


RESEARCH ARTICLE

De-risking Death-traps in Uncontrolled Industrialization: Factory Act and Industrial Health and Safety in Republican China

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Abstract

In Republican China, the Factory Act was first promulgated in 1929, after almost thirty years of unregulated industrialization. Little academic effort has been made to comprehend its actual implementation. Some academics have dismissed it as completely useless, while others have credited it with various enhancements in working conditions. This article focuses on workplace health and safety issues and critically evaluates the implementation of the law to scrutinize its effectiveness (or ineffectiveness) in addressing workers' life and death matters. This article aims to reassert the Factory Act in China's modern history of industrial development. It points out that despite its inadequate enforcement, the law was significant in laying the foundation for the national institutionalization of state responsibility to systematically monitor and regulate workplace health and safety and paving the way for further safety legislation. Nevertheless, the law fell short of safeguarding workers' rights during industrial accidents.

Introduction

The Factory Act (Gongchang Fa 工廠法) in China was first promulgated by the National Government in Nanjing on December 30, 1929, and came into effect on August 1, 1931. The law contained 77 articles in 13 sections and stipulated legal standards for various labor matters, including child and female workers, working hours, rest time and holidays, wages, termination of contract, welfare, factory safety and hygiene, subsidies and compensation, factory council, apprenticeship, punishment for breaches, and more. It was the first national labor law implemented in China before 1949, governing industrial working conditions. A number of laws and regulations were put in place to enable its execution, the most notable of which were the Regulations for the Enforcement of the Factory Act (Gongchang Fa Shihang Tiaoli 工廠法施行條例)

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promulgated in December 1930, and the Factory Inspection Act (Gongchang Jiancha Fa 工廠檢查法) in February 1931. Trainings for factory inspectors were also organized to conduct inspections in various provinces such as Jiangsu, Zhejiang, Hebei, Shandong, Shanxi, Anhui, and Hubei, as well as cities with industrial developments like Shanghai, Beijing, Qingdao, Tianjin, and Weihaiwei.¹ The Central Bureau of Factory Inspectorate (Zhongyang Gongchang Jiancha Chu 中央工廠檢查處) was established in 1933 to coordinate a nationwide program of factory inspection to enforce the law.

Many academics who have studied China's labor history have expressed skepticism or even disdain for the law. Augusta Wagner, an economist at Yenching University in Beijing and author of the classic book on labor legislation in republican China, denounced the law as unrealistic, impractical, and impossible to enforce.² Jean Chesneaux, in his seminal work on the China labor movement between 1919 and 1927, a period before the Factory Act was promulgated, criticized the labor legislation in the period as "a dead letter" without provision for enforcement and as "devised simply to create a good public image rather than to effectively relieve the sufferings of the workers."³ This impression stayed with Chesneaux for the later labor legislation, as he did not take any interest in the Factory Act in his other studies of the labor movement in China in the period up to the communist takeover in 1949.⁴ This lack of interest in the law is also apparent in other historians' studies of China's labor situation in the Republican period. Elizabeth Perry, like Chesneaux, mentions the law only briefly in her study of Shanghai labor strikes, saying that the labor legislation indicated the Nationalist regime's intention to replace coercion with co-optation as the main instrument of domination, but that, while "rules and regulations were promulgated.....the city's complicated administrative structure doomed most reform efforts to failure."⁵ In their respective studies of workers in Tianjin and Shanghai, Gail Hershatter and Emily Honig both commented only briefly in footnotes that the law "could not have been enforced" or was "honored more in the breach than in their observation."⁶ Robin Porter, a China specialist who served as a senior diplomat for Britain in Beijing in the early 2000s, shared similar views in 1994 on the law that "in all cases almost no effort was made to enforce it, that excuses were made and reasons found for interminable delay."⁷ Almost no Western scholars have shown interest in the Factory Act, as if the law had so little value that it was completely negligible.

On the other hand, some academics in mainland China have held contrary views and believed that the law was instrumental in bringing about improvements in working conditions in industrial cities such as Shanghai, Wuxi, and Tianjin. Guan Bo attributed

¹Zhongguo Gongchang Jiancha Nianbao 中國工廠檢查年報 (hereafter ZGGJC/NB) 1934, chap. 1 (1934), 11.

²Augusta Wagner, *Labor Legislation in China* (1938; repr., New York: Garland, 1980), 138.

³Jean Chesneaux, *The Chinese Labor Movement 1919–1927* (Stanford: Stanford University Press, 1968), 228.

⁴See, for example, Jean Chesneaux and Richard C. Kagan, "The Chinese Labor Movement, 1915–1949," *International Social Science Review*, 58.2 (1983), 67–87; or Jean Chesneaux, Françoise Le Barbier, and Marie-Claire Bergère, *China from the 1911 Revolution to Liberation* (New York: Pantheon Books, 1977).

⁵Elizabeth J. Perry, *Shanghai on Strike: the Politics of Chinese Labor* (Stanford: Stanford University Press, 1993), 93.

⁶See Gail Hershatter, *The Workers of Tianjin, 1900–1949* (Stanford: Stanford University Press, 1986), 275n47; and Emily Honig, *Sisters and Strangers: Women in Shanghai Cotton Mills, 1919–1949* (Stanford: Stanford University Press, 1986), 256–57n17.

⁷Robin Porter, *Industrial Reformers in Republican China* (New York: M.E. Sharpe, 1994), 175.

the reduction of working hours in the textile industry to the law, using figures from a survey conducted by the then Shanghai Social Affairs.⁸ However, the figures showed both increases and decreases, in different industries, which could be the result of market fluctuations. Another historian, Zhu Zhengye, referenced the decrease in the number of labor disputes between 1929 and 1932 and stated that the law not only raised workers' awareness and boosted their productivity, but also led to the improvement of industrial relations in China.⁹ This understanding is also highly questionable, given that the law was only promulgated on December 30, 1929, and became effective only on August 1, 1931, with the amended version becoming effective on December 30, 1932. Zhu's simple connection of the periodic reduction in labor disputes to the law also failed to explain the resurgence of labor disputes after 1937, a time when the law was still in force. Other commending views were shared by Rao Shuili, another historian in China. Apart from his appreciation of the Factory Act with regard to the reduction in average working hours, Rao listed some accounts from the official factory inspection reports mentioning the condolence money given to victims of industrial accidents and the improvement in general workplace health and safety, and referred to them as examples of accomplishments of the Factory Act.¹⁰ However, the practice of providing some condolence money to victims of accidents at work was long established in China, while the short and casual accounts of workplace health and safety situations were snapshots at a point in time. The changes mentioned, such as more windows opened to allow more light, or more cleaning to improve hygiene,¹¹ although important actions that would make a real difference to workers at work, could hardly be regarded as significant accomplishments of the Factory Act when there was no evidence of how common and sustainable the changes were, particularly when more pressing hazards such as unsafe machinery and a lack of fire exits remained unaddressed.

The views of Guan, Zhu, and Rao were flawed by their loose citation of data and the convenient ignorance of various non-compliances identified in factories after the law came into force. There was also little analysis of how the law was enforced and how various stakeholders, such as authorities, factory owners, and workers, reacted to the law, or how the political turmoil China experienced in this volatile period impacted the implementation of the law. Therefore, it is difficult to concur with their generally favorable views on the effect of the Factory Act.

While it is overly simplistic to believe that the Factory Act led to various positive changes in the working conditions in China without solid evidence of improvement, as Guan, Zhu, and Rao did, it is equally imprudent, as Wagner, Hershatter, Honig, and Porter did, to completely dismiss the law without close scrutiny of its actual implementation. Moreover, despite their opposing views on the effectiveness of the law, these scholars all judged the Factory Act mainly by the first few years of its coming into force, that is, before the Japanese occupation of China.

In this article, I will take a longer timescale to critically examine the implementation of the law with a specific focus on industrial health and safety, covering the period of

⁸Guan Bo 關博, "'Gongchangfa' yu Minguo Fangzhiye: Jiyi Liyi Jituan Shijiao" 《工廠法》與民國紡織業：基於利益集團視角, *Jiangnan Daxue Xuebao*, 15.1 (2016), 61–70.

⁹Zhu Zhengye 朱正業, "Nanjing Guomin Zhengfu 'Gongchangfa' Shulun" 南京國民政府《工廠法》述論, *Guangxi Shehui Kexue* 145 (2007), 93–97.

¹⁰Rao Shuili 饒水利, "Lun 1929 Nian 'Gongchangfa' de Shishi Xiaoguo" 論1929年《工廠法》的實施效果, *Fazhi Yu Shehui* 5 (2007), 832–33.

¹¹Rao, "Lun 1929 Nian 'Gongchangfa' de Shishi Xiaoguo."

Japanese occupation and the civil war period on its implementation in southwestern China, where the Nationalist government retreated and maintained control, thereby offering a fuller understanding of the Factory Act before the communist takeover in 1949. Apart from referencing academic research conducted by academics on the industrial safety situation and their critique of the Factory Act, I will also review the commentaries and memoirs of operators of the factory inspection programs in both industrial cities in China and the Shanghai International Settlement under extraterritorial jurisdiction. In addition, I will discuss the effectiveness of the Factory Act through a detailed examination of the factory inspection reports of official factory inspectors, which have so far been ignored by Western academics and have been not systematically analyzed by academics in mainland China.

I argue that although the impact of the actual workplace industrial safety improvements made as a direct intervention of the Factory Act was questionable, the law was important as the first national industrial labor law that was implemented, laying the foundation for more enforceable health and safety laws to be stipulated in its wake. For example, the *Rules for Industrial Safety and Hygiene Inspection (Gongchang Anchuan Ji Weisheng Jiancha Xize 工廠安全及衛生檢查細則)* promulgated by the Nationalist government in October 1935 and the *Interim Measures for Boiler Inspection (Guolu Jianyan Zhanhang Banfa 鍋爐檢驗暫行辦法)* promulgated by the Shanghai Social Affairs Bureau in September 1936. Furthermore, it heralded the first nationally coordinated effort to systematically inspect and regulate industrial safety conditions in various areas, and its emergence pressured foreign powers in foreign concessions to start their own versions of the industrial safety improvement program. An example is the program implemented by the Industrial Section under the Shanghai Municipal Council (SMC), established at the end of 1932 amidst heated nationalistic campaigns against the refusal of foreign powers to apply the Factory Act in the international settlement. I also point out that while the law could be a tool for workers to negotiate their entitlements, it failed to protect the rights of victims of industrial disasters. By offering a wider understanding of the social changes that occurred because of the emergence of the law, I seek to reassert the role of the law in the industrial history of China.

A Glimpse of Industrial Health and Safety in Republican China

The period between 1912 and 1936 witnessed rapid expansion of industries in China, with an average annual growth rate of 9.4 percent.¹² By 1933, in twelve major cities in China, including Shanghai, Tianjin, Qingdao, Peking, and Wuxi, there were 9,679 factories employing approximately 460,000 workers, achieving a combined production value of over 1 billion Chinese dollars.¹³ The number of workers would increase to approximately 720,000 for the country in the same year.¹⁴ This industrial bloom

¹²John K. Chang, *Industrial Development in Pre-Communist China: A Quantitative Analysis* (Chicago: Aldine Publishing Company, 1969), 71.

¹³Yan Zhongping 嚴中等編, et al, eds, *Zhongguo Jindai Jingjishi Tongji Ziliao Xuanji 中國近代經濟史統計資料選輯* (Beijing: Kexue Chubanshe, 1955), 106, Table 8. The exact figure is 461,693 workers and 1,094,852,000 Chinese dollars.

¹⁴Yan, et al, eds, *Zhongguo Jindai Jingjishi Tongji Ziliao Xuanji*, 111, Table 11. The exact figure is 717,556. This figure, as noted by the editors, did not include factories with a workforce below 30 (it was not explained in the book, but this is probably due to the applicability of the *Factory Act* only to factories with 30 workers or more) and it also excluded northeast China, as it was not under control of the Chinese government during that time.

took place in a near-vacuum of labor laws. It is not difficult to imagine the various workplace hazards emerging from this unregulated and nascent industrial development.

Unfortunately, unlike the focus on collecting industry data, little attention has been paid to workers' health and safety. The exact magnitude of hazards is difficult to ascertain in the absence of reliable statistics. One of the earliest efforts to collect data on industrial accidents in China was made by H.W. Decker, a physician at the Industrial Hospital in Shanghai. In 1924, Decker published data on 880 injured workers from the cotton industry in Shanghai treated at the Industrial Hospital. Decker's data were alarming, with 374 (42%) of the total 880 cases from the cotton industry being industrial accidents, and among these 374 cases, 25 percent resulted in permanent disability and 1.8 percent, children among them, resulted in death. There were 100 child workers between five and twelve years old treated for industrial accidents in the hospital, among whom 29 percent were permanently disabled and 3 percent did not survive. Many of the permanent disabilities among women and children were disabled hands, loss of eyesight, and lacerations, while fractures and severe burns were also common. Decker also noted a high percentage of women and children with diseases, although there were no industrial diseases. He commented that the hot and humid working environment in mills, compounded by other factors, such as long working hours and poor living conditions, resulted in a high percentage of tuberculosis and other respiratory diseases.¹⁵

Another study was conducted in 1928 by H.D. Lamson, a sociology professor at Shanghai College and one of the earliest researchers on industrial safety issues in China. He surveyed 26 industrial establishments located in Shanghai, Hangzhou, Hankow, and Wuhu, covering a variety of industries, such as iron, paper, flour, rice, electricity, machinery, and construction. Among the 18,890 workers employed in these establishments, 1,007 were injured, 80 of them fatalities. To put the data in perspective, Lamson compared his findings with the situation in Ohio, a typical industrial state in the United States at the time of his research. His results show that the frequency rate for fatal cases in China was 13.2 times that for Ohio, while the severity rate for fatal cases in China was 12.8 times that for Ohio.¹⁶

Accounts related to health and safety conditions in factories could also be gleaned from many historical reviews of burgeoning industries. For example, in a report on the match industry in Tianjin, the Social Affairs Bureau mentioned that in the most established match factory in the city, Danhua, which has been established for 20 years, the phosphorus in the factory was extremely malodorous and sickening, and there were toxic fumes from the use of yellow phosphorus that caused damage to teeth, eyes, and even lungs.¹⁷ According to the memoir of the son of Liu Hongsheng, who was recognized as the "King of Matches" in China, his grandfather Ye Shigong, i.e. Liu Hongsheng's father-in-law, who was also an established match factory owner in China then, profited from making matches with toxic yellow phosphorus for the low costs and simple production process, although it had been banned in the West for many years.¹⁸ Liu Hongsheng himself, in his early years in the match industry,

¹⁵H.W. Decker, "Industrial Hospital, Shanghai: Review of 880 cases from the Cotton Mills," *The China Medical Journal*, 38.3 (1924), 226–33.

¹⁶H.D. Lamson, "Industrial Accidents in China," *The China Weekly Review* (1923–1950), February 1, 1930, 310.

¹⁷*Tianjin Shi Huochaiye Diaocha Baogao* 天津市火柴業調查報告 (1931), 14.

¹⁸Liu Nianzhi 劉念智, *Shiye Jia Liu Hongsheng Luezhuan—Huiyi Wo de Fuqin* 實業家劉鴻生略傳—回憶我的父親 (Beijing: Wenshi Ziliao Chubanshe, 1982), 14.

also used yellow phosphorus for production. Oral accounts of workers reported that fainting in the factory due to feverish temperatures was common, that many women workers had their gums rotten due to the toxicity of yellow phosphorus, and that a woman worker eventually died from bone deterioration in the jaw, probably a phosphy jaw. Some workers who had entered the factory as child workers also reported fainting due to feverish temperatures, while verbal and physical abuse was common. In 1925, Liu's factory employed approximately 140 child workers—24.65 percent of the factory's workforce.¹⁹ A survey in 1929 of the reasons for workers' dismissal in several textile factories showed that illness or injury were the fourth most common reason in Shanghai and the third most common reason in Tianjin. The renowned economist, Fang Xianting, put it down to workers' poor physique and inability to operate machines.²⁰

The Nationalist government did not start collecting health and safety statistics until the creation of the Central Bureau of Factory Inspectorate in 1933. In 1936, the Inspectorate's statistics revealed 2,655 cases of industrial accidents in the country for the previous year.²¹ However, this figure was far from accurate, since the SMC reported 2,301 cases for the same year in the Shanghai International Settlement alone.²² As the number of factories in the Shanghai International Settlement was nearly half of the total in Shanghai City, it was estimated that in 1935, there were 18,032 accidents in the entire country, resulting in at least 22,568 casualties and a total loss of 21,736,000 Chinese dollars.²³

Republican China witnessed approximately thirty years of unregulated industrialization, resulting in health and safety hazards being prevalent in the country. There were no legal health and safety regulations for manufacturing practices, and neither factory owners nor workers had the knowledge or means to address the situation. It was against this deploring historical backdrop that the Factory Act was promulgated.

Birth of the Factory Act

The 1920s was an era of rapid industrialization in China. It was also a volatile time that saw the number of strikes increase more than twenty times, from 25 in 1918 to 535 in 1926. Almost half of these strikes in 1926 were in Shanghai.²⁴ Many of these strikes were supported by leftist intelligentsia and students who organized workers to picket against foreign capitalists. The waves of strikes and political agitation from the communists made many local governments take action to make their own legislation address the tension between industrialists and workers. For example, the Beiyang Government, the national government in Beijing under warlord rule, issued the *Provisional Factory Regulations* in 1923; the Hubei provincial government issued its own factory regulations in 1926; the Shanghai and Nanjing governments issued their own industrial dispute regulations in 1927; warlords like Feng Yuxiang, who dominated multiple regions ranging

¹⁹Liu Hongsheng *Qiye Shiliao* 劉鴻生企業史料 (Shanghai: Shanghai Shehui Kexueyuan Jingji Yanjiusuo, 1981), 322–24.

²⁰Fang Xianting 方顯廷, *Zhongguo zhi Mianfangzhiye* 中國之棉紡織業 (Shanghai: Guoli Bianyi Guan, 1934), 141–44.

²¹“Mingguo Ershisi Nian Zhongguo Gongye Zaihai Tongji” 民國二十四年中國工業災害統計, *Guoji Laogong Tongxun*, 17 (1936), 75–78.

²²*Annual Report 1935*, Shanghai Municipal Council (SMC), 38.

²³*Guoji Laogong Tongxun* 19 (1936), 74–75.

²⁴Chen Ta 陳達, *Zhongguo Laogong Wenti* 中國勞工問題 (Shanghai: Commercial Press, 1929), Table 13.

from central China's Hunan to northwest China's Gansu at different times during the warlord era, also issued labor regulations in Shaanxi and Gansu provinces under his control in 1927, and the Guangdong government issued its own labor regulations in 1928.²⁵ There was also a new set of factory regulations including inspection regulations promulgated by the Peking government in 1927, just a few months before its downfall, brought about by the success of the northern expedition led by Chiang Kai-shek. None of these regulations were really enforced, as pointed out by Wagner, the professor of economics at Yenching University in Beijing, because none of these local governments had sufficient authority, administrative machinery, or funds to enforce them at a time when civil war was raging, and worker unrest and business disruptions were an everyday phenomenon.²⁶ The Nationalist government had so far adopted oppressive measures to restrict strikes, and they collaborated with gangsters like Du Yuesheng and the Green Gang to develop yellow unions to control labor. After the success of the Northern Expedition and the political unification in 1927, the Nationalist government established itself as the central national government and quickly promulgated several labor laws, including the Law Governing the Settlement of Disputes between Employers and Employees in 1928, the *Labor Union Law*, and the Factory Act in 1929. This rush to issue labor laws showed that the Nationalist government was keen to take control of the labor scene at a national level.

On the other hand, the newly established International Labor Organization (ILO) also added weight to push the Chinese government for factory legislation, as the lack of regulation of working conditions in the country made it impossible to adopt its conventions. The first ILO director, Albert Thomas, visited China in 1928 and specifically emphasized the urgency of labor legislation and the importance of well-organized inspection services to enforce the laws.²⁷ The Nationalist government was also keen that, by promulgating the national labor law, which should also apply in foreign concessions and be enforced by a central unit under the Nationalist government's jurisdiction, it could retrieve its sovereignty by being the administrators and executors of Chinese laws in the concession areas, as advocated in the ILO special committee report on labor issues in the Far East in 1919, as a result of the first ILO Conference in Washington. This demand was again raised by the Chinese government at the ILO conference in 1929.²⁸ The promulgation of the Factory Act in 1929 was therefore also a tool used by the Nationalist government to solicit international support and negotiate with foreign powers to retake full national sovereignty and put an end to extra-territoriality on Chinese soil. Although there was not much success, the subsequent heated debate with the SMC of the International Settlement over the application of the Factory Act inside the settlement indeed sparked off nationalistic feelings and appeased seething anti-imperialist sentiments among the Chinese population.

The Factory Act of 1929 had an exceedingly difficult birth, mainly due to challenges from Chinese capitalists who warned that it would place an unreasonable burden on the infant industrial development and that it was unrealistic to implement the law. Attempts to obstruct the promulgation of previous Factory Acts had also been made

²⁵C.S. Chan, "Social Legislation in China under the Nationalist Government," *International Labor Review* 19.1 (1929), 60–75.

²⁶Wagner, *Labor Legislation in China*, 100–101.

²⁷Guy Fiti Sinclair, *To Reform the World: International Organizations and the Making of Modern States* (Oxford: Oxford University Press 2017), 83.

²⁸Cheng Haifeng 程海峰, "Guoji Laogong Zuzhi" 國際勞工組織, *Xiandai Xueshu*, 1.1 (1931), 1–18.

by many industry bodies in the early 1920s; among the ones most vocal in their concerns were Yueda Textile Company (Yuda Fengzhi Gongsi 裕大紡織公司), the Federation of Chinese Cotton Mills (Huashang Shachang Lianhe Hui 華商紗廠聯合會), the Federation of Cotton Mills in Shanghai, (Shanghai Shachang Lianhe Hui 上海紗廠聯合會) and the Cotton Industry Association in Tianjin (Tianjin Mianye Gonghui 天津棉業公會).²⁹ Their worries did not materialize, as these laws were not enforced. However, the Factory Act of 1929 was more material, with terms for penalties for violations, and industrialists responded even more vigorously to it. Criticisms targeted almost all aspects of the law.³⁰ Industrialists, especially those in Shanghai, claimed that industrial development was still in its infancy, with limited capital, and was always squeezed by international capital; and that it was already difficult for them to stay afloat, and they must not be further burdened by the Factory Act.³¹

The “King of Matches,” Liu Hongsheng, was one of the strongest critics and a leading figure in the industry to advocate against the law. He successfully persuaded the Ministry of Industries and Commerce to petition the Executive Yuen to review the Factory Act. He criticized the Factory Act’s requirement to arrange one paid rest day every week for workers when there was no weekly day off for workers at that time. He also slashed at the Factory Act’s requirements regarding compensation for workers deceased for work. Article 7 of the Factory Act forbade children and women workers from taking up hazardous work such as that involving the handling of explosive, inflammatory, or poisonous articles, or working with handling boilers, furnaces, or work in places exposed to dust or poisonous odors and gas. Liu Hongsheng refuted that hazards were everywhere in factories, and restrictions on child and female workers working in hazardous conditions would only “jeopardize them in the name of love.”³²

Articles 41–44 of the Factory Act stipulated the requirements for safety and sanitation. However, they were so general that they were almost unenforceable, and there were no penalties for non-compliance with health and safety, although there were penalties stipulated for other non-compliance. The Nationalist government promulgated a set of rules to give more details, namely, Regulations for the Enforcement of the Factory Act (Gongchang Fa Shi Hang Tiao Li 工廠法施行條例) in 1930. However, as Chen Ta, a renowned sociology professor at Tsinghua University, rightly criticized in his study on the applicability of the Factory Act in 228 factories across industries, there was a complete absence of critical issues such as the provision of toilets, safety measures regarding fencing of moving parts of machines, ventilation and lighting, regular cleaning, and safe

²⁹See, for example, “Canyu Cuanxiu Gongchangfa zhi Qingyuan” 參與纂修工廠法之請願, *Xin Wuxi*, May 10, 1921, and “Qingqiu Canyu Cuanxiu Gongchangfa” 請求參與纂修工廠法, *Yi Shi Bao*, October 26, 1921, as well as various communications between the companies and the business organizations in *Huashang Shachang Lianhehui Jikan* 2.4 (1921), 264–65, and 3.1 (1922), 262.

³⁰For more information on the petitions to amend the Factory Act, see Wang Ying 王瑩, “Gedi Xiugai Gongchang Fa Yijian” 各地修改工廠法意見, *Laogong Yuekan*, 1.1 (1932), 25–45; Yi Xu 一續, *Laogong Yuekan*, 1.2 (1932), 25–36; Er Xu 二續, *Laogong Yuekan*, 1.3 (1932), 68–76; and San Xu 三續, *Laogong Yuekan*, 1.4 (1932), 117–32; Zhu Zhengye and Yang Lihong 楊立紅, “Shilun Nanjing Guomin Zhengfu ‘Gong Chang Fa’ de Shehui Fanying” 試論南京國民政府《工廠法》的社會反應, *Anhui Daxue Xuebao*, 31.6 (2007), 72–76.

³¹Thomas Montchen Tchou 朱懋, “Industrial and Labour Legislation and the Problem of its Administration,” cited in Lowe Chuan Hua, *Facing Labor Issues in China* (London: G. Allen & Unwin, 1934), 96.

³²Liu Hongsheng 劉鴻生, “Duiyu Gongchangfa zhi Yijian” 對於工廠法之意見, *Guohuo Xinsheng*, 34 (1931), 44.

handling of fire, etc. In Chen's words, the law or its related regulations had no sufficient specifics to "constitute a legal instrument of value or a standard of educational use."³³

More generally, the Northeast Industry Association in Tianjin (Tianjin Huabei Gongyi Xiehui 天津華北工業協會) criticized that "blind compliance" with the law would lead to the immediate bankruptcy of enterprises and put workers' livelihoods at risk.³⁴ The federation of silk weaving manufacturers in Jiangsu and Zhejiang (Jiangzhe Sichou Jizhi Lianhe Hui 江浙絲綢機織聯合會) also petitioned on the ground that many factories in China were small and not equipped to meet the requirements of the law and that therefore the law should only apply to factories with a workforce of over 3,000 workers rather than 30 as stipulated.³⁵

In January 1931, just a few days before the date of the law came into effect, Liu Hongsheng and a couple of representatives from the federation traveled to Nanjing and petitioned Chiang Kai-Shek to postpone enacting the law.³⁶ The same request was put forward by the federation of Chinese cotton mills.³⁷ Faced with fierce opposition from industrialists, the Chinese government postponed the law's effective date from February 1 to August 1. The demands of the industry to amend the law did not subside. In March 1931, the federation held a meeting with its members and passed a resolution that Liu Hongsheng, along with several others, was to represent the federation and its members and petition the Nationalist government for the amendment of the Factory Act.³⁸ Voices from industrialists to further postpone the law continued.³⁹

On the other hand, workers were much less vocal about the draft law. While the communists dismissed the law as another capitalist tool of the Nationalist government to exploit workers and went on to develop its own labor regulations for the areas under its control (which is outside the scope of this article), other unions seemed to be relatively demure during the outcry by the industrialists. According to Chen, apart from the petition from the Federation of Labor Unions to the National People's Convention to uphold the Act, it was not a subject discussed in every union. In a section entitled "Workers' Recommendations," Chen listed some suggestions by workers to amend the law, for example, shortening the number of working hours and expanding the application of the law to factories with a workforce of over 20 workers instead of 30.⁴⁰

Despite rigorous opposition from industrialists on the grounds that the Factory Act was too stringent, unrealistic, and detrimental to the infant industrial development in China, in the end, the law came into effect on August 1, 1931. However, to pacify the seething industrialists, the application of the most controversial provision,

³³Chen Ta, *Study of the Applicability of the Factory Act of the Chinese Government: A Preliminary Survey of the Shanghai Area* (Shanghai: China Institute of Scientific Management 1931), 24.

³⁴"Gong Chang Fa' ji Qi Jieshi" 《工廠法》及其解釋, Quanzong Er (2) 全宗二(2), A Juan Hao (File no.案卷號) 1084, in Nanjing Second Historical Archives of China, cited in Zhu Zhengye and Yang Lihong, "Shilun Nanjing Guomin Zhengfu 'Gong Chang Fa' de Shehui Fanying."

³⁵"Jiangzhe Sizhi Lianhui Chengqing Xiugai Gongchangfa" 江浙絲織聯合會呈請修改工廠法, *Minguo Ribao*, September 3, 1930.

³⁶"Gongye Zonglianhui Ge Daibiao Jinjing Qingyuan Qingqiu Gongchangfa Zanhuan Shixing" 工業總聯合會各代表進京請願 請求工廠法暫緩實行, *Minguo Ribao*, January 29, 1931.

³⁷"Shixing Gongchangfa Wentu" 施工廠法問題, *Xinwen Bao* 新聞報, January 23, 1931.

³⁸"Chengqing Xiugai Gongchangfa Zhi Jinxing" 呈請修改工廠法之進行, *Minguo Ribao*, April 1, 1931.

³⁹"Hu Ge Gongchang Jiang Zai Qing Zhanhuan Shixing Gongchangfa" 滬各工廠將再請展緩施行工廠法, *Minguo Ribao*, June 28, 1931; and "Yongyu Shachang Cheng Shiyebu Qinghuan Di Shisan Tiao" 永豫紗廠呈實業部請緩第十三條, *Fangzhi Shibao* 815 (1931), 924.

⁴⁰Chen, *Study of the Applicability of the Factory Act*, 69–70.

Article 13, regarding night work for women workers, was postponed for another two years, then again postponed until August 1936,⁴¹ and then again for another year until 1937.⁴²

To implement the law, a Factory Inspection Act (Gongchang Jiancha Fa 工廠檢查法) was issued and put into force in 1931. The *Provisional Regulations Governing the Administration of the Factory Inspectorate* were also issued in 1932, followed by the establishment of the Central Factory Inspection Department on September 29, 1933.⁴³

Factory Inspections by the Nationalist Government

In February 1931, the Ministry of Industries of the Nationalist government, fully aware of its own lack of experience in implementing the Factory Act, and in the wish to get support from the ILO to liaise with foreign powers on the jurisdiction of the law in foreign concessions, requested support from the International Labor Organization (hereafter ILO) to commence its factory inspection program. In September, the ILO sent two delegates to China, namely, Camille Pône (Chief of Section in the Diplomatic Division) and Adelaide Anderson (former Principal Lady Inspector of Factories in Great Britain). They stayed in China for two months and visited factories in Shanghai, including territories under Chinese and foreign jurisdictions. Their impression of Chinese factories was that the conditions of labor were quite different from the standards of the Factory Act. They advised a three-stage program: first, to visit factories and collect data on workers; second, to focus on health and safety by requesting improvements to the most immediate dangers and investigating accidents, keeping in mind the articles of the law prohibiting the use of child labor for dangerous work; third, to understand how the provisions on weekly rest days, breaks, and holidays were applied, and to collect data regarding the ages of children employed and the hours of work of women and children.⁴⁴ The model advised by the ILO delegates was based on collecting data and understanding the situation rather than enforcing the law. The factory inspection program followed this route. This could explain why there was no legal prosecution for the large number of non-compliances identified during the inspections.

In June 1931, a training center for factory inspectors was established, and two batches of three-month training were completed, with a total of 59 attendees qualified as factory inspectors. These trained inspectors were sent back to the local municipalities, but it very soon became obvious that there was no consistency in their work, as they were under the employment of local governments. In August 1933, the Central Factory Inspection Department was established under the Ministry of Industries.⁴⁵ The unit also had a five-phase implementation plan. The first phase was to collect basic worker information, including any hazardous work performed by child workers, workers' sickness and treatment, industrial accidents, compensation to workers, etc.; the second phase was to focus on health and safety; the third phase was about working hours, rest, and holidays; the fourth was about the ages of child workers, night work and maternity leave for women workers; and the final phase was to focus on working

⁴¹Wagner, *Labor Legislation in China*, 115.

⁴²"Gongchangfa Shisan Tiao Zai Yanchang Yinian" 工廠法十三條再延長一年, *Fangzhi Shibao* 1322 (1936), 5095.

⁴³Wagner, *Labor Legislation in China*, 104.

⁴⁴C. Pône, "Towards the Establishment of a Factory Inspectorate in China," *International Labor Review*, 25.5 (1932), 591–604.

⁴⁵Cheng Haifeng, "Zhongguo Gongchang Jiancha" 中國工廠檢查, *Laogong Yuekan* 3.3 (1934), 1–31.

hours and paid holidays.⁴⁶ This central unit published two reports in 1935 and 1936, respectively, and they served as the main source of information for understanding the effectiveness of the implementation of the Factory Act.

In these reports, inspectors collected many descriptive accounts of individual factory situations in various cities and provinces, including Shanghai, Zhejiang, Shandong, Qingdao, and many other areas. Various types of factory information were collected, such as the humidity level in factories, age, height, and weight of individual workers, workers' illnesses, working hours, and the size of each room in individual factories. The scope and level of detail of the information collected were highly inconsistent, making it difficult to compare the conditions between geographical areas or individual factories.

There was a four-step approach in which inspectors were instructed to take during their factory inspections: first, to explain, meaning to help factory owners understand the law; second, to advise, meaning to advise factory owners to correct their non-compliance; third, to warn, meaning to take a more stern position if factory owners refuse to take their advice; and finally, to punish, only taken in the case of failure of the first three steps.⁴⁷ In the two reports issued by the Central Factory Inspection Department, it was rare for warnings to be given,⁴⁸ and there was no mention of any instance in which punishment had ever taken place. This was in line with the general direction laid down by the two ILO delegates, who emphasized avoiding the requirement for over-sudden changes and not giving rise to objections from employer or worker organizations.⁴⁹ As will be discussed in the following paragraphs, some local governments were reluctant to adhere strictly to the law.

There were many mentions of non-compliances, for example, working hours up to fourteen hours a day in a few factories in Qingdao,⁵⁰ a factory in Henan found to have its workers working throughout the year with no rest day,⁵¹ and machinery hazards and a lack of firefighting equipment identified in Beijing;⁵² there was no mention of whether the factories had been asked to reduce their working hours or work on their safety standards. There was also a total disregard for the blatant non-compliance of compensation to workers who died from work in big cities, such as Nanjing and Wuxi. The legal requirement was for factory owners to pay the family of the deceased worker 50 dollars for funeral expenses plus a sum of two years' wages. In Nanjing, the inspection report clearly stated that no factories complied with the law, some only paid discretionary amounts as compensation, but there was no mention of any advice to meet the law.⁵³ This indicated the absence of a will to push for the implementation of the law. In the cases of twenty-five of the thirty-two factories inspected in Wuxi in 1934, there was not mention of whether they paid any compensation at all for work injuries. Regarding the seven factories where this was mentioned, two did not fix any amount, while one of them had a case in which they paid 120 dollars, one only paid a few dozen

⁴⁶ZGGC/CNB 1934, chap. 3, 8–10.

⁴⁷ZGGC/CNB 1934, chap. 3, 3.

⁴⁸ZGGC/CNB 1936, chap. 2, 150. It was noted that a factory was warned (“警誡”) for the unsanitary conditions in the workers' dormitory. On page 151 of the same report, it was noted that another factory was cautioned (“詰誡”) to install first aid facilities. These were the only instances where the communications were delivered more strongly in the 31 factories inspected for sanitation in Beijing in 1934.

⁴⁹Pöne, “Towards the Establishment of a Factory Inspectorate in China,” 597.

⁵⁰ZGGC/CNB 1934, chap. 4, 29.

⁵¹ZGGC/CNB 1934, chap. 4, 159.

⁵²ZGGC/CNB 1934, chap. 4, 65–66.

⁵³ZGGC/CNB 1934, chap. 3, 89.

dollars, and another paid 250 dollars. However, the practice was to keep this amount in the factory and only pay interest to the deceased worker's family, and the heir could only get the full amount when he or she came of age. None of these factories met the legal requirements, including Shenxin Cotton Mills No. 3, which, at its own discretion, decided to pay a sum ranging from 100 to 500 dollars on a case-by-case basis. There was no mention of any advice given to Shenxin or any of the other factories to correct their practices to comply with the law. Besides, it was also explicitly mentioned that eight of these factories did not have any safety measures or firefighting equipment. There was also no mention of any advice given to ask for improvement to meet legal requirements.⁵⁴

Local authorities also felt it appropriate to amend or set new rules for their inspection to avoid putting too much pressure on the local industry. The local Social Affairs Bureau in Qingdao laid down a set of standards for factories that fell outside the scope of the Factory Act.⁵⁵ Another example was from Weihaiwei, where the local government believed that local factories were not able to meet the law and decided to relax the requirements regarding payment for workers in case of sickness or death. Although the law required a daily sickness allowance of two-thirds of the wage of the sick worker, the local government amended it to half. While the law permitted that in cases of sickness continuing over six months, the allowance could be reduced to half for a period of twelve months, the local government reduced the length of the condition of continued sickness to three months and the allowance to one-third for six months. Regarding compensation for workers injured at work with permanent disabilities, the law required that they be entitled to a sum of not less than one year's average wage, but the Weihaiwei government reduced the amount to half a year's average wage. Regarding compensation in the case of death from work, the law required, on top of 50 dollars for funeral expenses, a sum of 300 dollars and two years' average wage to be paid to the deceased worker's surviving heirs. However, the Weihaiwei government reduced the amount to 100 dollars and one year's average wage.⁵⁶

Throughout the reports, there were explanations from many provincial authorities that their local industries were still in their infancy, with small capital, and were not able to fully meet the Factory Act, and there was a fear that serious implementation of the Factory Act would throw their local budding industrial development into chaos. Both the local authorities and the national government in Nanjing were very tolerant of the failure of local industries to meet the law and continued to focus on giving advice and encouragement for incremental changes rather than expecting immediate compliance with the law.

However, we must not assume that all efforts to conduct factory inspections were completely futile. There are a few things explicitly mentioned in the reports where changes were made as a direct result of the intervention of factory inspectors. Examples are available in [Table 1](#), consolidated from the 1936 annual report issued by the Central Factory Inspection Department for safety and sanitation inspections conducted in Beijing and Tianjin in 1934.

As shown above, of the 123 factories inspected for safety in Beijing and Tianjin in 1934, hazards were identified in 90 factories. Among the 90 factories, 15 (16.7%) completed their corrective actions, 21 (17%) were in progress, and 35 (38.9%) were advised

⁵⁴ZGGC/CNB 1934, chap. 4, 9–130.

⁵⁵ZGGC/CNB 1934, chap. 4, 12.

⁵⁶ZGGC/CNB 1934, chap. 4, 75.

Table 1. Factory Inspections on Safety and Sanitation in Beijing and Tianjin in 1934. Figures consolidated from *Zhongguo Gongchang Jiancha Nianbao* 1936, Chapter 4, 145–212

		Government Inspectors' Actions to Address the Hazards Identified							Total No. of Factories Inspected
		Advice given for correction	Plan to advise for correction	Not clear whether advice given. (only mentioned the risks)	Correction in Progress	Correction Completed	Subtotal	No Correction Required	
Safety	Beijing	2	0	0	6	8	16	15	31
	Tianjin	25	8	19	15	7	74	18	92
Subtotal		27	8	19	21	15	90	33	123
%		30%	8.9%	21%	23%	16.7%	100%		
Sanitation	Beijing	8	0	0	0	23	31	0	31
	Tianjin	24	6	2	8	41	81	11	92
Subtotal		32	6	2	8	64	112	11	123
%		28.6%	5.3%	1.8%	7.1%	57.1%	100%		

or were in the scope of future advice for correction. Regarding sanitation inspection, the number of factories that had completed their corrective actions was higher at 64 (57%) of the 112 factories with identified risks. The corrective actions completed were mostly related to the installation of first aid kits and fire safety equipment, such as fire hoses and fire alarms.⁵⁷

Another area of solid achievement from actions taken because of the intervention of inspectors was found in the provision of medical care to workers. In Qingdao, 15,201 workers were vaccinated against cholera in 1932, and worker hygiene committees were established in seven factories in the same year.⁵⁸ In Nanjing, the Steering Committee for the Implementation of Factory Sanitation was established in July 1935 and comprised of factory inspectors and managers from local factories. The steering committee established factory clinics to provide medical services to workers in various districts. In the six months between July and December 1935, 24,709 workers were treated in these clinics, and 1,308 workers underwent health examinations. Various training programs on first aid, prevention of contagious diseases, and vaccination, *inter alia*, were also organized. Sanitation inspections were also performed at 18 factories, that is, all the factories in Nanjing within the scope of the Factory Act, although it was not clear what improvements were made in the factories following the inspection.⁵⁹

These examples of solid accomplishments were few in the reports; however, they should not be ignored. During the general complacency with the non-compliances identified in factories, these examples, however small, offered solid evidence that the factory inspections did exert a positive push for the enforcement of the Factory Act with respect to workplace health and safety. More importantly, the establishment of the Central Factory Inspection Department was a pioneering effort, as it was the first time in the history of China that state machinery was set up, resourced with dedicated staff members, and given budgets to actively monitor the working conditions of workers.

It was also through this series of factory inspections on health and safety that the Chinese government finally faced the actual practical difficulty of the Factory Act, with its overly general health and safety articles. This drove the Central Factory Inspection Department to draft more specific law, namely, *Factory Safety and Health Inspection Regulations*. The regulations were promulgated on October 9, 1935. It specified various requirements, for example, the space for individual workers (at least 1.5 square meters exclusive of the area occupied by machinery and other equipment), the width of passageways between the machines or between machines and other equipment (at least 1 meter apart), the isolation of pressure vessels from other production processes, which must be placed on the ground floor with no production workshop on the floors above, the distance between workers and emergency exits (not more than 25 meters), and more. These regulations were specific and practicable and were an advancement to improve workplace health and safety practices. More regulations regarding nursery facilities and clinics inside factories were also promulgated in 1936.⁶⁰

⁵⁷ZGGJC/CNB 1936, chap. 2, 145–212.

⁵⁸ZGGJC/CNB 1934, chap. 4, 13–14.

⁵⁹Gong Liping 龔理平, “Naning Shi Gongchang Weisheng Shishi Zhidao Weiyuanhui Gongzuo zhi Yiban” 南京市工廠衛生實施指導委員會工作之一般, *Gonggong Weisheng Yuekan* 1.7(1936), 33–47; and ZGGJC/CNB 1936, chap. 2, 117–34.

⁶⁰P.Y. Koo, *Factory Safety and Health Inspections Regulations* (Shanghai: The Commercial Press 1936).

The Central Factory Inspection Department also issued pamphlets on subjects, including first-aid services, sanitation in factories, and ventilation in workrooms. In 1936, the department organized the first Industrial Safety and Health Exhibition in Nanjing, with exhibits including 733 photographs, 663 posters, 130 diagrams, 102 models, 400 factory safety and health appliances. This was another pioneering effort in China. A second exhibition was held in Wuxi the following year and attended by over 4,000 people from various cities.⁶¹ Another similar exhibition was held in Hankow in 1937.⁶²

Although the first few years of implementing the Factory Act could hardly be regarded as successful, one must not forget that these were volatile years. Notwithstanding the inspection program being handicapped by a lack of resources and readily available experience given that it was the first such program in China's history, the increasing military aggression from Japan also made the government hesitate to take a hard stand with the struggling industries. Following the Japanese invasion of Northeast China in 1931, Shanghai also came under massive attack by Japanese forces in early 1932. Zhabei, the industrial hub of Shanghai, was devastated, and many factories were destroyed by bombing.⁶³ Although Zhabei was under the administration of the SMC, political instability rocked the entire country. The Nationalist government was more inclined to take a "live and let live" approach for those not compliant with the Factory Act. To protect the struggling industries, the Nationalist government collaborated closely with industrialists and took a soft approach to labor law enforcement at the expense of labor protection. In 1937, the outbreak of Sino-Japanese hostilities put factory inspections to a halt and only resumed in 1941 after the Nationalist government relocated to Chongqing.

Factory Inspections by the Shanghai Municipal Council

Apart from attempts by the Chinese government, the SMC governing the Shanghai International Settlement also started its own factory inspection program. Earlier reports in 1924 from the British Consuls in China to the Foreign Office emphasized that Chinese-owned factories were as guilty as British-owned factories of not implementing the 1923 legislation on factory conditions.⁶⁴ However, during the political agitation and nationalistic surges over the jurisdiction of the Chinese government following the promulgation of the Factory Act in 1929, not doing anything to regulate workplace conditions was no longer an option. To address the heated accusations that the workers in the international settlement would be left in poor condition without the application of the law, the SMC faced an urgent need to introduce its own factory inspection program and to appease the mounting political pressure by finding ways to maintain its extra-territorial privileges with regard to controlling factory conditions.

The Council established an Industrial Section, which came into being officially at the end of 1932 and was missioned to monitor the working conditions in the settlement, where 3,421 factories with a total workforce of 170,704 were located in 1935.⁶⁵ Over

⁶¹"Gongye Anquan Weisheng Zhanlanhui Canjia Gongyou Siqian Yu Ren" 工業安全衛生展覽會 參加工友四千餘人, *Xi Bao*, April 2, 1937.

⁶²*Annual Report 1937*, SMC, 25.

⁶³Christian Henriot, "A Neighbourhood under Storm: Zhabei and Shanghai Wars," *European Journal of East Asian Studies* 9.2 (2010), 291–319.

⁶⁴Chesneaux, *The Chinese Labor Movement 1919–1927*, 228.

⁶⁵*Annual Report 1935*, SMC, 39.

the years, a staff of four, in 1934, grew to fifty-five in 1943.⁶⁶ In 1934, the Industrial Section also worked on requirements for safe use of boilers and pressure vessels, resulting in the *Rules Governing Vessels and Systems Under Pressure* (Zhuangzhi Zhengqiji Ji Qita Jiyaji Guize 裝置蒸汽機及其他汽壓機規則) being enforced from October 1, 1936.⁶⁷ In the 1936 annual report of the SMC, it was reported that by that time, approximately 260 (50%) of all boilers in the settlement had been inspected, with 112 certificates issued, 82 under inspection and repair, and six condemned as unfit for use.⁶⁸ The Industrial Section's focus on the safety of pressure vessels would continue for years. In annual reports, every year it was reported how many boilers or other pressure vessels were inspected, how many lapsed, and how many registrations were still valid.

The Industrial Section paid much attention to the safe use of hazardous substances. Another key object of attention was celluloid. The dangerous storage and usage of this inflammable material played a key role in many fatal accidents in the settlement. In 1939, twenty fires in factories that used these substances led to 28 deaths and 35 injuries. In 1940, there were 15 fires in factories that used celluloids, leading to the loss of five lives. The Industrial Section required proper exhaust ventilation in factories using celluloids and refused licensing for spraying operations on unsuitable premises. In July 1941, a licensing scheme was introduced for enterprises handling hazardous liquids that had explosive or inflammable properties. This brought factories manufacturing alcohol or using solvents like gasoline (e.g., for the production of rubber shoes) or amyl acetate (e.g., for handling celluloid) under the control of authorities.⁶⁹ Failure to comply would make the factory owner liable to legal prosecution, which might, however, only bring about a small fine.

The Section reported that they could succeed in obtaining general compliance through reason and argument, particularly if the situation related to a recent accident or to ill health, and there was no need to use the court as an instrument of enforcement.⁷⁰ There were still cases that went to court for charges of non-compliance under the Law Governing Penalties for Police Offenses, which made the offending factories cease operations. Three cases were mentioned in the 1939 report, where the court's judgment upheld the Council's rules for pressure vessels and the requirement to isolate processes involving fire risk from congested occupancy. There was no mention of the penalty imposed, if at all.⁷¹ In 1942, a faulty coil caused an explosion, resulting in the deaths of eight people and severe injuries to seven others. No one was charged for negligence, and the only consequence was a fine of 1,500 dollars, imposed for operation without a license.⁷²

Apart from the above, the annual reports included many examples of changes made regarding machinery safety, electrical safety, fire safety, attendance for safety training, and so forth. Exact numbers were also recorded in the reports. Examples include the installation of an approved water seal in twenty-seven generators as a safety measure to prevent explosions in 1935;⁷³ eight dyeing factories placing 260 guards over the

⁶⁶Eleanor M. Hinder, *Life and Labor in Shanghai: A Decade of Labor and Social Administration in the International Settlement* (New York: Institute of Pacific Relations 1944), 24.

⁶⁷Porter, *Industrial Reformers in Republican China*, 118.

⁶⁸*Annual Report 1936*, SMC, 36–37.

⁶⁹Hinder, *Life and Labor in Shanghai*, 38–39.

⁷⁰*Annual Report 1936*, SMC, 32.

⁷¹*Annual Report 1939*, SMC, 37.

⁷²Hinder, *Life and Labor in Shanghai*, 38–39.

⁷³*Annual Report 1935*, SMC, 38.

bevel gears of dyeing jiggers in 1936;⁷⁴ 1,688 machine guards in 527 factories were fitted upon instructions as required in 1940;⁷⁵ 173 boiler attendants and 45 foremen and others in control of the boiler attendants trained in 1938;⁷⁶ and 112 men attending safety trainings for power press operators in 1940.⁷⁷

Compared with the Nationalist government, the SMC had a stricter approach to implementing its factory inspection. For example, in 1933, an investigation into the safety conditions in 27 rubber factories was conducted, followed by a requirement for corrective action. This resulted in the Industrial Section closing six factories that they found impossible to improve; two were not operating and were instructed not to reopen; and the remaining were radically reformed by removing large numbers of workers from positions of danger and preventing explosions by proper ventilation and the exclusion of electrical, mechanical, or other ignition agents.⁷⁸ The consequences of failing to take the required corrective actions were not taken well by the industrialists in the international settlements. Among the factories ordered to close and relocate, some sought support from the Plastic Industry Association (Xiangjiaoye Gonghui 橡膠業公會) and petitioned for support from the Shanghai City government under the Nationalist government, requesting the latter to intervene and negotiate with the SMC on the grounds of protecting the sovereignty of the Nationalist government within the international settlement. The industry association received support from the Chinese ratepayers' committee, which sent a letter to the SMC petitioning for the annulment of its earlier decision. However, these efforts failed, and the SMC went forward with its requirements.⁷⁹ This approach, moderated with advice and education, continued. In 1937, a rubber shoe factory owner was fined under the law governing Penalties for Police Offenses for working his boiler at pressures higher than what the qualified engineer had approved by adjusting the safety valve.⁸⁰

However, we must not assume that the SMC successfully controlled the industrial safety risks. Despite all their efforts, it was difficult to reduce the number of industrial accidents, given that it usually took many years to build knowledge and change industrial practices, management mindsets, and cultures. The numbers in Table 2 show the known accidents in the settlement after the establishment of the Industrial Section. In the six-year period between 1934 and 1940, the number of casualties was reduced by approximately 16 percent, from 1,788 to 1,487.

Efforts at Industrial Health and Safety by the Industrialists

In the late 1920s, industrialists in Republican China responded vigorously to obstruct the promulgation of the Factory Act. However, when it became clear that it was to become a definite reality, some industrialists reacted by adjusting their operations to meet the requirements. Baocheng Mill in Tianjin was the first to change its two-shift work arrangement to three-shift in 1930, thereby shortening working hours from twelve to eight per shift to meet the Factory Act requirement. This bold move stirred much

⁷⁴ *Annual Report 1936*, SMC, 38.

⁷⁵ *Annual Report 1940*, SMC, 41.

⁷⁶ *Annual Report 1938*, SMC, 40.

⁷⁷ *Annual Report 1940*, SMC, 43.

⁷⁸ *Annual Report 1933*, SMC, 38.

⁷⁹ "Xiangjiaoye bei leqian hou gonghui zuo xiang shifu deng qingyuan" 橡膠業被勒遷後公會昨向市府等請願, *Shen Bao*, July 11, 1933.

⁸⁰ *Annual Report 1937*, SMC, 33.

Table 2. No. of Industrial Accidents (Injured Person is the Unit). Source: Consolidated from data in various Annual Reports, 1934–1940, SMC

Year	1934	1935	1936	1937	1938	1939	1940
Non-Fatal	1,676	2,197	2,105	1,918	1,425	1,832	1,408
Fatal	112	104	95	58	88	110	79
Total	1,788	2,301	2,200	1,976	1,513	1,942	1,487

controversy in the textile industry. Baocheng's peers in the industry, while being skeptical of the feasibility of the three-shift system, blamed Baocheng for creating pressure on the industry and potentially leading to social instability by freeing up workers to be in contact with communists and become seeds for social unrest.⁸¹ However, this did inspire some followers to shorten their working hours with the expectation that the law would be seriously enforced.⁸² Among other benefits of this arrangement of three eight-hour shifts, relevant factory management reported that workers' health visibly improved and there was less sickness and absence reported, while productivity increased, with a higher intensity of work condensing daily production targets within fewer working hours.⁸³ Three years later, the massive influx of yarns from Japan led to a need to reduce labor costs and an enormous number of worker dismissals in the industry. Baocheng also resumed its two eight-hour shift arrangement. Although severe competition from Japan was used by the Baocheng management to explain the termination of this short-lived experiment, it was also clear that, after years of implementation of the Factory Act, there had been no actual consequence for non-compliance. Notwithstanding the success of industrialists in delaying the implementation of night work restrictions for women and child workers, excessive working hours in general continued to be the norm without much interference from the government after the Factory Act became effective. Thus Baocheng management only had to consider worker pushback rather than the legality of resuming its old working hours arrangement.

Apart from the attempt by a few industrialists to adjust working hours, the most prominent effort by industrialists to address workplace hazards was the establishment of the Industrial Safety Association in 1933. This was a direct result of two industrial disasters in Shanghai, i.e. the explosions of Zhengtai and Yungwo rubber factories, both at the end of February that year. Together, they claimed about a hundred lives and injured another hundred workers. The Factory Inspection Department of the Social Affairs Bureau in Shanghai discussed the need for health and safety improvements with several factory owners.⁸⁴ The association published a monthly journal that introduced safety practices in the rubber industry, for example, the safe use of rubber reels in factories, the prevention of poisoning by common chemicals in the industry, and the safe use of boilers. A committee was formed on the safety of special appliances

⁸¹"Sanbazhi de Jiufen" 三八制的糾紛, *Fangzhi Shibao* 681 (1930), 350–51.

⁸²For example, Huaxin Wei Mill was one of them. See "Huaxin Wei Chang Shihang Sanbazi Baogao" 華新衛廠施行三八制之報告, *Fangzhi Shibao* 830 (1931), 1046.

⁸³Lu Shaoyun 陸紹雲, "Shachang Sanbazhi zhi Yanjiu" 紗廠三八制之研究, *Fangzhi Shibao* 691 (1930), 420–21.

⁸⁴"Benhui Zuzhi Jingguo He Gongzuo Gaiyao" 本會組織經過和工作概要, *Gongye Anquan* 工業安全 4.2(1933), 169–73.

in the rubber industry, and experts in engineering, building safety, sanitation, electricity, machinery, and chemicals were invited to join the committee. A detailed guideline for safety practices in the rubber industry was put together and distributed to the rubber factories in Shanghai.⁸⁵ There was also a project to encourage factories to inspect their pressure vessels; however, because of the costs involved, the project was suspended. Other activities organized by the association were to encourage factories to set up sanitation steering committees and factory branches of the Industry Safety Association. Many of its member factories organized branches of the association, such as the Family Industry Association, the Printing Factory of Zhonghua Book Company, and Tianchu Ve-Tsin Factory.⁸⁶

In July 1937, a month before the Japanese occupation of Shanghai, the city was filled with excitement in its celebration of the tenth anniversary of the establishment of the city government. The kick-off ceremony was hosted by the acting mayor of the city. Seven exhibitions were organized, including one on industrial safety.⁸⁷ This was undoubtedly another clear indication of the recognition of the association by the government and the potential influence it held on changing the industry. Unfortunately, a month later, Shanghai was invaded by Japanese troops, and efforts to improve workplace health and safety in China were truncated.

Factory Inspections during the Japanese Occupation and the Civil War

During the Japanese occupation, factory inspections in China were paused for a few years. The Ministry of Industries was replaced by the Ministry of Economic Affairs in 1938, and the Nationalist government retreated to Chongqing with a focus on evacuating industries from the conflict zones to the interior provinces, where the new ministry worked on industrial reconstruction. In 1941, the Nationalist government, settled in Chongqing at that time, resumed its factory inspection program under the Ministry of Social Affairs and appointed a graduate with a UK doctorate to lead the work of the former Central Factory Inspection Department. A budget of 87,200 Chinese dollars was allocated to the program, and funds were made regularly available between 1942–1944. The recruitment and training of factory inspectors were resumed. By the end of 1942, over 200 factories had been inspected for the first time in Chongqing and its environs, and, by the end of 1943, the number of inspectors had grown to nineteen. The Bureau of Factory and Mining Inspection was also established in April 1943, and preparations were made to start inspections of mines.⁸⁸ A report from the department in 1947 stated that by the end of 1946, 3,549 factories were inspected in three major cities, namely Chongqing, Xi'an, and Nanjing, as well as seven provinces, including Sichuan, Shaanxi, Gansu, Guizhou, Yunnan, Guangxi, and Hunan. A variety of industries were covered, such as metals, chemicals, refineries, textiles, paper, printing, plastics, cigarettes, stationery, and furniture. In 1945, 119 coal, tin, and oil mines were inspected in

⁸⁵“Xiangjiaoye Anquan Weisheng Sheshi Jianyishu” 橡膠業安全衛生設施建議書, *Gongye Anquan* 1.3(1933), 217–26; and “Benhui Zuzhi Jingguo He Gongzuo Gaiyao.”

⁸⁶“Benshi Xiaoxi” 本市消息, *Gongye Anquan* 2.1 and 2(1934), 121–22; and “Benhui Zuzhi Jingguo He Gongzuo Gaiyao.”

⁸⁷“Shanghai Shi Zhengfu Chengli Shi Zhounian Jinian Zhi Ge Zhanlanhui” 上海市政府成立十週年紀念之各展覽會, *Jing Hu Hu Hang Yong Tie Lu Ri Kan*, 1937 (1937), 47–48.

⁸⁸T.K. Djang, “Factory Inspection in China,” *International Labor Review* 50.3 (1944), 284–99.

Guizhou, Yunnan, and Gansu.⁸⁹ By 1949, there were 40 inspectors, of whom 16 were in Shanghai and the others in Wuxi, Chongqing, Guangzhou, Hunan, Tianjin, and Qingdao. The department also planned to organize another industrial and mining safety and sanitation exhibition in 1950 and invite experts to develop plans for the safe use of boilers.⁹⁰ None of these materialized with the takeover of the mainland by the communists and the retreat of the Nationalist Party to Taiwan.

It was undoubtedly challenging to continue inspections during wartime, and the effectiveness of the inspections was also questionable. In 1943, during the Japanese occupation, the associate director of the inspection bureau commented on the overall inspection program that “about half of the factory owners accepted” advice for improvement given by the inspectors when poor facilities and working conditions were identified.⁹¹ After the Second World War and during the Civil War, similar remarks were made in a 1947 report by the expanded Bureau of Factory and Mining Inspection that approximately 50 percent of the inspected factories had taken action according to the advice of the inspectors.⁹² None of these remarks were substantiated by figures or surveys. The real situation of industrial health and safety conditions could be gleaned from surveys conducted by academics and the government, as well as the memoirs of contemporaries.

Research on the working conditions in Shenxin Mill No. 4, one of the most established mill enterprises in Republican China, which was relocated from Hankou to Baoji during the Japanese occupation, showed that there was no ventilation and the air was filled with dust at a high temperature. Workers always worked twelve or even up to sixteen hours a day in a noisy environment loud with monotonic machine noise and intermittent deafening air raid sirens. Fainting in the production area was common. Work injuries often happened with some resulting in limb amputation. Many workers fell sick and died from diseases, such as pneumonia and consumption. By the end of 1943, over 38 percent of the workforce were child workers who were subject to frequent verbal and physical abuse.⁹³

A survey conducted by the Social Affairs Department under the central executive committee of the Nationalist Party showed that in 1942 and 1943, although the Factory Act stipulated the daily maximum hours to be ten, most workers in the machinery, printing, flour, and textile industries in Chongqing worked up to almost twelve hours, and it was common to have only one rest day in a month.⁹⁴ According to other surveys on 68 factories in Chongqing, 42 factories in Kunming, and 240 factories in Shanghai around 1946, Chen Ta, the renowned sociology professor at Tsinghua University, found that none of the factories surveyed in Chongqing and Kunming had any safety guards for dangerous machines, and in Shanghai, only 157 factories had installed safety guards. In Chongqing, the headquarters of the Nationalist

⁸⁹Bureau of Factory and Mining Inspection of the Ministry of Social Affairs, “Woguo Gongkuang Jiancha Shishi Gaikuang” 我國工鑛檢查實施概況, *Shehui Gongzuo Tongxun Yuekan* 4.11(1947), 12–16.

⁹⁰Zhang Tiankai 張天開, “Gongkuang Jiancha Yu Shehui Anquan Zhidu” 工礦檢查與社會安全制度, *Xie Ji* 1 (1949), 6–7.

⁹¹Zhang Tiankai, “Chongqingshi Gongchang Jiancha Yi Zhouian” 重慶市工廠檢查一週年, *Shehui Fuwu Zhoubao*, 11 (1943), 4.

⁹²“Woguo Gongkuang Jiancha Shishi Gaikuang.”

⁹³Shanghai Shehui Kexueyuan Jingji Yanjiusuo 上海社會科學院經濟研究所, ed. *Rongjia Qiye Shiliao, Xiacce* 榮家企業史料, 下冊 (Shanghai Renmin Chubanshe, 1980), 364–70.

⁹⁴“Gong Shi” 工時, *Shehui Diaocha Yu Tongji* 3 (1943), 78.

government during the Japanese occupation, where the inspection bureau spent much effort inspecting factories and mines, Chen reported that it was common for workers in the refinery and machinery industries to be injured at work.⁹⁵ In Kunming, working hours were usually twelve hours, and night work with excessive overtime was common for women and young girls in textile factories. Chen reported that, blatantly against the Factory Act, these female workers toiled in late nights during the bitter winter and at the peak of summer, while their health was damaged by the inhumane work.⁹⁶

These accounts painted a gloomy picture of the industrial health and safety situation in wartime China. The Nationalist government issued several labor welfare policies during the war, such as regulations for the workers' welfare committee, workers' welfare subsidies, and a framework for establishing worker hospitals. However, it continued its pre-war approach of persuasion rather than the effective enforcement of the Factory Act. A case in 1943 was evident of this approach. In a case about printing workers working excessive hours without proper rest days, the Kweilin city government sought advice from the Guangxi provincial government, which was told by the Social Affairs Bureau that it was difficult to enforce the Factory Act in this case, and that overtime wages should be given, thereby giving its consent to the unlawful situation.⁹⁷ The successful mitigation of industrial health and safety risks therefore depended on the awareness of individual factory managers. After years of factory inspections, there was evidence that some factory managers became more safety conscious. In 1947, twenty-four factories in Shanghai jointly petitioned the local government to make way for fire exit routes in their community, where narrow and meandering allies posed difficulties for fire trucks to rescue.⁹⁸

In 1948, the Bureau of Factory and Mining Inspection struggled with a meager budget and a small number of 38 inspectors located in different provinces in China.⁹⁹ The limited resources could partly explain the huge gap between the efforts of the bureau and the poor conditions. While the factory inspections could hardly be regarded as a success, the message they signaled was clear: the implementation of the Factory Act was not to be simply ignored, even though there was little cost for infringement.

Did Workers Benefit?

The question remains: did workers benefit? Although there had been reports of vaccinations for workers and factory improvements, such as the installation of fire alarms and firefighting equipment, the scale was limited, and there was a common complacency over non-compliances with the law, as discussed above. This is particularly apparent in the event of injury or death, when injured workers or families of the deceased required compensation for their loss.

Before the enactment of the Factory Act in 1929, workers who wanted to assert their rights organized themselves in strikes or work stoppages. Chen analyzed the causes of 1,232 strikes between 1918 and 1926. There was no standalone category for disputes

⁹⁵Chen Ta, *Woguo Kangri Zhanzheng Shiqi Shizhen Gongren Shenghuo* 我國抗日戰爭時期市鎮工人生活 (Beijing: Zhongguo Laodong Chubanshe 1993), 14.

⁹⁶Chen, *Woguo Kangri Zhanzheng Shiqi Shizhen Gongren Shenghuo*, 209.

⁹⁷“Shehuibu Zi Fu 6 Zi Di 60428 Hao” 社會部咨福6字第60438號, *Shehuibu Gongbao* 13 (1944), 51–52.

⁹⁸“Niansi Gongchang Yaoqiu Kaifang Anquan Tongdao” 廿四工廠要求開放安全通道, *Wenhui Bao* (Shanghai), April 4, 1947.

⁹⁹Zhang, Tiankai 張天開, “Cong Jin Liu Ge Yue Lai Gongkuang Zaibian Kan Zhongguo Gong Kuang Jiancha” 從近六個月來工礦災變看中國工礦檢查, *Shehui Jianshe* 1.8 (1948), 6–8.

over health-and-safety-related issues, but eighteen cases were put under a subcategory of “bonus, consolation money, and alcohol payment.”¹⁰⁰ While it was not clear how many cases were propelled by workers asserting their rights to compensate for their losses from industrial accidents, it was mentioned in the descriptive accounts of workers striking for wage increases that industrial accident compensation was one of the strikers’ demands in various cases.¹⁰¹

To understand the actual practices of factories with a view to ascertaining the applicability of the Factory Act, Chen conducted a survey of 228 factories in 1931. His numbers showed that it was already widely in practice for factories to pay workers’ wages and medical expenses for illness or injuries from work, although it is not clear in Chen’s study whether “pay” means full wage or partial wage, and if partial, what percentage. The study also showed that, in the event of death, factories paid a sum ranging between 500 and 1,500 dollars, with a funeral allowance ranging from two to fifty dollars; however, no relevant cases were mentioned. He went on to share his optimism that “it would seem quite possible for industry to conform without difficulty to the requirements of the Factory Act so far as compensation is concerned, with the exception of clauses requiring payment for sickness.”¹⁰² Chen’s optimism that factory owners would comply with the Factory Act’s requirement to pay compensation to workers in the event of injuries or death from work was not realized. As we have seen in the sections above, non-compliance with this legal requirement was widely prevalent. In fact, in all cases where this requirement was mentioned in the inspection reports, there was always non-compliance in both large and small factories. The local authority in Weihaiwei even reduced the compensation requirement to almost half of the national legal requirement, as mentioned above. There was no mention of any intervention by the authorities to require compliance from factories to ensure that victims of industrial disasters could receive their legal entitlements.

A closer look at two industrial disasters in the 1930s may shed more light on the real situation regarding compensation to victims of industrial disasters. According to the Factory Act, families of the deceased were entitled to 50 dollars for funeral and burial expenses, and compensation amounted to 300 dollars plus a lump sum equivalent to two years’ wages for the deceased worker. Was the Factory Act effective in ensuring victims of work disasters receive their legally entitled compensation?

On February 21 1933, a boiler explosion in the Zhengtai Rubber Factory in Shanghai claimed the lives of eighty-one workers. It was reported that just a few days earlier, the factory was inspected by firefighters in the municipality, who pointed out some defects, but no changes were made.¹⁰³ According to the Factory Act, families of deceased workers should receive compensation and burial expenses of approximately 650 dollars. However, the factory management was only willing to settle on 300 dollars. The unions established a Support Committee of Rubber Industry Workers in the Whole City, which issued a communiqué to all workers in the rubber industry in Shanghai to ask for solidarity to assert their rights proclaiming that “we will uphold the principle of our organization to resist treatment that reduces our workers, who are also human beings, to animals,” and the public was called upon to “prepare for strong solidarity and fighting

¹⁰⁰Chen, *Zhongguo Laogong Wenti*, 156–57, Table 15.

¹⁰¹For example, the strikes described in Chen, *Zhongguo Laogong Wenti*, 178–79, 220–21 and 254.

¹⁰²Chen, *Study of the Applicability of the Factory Act*, 19.

¹⁰³“Rubber Plant Death Toll Mounts to 81” and “Fire Tragedy Rouses Public to Grim Need,” *The China Press*, February 23, 1933.

spirits to back us up.”¹⁰⁴ It also organized a memorial gathering and had plans to organize all workers in the rubber industry to stop working for one day in mourning for the deceased workers and to produce a pictorial booklet about the disaster, which was described as “indirect murder” by the factory workers.¹⁰⁵ The victims petitioned various government departments, including the Shanghai City Nationalist Party Office, Shanghai Bureau of Social Affairs, and Ministry of Industries in Nanjing, but none of these resulted in any active intervention to assure them of their rights.¹⁰⁶ On the other hand, the factory management hired local thugs to harass the families of the deceased workers, who finally gave in and accepted compensation of 350 dollars, about half of what their legal entitlements should be.¹⁰⁷

On May 13 1935, there was a water inrush accident in the Zichuan Mine in Shandong. This catastrophe killed 800 workers in a coal mine jointly invested by Chinese and Japanese. The mine management claimed that it was a natural disaster, but there were many reports of poor equipment and insufficient maintenance workers due to the tight financial control in the mine, which left many tunnels blocked and made escape impossible when the disaster happened. Since there were no other regulations governing compensation for accidents in mines and the Factory Act stated that it was applicable to facilities where power generators were used and had a workforce of 30 workers or more, the families of the deceased workers and the media were adamant that they should be compensated with approximately 600 dollars in line with the Factory Act. However, the mine management insisted on following conventional practices to compensate workers, amounting to only 300 dollars. Families of the deceased workers protested but were suppressed by the mine management and local authorities. In the end, they were forced to accept 330 dollars, only about half of what the Factory Act entitled them to.¹⁰⁸

These two disasters clearly showed that despite attempts to inspect and improve health and safety conditions in factories, when disasters occurred and resulted in the deaths of workers, workers’ rights to basic compensation were not respected. However, we must not overlook the fact that workers at times also used the Factory Act as a tool to negotiate for better conditions. In the case of Baocheng Mill’s resumption of the two eight-hour shift arrangement and dismissal of several hundred workers, as mentioned above, workers organized petitions and rushed into the management office to demand a reasonable severance payment. This successfully pressurized the Baocheng management to settle the worker unrest according to terms laid out in the Factory Act.¹⁰⁹ Chen also recorded several instances of workers who had some small successes in asserting their rights under the Factory Act. In 1946, a machinery

¹⁰⁴“Zhengtai Yonghe Canan Houyuanhui Zuijin Biaoshi,” *Xinwen Bao*, March 19, 1933.

¹⁰⁵“Shanghai Shi Zonggonghui Yi Zhengtai Yonghe Liang Chang Canan Caoshuai Liaojie” 上海市總工會以正泰永和兩廠慘案草率了結, *Guoji Laogong Xiaoxi* 4.4–5 (1933), 199.

¹⁰⁶“Zhengtai Chang Deng Beinan Jiashu Zuo Xiang Dang Zheng Jiguan Qingyuan” 正泰廠等被難家屬昨向黨政機關請願 *Xin Wen Bao*, March 28, 1933; and “Zhengtai Yonghe Canan Jinxun, Houyuanhui Beinan Jiashu Dian Zhongyang Huyu” 正泰永和慘案近訊 後援會被難家屬電中央呼籲, *Xinwen Bao*, July 4, 1933.

¹⁰⁷Yang Shaozhen 楊少振 and Hong Furong 洪福榮, “Zhengtai Xiangjiaochang Er Shi Er Nian de Jingli” 正泰橡膠廠二十二年的經歷, *Wenshi Ziliao Xuanji* 4 (1980), 148–167.

¹⁰⁸Zhou Shifeng 周石峰, “Meijie, Zhengzhi yu Kuangnan: 1935 Nianzi Chuan Kuangnan zhi Shanhou” 媒介、政治與礦難：1935年淄川礦難之善後, *Guizhou Shifan Daxue Xuebao* 5 (2014), 96–102.

¹⁰⁹Liu Mingkui 劉明達 and Tang Yuliang 唐玉良, eds., *Zhongguo Gongren Yundongshi*, 中國工人運動史 (Guangdong: Guangdong Renmin Chubanshe, 1998), 4, 246.

industry union in Shanghai organized strikes and stoppages with the participation of over two thousand workers from several factories to demand higher wages against rising inflation and other better working conditions. The strike ranged from a few days to twenty days for the different factories. The Committee for Arbitration of Labor Disputes in Shanghai City under the Nationalist government issued a verdict that listed many areas where working conditions were to be raised to the standard of the Factory Act, including overtime wages, holidays, compensation for work injuries, and so on.¹¹⁰ While this showed that workers at times used the Factory Act as a weapon to negotiate with factory management, the law itself only became slightly more useful when workers staged strikes and stoppages.

Conclusion

By the early 1930s, industrialization in China had taken root after three decades of sprawling under the largely laissez-faire approach of the late Qing government, and the similar approach of warlords in different regions. The first decade of the republican era was regarded as the “golden age” for China’s new bourgeoisie, who enjoyed relative autonomy with the eclipse of state power during this period. It was also a decade of uncontrolled industrialization with little government regulation. The period ended when the Nanjing government took the offensive from 1927 onwards to subordinate bourgeoisie organizations to the party regime.¹¹¹ With the state bureaucracy back in force after 1927, the Nanjing government responded to international and domestic pressure from political arenas such as the International Labor Organization and the waves of labor unrest with the promulgation of national labor laws, including the Factory Act and other regulations. The so-called bourgeois nationalism spawned during these few decades emboldened industrialists to condemn foreign powers for conducting factory inspections within the concession areas. They petitioned the Chinese government to execute the Factory Act and conduct inspections both within and outside the foreign concessions. They urged for a postponement of the enforcement of the law until it could be applied in the foreign concessions, demanding a level playing field for both Chinese and foreign-owned factories subjected to the same law. Nationalism served as a convenient rationalization for stalling the implementation of the law. Due to the struggle between the Chinese government and foreign powers for jurisdiction, vehement resistance by industrialists, and a powerless labor movement, the Factory Act was doomed to failure.

What change did the Factory Act bring about? Did it lead to an improvement in workers’ livelihood? Probably not. The SMC conducted various studies on the cost of living and stated in its annual report in 1940 that “the increase in the earnings of the Shanghai workers is incommensurate with the rise in costs of living and the standard of living of the workers’ families has been lowered to the point of minimum subsistence in 1940.”¹¹² More than ten years after the law’s emergence, workers were still struggling with severe poverty. The various non-compliances with the law, as recorded in the inspection reports examined in this article, also do not suggest significant betterment in working conditions. This is the reason why Western scholars have dismissed the law.

¹¹⁰Chen, *Study of the Applicability of the Factory Act*, 609–12.

¹¹¹Marie-Claire Bergère, *The Golden Age of the Chinese Bourgeoisie 1911–1937* (Cambridge: Cambridge University Press 1989), 272–77.

¹¹²*Annual Report 1940*, SMC, 56.

However, it would be incautious to completely ignore the law and its role in the modern history of industrialization in China. Even though there were many flaws in the Factory Act and even though it was poorly enforced, we must not deny the fact that there were times when workers used the law as a tool for negotiation with their employers. Furthermore, unlike previous laws that were localized and not enforced at all, the Factory Act ushered in more health and safety regulations and the institutionalization of state responsibility to proactively monitor working conditions through the establishment of a central inspection authority. It also laid the foundation for the first attempts by the state to gather industrial disaster figures for the entire country and develop a framework for reporting work-related accidents. Its emergence put pressure on foreign powers to address working conditions in the concession areas and to inspect factories and require improvements, albeit limited to health and safety only. It also led to the emergence of the first industry body on industrial safety in China, which was the first attempt by industrialists to organize themselves to address workplace hazards. The Factory Act could have led to a potential sea change in China's industrial health and safety situation if not unfortunately halted by the Japanese invasion. Although factory inspections resumed after a pause of a few years during the Japanese occupation, the implementation of the Factory Act continued to be weak and did not lead to any notable change in industrial safety.

Like most government and industry philanthropic initiatives, the various attempts by the Chinese government, the SMC, and industrialists to address workplace hazards were paternalistic in nature. Their efforts were only aimed at improving the health and safety situation in industries to avoid industrial disasters or situations in which production would be disrupted and compensation might be required for injured workers. Whether workers' rights or legal entitlements were respected was not a matter of concern. Workers were left to their own devices to assert their rights. Even in large-scale disasters such as the Zhengtai explosion and the Zichuan mine catastrophe, which drew a lot of public attention and social scrutiny, victims still could not have their rights to legal compensation respected.

It would take decades for the Factory Act to finally become effective, albeit not on the soil of mainland China. With the communists taking over control of mainland China, the Factory Act continued to be in force in Taiwan, which remained under the control of the Nationalist Party. Factory inspections also continued there, reporting a poor compliance rate with health and safety regulations, ranging from 26 to 21 percent between 1972 and 1974. However, one thing we can at least say is that enforcement became more serious with the authorities finally taking non-compliant factory owners to court. In the fiscal year 1974, 22 employers were sued by the inspectors, and among them, 21 were fined. Besides, seven plants were suspended from operation, and two others were partially suspended until they completed the necessary remediation.¹¹³ This approach of giving a consequence to non-compliance with the Factory Act was not seen in the republican era in mainland China, and the details of the change would warrant another article for detailed analysis. The Factory Act continued to influence more labor and health and safety legislation in Taiwan for decades, including the important Labor Standards Act of 1985. Eighty-seven years after it first came into force in 1931, the Factory Act was finally repealed by the government in Taiwan in 2018. On the other hand, in communist China, where the Chinese Communist Party first promulgated its

¹¹³T.K. Djang, *Industry and Labor in Taiwan* (Taipei: Institute of Economics, Academia Sinica, 1977), 208.

own Soviet-influenced labor protection law in May 1930 for implementation in the Chinese Soviet areas, the Factory Act was abolished after the communist takeover of mainland China. The communist labor laws in China had a vastly different development trajectory and would require further dedicated research to do them justice.

Competing interests. The author declares none