

What We Owe Our Coal Miners

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INTRODUCTION

Workplace hazards, such as those existing in coal mines, present an acceptable-risk problem: “they require a choice among alternative courses of action . . . [where] at least one alternative option includes a threat to life or health among its consequences.”¹ Recognizing that acceptable-risk problems require choices that are “dependent on values, beliefs, and other factors,” it becomes useful to separate the facts from those values.² This essay is committed to both—presenting an accurate picture of factual hazards inherent in coal mining and clarifying the values underlying potential policy choices.

One value that often remains implicit but that forms the basis of the deregulatory position is efficiency. While there are several measures of efficiency, law and economics scholars typically use Kaldor-Hicks efficiency, a measure of economic efficiency that requires “not that no one be made worse off by the move [Pareto efficiency], but only that the increase in [economic] value be sufficiently large that the losers could be fully compensated.”³ The losers here are the coal miners who have lost their lives or health. Coal mine operators, the winners, are legally forced to compensate miners or their families for the miners’ loss, but for less than the cost of making the workplace safer.

It is difficult to assess workplace health and safety policies abstractly in a system that values efficiency. Implicit in any such calculation is the belief that the free market is the best gauge for determining efficiency and, therefore, acceptable risk. The question then becomes, what does the free market value? Some say profit maximization. Others say the social good. At worst, social good equates with profit or wealth maximization as its proxy. At best, the social good is conterminous with human life but more often

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¹ BARUCH FISCHHOFF ET AL., ACCEPTABLE RISK 2 (1981).

² *Id.* at xii.

³ Richard A. Posner, *The Ethical and Political Basis of the Efficiency Norm in Common Law Adjudication*, 8 HOFSTRA L. REV. 487, 491 (1980).

consists of a combination of goods, which might include some value on human life or worker dignity.

For those of us who more directly value human life, the acceptable risk level does not necessarily coincide with the efficient result of the free market. This leads back to our initial question: What is an acceptable risk in hazardous workplaces, such as coal mines? From my perspective, we need to look at this question in another way: What does society owe workers, such as coal miners, who voluntarily enter hazardous workplaces for the greater good? Inspired by Harvard philosopher Thomas M. Scanlon's contractualism, I further recast the question as follows: How do we justify dangerous jobs? To justify such jobs, we must present reasons that "no one could reasonably reject as a basis for informed, unforced, general agreement."⁴

This essay attempts to present such a justification. In particular, I argue that, while targeted regulation could conceivably improve current industry safety and health records, those records would benefit more directly by imposing the union model on the mining industry. The purpose of this Essay is not so much to argue in favor of greater safety regulations, but to demonstrate that collective bargaining above the regulatory floor is likely to result in safer, healthier mines, and that the safety records of such mines will be better justified when based on informed, unforced, general agreement.

I commence this argument in Part I with background information about the coal mining industry, focusing on the underground mining that occurs in Appalachia. This section demonstrates the power disparity between coal mine operators and their miners, making coal miners an ideal class of workers who would benefit from collective bargaining and other forms of concerted activity.

In Part II, I describe the law's role in ensuring coal mine safety. There, I briefly describe the federal regulatory floor above which states and private actors, through contracts, may rise. I show that increased safety has correlated with more comprehensive regulation. I also discuss current incentives to circumvent mining regulations.

In Part III, I identify several market failures—inequality of bargaining power, irrationality in assessing risk, asymmetrical information, and monopsony—all of which union mines are particularly well suited to remedy. I use this section to describe union safety committees and bargaining obligations and miners' rights under the National Labor Relations Act (NLRA) to explain the role that private actors play in creating safer and healthier workplaces.

In Part IV, I argue that extending the union model to nonunion mines should resolve many mine safety issues. I conclude that mine safety would improve even more if policy makers were to empower miners through any

⁴ THOMAS SCANLON, *WHAT WE OWE TO EACH OTHER* 153 (1998). I wish to thank the late C. Edwin Baker for pointing out the connection between my thoughts on coal mine safety and Scanlon's contractualism in a conversation we had in 2007.

one of several forms of industrial participatory democracy, ranging from mandatory notice posting of workers' rights in nonunion and union mines to extending mandatory bargaining over safety issues to nonunion mines.

I. BACKGROUND: ESTABLISHING SOME OFTEN OVERLOOKED BUT RELEVANT FACTS OF COAL MINING

A. *The Human Cost of Meeting Global Energy Demand Through Coal Mining*

Since the Sago disaster of January 2006, the United States has witnessed three more major underground coal mining disasters—all in nonunion mines—which, together with the Sago disaster, have taken the lives of fifty-two miners.⁵ In addition to these disasters, which tend to catch the public's attention, hundreds of miners have died one by one, in accidents such as collapsed roofs that do not make headline news.⁶ Between 1996 and 2005, nearly 10,000 miners died of black lung disease.⁷

The most recent coal mine disaster at the nonunion mine at Upper Big Branch (UBB) poignantly illustrates this human cost. At 3:02 in the afternoon on Monday, April 5, 2010,⁸ “a massive explosion on a scale that is nearly incomprehensible ripped through the [UBB] Mine” in a small West Virginia town.⁹ That explosion, which instantly took the lives of twenty-

⁵ MINE SAFETY AND HEALTH ADMIN., U.S. DEPT. OF LABOR, HISTORICAL DATA ON MINE DISASTERS IN THE UNITED STATES, <http://www.msha.gov/MSHAINFO/FactSheets/MSHAFACT8.HTM> [hereinafter “MSHA Historical Data”] (on file with the Harvard Law School Library). A “disaster” is defined as an accident that takes five or more lives. *Id.* Between 2005 and 2009, the total number of mining fatalities was 285. MINE SAFETY AND HEALTH ADMIN., U.S. DEPT. OF LABOR, MINE SAFETY AND HEALTH AT A GLANCE (2010), <http://www.msha.gov/MSHAINFO/FactSheets/MSHAFACT10.HTM> (on file with the Harvard Law School Library). The nonunion/union status of the mines involved in those disasters can be found at Press Release, United Mine Workers of America, UMWA Statement on Incident at Upper Big Branch Mine, Apr. 5, 2010, *available at* <http://www.umwa.org/?q=news/umwa-statement-incident-upper-big-branch-mine>; Press Release, United Mine Workers of America, Crandall Canyon Families, UMWA Tell Congress: Now is the Time to Make Change, Oct. 3, 2007, *available at* <http://www.umwa.org/?q=news/crandall-canyon-families-umwa-tell-congress-now-time-make-change>; Press Release, United Mine Workers of America, UMWA Designated as Representative in Darby Investigation, May 31, 2006, *available at* <http://www.umwa.org/?q=node/104>; Press Release, United Mine Workers of America, Technology, Information, Knowledge Available that Could Have Alleviated Sago Disaster, Jan. 17, 2007 *available at* <http://www.umwa.org/?q=node/132>.

⁶ Ken Ward Jr., *Beyond Sago: One by One*, CHARLESTON GAZETTE, Nov. 5, 2006, at 1E, *available at* <http://wvgazette.com/News/BeyondSago/200611050006>.

⁷ See 1 NAT'L INST. FOR OCCUPATIONAL SAFETY AND HEALTH, CTRS. FOR DISEASE CONTROL AND PREVENTION, WORK-RELATED LUNG DISEASE (WORLD) SURVEILLANCE SYSTEM, § 2 tbl.2-1 (2009), *available at* <http://www2a.cdc.gov/drds/WorldReportData/pdf/2008T02-01.pdf>.

⁸ MINE SAFETY AND HEALTH ADMIN., U.S. DEP'T OF LABOR, BRIEFING ON DISASTER AT MASSEY ENERGY'S UPPER BIG BRANCH MINE-SOUTH 2 (2010), *available at* http://www.msha.gov/PerformanceCoal/DOL-MSHA_president_report.pdf.

⁹ *The Upper Big Branch Mine Disaster: Testimony of Family Members: Hearing Before the H. Comm. on Education and Labor*, 111th Cong. (2010) (statement of Rep. George Miller,

nine coal miners and seriously injured two others,¹⁰ is the worst United States coal mining disaster in forty years.¹¹

Although the twenty-nine miners died instantly, the relatives of several miners did not immediately learn the fate of their relatives.¹² Instead, as is so often the case with mine disasters,¹³ family members and others gathered together, “watching, hoping and praying for survivors to emerge from the darkness into the arms of their loved ones.”¹⁴ By Tuesday, officials had accounted for all but four miners.¹⁵ Rescue efforts for the missing miners were delayed because of dangerously high levels of methane, a combustible gas that is often the catalyst in a coal mine explosion.¹⁶ It was not until Friday morning—three and a half days after the explosion—that officials could confirm that those missing had perished in the blast.¹⁷

In addition to putting themselves at risk of physical danger, coal miners also face enormous health risks.¹⁸ Pneumoconiosis (black lung) is a disease caused by coal dust accumulating in the lungs. According to the National Institute for Occupational Safety and Health (NIOSH), approximately one in ten U.S. miners with twenty-five years’ tenure develop the simple form of black lung, “coal workers’ pneumoconiosis.”¹⁹ The growing black lung rates among younger, less experienced miners is even more alarming.²⁰ Health and safety officials believe that these rates are attributable to longer shifts and better technology. Longer shifts mean more dust with less time to cough the dust out of the lungs,²¹ while better technology, especially in

Chairman, H. Comm. on Education and Labor). MSHA’s briefing described the explosion as “catastrophic” and “massive.” MINE SAFETY AND HEALTH ADMIN., *supra* note 8, at 2.

¹⁰ MINE SAFETY AND HEALTH ADMIN., *supra* note 8, at 2.

¹¹ MSHA Historical Data, *supra* note 5.

¹² See David A. Fahrenthold, *Even After 25 Men Die, ‘We Still Have Hope’*, WASH. POST, April 7, 2010, at A-1, available at <http://www.washingtonpost.com/wp-dyn/content/story/2010/04/05/ST2010040505519.html?sid=ST2010040505519>.

¹³ See Anne Marie Lofaso, *Approaching Coal Mine Safety from a Comparative Law and Interdisciplinary Perspective*, 111 W. VA. L. REV. 1, 1–2 (2008).

¹⁴ 156 CONG. REC. H2538 (daily ed. Apr. 14, 2010) (statement of Rep. Nick Rahall).

¹⁵ See *Upper Big Branch Mine Disaster*, CHARLESTON GAZETTE, Apr. 10, 2010 at 8-A, available at <http://wvgazette.com/News/montcoal/201004100542>.

¹⁶ Ken Ward Jr., Gary A. Harki, & Kathryn Gregory, *Search for Missing Miners Delayed*, CHARLESTON GAZETTE, Apr. 5, 2010, <http://www.wvgazette.com/News/201004050545> (on file with the Harvard Law School Library).

¹⁷ Ken Ward Jr. and Andre Clevenger, *Missing Miners Found Dead; Death Toll Reaches 29 in Raleigh Explosion*, CHARLESTON GAZETTE (Apr. 10, 2010) at 1A, available at <http://wvgazette.com/News/201004090857>.

¹⁸ See, e.g., J. David Cummins & Douglas G. Olson, *An Analysis of the Black Lung Compensation Program*, 41 J. RISK & INS. 633, 644–47 nn.44–48 (1974) (discussing black lung disease as an externality).

¹⁹ MINE SAFETY AND HEALTH ADMIN., U.S. DEP’T OF LABOR, *END BLACK LUNG ACT NOW!* 3, available at <http://www.msha.gov/S&HINFO/BlackLung/2009Charts/BlackLungCharts2009.pdf> (showing the rates and trends of coal miners with the simple form of black lung known as coal workers’ pneumoconiosis).

²⁰ Kris Maher, *Black Lung on Rise in Mines, Reversing Trend*, WALL ST. J., Dec. 15, 2009 at A5, available at <http://online.wsj.com/article/SB126083871040391327.html>.

²¹ Brenda Wilson, *The Quiet Deaths Outside the Coal Mines*, NAT’L PUB. RADIO (April 16, 2010), <http://www.npr.org/templates/story/story.php?storyId=126021059> (on file with the Harvard Law School Library).

longwall mining, can lead to the inhalation of the much more dangerous silica dust.²²

B. Power Disparity Between Coal Mine Operators and Miners in Light of Global Energy Demand

1. Significance of the Coal Mining Industry in Meeting Global Energy Demand

Coal is used worldwide, primarily to generate electricity. According to the World Coal Institute, coal currently supplies over forty-one percent of global electricity.²³ Coal provides almost half of U.S. electricity.²⁴ In the United States, about ninety-three percent of the coal consumed is used to generate electricity, while the rest is used for various industrial purposes.²⁵

The U.S. Energy Information Administration (U.S. EIA) estimates that coal will continue to play an important role in meeting global energy demands for the foreseeable future. According to the U.S. EIA's 2010 *International Energy Outlook*, "total world consumption of marketed energy [will increase] by 49 percent from 2007 to 2035."²⁶ "[W]orld coal consumption [in particular is expected to increase] by 56 percent from 2007 to 2035 and coal's share of world energy consumption [to grow] from 27 percent in 2007 to 28 percent in 2035."²⁷

Accordingly, despite the dangers, the coal-mining industry continues to thrive. At current production levels, coal is predicted to continue to meet its share of global energy needs through at least 2050,²⁸ if not through the next century.²⁹

Mine operators with poor safety records will also continue to flourish for the foreseeable future. The UBB mine is owned by Performance Coal Company, a subsidiary of Massey Energy, Inc. Massey Energy is one of the largest coal-producing companies in the U.S. and the largest in Central Appalachia.³⁰ Massey Energy currently controls just under thirty-eight percent

²² Maher, *supra* note 20.

²³ WORLD COAL ASS'N, COAL & ENERGY SECURITY, <http://www.worldcoal.org/coal-society/coal-energy-security/> (on file with the Harvard Law School Library).

²⁴ U.S. ENERGY INFO. ADMIN., INTERNATIONAL ENERGY OUTLOOK 2010, at 62 (2010), available at [http://www.eia.doe.gov/oiaf/ieo/pdf/0484\(2010\).pdf](http://www.eia.doe.gov/oiaf/ieo/pdf/0484(2010).pdf).

²⁵ FRED FREME, U.S. ENERGY INFO. ADMIN., U.S. COAL SUPPLY AND DEMAND: 2009 REVIEW 8 (2010), available at http://www.eia.gov/cneaf/coal/page/special/article_dc.pdf.

²⁶ See U.S. ENERGY INFO. ADMIN., *supra* note 24, at 9.

²⁷ See *id.* at 61.

²⁸ See MASS. INST. OF TECH., THE FUTURE OF COAL ix (2007), available at http://web.mit.edu/coal/The_Future_of_Coal.pdf. But see MASS. INST. OF TECH., THE FUTURE OF NATURAL GAS 26 fig. 3.3 (2010), available at <http://web.mit.edu/mitel/research/studies/report-natural-gas.pdf> (predicting the demise of coal by 2035 where policies are enacted to encourage substituting natural gas for coal to impact carbon dioxide emissions).

²⁹ WORLD COAL ASS'N, *supra* note 23 (predicting coal availability for at least another 119 years).

³⁰ Massey Energy, *About Us*, <http://www.masseyenergyco.com/about/index.shtml> (on file with the Harvard Law School Library).

of the total coal reserves in Central Appalachia³¹ and it predicts that it will control sixty-seven percent of all such coal reserves by 2017.³²

2. *Factors Contributing to the Disempowerment of Coal Miners*

Compared to mine operators, coal miners are in a relatively weak position. The underground coal miners who work in the three major coal-producing states (West Virginia, Kentucky, and Pennsylvania) typically live in the surrounding Appalachian countryside. The mean annual wage of U.S. coal miners ranges from \$45,690 to \$47,650.³³ Appalachian coal miners may not be as well compensated as other U.S. miners. In West Virginia, for example, a state that has seen two of the five worst U.S. coal mining disasters since 1940, according to the Mine Safety and Health Administration,³⁴ a miner's annual mean wage is about average for all U.S. miners but more variable, ranging from \$34,340 to \$50,500.³⁵

Miners are also compensated less than their supervisors and managers. Massey's former Chairman, Don Blankenship, received \$17 million in compensation in 2009, which is about 340 times as much as an average West Virginia miner earned.³⁶

Appalachian miners are, however, well compensated for their locality—isolated mining towns peppering Appalachia that constitute textbook examples of labor market monopsony, which describes a situation where there is a single buyer of labor or employer.³⁷ The average annual wage for all occupations in West Virginia is \$34,580.³⁸ According to the National Bituminous Coal Wage Agreement, the collective-bargaining agreement between the coal industry and the United Mine Workers of America (UMWA)

³¹ Massey Energy, *Coal Reserves*, http://www.masseyenergyco.com/company/coal_reserves.shtml (on file with the Harvard Law School Library) (noting that Massey Energy owns mines and processing facilities in West Virginia, Kentucky, and one in Virginia).

³² *Id.* On January 29, 2011, Massey Energy announced that it had been acquired by Alpha Natural Resources, which has a somewhat better reputation for worker safety. See Mike Hall, *Rival Coal Firm Reaches Deal to Buy Massey Energy*, AFL-CIO NOW BLOG (Feb. 1, 2011), <http://blog.aflcio.org/2011/02/01/rival-coal-firm-reaches-deal-to-buy-massey-energy/>.

³³ See DIV. OF OCCUPATIONAL EMP'T STATISTICS, U.S. DEP'T OF LABOR, MAY 2009 NAT'L INDUS.-SPECIFIC OCCUPATIONAL EMP'T AND WAGE ESTIMATES: NAICS 212100 - COAL MINING (2009), available at http://www.bls.gov/oes/current/naics4_212100.htm#00-0000 (specifically with reference to job categories 47-5041 to 47-5061).

³⁴ See MSHA Historical Data, *supra* note 5.

³⁵ See DIV. OF OCCUPATIONAL EMP'T STATISTICS, U.S. DEP'T OF LABOR, MAY 2009 NAT'L INDUS.-SPECIFIC OCCUPATIONAL EMP'T AND WAGE ESTIMATES: WEST VIRGINIA (2009), available at http://www.bls.gov/oes/current/oes_WV.htm (specifically with reference to job categories 47-5041 to 47-5061).

³⁶ Ken Ward, *Massey Energy CEO Don Blankenship's Pay*, CHARLESTOWN GAZETTE (Apr. 19, 2010), <http://blogs.wvgazette.com/coalattoo/2010/04/19/massey-energy-ceo-don-blankenships-pay/> (on file with the Harvard Law School Library).

³⁷ William M. Boal & Michael R. Ransom, *Monopsony in the Labor Market*, 35 J. ECON. LIT. 86, 102 (1997).

³⁸ See DIV. OF OCCUPATIONAL EMP'T STATISTICS, *supra* note 35 (specifically referencing "All Occupations").

(the union that represents most U.S. union coal miners), union miners tend to increase their base wages through working overtime.³⁹

Contrary to basic economic theory, which predicts that unions increase wages above a competitive level thereby reducing the number of jobs available,⁴⁰ nonunion miners are sometimes better paid than union miners—although union miners tend to receive better benefits.⁴¹ For example, some Massey Energy subdivisions, including Performance Coal Company, offer miners enhanced hourly rates in exchange for a three-year commitment to work at their nonunion mine. Under Section II of this enhanced wage agreement, the mine operator “reserves the right to terminate the miner’s employment for lack of performance as determined by management, unacceptable conduct, including, but not limited to, unacceptable work and absenteeism, or a serious safety infraction.”⁴² And if a miner is terminated under Section II or quits his job within the three-year period, the employee must repay the enhanced wages to the company⁴³ and cannot work for another mine within ninety miles for a year.⁴⁴ In essence, miners who sign this contract make it very expensive for themselves to leave and join a union.

The portrait of the Appalachian coal miner is not complete without understanding the “social inequalities and health disparities” that have long characterized the region.⁴⁵ Appalachian coal-mining regions are plagued with the same symptoms of poverty—drug abuse, subpar living conditions, poor education—that typify our most blighted inner cities. But in addition to these similarities, Appalachian poverty is often characterized by a lack of economic diversification thereby resulting in few if any meaningful job opportunities. Coal mining might be the only industry for hundreds of miles in these economically impoverished areas. Appalachian people, who also have fewer educational opportunities than other Americans,⁴⁶ might have no

³⁹ National Bituminous Coal Wage Agreement of 2007, art. IV, § (b) (on file with the Harvard Law School Library).

⁴⁰ See RICHARD B. FREEMAN & JAMES L. MEDOFF, *WHAT DO UNIONS DO?* (1984) (explaining this phenomenon and criticizing this view as too narrow); see generally C.J. Parsley, *Labor Union Effects on Wage Gains: A Survey of Recent Literature*, 18 J. ECON. LIT. 1 (1980).

⁴¹ Interview with Donnie Hayhurst, Jr., General Inside Laborer (Coal Miner) and UMWA member (Dec. 23, 2010) (discussing relative wages and benefits in union and nonunion mines in which he has worked). Cf. William M. Boal & John Pencavel, *The Effect of Labor Unions on Employment, Wages, and Days of Operation: Coal Mining in West Virginia*, 109 Q. J. ECON. 267, 280–287 (1994) (demonstrating that union/nonunion wage ratios between 1897 and 1938 were much lower than previous studies suggested).

⁴² Enhanced Underground Hourly Rate Agreement and Covenant Not To Compete between Stanley Stewart and Performance Coal Company, at 1–2 (December 14, 2007) (on file with the Harvard Law School Library).

⁴³ *Id.* at 2–3.

⁴⁴ *Id.* at 3–4.

⁴⁵ Michael Hendryx, *Mortality Rates in Appalachian Coal Mining Counties: 24 Years Behind the Nation*, 1 ENVTL. JUSTICE 1, 5 (2008).

⁴⁶ See Thomas C. Shaw et al., *Educational Attainment in Appalachia: Growing with the Nation, But Challenges Remain*, 10 J. APPALACHIAN STUDS. 307, 311 (2004) (stating that the 2000 Census “shows a persistent gap between the nation and Appalachia in terms of educational attainment”).

choice but to accept the relatively well-paying coal-mining job or (more commonly) leave the region.

Nor is that portrait complete without understanding the century-long battle history between U.S. miners attempting to improve their conditions and mine owners determined to resist change.⁴⁷ The Matewan Massacre, the Battle of Blair Mountain, and the events leading to those struggles during the early twentieth century perhaps best capture that history. Between 1912 and 1913, as the West Virginia coal mines were becoming organized, coal mine operator resistance to the UMWA's demands resulted in a series of violent strikes quelled only when the governor declared martial law and dispatched 1200 state militia soldiers.⁴⁸ "Hundreds were arrested, tried, and imprisoned, frequently receiving sentences more severe than could have been levied by civil courts under existing statutes."⁴⁹

Following a few years of industrial peace brokered by West Virginia Governor Henry Hatfield,⁵⁰ labor unrest flared up again in 1920, when the UMWA, led by union President John L. Lewis, attempted to organize the southern coalfields of West Virginia. That spring, coal operators hired private detectives from the Baldwin-Felts Detective Agency to evict union miners and their families from company-owned housing in Matewan, West Virginia. Matewan Police Chief Sid Hatfield (a former coal miner) encouraged the residents to arm themselves, ultimately resulting in an exchange of gunfire that left seven Baldwin-Felts detectives and four Matewan residents dead.⁵¹ Sid Hatfield was later acquitted of murdering one of the detectives, some of the survivors killed him in revenge. Commencing on August 24, over 10,000 miners wearing red bandanas (thereby earning the name "red necks") marched in protest of Hatfield's murder. This time, the governor requested the aid of President Warren G. Harding, who sent federal troops to end the unrest, resulting in the infamous and bloody Battle of Blair Mountain.⁵²

These battles were set within a *Lochner* legal framework that viewed unions as interfering with freedom of contract.⁵³ For example, in 1917, in *Hitchman Coal & Coke v. Mitchell*, the Supreme Court upheld a district court injunction against the UMWA for interfering with a mine operator's yellow-dog contracts—agreements between the mine operator and the min-

⁴⁷ See generally DAVID ALAN CORBIN, *LIFE, WORK, AND REBELLION IN THE COAL FIELDS: THE SOUTHERN WEST VIRGINIA MINERS, 1880–1922* (1981); LON SAVAGE, *THUNDER IN THE MOUNTAINS: THE WEST VIRGINIA MINE WAR 1920–21* (1990).

⁴⁸ See generally W. Va. State Archives, W. Va. Div. of Culture and History, West Virginia's Mine Wars, <http://www.wvculture.org/history/minewars.html> (on file with the Harvard Law School Library).

⁴⁹ See Merle T. Cole, "Mere Military Color": *The State Police and Martial Law*, W. VA. HIST. SOC'Y Q. July 2003, available at <http://www.wvculture.org/history/wvhs1731.html>.

⁵⁰ See W. Va. State Archives, W. Va. Div. of Culture and History, Time Trail, West Virginia, <http://www.wvculture.org/history/timetr1/ttapr.html#0414> (on file with the Harvard Law School Library).

⁵¹ See W. Va. State Archives, *supra* note 48.

⁵² *Id.*

⁵³ See generally *Lochner v. New York*, 198 U.S. 45 (1905).

ers to prevent unionization.⁵⁴ As a result of these judicial decisions and violent events, the UMWA lost most of its membership in the region until the 1930s, when Congress enacted federal legislation to protect workers' rights to organize.⁵⁵

In sum, in isolated coal mining towns built around monopsonistic coal mine operators, a dearth of meaningful alternative job opportunities, and enhanced wage agreements in exchange for noncompete promises like the ones offered by Massey, together diminish employee bargaining power. Taken within an historical context of worker oppression, these circumstances conspire to make Appalachian workers less mobile, first by funneling them into the relatively well-paying mining jobs and then by making it more costly for them to quit those jobs, even when faced with dangerous safety conditions. These restraints on the free movement of labor result in labor market failure.

3. *Examples of Unions—Then and Now—Redistributing Power*

These conditions—the lack of economic diversification, a dearth of job opportunities, health and safety risks inherent to one of the region's higher paying jobs—combined with a history of worker exploitation and hostility to workers' attempts to help themselves are precisely the conditions that Congress had in mind when drafting the NLRA. Labor unrest such as violence accompanying the Battle of Blair Mountain led members of Congress to draw the conclusion that:

The inequality of bargaining power between employees . . . and employers . . . burdens and affects the flow of commerce, and tends to aggravate recurrent business depressions, by depressing wage rates and the purchasing power of wage earners in industry and by preventing the stabilization of competitive wage rates and working conditions within and between industries.

Experience has proved that protection by law of the right of employees to organize and bargain collectively safeguards commerce from injury, impairment, or interruption, and promotes the flow of commerce by removing certain recognized sources of industrial strife and unrest, by encouraging practices fundamental to the friendly adjustment of industrial disputes arising out of difference as to wages, hours, or other working conditions, and by restoring equality of bargaining power between employers and employees.⁵⁶

⁵⁴ *Hitchman Coal & Coke Co. v. Mitchell*, 245 U.S. 229, 250–52 (1917) (holding that miners and mine operators may lawfully enter into contracts that prohibit union membership and that the union interfered with contract by attempting to organize the miners); *see also* *UMWA v. Red Jacket Consol. Coal & Coke Co.*, 18 F.2d 839 (4th Cir. 1927).

⁵⁵ *See generally* ROBERT SHOGAN, *THE BATTLE OF BLAIR MOUNTAIN: THE STORY OF AMERICA'S LARGEST LABOR UPRISING*, 117–118, 208–209 (Westview Press ed. 2004); *see* W. Va. State Archives, *supra* note 48.

⁵⁶ 29 U.S.C. § 151 (2006).

As the legislation's plain languages suggests, the NLRA is built on the premise that putting employees on equal footing with their employers is itself necessary for industrial peace and commercial stability. The Supreme Court then elevated those rights and policies in *NLRB v. Jones & Laughlin Steel Corp.*, when it declared that those rights are "fundamental."⁵⁷

These pro-union legal gains were short lived due to changes in the legal, corporate, and economic landscape. In 1947, a Republican Congress amended the NLRA to tip the balance back in the employer's favor by substantially narrowing the category of workers protected by the NLRA and by removing some of labor's most important economic weapons.⁵⁸ Starting in the 1980s, employers began to oppose unions more aggressively by "contest[ing] and delay[ing] NLRB elections, fir[ing] union activists, hir[ing] antiunion consulting firms . . . and stall[ing] . . . first contract [negotiations]."⁵⁹ The latter half of the twentieth century also witnessed a shift in the U.S. economy from manufacturing to service-based work, spurred by worker dislocation and global competition. Union membership as a percentage of total employment peaked from a high of thirty-seven percent in 1946 to a low of 7.2% in the private sector in 2009 (12.3% overall).⁶⁰

Today U.S. unions are scrambling to regain their foothold by working primarily outside the law, especially the NLRA, to meet their objectives. In particular, some unions "have begun to organize new members using a wide variety of confrontational tactics, including massive street demonstrations, direct action, worker mobilization, sophisticated corporate campaigns, and circumvention of the [NLRB] election process."⁶¹ These tactics have returned some unions to their more radical roots by transforming them from irrelevant bureaucratic organizations for contract administration to legitimate forces in social movements aimed at extending fundamental social and economic rights to workers around the world.

⁵⁷ 301 U.S. 1, 33 (1937).

⁵⁸ See generally Anne Marie Lofaso, *The Persistence of Union Repression in an Era of Recognition*, 62 ME. L. REV. 199 (2010) (providing a more thorough discussion of the rise and fall of the NLRA, a topic beyond the scope of this Essay).

⁵⁹ See, e.g., Kim Voss & Rachel Sherman, *Breaking the Iron Law of Oligarchy: Union Revitalization in the American Labor Movement*, 106 AM. J. SOC. 303, 311 (2000).

⁶⁰ GERALD MAYER, CONG. RESEARCH SERV., RL 32553, UNION MEMBERSHIP TRENDS IN THE UNITED STATES 10 (2004); News Release, Bureau of Labor Statistics, U.S. Dep't of Labor, Union Members—2009 (Jan. 22, 2010), available at <http://www.bls.gov/news.release/pdf/union2.pdf>.

⁶¹ See, e.g., Voss & Sherman, *supra* note 59, at 304.

II. THE LAW'S ROLE IN SHAPING COAL MINE SAFETY

A. *The Regulatory Floor of Rights So Strongly Correlates With Lower Fatality Rates That the Data Suggest a Causal Relationship Between Regulation and Safety*

There are many good reasons for rejecting a deregulatory policy approach to coal mine safety and health.⁶² One important reason is that mine safety regulation works.⁶³ Coal mine safety legislation prior to the late-1960s was enacted piecemeal.⁶⁴ That period witnessed thousands of miner fatalities. For example, between 1900 and 1909, the deadliest decade in U.S. coal mining history, 3660 miners died in a total of 133 mine disasters.⁶⁵ That decade immediately preceded the first congressional attempt to regulate mine safety for underground mines in the U.S.⁶⁶ The 1910 Act established the U.S. Bureau of Mines, a federal agency charged with mine safety research and investigation.⁶⁷ The period between 1910 and 1969 witnessed a significant decrease in absolute mining fatalities from 2831 deaths in 1910 to 311 deaths in 1968.⁶⁸ But this decrease in absolute fatalities came in part from a substantial decrease in labor used to extract coal. In 1910 U.S. coal mines employed 725,030 miners; that number shrunk to 134,467 miners by 1968. Adjusting for the number of miners employed, the fatality rate dropped from forty-eight per 10,000 miners in 1907 to a low of twelve deaths per 10,000 miners in 1949, only to rise again in the 1950s and early 1960s.

⁶² See C. Gregory Ruffennach, *Free Markets, Individual Liberties and Safe Coal Mines: A Post-Sago Perspective*, 111 W.VA. L. REV. 75, 76, 82–87 (2008) (favoring a market-based, deregulatory approach to coal mine safety on grounds that “the current method of using the federal government’s authority to force compliance with regulations is . . . misguided”).

⁶³ See generally Edward Clair, *Let’s Not Abandon What Works*, 111 W. VA. L. REV. 135 (2007) (showing a decreasing trend in mining fatalities and showing how that trend correlates with mine safety regulation, including the efforts of MSHA and other federal agents); Michael S. Lewis-Beck & John R. Alford, *Can Government Regulate Safety? The Coal Mine Example*, 74 AM. POL. SCI. REV. 745 (1980) (using time-series analysis to show that federal mine safety regulations have worked).

⁶⁴ Mine Safety and Health Administration, U.S. Dep’t of Labor, History of Mine Safety and Health Legislation, <http://www.msha.gov/MSHAINFO/MSHAINFO2.HTM> (on file with the Harvard Law School Library).

⁶⁵ MICHAEL J. BRNICH, JR. & KATHLEEN M. KOWALSKI-TRAFKOFKER, UNDERGROUND COAL MINE DISASTERS 1900–2010: EVENTS, RESPONSES, AND A LOOK TO THE FUTURE 2, available at <http://www.cdc.gov/NIOSH/mining/pubs/pdfs/ucmdn.pdf>.

⁶⁶ In 1891, Congress had passed mine safety legislation, which applied only to mines in U.S. territories and focused on establishing minimum ventilation requirements for underground mines and prohibiting child miners under age twelve. *Id.*

⁶⁷ The Bureau of Mines Organic Act, Pub. L. No. 61-179, 36 Stat. 369 (1910). In 1995, Congress dismantled the U.S. Bureau of Mines after eighty-five years. But in the wake of the Upper Big Branch disaster, U.S. Senator Jay Rockefeller and others have called upon Congress to re-establish that federal agency. Rusty Marks, *Rockefeller Urges Obama to Crack Down on Mine Safety*, W. VA. GAZETTE, May 30, 2010, available at <http://wvgazette.com/News/montcoal/201005300577>.

⁶⁸ See BRNICH & KOWALSKI-TRAFKOFKER, *supra* note 65.

Since 1969 Congress has passed three mine safety statutes all in response to major disasters, all enacted to correct perceived failures—failures that if remedied would save lives. The first comprehensive mine safety legislation, the Federal Coal Mine Health and Safety Act of 1969 (the Coal Act), came after the Farmington No. 9 mine explosion in West Virginia, which claimed the lives of seventy-eight coal miners.⁶⁹ The Coal Act established fines for all violations and criminal penalties for knowing and willful violations.⁷⁰ It also established procedures for developing improved mine safety and health standards and provided compensation for miners disabled by black lung disease.⁷¹

In response to the 1976 Scotia mine disaster in Kentucky, which took the lives of twenty-six miners and rescue workers in two explosions, Congress passed the 1977 Federal Mine Safety and Health Act (the Mine Act), amending the 1969 Coal Act and consolidating all federal health and safety regulations for the mining industry (coal and metal/nonmetal).⁷² The Mine Act, among other things, established the Federal Mine Safety and Health Administration (MSHA) to enforce the Mine Act, established the independent Federal Mine Safety and Health Review Commission (FMSHRC) to review MSHA's enforcement decisions, expanded miners' rights (including rights against retaliation), and strengthened training requirements.⁷³

In response to the 2006 Sago mine disaster, which claimed the lives of twelve miners in West Virginia, Congress passed the Miner Improvement and New Emergency Response Act (MINER Act).⁷⁴ The MINER Act requires underground mines to develop and continually update MSHA-certified, mine-specific, emergency response plans; to have wireless, two-way communications and electronic tracking systems; to have two on-call, experienced rescue teams with one-hour response times. The MINER Act further requires mine operators to notify MSHA within fifteen minutes of all incidents and accidents that pose a reasonable risk of death (with fines between \$5,000 and \$60,000 to be imposed on operators who fail to do so).⁷⁵ The MINER Act also establishes a maximum \$220,000 civil penalty for flagrant offenses, and raises criminal penalties to \$250,000 for first offenses and \$500,000 for second offenses.⁷⁶ The MINER Act empowers MSHA to request an injunction to shut down a mine where the mine has refused to pay an MSHA final order penalty.⁷⁷ It also promotes the development of ad-

⁶⁹ Mine Safety and Health Admin., *supra* note 64; MSHA Historical Data, *supra* note 5.

⁷⁰ 30 U.S.C. § 820(d) (2006).

⁷¹ 30 U.S.C. § 811(a) (2006).

⁷² 30 U.S.C. § 961 (2006).

⁷³ 30 U.S.C. § 811 (2006).

⁷⁴ *See* 30 U.S.C §§ 826, 965 (2006).

⁷⁵ *See* 30 U.S.C. § 813 (2006) (detailing inspections, investigations, and record-keeping); § 820 (laying out civil and criminal fines); § 876 (detailing the requirements for communication facilities, locations, and emergency response plans).

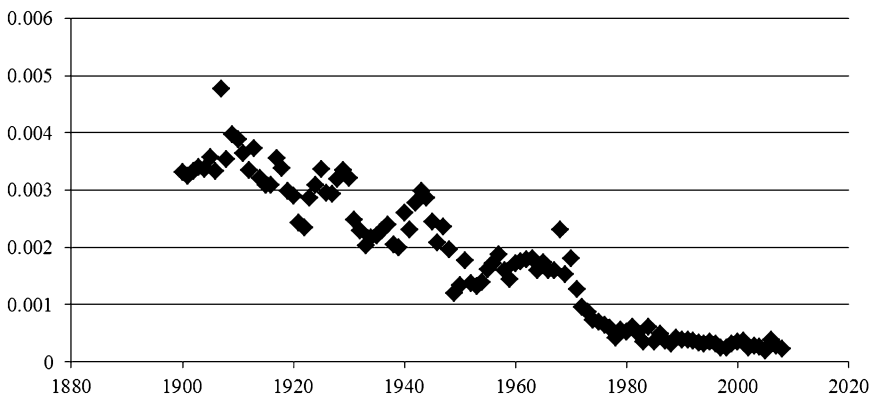
⁷⁶ 30 U.S.C. § 820(a), (d) (2006).

⁷⁷ 30 U.S.C. § 818 (2006).

vanced practices, including improved technology, to protect miner safety.⁷⁸ Fatalities continued to decrease after enactment of 1969 Coal Act and the 1977 Mine Act.

There are at least four significant differences between the pre-comprehensive mine safety legislation (1969 and before) and the post-comprehensive mine safety legislation (regulatory period). First, the absolute number of mining fatalities has dropped significantly from a high of 3242 deaths in 1907 to a low of twenty-three deaths in 2005. But that statistic doesn't tell us much because the number of miners has also dropped significantly. Second, the number of mining fatalities per 10,000 miners has dropped significantly during the regulatory period, from a high of forty-eight deaths per 10,000 miners to a low of two deaths per 10,000 miners achieved in 1997, 1998, 2005, and 2008. This statistic, which is captured in Graph 1 as a percentage, is much more meaningful because it compares like rather than unlike data. In other words, this statistic compares the number of deaths per 10,000 miners for both the pre-regulatory and the regulatory periods. Third, the year-to-year variation in coal mining fatalities has dropped significantly. Variation is important because it tells us whether we can predict fatalities in any given year. During the pre-regulatory period, it was very difficult to predict the number of annual fatalities because there was so much year-to-year variation in the annual death rate. But during the regulatory period, fatalities have consistently remained under 260 deaths during the Coal Act period, under 153 deaths since enactment of the Mine Act, and under sixty-eight deaths since 1985.

GRAPH 1: PERCENTAGE OF COAL MINING FATALITIES PER EMPLOYED MINER (1900–2008)⁷⁹

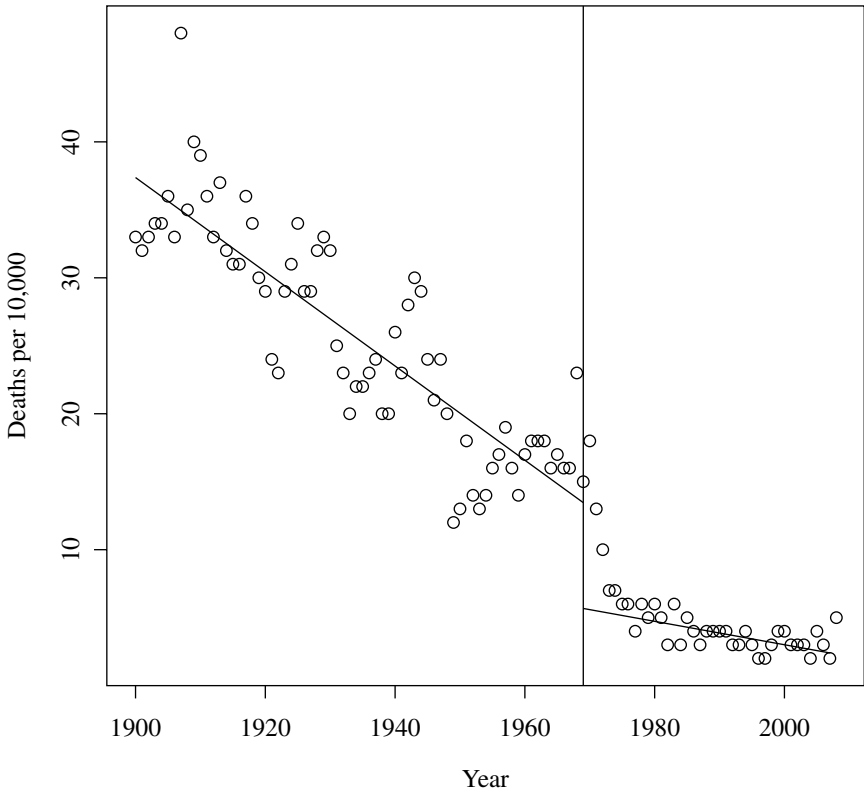


⁷⁸ See 30 U.S.C. § 801 (2006) (declaring as one of the purposes of the act “to improve and expand . . . research and development and training programs aimed at preventing coal or other mine accidents and occupationally caused diseases in the industry”).

⁷⁹ See Mine Safety and Health Admin., *Coal Fatalities for 1900 Through 2009*, available at <http://www.msha.gov/stats/centurystats/coalstats.asp>.

Critics will point to the fact that fatalities have been on a downward trend throughout the entire pre-regulatory period and perhaps conclude that the free market eventually would have brought the fatalities rates down to the regulatory levels. But even though this downward trend is true, the conclusion is not. As explained below and captured in Graph 2, the statistical difference between averages in the pre-regulatory and the post-regulatory periods is so great that the occurrence of such a large difference in averages happening by chance is exceedingly small.

GRAPH 2. BROKEN STICK REGRESSION⁸⁰



As Graph 2 shows, the post-regulatory slope is much flatter, which means that there is little change in the number of deaths per year between 1973 and 2008. This suggests that the regulation not only brought down the number of fatalities but also made that number *predictable*. Such stability in coal mine fatality rates allows businesses to properly assess risk. It also

⁸⁰ Jim Heiko, a WVU graduate student in statistics, prepared this graph based on data found at Mine Safety and Health Admin., *supra* note 79. Statistical analysis on file with author.

allows workers to make more rational workplace choices to the extent this information is shared with employees or their representatives.

The question for further research is whether other factors, such as better technology, surface mining, and mining size, have contributed to the reduction and stabilization of fatality numbers. That question has been examined, with some scholars concluding that those factors did not significantly contribute to either reduction or stabilization.⁸¹

To conclude, the tight statistical correlation between mine safety/health regulations and fatality rates is powerful evidence that regulation works and is justified. This appears to be the attitude of top-level, non-political (career) federal agents. As former U.S. Department of Labor Associate Solicitor for Mine Safety and Health, Ed Clair, proclaimed in 2007, MSHA is “searching to find what could be done to get to the next level . . . that would bring us down further towards zero [fatalities].”⁸²

B. The New Legislative Focus

1. Enforcing Extant Regulations

To paraphrase Ed Clair, the question for policy makers now is what will take us to the next level. Events surrounding the UBB explosion suggest two potential failures, both of which are correctible. Although more detailed answers to these questions may come out of the UBB investigation, many already believe that the main problem lies less with increasing regulatory standards and more with enforcing extant standards. The proposed amendments to mine safety legislation focus more on accountability, enforcement (including enhanced penalties), and whistleblower protection.⁸³ To help hold mine operators accountable, the bill bolsters MSHA’s pattern of violation process. Mines with a pattern of significant safety problems including a pattern of “citations for significant and substantial violations,” “withdrawal orders,” “flagrant violations,” or “accidents, injuries, or illnesses” will be placed on the pattern of violation status, which would result in ordering the mine operator to withdraw all miners from the mine and keep them out until the violations or unsafe conditions have been remedied.⁸⁴ It also ensures that irresponsible operators are held accountable by increasing maximum crimi-

⁸¹ See generally Lewis-Beck & Alford, *supra* note 63; George R. Neumann & Jon P. Nelson, *Safety Regulation and Firm Size: Effects of the Coal Mine Health & Safety Act of 1969*, 25 J. LAW & ECON. 183, 198 (1982) (concluding that “[i]f increased safety is interpreted to be a decline in the probability of a fatal accident, then the evidence indicates that the Act brought about safer work conditions” but commenting on whether that is a wise definition of safety).

⁸² See Clair, *supra* note 63, at 136.

⁸³ See H.R. 5663, 111th Cong. (2010), available at <http://edlabor.house.gov/documents/111/pdf/legislation/MineSafetyasreported-HR5663.pdf>. For a summary of the bill, see Office of Sen. Tom Harkin et al., Proposed Legislative Changes to Protect the Safety of All Workers and Prevent Future Disasters, available at <http://edlabor.house.gov/documents/111/pdf/publications/20100629MinerSafetyActFivePageOverview.pdf>.

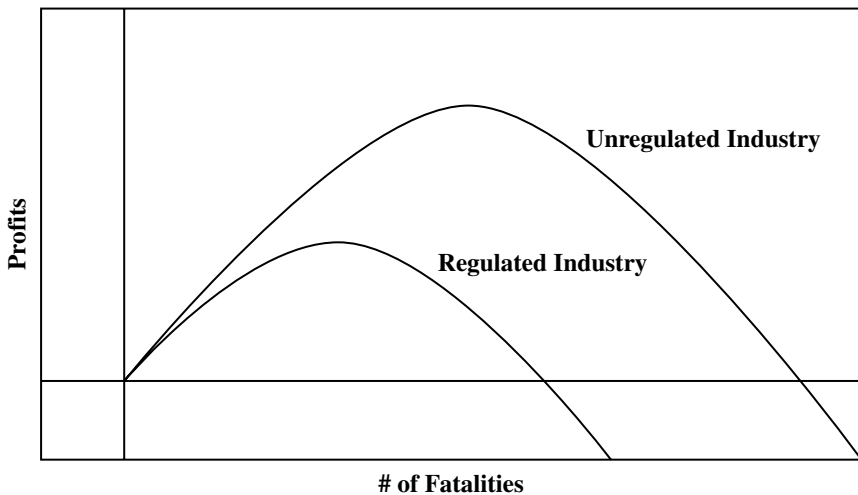
⁸⁴ H.R. 5663 § 202.

nal penalties and increasing maximum civil penalties for significant and substantial violations.⁸⁵ To ensure that penalties are timely paid, the law grants MSHA authority to withdraw miners from a mine that is more than 180 days in payment arrears.⁸⁶

2. *Reducing the Temptation to Evade the Law*

Economists would likely predict that, assuming perfect competition (a big assumption for the mining industry), the free market would lead to the most efficient result—but not to fewer deaths. Thus, those who favor an unregulated industry are not contending that there would be fewer fatalities. Instead, they are contending that there would be an efficient number of fatalities. In other words, death is the cost of doing business.⁸⁷ As shown below, the regulated state results in fewer deaths but preventing those deaths costs more money than permitting those deaths. Thus, the regulated state may also result in lower profits.

PROFIT VS. FATALITIES IN REGULATED AND UNREGULATED INDUSTRY



There would be more fatalities and more profits in the free market than in the regulated market. But, in theory, the free market is more *efficient*, as opposed to *safer*, because the cost of paying for those deaths is less than the cost of regulation. The difference in profits between the regulated and unregulated state is the cost of doing business, which includes the cost of main-

⁸⁵ H.R. 5663 §§ 301–304.

⁸⁶ H.R. 5663 § 305.

⁸⁷ See Neumann & Nelson, *supra* note 81, at 197–98 (concluding that the regulations may have contributed in part to decreased productivity in the post-1970 period and that fatalities have also decreased and arguing that this may not be the best trade-off).

taining state and federal safety levels (cost of regulation) minus any costs associated with fatalities (death costs) that would have occurred but for the regulation.

Evasion of the law can result when some industry players are tempted to recapture these lost profits. They do this by figuring out ways to circumvent the regulation. These methods might include paying “look outs” to alert the mine operators that mine inspectors are on their way, which gives mine operators time to “clean up” the mine—temporarily fixing safety hazards that are cited only to return to lower safety standards in between inspections—and making frivolous citation appeals to delay paying fines or fixing safety hazards. Such evasions might be reduced if mine operators were enabled to recapture their lost profits through subsidies and tax breaks. Lessening the incentive to break the law might thus lead to better safety.

C. Summary

Given the current turnover in the House of Representatives, it is unclear whether the proposed mine safety legislation will pass at all, let alone in some manner similar to its present form. And while these amendments, if passed, may very well make legal circumvention less likely, policy makers should nevertheless question whether these regulations do all that can be done to produce a safer workplace. The current regulatory framework is not perfect. There continue to be many market failures that the Mine Act and its amendments do not fully cure, including the problem that regulation is useless if not enforced. This leads to two questions. First, are there some supplementary, nonregulatory means for making enforcement more likely? Second, is there some way of making coal mines safer without increasing regulation? Fortunately, federal mine safety legislation creates a floor, not a ceiling, of rights. Federal mine safety legislation does not preempt many state tort law claims.⁸⁸ More relevant to this Essay, federal mine safety legislation does not preempt greater protections for miners imposed by contract.⁸⁹ Accordingly, it would be useful to examine the union-mine setting to determine whether we can learn something about safety from union mines. Have union mines valued or dignified workers by increasing health and safety without a significant production loss?

⁸⁸ See, e.g., *Echard v. Devine*, 726 F. Supp. 1045 (N.D. W. Va. 1989) (holding that the Mine Act does not preempt a discharged miner’s state law claim of retaliatory discharge even though the Mine Act contains whistleblower remedies because the federal scheme, which contains no preemption language, was meant to be supplemented); *Collins v. Elkay Mining Co.*, 179 W. Va. 549, 554 (W. Va. 1988) (holding that coal miners need not exhaust administrative remedies under federal and state coal mine health and safety laws before instituting state common law retaliatory discharge action); *Wiggins v. E. Assoc. Coal Corp.*, 178 W. Va. 63 (W. Va. 1987) (observing that “there was no legislative intent to make the remedies detailed in the antidiscrimination portions of the [mine] safety statutes exclusive”).

⁸⁹ See, e.g., *Gateway Coal Co. v. United Mine Workers of Am.*, 414 U.S. 368 (1974) (holding that the Coal Act does not preempt agreements to arbitrate safety conditions).

III. LEARNING FROM UNION MINES: THE CASE FOR SELF-REGULATION ATOP A FLOOR OF RIGHTS

Policy makers have been left with the decisions of how and how much to regulate coal mine health and safety. In making those decisions, it is instructive to identify the failures that safety regulations are designed to repair. With respect to underground coal mining in Appalachia, we know that those workers lack meaningful choices because of the scarcity of job opportunities outside the coal mining industry and the monopsonistic power of that industry. Any voice these workers may have is all too often drowned out by messages whose volume is magnified by money. Below, I explore several market failures: inequality of bargaining power; difficulty in assessing risk in coal mining; asymmetrical information between coal mine operators and miners, especially concerning legal rights; asymmetrical information between experienced and inexperienced miners; and monopsony.

A. *Market Failures in the Union and Nonunion Context*

The observed power disparity between coal mine operators and coal miners discussed above translates into a bargaining power imbalance that the NLRA was designed to address. Unfortunately, although most coal operators have lawyers to counsel them, many miners, especially nonunion, do not know their rights and therefore cannot act strategically in negotiations or effectively wield their individual economic power. For example, many nonunion miners may not know that they have the right to walk off the job with co-miners over safety concerns and that, if discharged, a federal government lawyer would represent their interests before a federal agency to secure their reinstatement with back pay.⁹⁰ Increased awareness of legal rights such as these would increase miners' bargaining power generally by encouraging them to band together for mutual aid and protection even in the absence a union.

In any event, individual miners are not particularly good at bargaining on their own behalf for at least two reasons. First, individual miners are not likely to be skilled negotiators or have even a superficial understanding of the floor of rights on which all coal mine operators must function. They are essentially bargaining without full knowledge. Second, notwithstanding the fact that many mine risks are well known, some coal miners, like most people, may not be good at assessing personal risk—or may be fatalistic about that risk. This is particularly true of inexperienced coal miners as opposed to experienced miners, given that new miners presumably are both less adept at assessing risk because of their youth and less knowledgeable about safety

⁹⁰ See *NLRB v. Washington Aluminum Co.*, 370 U.S. 9, 14–18 (1962) (holding that an employer may not discharge at-will employees for impermissibly and spontaneously walking out of their jobs to protest working conditions).

issues, knowing only that mines can be unsafe if regulations are not followed.

Unions improve this situation in at least two ways, both of which bring greater rationality to the bargaining process.⁹¹ First, with respect to bargaining skill and power, union mines employ skilled negotiators, including lawyers, who possess comprehensive knowledge of labor and other workplace laws that allow them to negotiate with more open eyes. Union representatives are experienced in understanding safety risks and therefore are more likely to make rational choices among safety, wage, and job security trade-offs in the collective-bargaining process. Second, with respect to risk assessment, union representatives are essentially political leaders who make demands for and appeal to the median voter—the experienced miner who better understands safety risks and will want unions to voice that concern.⁹²

Some coal operators, such as Performance Coal Company, understand these dynamics and attempt to increase nonunion workforce participation in mining by appealing, not to the median worker, but to the marginal worker, the last worker to enter the labor market, by enticing that worker with enhanced wage agreements. As described above, those agreements give the marginal worker a salary enhancement in exchange for less mobility—even in the face of safety violations. In effect, the exit option—quitting—is more expensive for those workers who agree to the noncompete clause and who agree to repay the wage enhancement in the event of termination. These agreements make the voice option—unionization or some other form of industrial democracy—all the more valuable, especially in the case of monopsony.⁹³

Given union expertise about safety and a union's tendency to play to the experienced miner, one would predict that union mines would be more vigilant about enforcing current safety regulations than nonunion mines, whose workers may be less experienced, less informed, or both. Moreover, union shops have greater incentives to be vigilant because they are representing their own interests, including interests in personal safety and long-term health. Accordingly, they may trade some money for long-term health benefits. By contrast, management tends to unilaterally impose working conditions onto nonunion mines, where individual miners have little or no voice option. The tendency, therefore, is not to be as concerned with safety as with profit maximization. And, as explained, individual bargaining is not a sufficiently empowered voice to change that calculus.

⁹¹ Compare Steven N. Wiggins & Al H. Ringleb, *Adverse Selection and Long-Term Hazards: The Choice Between Contract and Mandatory Liability Rules*, 21 J. LEGAL STUD. 189, 197 (1992) (“only those workers who are unduly optimistic will be employed in [coal mining in the eastern United States]”), with Jason Scott Johnston, *Paradoxes of the Safe Society: A Rational Actor Approach to the Reconceptualization of Risk and the Reformation of Risk Regulation*, 151 U. PA. L. REV. 747, 750–51 (2003) (“People increasingly choose to engage in risky activities because they rationally know that the health risks of those activities have fallen dramatically and rationally expect continued decreases in risk”).

⁹² See generally ALBERT O. HIRSCHMAN, *EXIT, VOICE, AND LOYALTY* (1970).

⁹³ I would like to thank Dr. Clifford Hawley for raising this point with me.

Given these observed labor-market failures, we must ask the following question: What role has the law played, and what role should it play (what do we owe these workers) to ensure worker safety and health in return for worker bravery in the coal fields?

B. *Union Mine Safety Records*

The data support the proposition that union mines are safer than nonunion mines. According to the U.S. Energy Information Administration, a little over twenty-six percent of underground miners are unionized.⁹⁴ In Appalachia, that number is closer to twenty-eight percent and in West Virginia, that number is a little over thirty percent.⁹⁵ Yet, according to data provided by the United Mine Workers, only twenty-one of 179 fatalities (11.7%) between 2004 and 2009 were UMWA union members. This amounts to an average of 3.5 deaths per year, as compared with almost thirty total deaths per year.⁹⁶ In the past twenty years, there have been seven mining disasters, most of which occurred at a nonunion mine. As the chart below indicates, five of those disasters occurred between 2001 and 2010, and four of those occurred since the Sago mine explosion in January 2006.⁹⁷

Date	Location	Union/Nonunion	Fatalities
04/05/10	UBB Mine, WV	nonunion	29
08/06/07	Crandall Canyon, UT	nonunion	6
05/20/06	Darby Mine No. 1, KY	nonunion	5
01/02/06	Sago, WV	nonunion	12
09/23/01	No. 5 Mine, AL	union	13
12/07/92	No. 3 Mine, VA	unknown	8
09/13/89	William Station No. 9, KY	nonunion	10

While union mines do not have perfect safety records, the data give us sufficient basis to ask the following two questions: (1) What are union mines

⁹⁴ See U.S. ENERGY INFO. ADMIN., ANNUAL COAL REPORT 2009, at tbl.20 (2010), available at <http://www.eia.doe.gov/cneaf/coal/page/acr/table20.pdf>.

⁹⁵ See *id.*

⁹⁶ Interview with Linda Raisovich-Parsons, Deputy Administrator, Occupational Health and Safety, United Mine Workers of America (Jul. 1–2, 2010).

⁹⁷ MSHA Historical Data, *supra* note 5. Citations establishing the nonunion status of the UBB, Crandall Canyon, Darby and Sago mines can be found *supra* note 5. See also UNITED MINE WORKERS OF AMERICA, UMWA REPORT ON JIM WALTER RESOURCES NO. 5 COAL MINE DISASTER 3 (2003) available at http://www.umwa.org/files/documents/UMWA_JWR_Report.pdf (No.5 Mine, AL); Berry Craig, *Union Mines are Safer: Ask Tim Miller, Whose 10 Co-Workers Died in Mine Blast*, AFL-CIO NOW BLOG (May 4, 2010), <http://blog.aflcio.org/2010/05/04/union-mines-are-safer-ask-tim-miller-whose-10-co-workers-died-in-mine-blast/> (William Station No. 9).

doing to keep their miners safe? And (2) what failures are occurring in non-union mines that union mines are remedying?

C. Union Safety Committees

Union mines contractually mandate joint industry health and safety committees.⁹⁸ The industry committee that is mandated under the United Mine Workers' master collective-bargaining agreement has six members, three appointed by the union and three appointed by the employer.⁹⁹ The agreement mandates that one union committee member and one employer committee member "shall have special knowledge and expertise in coal mine health matters."¹⁰⁰ Consistent with federal law, the agreement further compels the committee to "consult with the Mine Safety and Health Administration and/or representatives of the Secretary of Health and Human Services" to "review," "develop[]," and "revis[e]"¹⁰¹ "improved mandatory health and safety standards."¹⁰²

The UMWA master agreement also mandates mine health and safety committees at each mine.¹⁰³ Each safety committee is "made up of miners employed at the mine who are qualified by mining experience or training and selected by the local union."¹⁰⁴ The committee members are trained at the union and the employer's joint expense.¹⁰⁵

The safety committees have enormous power. They "may inspect any portion of a mine," including the "surface installations, dams or waste impoundments and gob piles connected" with that mine, so long as they give management "sufficient advance notice of an intended inspection" to allow an employer representative to accompany the committee, if it so chooses to participate.¹⁰⁶ The safety committees are also empowered to shut down a mine "[i]f the committee believes that an imminent danger exists."¹⁰⁷ In these circumstances, the employer must "follow the [c]ommittee's recommendation and remove the [e]mployees from the involved area immediately."¹⁰⁸

⁹⁸ National Bituminous Coal Wage Agreement of 2007, *supra* note 39, at art. III, § (c).

⁹⁹ *Id.*

¹⁰⁰ *Id.*

¹⁰¹ *Id.*

¹⁰² *Id.* Section 101(a) of the Federal Mine Safety and Health Act of 1977, which is referenced in the agreement, directs the Secretary of Labor to "develop, promulgate, and revise . . . improved mandatory health or safety standards for the protection of life and prevention of injuries in coal or other mines." 30 U.S.C. § 811(a) (200).

¹⁰³ National Bituminous Coal Wage Agreement of 2007, *supra* note 39, at art. III, § (d)(1).

¹⁰⁴ *Id.*

¹⁰⁵ *Id.* at art. III, § (d)(2).

¹⁰⁶ *Id.* at art. III, § (d)(3), (4).

¹⁰⁷ *Id.* at art. III, § (d)(3).

¹⁰⁸ *Id.*

D. Union and Nonunion Miners' Fundamental Rights Under the NLRA

The development of these contractual safety committees is built on the labor-management bargaining model. Miners are statutory employees,¹⁰⁹ and coal mine operators are statutory employers¹¹⁰ under the NLRA.¹¹¹ That means that all miners are entitled to the fundamental rights embodied in NLRA Section 7, including the right to self-organize, “to form, join, or assist unions,” to “bargain collectively through representatives” chosen by employees through either a secret-ballot election or by card check, to band together concertedly for “mutual aid or protection,” and to “refrain from any or all such activities.”¹¹² That also means that miners possess the fundamental right to strike, which may not be “interfere[d] with or impede[d] or diminish[ed] in any way . . . or . . . limit[ed] or qualif[ied].”¹¹³

Significantly, these rights belong directly to employees, and only derivatively to unions. That means that both union and nonunion employees possess the statutorily protected right to band together concertedly for mutual aid or protection.¹¹⁴ But, while union miners often may not be allowed to strike because they have contractually bound themselves to resolve disputes through the grievance-arbitration machinery embodied in no-strike clauses and grievance-arbitration clauses in their collective-bargaining agreements,¹¹⁵ nonunion miners may spontaneously walk off the job for mutual

¹⁰⁹ The NLRA defines employee as “any employee, and shall not be limited to the employees of a particular employer,” unless otherwise excluded from the NLRA. 29 U.S.C. § 152(3) (2006). None of the enumerated exemptions apply to coal miners, except possibly the supervisory exemption that would exclude coal mining foremen from the NLRA’s protection and the independent contractor exemption that might exempt “rent-a-miners” or contract miners who work periodically at coal mines. *Id.* For an in-depth analysis of the statutory term “employee,” see Anne Marie Lofaso, *The Vanishing Employee*, 6 FLA. INT’L U. L. REV. (forthcoming 2010).

¹¹⁰ NLRA Section 2(2) defines employer as “any person acting as an agent of an employer, directly or indirectly,” unless otherwise excluded. 29 U.S.C. § 152(2) (2006). None of the enumerated exemptions apply here.

¹¹¹ 29 U.S.C. §§ 151–59 (2006).

¹¹² The NLRA provides: “Employees shall have the right to self-organization, to form, join, or assist labor organizations, to bargain collectively through representatives of their own choosing, and to engage in other concerted activities for the purpose of collective bargaining or other mutual aid or protection, and shall also have the right to refrain from any or all such activities” 29 U.S.C. § 157 (2006).

¹¹³ Section 13 provides: “Nothing in this Act, except as specifically provided for herein, shall be construed so as either to interfere with or impede or diminish in any way the right to strike, or to affect the limitations or qualifications on that right.” 29 U.S.C. § 163 (2006).

¹¹⁴ The Board, with Supreme Court approval, has broadly interpreted the mutual aid or protection clause to include the concerted activity of unorganized (at-will) employees. See *NLRB v. Washington Aluminum Co.*, 370 U.S. 9, 14–18 (1962). The company’s brief to the Supreme Court makes clear that it viewed the Board’s decision as interfering with the employer’s right to discharge within the confines of the at-will relationship. See Brief for Respondent-Appellee at 28–33, *NLRB v. Washington Aluminum*, 370 U.S. 9 (1961) (No. 61-464), 1962 WL 115796, at *28–*33.

¹¹⁵ See, e.g., National Bituminous Coal Wage Agreement of 2007, *supra* note 39, at art. XXXIII (grievance-arbitration clause); see also *Local 174, Teamsters v. Lucas Flour Co.*, 369 U.S. 95, 105 (1962) (holding that, where the collective bargaining agreement contains the duty

aid or protection, and the nonunion coal mine operator may not discharge them for walking off the job in those circumstances.¹¹⁶

IV. NEXT STEPS: EXTENDING THE UNION MODEL TO NONUNION MINES

This Essay argues in favor of extending the union model to nonunion mines. This could be done in several ways. First, it could be accomplished indirectly by strengthening Section 7 rights, especially organizing rights for all workers, thereby making it more likely that all coal miners will eventually be union-represented. In particular, Congress could amend the NLRA to eliminate the employer's judicially created right to insist on an election when faced with a valid card majority. The NLRA's plain language mandates that "[r]epresentatives *designated or selected* for the purposes of collective bargaining by the majority of the employees in a unit appropriate for such purposes, *shall* be the exclusive representatives of all the employees in such unit for the purposes of collective bargaining in respect to rates of pay, wages, hours of employment, or other conditions of employment."¹¹⁷ In 1974, the Supreme Court judicially amended that plain language when, in *Linden Lumber Division v. NLRB*, it held that employers—not employees—have the right to insist on an election, even when faced with a valid card majority.¹¹⁸

Re-empowering workers by allowing them to choose their own representatives with less employer interference than is currently tolerated under the NLRA was the solution posited in the Employee Free Choice Act (EFCA). EFCA directs the NLRB to certify unions in cases in which the Board, after investigation, "finds that a majority of the employees in a unit appropriate for bargaining has signed valid authorizations designating the individual or labor organization specified in the petition as their bargaining representative and that no other individual or labor organization is currently certified or recognized as the exclusive representative of any of the employees in the unit." EFCA further clarifies that "the Board shall not direct an election but shall certify the individual or labor organization as the representative."¹¹⁹

For reasons that many have explored in other articles, this is not an easy fix.¹²⁰ The NLRA and the Board have been rendered ineffective for some

to submit dispute resolution to final and binding arbitration, a strike to resolve that dispute violates an implied no-strike clause).

¹¹⁶ See *NLRB v. Washington Aluminum Co.*, 370 U.S. 9, 14–18 (1962).

¹¹⁷ 29 U.S.C. § 159(a) (2006) (emphasis added).

¹¹⁸ 419 U.S. 301 (1974) (upholding the Board's construction of Section 9).

¹¹⁹ H.R. 1409, 111th Cong. (2009). See generally Benjamin I. Sachs, *Enabling Employee Choice: A Structural Approach to the Rules of Union Organizing*, 123 HARV. L. REV. 655 (2010).

¹²⁰ See, e.g., Lofaso, *supra* note 58; Anne Marie Lofaso, September Massacre: The Latest Battle in the War on Workers' Rights Under the National Labor Relations Act, ACS ISSUE BRIEFS, June 11, 2008, <http://www.acslaw.org/files/ACS%20September%20Massacre.pdf>;

time.¹²¹ EFCA's attempt to countermand employer frustration of unionization, by using the current Board law (captive audience speeches to defeat unionization) and the Board's administrative processes to delay, is so politically radioactive that it failed to pass Congress, notwithstanding two years of majority support for that bill in both the House and the Senate. Given the recent Republican takeover of the House, EFCA will remain shelved for at least another two years.

A variation of this first solution would be to amend the NLRA, the Mine Act, or both to mandate certification of *coal mine unions* based on card checks. Congress could establish a new division of the National Labor Relations Board—the Coal Labor Panel—that specializes in the coal mining industry. The Coal Labor Panel would have exclusive authority to certify coal mining unions through card check; in other words, coal operators would not have the right to insist on an election. This would make organizing coal mines much easier, just as EFCA would make organizing labor in general much easier. Again, this solution is unlikely to gain traction given the current political climate, in which unions are blamed for high unemployment rates.

The union model could also be extended to nonunion mines by amending either the Mine Act or the NLRA to *mandate* unions in the coal mining industry. In other words, rather than employees having a choice between representation (union) or no representation in NLRB elections or card checks, mining employees would have a choice among various unions to represent their interests.

A more modest version of this solution would be to mandate bargaining over health and safety in the coal industry regardless of whether the miners are union represented. This option is more akin to extending union safety committees to all workplaces. And perhaps mandating safety committees in nonunion mines would be an even more modest version of this already modest proposal. The question that would need to be addressed is whether these committees have bargaining rights or merely consultation rights. But either way, it would be imperative that these committees be independent of management (accordingly, they must be elected by the coal miners themselves), that they have the power to shut down a mine that is not in compliance with the regulations, and that they are protected by whistleblower and anti-retaliation remedies.

Perhaps the most modest possibility is to mandate labor posters in every mine—union and nonunion—describing Section 7 rights to miners, including the right of nonunion miners to walk off the job for safety reasons.¹²²

Cynthia L. Estlund, *The Ossification of American Labor Law*, 102 COLUM. L. REV. 1527 (2002).

¹²¹ See generally Symposium, 6 FLA. INT'L U. L. REV. (forthcoming 2010).

¹²² See *NLRB v. Washington Aluminum Co.*, 370 U.S. 9, 14–18 (1962) (holding that an employer may not discharge at-will employees for spontaneously walking off their jobs to protest working conditions without permission).

This legal change could be accomplished in several ways—by Executive Order (at least in cases involving government contracts), legislative amendment to the NLRA (mandating such postings in all workplaces), legislative amendment to the Mine Act (thereby mandating the change only in coal mines), or NLRB rulemaking.

With the exception of whistleblower protection, the Robert C. Byrd Miner Safety and Health Act of 2010 ignores all of these policies to augment industrial democracy in favor of increasing mine operator accountability through criminal sanctions, better use of the patterns and violations sanctions, and better enforcement tools such as agency subpoena authority.

Given Congress's inability to pass a single substantial amendment to the NLRA since 1959 and the Board's aversion to engaging in rulemaking,¹²³ the likelihood that any of these solutions will be implemented by changing labor law is small, especially given the current political climate. A possible exception is the modest change of requiring union and nonunion workplaces to post a summary of employees' labor rights, which the NLRB has taken steps to implement through rulemaking.¹²⁴ The best chance of significant change would be to amend the Mine Act, which has been successfully amended twice since 1969 and is likely to be amended again in the near future. The problem is, many of these potential solutions require changes in private-sector labor law, which history tells us is difficult because special interests have fought tooth and nail to block any legislation that enhances worker voice and empowerment. Accordingly, it may actually be easier to create an entirely new labor regulatory scheme for the coal mining industry (or perhaps energy industries more generally) in much the same way the law has carved out sections of the transportation industry under the Railway Labor Act.

None of these solutions is meant to supplant the regulatory floor of rights, which undoubtedly improves miners' bargaining power. But to make a tangible difference, remedies associated with those rights should be strengthened. In particular, it would probably be necessary to authorize treble back-pay damages for coal miners who are retaliated against for exercising their rights or for engaging in safety-related whistleblowing.

But even assuming every coal miner in the country could be organized, safety will not improve if coal operators continue to circumvent the regulatory floor of rights. So we must question whether an organized workforce bargaining atop a regulatory floor of rights is sufficient to prevent such law-

¹²³ See MEL HAAS, ET AL., U.S. CHAMBER OF COMMERCE, THE "OBAMA" NATIONAL LABOR RELATIONS BOARD: THE POTENTIAL USE OF RULEMAKING TO ENHANCE UNION ORGANIZING 3–8 (2010), available at http://www.uschamber.com/sites/default/files/reports/1008_obamanlrb.pdf ("[T]he National Labor Relations Board has rarely utilized its rulemaking authority to issue substantive rules of law . . .").

¹²⁴ See Proposed Rules Governing Notification of Employee Rights Under the National Labor Relations Act, 75 Fed. Reg. 80,410 (proposed Dec. 22, 2010) (to be codified at 29 C.F.R. pt. 104).

lessness. The answer is probably not. We should therefore consider enforcing and strengthening criminal sanctions, which might entail jail time for those responsible for maintaining health and safety precautions, including (and perhaps especially) the coal operators' chief executive officers.¹²⁵ Given the current political climate, perhaps the best option for workers is for unions to target nonunion miners with poor records for corporate social responsibility campaigns.

CONCLUSION

Coal mine operators possess greater bargaining power than coal miners. The conditions resulting in this disparity of bargaining power are precisely those conditions that Congress intended to ameliorate when it passed the NLRA. A comparison between the pre- and post-regulatory fatality rates in coal mines strongly supports the conclusion that current regulations make coal mines safer. Those regulations raise the floor of rights on top of which unions bargain, thereby further addressing the disparity of bargaining power between coal operators and coal miners and making it more likely that unions will bargain for even better safety conditions than current regulations permit. That conclusion is supported by data, which show that modern union mines do in fact have lower fatality rates than nonunion mines. Accordingly, it makes sense for policy makers to consider bringing the union model into the nonunion coal mine.

This Essay suggests several methods for bringing the union model to the nonunion coal mine. Its most radical solution is to compel union representation for all coal miners. But even more modest proposals, such as posting miners' rights, are likely to meet fierce resistance among those who have a vested interest in circumventing safety regulations (as well as those who have a vested interest in keeping miners disempowered).

Significantly, the policies suggested in this Essay represent a very different approach to coal mine safety. In the past forty years, Congress has successfully dealt with mine safety issues by increasing regulations in response to disasters. Given this trend, this Essay makes the following suggestion. Although it is important to maintain current safety regulations because they work, empowering workers through some form of industrial democracy would be, to paraphrase Ed Clair, a more efficient way of bringing us further toward zero fatalities.

This Essay also shows that the coal mining industry provides a valuable case study for how to approach safety and health issues arising in crucial industries. Coal mining is dangerous if legal and technical safety requirements are not followed. But the question of worker safety cuts across jobs and industries. Oil extraction, fishing, logging, farming, ranching, and con-

¹²⁵ Cf. Lynn Rhinehart, *Workers at Risk: The Unfulfilled Promises of the Occupational Safety and Health Act*, 111 W.Va. L. Rev. 117, 133-34 (2008) (arguing in favor of greater criminal sanctions for health and safety violations under the OSH Act).

struction are other examples of dangerous but crucial jobs. Dangerous jobs in industries that the public perceives to be vital to its comfort and security may be here to stay, but that does not mean that the public shouldn't demand that policy makers focus on questions of human life and dignity in the context of these crucial multi-billion dollar industries. Simply put, studying coal mine safety and health as a case study forces us to acknowledge the human cost we are asking a class of workers to bear in response to the global demand for energy. Acknowledging that cost is a first step in valuing human life; the next step is to incorporate that value into the justification of dangerous jobs in crucial industries.