

LEGAL IMPLICATIONS OF COAL WORKFORCE REDUCTION STRATEGIES IN CHINA

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I. INTRODUCTION

China’s coal sector is the largest contributor to the country’s greenhouse gas emissions and a major cause of air pollution, which claims over 1 million lives annually.¹ Long-term climate commitments include a target to achieve carbon neutrality by 2060, which entails between a 60–90 percent reduction in coal use by mid-century.² Of the many challenges associated with this transition, addressing the dislocation of coal and fossil fuel workers is perhaps the most challenging. While there are recognized efforts to achieve a “just transition” that works for fossil communities and workers, practices to date in China do not fully prioritize these groups.³

The closest analogue to what will need to be achieved is the supply-side restructuring of mostly state-owned coal and other heavy industries concentrated in 2016–2018 and continuing to this day. The coal sector has shed over 2 million jobs since its recent peak of 2013—and, in contrast to earlier state-owned enterprise (SOE) reforms, did not result in widespread social unrest. Lessons were learned from earlier periods, and the increased institutionalization of labor contract law is a possible argument for the relatively smoother workforce reduction mandated

1. Maigeng Zhou et al., *Mortality, Morbidity, and Risk Factors in China and Its Provinces, 1990–2017: A Systematic Analysis for the Global Burden of Disease Study 2017*, 394 LANCET 1145, 1145–58 (2019).

2. David Sandalow et al., *Guide to Chinese Climate Policy 2022* (2022).

3. Weila Gong & Joanna I. Lewis, *The Politics of China’s Just Transition and the Shift Away from Coal*, 115 ENERGY RESEARCH & SOCIAL SCIENCE 103643 (2024).

by overcapacity reduction. In this brief commentary, we explore the workforce reduction strategies during this period and the legal basis for various practices adopted by SOEs.

II. BACKGROUND

Following the reform and opening up period that had begun in the late 1970s, China underwent incremental liberalization of certain state-controlled sectors,⁴ aiming to introduce non-state ownership and competition.⁵ By the late 1990s, it had expanded into a nationwide initiative to restructure large state sectors and privatize or close mid-sized and smaller SOEs.⁶ This restructuring resulted in substantial layoffs among SOE employees, revealing the lack of support and legal frameworks for addressing policy-induced employee dislocation.⁷

Responses to these challenges were two-fold. First, the government introduced the concept of “*xiagang*” (massive layoff), requiring SOEs to establish reemployment centers and provide basic living allowances for three years.⁸ While this policy offered temporary relief, it did not address income insecurity for employees—particularly those not near the retirement age. Second, some SOE managers adopted alternative workforce reduction strategies, such as early retirement, unpaid leave, job rotation, and internal transfers.⁹ These approaches were often implemented without clear legal frameworks or consistent standards, resulting in sig-

4. Ronald I. McKinnon, *Financial Growth and Macroeconomic Stability in China, 1978–1992: Implications for Russia and Other Transitional Economies*, 18 J. COMP. ECON. 438–469 (1994); see generally TED C. FISHMAN, CHINA INC. (Scribner 2005).

5. David D. Li & Changqi Wu, *Reforming State-Owned Enterprises: Diversifying Ownership Versus Improving Management*, in THE MANAGEMENT OF ENTERPRISES IN THE PEOPLE’S REPUBLIC OF CHINA 79, 81–82 (Anne Tsui & Chung-Ming Lau eds., Kluwer 2002); Jiing-Lih Farh et al., *An Inductive Analysis of the Construct Domain of Organizational Citizenship Behavior*, in THE MANAGEMENT OF ENTERPRISES IN THE PEOPLE’S REPUBLIC OF CHINA 445, 453 (Anne Tsui & Chung-Ming Lau eds., Kluwer 2002).

6. Liang Zheng & Jean Oi, *Chinese Firms Under Transformation: Corporate Restructuring, Employee Layoff, and Manager Turnover in the 1990s*, in POLITICS AND NEOLIBERALISM: STRUCTURE, PROCESS AND OUTCOME 167, 167–200 (Harland Prechel ed., JAI Press 2007).

7. Mary E. Gallagher & Baohua Dong, *Legislating Harmony: Labor Law Reform in Contemporary China*, in FROM IRON RICE BOWL TO INFORMALIZATION: MARKETS, WORKERS, AND THE STATE IN A CHANGING CHINA 36–60 (Mary E. Gallagher & Sarosh Kuruvilla eds., Cornell Univ. Press 2011).

8. Daniel C. Feldman & Carrie R. Leana, *Better Practices in Managing Layoffs*, 33 HUM. RES. MGMT. 239–260 (1994).

9. John Hassard et al., *Steeling for Reform: State-Enterprise Restructuring and the Surplus Labor Question*, in UNEMPLOYMENT IN CHINA: ECONOMY, HUMAN RESOURCES AND LABOUR MARKETS 203, 216 (Grace O. Lee & Malcolm Warner eds., 2007) [hereinafter Hassard et al., *Steeling for Reform*]; Noel Doherty, *The Role of Outplacement in Redundancy Management*, 27(4) PERS. REV. 343–53 (1998); John Hassard et al., *China’s State-Owned Enterprises: Economic Reform and Organizational Restructuring*, 23(5) J. ORG. CHANGE MGMT. 500–16, 509 (2010).

nificant disparities both across and within SOEs, and with limited ability for redress by workers.¹⁰

Surplus production capacity and chronic mine safety issues in the coal industry—persistent problems throughout China’s modern reform era—led to an inflection point in 2015. Low coal prices resulted in substantial losses across the coal sector,¹¹ with the number of coal companies operating at a loss double the number in 2011 (2,027 compared to 845).¹² The central government launched a supply-side restructuring program for coal (along with other heavy industry sectors) over 2016–2018 during which mines below 300,000 tons and with safety issues were obliged to close.¹³ The policy also advocated reducing the number of small and medium-sized coal enterprises while promoting larger coal groups with capacities of at least three million tons. Additionally, it encouraged greater mechanization and automation to improve efficiency and reduce labor costs. By the end of 2020, these measures led to the decommissioning of over 1 billion tons of outdated coal production capacity per year.¹⁴

In early 2016, the Ministry of Human Resources and Social Security projected that the supply-side restructuring program, involving the massive closure of small coal mines, along with productivity enhancements through mechanization and industrial upgrades, would displace approximately 1.3 million workers from their original coal sector positions through diversion and resettlement efforts.¹⁵ The impact of supply-side restructuring was particularly large on coal SOEs: state-owned coal mines accounted for over 80% of capacity elimination in 2016.¹⁶ Shortly after

10. See Hassard et al., *Steeling for Reform*, *supra* note 9, at 203–28.

11. Xunpeng Shi, Bertrand Rioux & Philipp Galkin, *Unintended Consequences of China’s Coal Capacity Cut Policy*, 113 ENERGY POL’Y 478, 478–486 (2018).

12. Mei Bai, *Supply Side Reform of the Coal Industry: Core Tasks and Reform Outlook*, 8 PRICE THEORY PRACT. 33, 33–37 (2016).

13. Guowuyuan Guanyu Meitian Hangye Huajie Guosheng Channeng Shixian Tuokun Fazhan de Yijian (国务院关于煤炭行业化解过剩产能实现脱困发展的意见) [Opinions of the State Council on Resolving Overcapacity and Promoting the Development of the Coal Industry] (promulgated by State Council of the People’s Republic of China, 2016), <https://www.iea.org/policies/16942-opinions-of-the-state-council-on-resolving-overcapacity-in-the-coal-industry-and-realising-development-out-of-difficulties> [<https://perma.cc/DMC9-VQPR>].

14. 2020 Meitian Fazhan Niandu Baogao (2020煤炭发展年度报告) [2020 Annual Report on Coal Development] (promulgated by Chinese Coal Industry Association, Mar. 2021), <https://www.cctd.com.cn/uploadfile/2021/0304/20210304104603452.pdf> [<https://perma.cc/YEK2-AXJK>].

15. Ren She Bu: Gangtie, Meitian Xitong Qu Channeng Sheji Yue 180 Wan Zhigong Fenliu Anzhi (人社部：钢铁、煤炭系统去产能涉及约180万职工分流安置) [Ministry of Human Resources and Social Security: Capacity Reduction in Steel and Coal Industries Involves the Resettlement of Approximately 1.8 Million Workers] (promulgated by State Council of the People’s Republic of China, Feb. 2016), https://www.gov.cn/xinwen/2016-02/29/content_5047432.htm [<https://perma.cc/R52X-28SB>]. Throughout we use official employment statistics, which undercounts total employment, including unofficial and contract workers, for which data are not readily available.

16. Rong Jun Qin, Shi Hua Ren & Qian Chen, *Study on Development and*

the initiation of coal supply-side restructuring, the government introduced a framework of options for handling employee placement during restructuring,¹⁷ followed by additional policies over the subsequent two years.¹⁸ This framework outlined a set of main resettlement strategies and basic implementation guidelines, building upon earlier SOE reform experiences: internal redeployment (transferring employees within corporate groups and early retirement programs) and various outplacement services designed to facilitate reemployment. These initiatives further drew on the emerging body of labor law that institutionalized workers' rights and dispute resolution channels.¹⁹

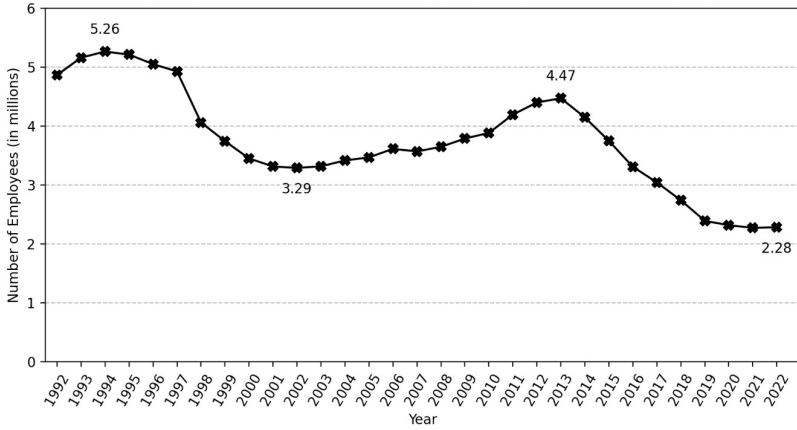
Utilization Path of Closed (Abandoned) Coal Mines in China, 37 COAL ECON. RES. 31, 31–35 (2017).

17. Ministry of Human Resources and Social Security of the People's Republic of China, Guanyu Zai Huajie Gangtie Meitan Hangye Guosheng Channeng Shixian Tuokun Fazhan Guocheng Zhong Zuo Hao Zhigong Anzhi Gongzuo De Yijian (关于在化解钢铁煤炭行业过剩产能实现脱困发展过程中做好职工安置工作的意见) [The Opinions on Effectively Handling Employee Placement during the Process of Resolving Overcapacity Issues in the Steel, Iron, and Coal Industries to Promote Recovery and Development] (promulgated by the Ministry of Human Resources and Social Security of the People's Republic of China, Apr. 2016), https://www.mohrss.gov.cn/jycjs/gongzuotongzhi/201604/t20160413_238000.html [<https://perma.cc/LMR6-HDSP>] [hereinafter *Employee Placement 2016*].

18. Ministry of Human Resources and Social Security of the People's Republic of China, Guanyu Zuo Hao 2017 Nian Huajie Gangtie Meitan Hangye Guosheng Channeng Zhong Zhigong Anzhi Gongzuo De Tongzhi (关于做好2017年化解钢铁煤炭行业过剩产能中职工安置工作的通知) [Notice on the Resettlement of Workers in the Process of Resolving Excess Capacity in the Steel and Coal Industries in 2017], (promulgated by the Ministry of Human Resources and Social Security of the People's Republic of China, Mar. 2017), http://www.mohrss.gov.cn/SYrlzyhshbzb/jiuye/zcwj/201703/t20170330_268809.html [<https://perma.cc/8JD2-TQ3M>] [hereinafter *Resettlement of Workers 2017*];

Ministry of Human Resources and Social Security of the People's Republic of China, Guanyu Qieshi Zuo Hao Huajie Guosheng Channeng Zhong Zhigong Anzhi Gongzuo De Tongzhi (关于切实做好化解过剩产能中职工安置工作的通知) [Notice on Effectively Relocating Workers in the Process of Resolving Excess Production Capacity], (promulgated by the Ministry of Human Resources and Social Security of the People's Republic of China, July 2019), http://www.mohrss.gov.cn/SYrlzyhshbzb/jiuye/zcwj/gaoxiaobiyesheng/201908/t20190802_327833.html [<https://perma.cc/3BKA-8SVN>] [hereinafter *Relocating Workers 2019*].

19. See *Employee Placement 2016*, *supra* note 17; *Resettlement of Workers 2017*, *supra* note 18; *Relocating Workers 2019*, *supra* note 18.

Figure 1: Employment in coal mining and dressing industry in China (1992–2022)

Source: China Statistical Yearbook

The supply-side restructuring of the coal industry led to significant workforce downsizing across coal enterprises, raising important questions about the effectiveness and institutional footing of employee-resettling policies. What have been the dominant strategies adopted by coal firms? How has the increased institutionalization affected workers' ability to participate in the restructuring process? How much heterogeneity is there in firm responses to central restructuring mandates? And, in the long-term, what might this mean for the large employment dislocation under aggressive climate change plans?

III. ANALYSIS OF SHIFTING DOWNSIZING STRATEGIES

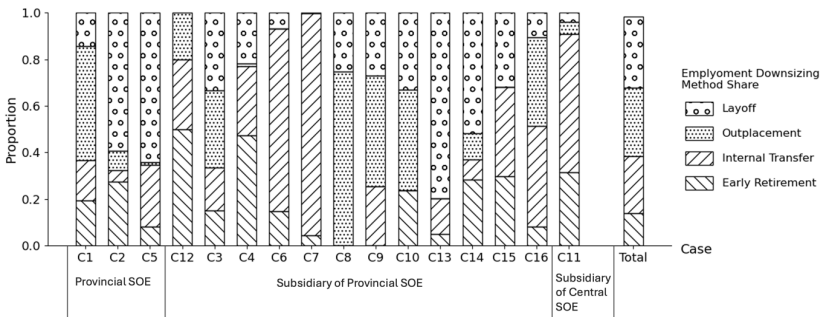
We briefly analyze various workforce reduction strategies adopted during the supply-side restructuring from 2016–2018. We found detailed data for sixteen coal SOEs based on extensive literature searches in English and Chinese. The firms range in size (medium-sized subsidiaries of provincial companies to large central enterprises), location (rural and urban areas), and geographic regions (northeastern, southeastern, central, and southwestern China), see Table 1. We then assess the legal basis for these reductions and unresolved legal and policy frameworks.

A. Workforce Resettlement Strategies

In the sixteen cases analyzed, a total of 260,190 workers were displaced, with approximately 30% of them being laid off. Nearly 70% of the displaced workforce was resettled through non-layoff strategies (see Figure 2). One predominant downsizing method (25% in our cases) involved internal redeployment, with more than one-third of firms managing to transfer over 30% of their displaced workers internally. Yet, these workers were still mostly transferred to operational mines within their own enterprise or dispatched to trust-managed coal mines, which

are owned by other enterprises but still managed by the original enterprise, not contributing to overall coal sector workforce reductions. The workers often have limited reemployment opportunities due to narrow skill sets, lower educational attainment, and older age: a significant proportion is middle-aged or older. For example, 66.4% of Wuhai Energy Co. (C11)'s workforce was aged 40 or older, with only 37.7% holding an associate degree or higher.²⁰ During the supply-side restructuring, the company relocated more than 4,000 of its 7,506 downsized employees to a newly established coal coking company, while the remaining workers were reassigned to five coal mines and a coal washing plant managed by Shenhua Xinjiang Energy Company, a subsidiary of the group.²¹

Figure 2: Workers Reduced by Each Downsizing Method



Another prominent method that coal SOEs have adapted to workforce reduction is a range of outplacement services, including entrepreneurial support, skills training, job matching, job fairs, and labor outsourcing. In the cases analyzed, 29% of displaced workers found new employment through outplacement assistance. A prevalent local adaptation of outplacement services involves a three-party Employment Relationship Transfer Agreement (*Laodong Guanxi Zhuanyi Xieyi*) among the SOEs, displaced workers, and a third-party company. This agreement terminates the employment relationship between the workers and their original employers and transfers it to the third-party entity. These entities are often newly established reemployment service companies that provide displaced workers with a modest monthly stipend. In some cases, the labor service companies rehire the workers and redeploy them to their original mines at lower labor costs. The primary benefit of this adaptation for SOEs is to sever employment contracts without paying severance compensation.

Firms have also pursued mandatory early retirement, which bypasses formal layoffs by offering a basic monthly stipend. Early retirement accounted for the resettlement of 15% of displaced workers in the cases studied. However, unlike transfer agreements, early retirement

20. Qichen Lu, *Study on Staff Resettlement in Coal De-Capacity of Shenhua Wuhai Energy Company*, 38(2) COAL ECON. RES. 17 (2018).

21. *Id.*

keeps the employment contract intact, thereby enabling companies to legally avoid paying severance. Early retirement primarily targets older employees with long tenures, while firms offer buyouts to younger workers with shorter tenures, thus limiting severance compensation. Due to these financial advantages, many SOEs require all employees within five to ten years of retirement age to participate in the early retirement program. The Chinese government recently announced that, starting in 2025, the retirement age will be gradually delayed by three to five years over the next fifteen years.²² This change will likely push back some of these early retirement programs for future rounds of downsizing.

In the context of ongoing coal de-capacity and enterprise downsizing, displaced workers are often left in a precarious position while awaiting redeployment and resettlement. To mitigate the socioeconomic impacts of these disruptions, SOEs typically pledge to provide a monthly allowance aimed at maintaining the basic livelihood of these workers. These are delivered inconsistently and often communicated informally through company notices without appropriate legal authority.²³

B. *Legal Basis for Downsizing*

During the 2016 supply-side restructuring process, the term *xiagang* was absent, reflecting a deliberate departure from the workforce reduction tactics of the previous reform era. For workers, *xiagang* was characterized by inadequate living subsidies and prolonged unemployment.²⁴ Moreover, the restructuring framework stipulated that the termination of employment contracts is permissible only under specific

22. Xinhua News Agency, *Decision of the Standing Committee of the National People's Congress on the Gradual Delay of the Statutory Retirement Age*, STATE COUNCIL OF CHINA (Sept. 13, 2024, 05:17 PM), https://www.gov.cn/yaowen/liebiao/202409/content_6974294.htm [<https://perma.cc/25PN-JLCU>].

23. See, e.g., Hemei News, *He Mei Gongsì Huajie Meitan Guosheng Channeng Chigong Fenliu Anzhi Gongzuo Shishi Fangan* (鹤煤公司化解煤炭过剩产能职工分流安置工作实施方案) [*Implementation Plan for the Relocation and Resettlement of Employees of Hemei Company to Resolve Excess Coal Production Capacity*], WEIXIN (Sept. 19, 2016, 02:18 AM), <https://mp.weixin.qq.com/s/kggbeJCFUxv17oFPAhzjfw> [<https://perma.cc/5DAL-UE5X>]; Green Mine Research and Practice, *Zheng Mei Jituan Gongsì Zhigong Fenliu Anzhi Fangan* (郑煤集团公司职工分流安置方案) [*Zhengzhou Coal Group Corporation employee redeployment and resettlement plan*], WEIXIN (Sept. 26, 2016, 03:22 PM), https://mp.weixin.qq.com/s/s_KbmXOzeAuopYvMIG3t3g [<https://perma.cc/4RFG-HNLA>]; Huai Mine Home, *Huabei Kuangye Qu Channeng Kuangjing Zhigong Fenliu Anzhi Zongti Fangan Gaosu Ni* (淮北矿业去产能矿井职工分流安置总体方案告诉你) [*How do miners transfer and relocate? The overall plan for the relocation and relocation of workers in Huabei Mining's overcapacity mines tells you*], WEIXIN (Oct. 9, 2016, 05:01 PM), https://mp.weixin.qq.com/s/f_Avd19xZFjMCpGcUXAgBg [<https://perma.cc/W6WG-RV7M>].

24. Grace O. M. Lee & Malcolm Warner, *Developing Labour Market Policies in China*, in UNEMPLOYMENT IN CHINA: ECONOMY, HUMAN RESOURCES AND LABOUR MARKETS 151, 154, 163 (Grace O. Lee & Malcolm Warner eds., 2007).

conditions, such as when an enterprise is declared bankrupt, ordered to close, or decides to dissolve.²⁵

However, within the restructuring process, there are numerous legal ambiguities and practices inconsistent with these legal and policy frameworks. In the case of reemployment centers, these third-party companies are independent entities and do not assume the rights and obligations of the SOEs. This practice does not comply with official guidelines,²⁶ which allow for contract modifications without compensation only in cases of internal redeployment within the same enterprise.²⁷

Mandatory early retirement also contradicts the official resettlement framework, which emphasizes the voluntary nature of workers' participation in early retirement.²⁸ Yet, no specific legal provision explicitly prohibits mandatory early retirement. The ambiguous legal status of these local practices can impede workers' ability to seek redress through formal administrative and legal channels.

Monthly allowances help to bridge some of these challenges. However, some companies discontinue these payments in practice after only a few months.²⁹ This inconsistency is primarily due to the absence of explicit statutory obligations in the current Labour Contract Law mandating the timely and full disbursement of resettlement allowances. Specifically, Article 30 of the Labour Contract Law requires employers to pay workers their full wages promptly, and the Social Security Law mandates full and timely payment of social security premiums without delay, reduction, or exemption. However, the monthly allowances for displaced coal workers are not legally defined as wages or social security contributions, and their distribution, including the timing and specific amounts, is often communicated through informal company notices, thus lacking binding authority.

Although current labor laws offer limited avenues for workers to claim unpaid living allowances and resettlement fees, most are able to recover wage arrears and overdue social security contributions through labor dispute resolution mechanisms.³⁰ For example, the 2007 Labour Contract Law requires employers to issue formal written contracts that explicitly stipulate wages. In cases of wage arrears, workers can use these contracts as evidence to assert their claims through established legal channels. This represents a notable departure from the *xiagang* period,

25. *Employee Placement 2016*, *supra* note 17.

26. *See Employee Placement 2016*, *supra* note 17; *Resettlement of Workers 2017*, *supra* note 18; *Relocating Workers 2019*, *supra* note 18.

27. *Employee Placement 2016*, *supra* note 17.

28. *See Employee Placement 2016*, *supra* note 17; *Resettlement of Workers 2017*, *supra* note 18; *Relocating Workers 2019*, *supra* note 18.

29. *See, e.g.*, Sun Changlu v. Jixi Longchuang Reemployment Service Co., Ltd., [(2018) Intermediate People's Court of Heilongjiang] Min Chu No. 1603.

30. *See Gallagher & Dong*, *supra* note 7, at 42-43; Li Xiang, *Is Judicial Remedy Effective in Resolving Collective Labor Disputes in China? – Based on 622 Cases*, 17 US-CHINA L. REV. 13, 14-15 (2020).

during which laid-off workers, often lacking formal contracts, struggled to prove employment relationships and had resort to informal, extra-institutional collective actions to defend their rights.³¹ Overall, these legislative advancements and the institutionalization of dispute resolution mechanisms have helped reduce the incidence of collective actions that might otherwise arise from widespread wage and social security arrears.

IV. POLICY IMPLICATIONS FOR COAL SECTOR DOWNSIZING

The heavy reliance on non-layoff methods in practical workforce reduction strategies may offer short-term solutions to address widespread unemployment associated with industrial transition. However, this approach is likely unsustainable in the long term. Relying extensively on other coal subsidiaries or affiliated coal companies to absorb displaced workers will become less feasible as China reduces total coal consumption on the pathway to carbon neutrality. Furthermore, reducing coal consumption will also lead to job losses across the entire coal supply chain, including transportation, power generation, and related sectors.

The long-term financial burden of internal redeployment strategies exacerbates this worrisome scenario. Various subtypes of internal redeployment aim to reduce active workers and lower labor costs while maintaining formal labor relations. This strategy is a compromise adopted by enterprises struggling to avoid mass layoffs while cutting labor expenses. While initially reducing labor costs, the continued maintenance of some form of labor relations means that the original SOEs remain responsible for providing monthly payments and social insurance. Additionally, internal redeployment methods do not always effectively address redundancy issues within enterprises. Some SOEs create positions in non-coal sectors for displaced workers, even when unnecessary. While this appears to downsize coal enterprises, it often burdens other entities within the group while coal profits are shrinking.

Implementation of official resettlement policies, which prioritize non-layoff approaches, varies significantly based on local capabilities and circumstances. This grants local officials and SOE management significant discretionary power in interpreting and adjusting central policies, leading to regional differences in workforce reduction and resettlement. Moreover, these local variations often lack clear legal status and standards, operating within a legal gray area where explicit prohibitions and affirmations are absent. Consequently, workers dissatisfied with local variations may struggle to pursue legal channels. The unclear legal status of local variations can impede workers' ability to address grievances through administrative and legal channels, potentially leading them to seek alternative means of redress in the long term.

31. See Gallagher & Dong, *supra* note 7, at 39; Yongshun Cai, *The Resistance of Chinese Laid-Off Workers in the Reform Period*, 170 THE CHINA Q. 327, 327 (2002).

APPENDIX

TABLE I: SELECTED COAL SUPPLY-SIDE RESTRUCTURING CASES

Case number	Enterprise	Total Downsized Employees
C1	China Pingmei Shenma Group	34,560
C2	Chongqing Energy Investment Group	16,786
C3	Dongyuan Coal Industry Group	13,067
C4	Fujian Coal and Electricity Power	2,533
C5	Henan Energy and Chemical Industry Group	47,598
C6	Huainan Mining Group	34,583
C7	Huozhou Meidian Group (Coal Mine S1 & S2)	5,247
C8	Longmay Mining Group	51,291
C9	Pingxiang Mining Industry Group	6,627
C10	Shandong Energy Xinwen Mining Group	15,951
C11	Shenhua Wuhai Energy	12,670
C12	Shenyang Coal Trade Group	3,000
C13	Yongcheng Coal and Electricity Holding Group	4,819
C14	XiShan Coal Electricity Group	12,551
C15	Yankuang Energy Group	6,500
C16	Tongchuan Mining Company	9,243