply local. As other countries compete with China to attract FDI and jobs, conditions in China are effectively "setting the floor" for conditions in factories in the rest of the global economy. Workplace practices in China—wages, hours, treatment of unions, investments in health and safety, etc.—exert tremendous pressures on higher-cost producers in both developed and developing economies to match these practices, or to reduce costs related to compliance with health and safety regulations and labor practices in their own countries.

The articles in this special issue can only scratch the surface of current conditions and regulatory practices in China, and identify key areas where further research and policy analysis are needed. Our goal is to generate interest in issues that will increasingly affect occupational health professionals around the world, raise questions about current conditions and policies in China, and solicit ideas and proposals for protecting the health and safety of workers in China, and in other loci of the global economy.

We begin with a discussion of **laws and implementation** in China. Deputy Director General of the Ministry of Health in the department of legislation and inspection, Dr. Zhi Su lays out the background to and contents of the newly implemented occupational health and safety (OHS) laws. Hong Kong-based researchers Tim Pringle and Stephen Frost assess the components and prospects for actual enforcement of these laws. Stephen Frost supplements these discussions of government laws with an analysis of the "real rules" that

govern workers' lives—extensive and aggressively enforced factory rules.

We then turn to detailed descriptions of **actual conditions** on the factory floor in China. Industrial hygienist Garrett Brown blends personal experience, existing research, and investigative reports by the mass media and nongovernmental organizations in a sweeping analysis of current conditions in workplaces throughout China. Veteran China-based journalist E. Griggers-Smith reports on the high personal cost to workers of unsafe conditions. Economist Boy Luethje of Germany profiles the booming electronics industry in China. Reebok human rights director Jill Tucker describes changes in the demographics of women migrant workers in foreign-invested enterprises in China producing for the U.S. shoemaker, and one program to respond to these women's needs.

Very little rigorous **academic research** on OHS issues in China has been reported in English to date in China. Xiaorong Wang and David Christiani provide an overview of one key area—occupational lung disease—and related research needed in China. Janice Camp and colleagues at the University of Washington report on a new research project with textile workers in Shanghai and its organization. China offers unique opportunities for occupational health research, due to the legacy of long-term employment, stable management, and continuous exposures in the centrally planned economy, but this advantage is slipping away in the rapidly changing economic order. Meei-Shia Chen analyzes how, in the past, Chinese workers have been able to act directly to protect their health and safety through two key workplace institutions—the trade union and the staff and workers' representative congress—and how these institutions and workers' participation have changed since the mid-1990s.

Capacity building and training are also critical to responding to current workplace challenges. Betty Szudy, Dara O'Rourke, and Garrett Brown describe a first-of-its-kind capacity-building project bringing together international sports shoe brands, local contractors, Hong Kong-based labor rights organizations, and production line workers in the three huge shoe plants in the Pearl River Delta. The project included a four-day training program at a 30,000-worker factory that resulted in the establishment of health and safety committees with meaningful participation by workers in three plants.

Finally, we conclude with an analysis of **policy options and incentives** for improved workplace practices and regulation in China. Dara O'Rourke and Garrett Brown analyze current challenges and impediments to improving conditions in factories in China, and propose a set of policy strategies to create real incentives for multinational firms to improve conditions in their supplier factories, and for local government agencies to strengthen their enforcement of existing regulations.

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