Regulating Occupational Health and Safety: The Real Issues

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Economic controversy about government regulation of occupational health and safety is often expressed in terms of two questions: (1) What is the socially optimal or desirable level of occupational disease and injury? and (2) How can this or any other level best be achieved with limited economic resources? Advocates of minimal government intervention believe that an intervention-free market yields the socially optimal result—an economically efficient solution—and/or that government intervention distorts the markets in the "wrong" direction. Unfortunately, these advocates give little guidance about policies to achieve a reduction in occupational disease and injury, nor do they consider equitable solutions which intentionally depart from economic efficiency.

There are three underlying issues here: (a) the problems related to market imperfections and market structure that stand in the way of achieving socially optimal levels of occupational disease and injury; (b) the real impediments to reducing occupational disease and injury—including obstacles in the regulatory system—and how to remove them; and (c) the political bias in certain ostensibly neutral economic solutions to these problems.

Market problems

The strategy one selects for reducing occupational disease and injury depends crucially on how one conceptualizes the behavior of both firms and workers, and the bargaining environment in which they operate. The "market" approach to this question presupposes that information is available, transaction costs are reasonable, and the working of capital and labor markets is smooth—all this enabling private parties to arrive at effective solutions. But these assumptions are far from justified.

The traditional approach to occupational health and safety has been to emphasize safety and play down health. In this view, most accidents can be "explained" by accident-proneness on the part of workers; a corollary to this is that much occupational disease develops because of the hypersusceptibility of certain workers. Neither view is substantiated by scientific evidence; in fact, current research points in precisely the opposite direction: the problems lie in technology and working conditions.

There is relatively little information available about the links between occupational disease and specific hazards. What little epidemiological evidence exists barely makes a dent in assessing the human toxicity of the 13,000 toxic materials in commercial use today. And what information we have is inadequately disseminated and poorly utilized, which further compounds the problem of intelligent decision-making. The continuing proliferation of new materials in the work environment makes matters still worse. There is also a serious inequality in access to information as between management and labor, and large and small firms.

Even if a great deal of information were available, one must recognize that most people do not know how to deal with situations where the probability of disease or accident's occurring is low, but the consequences if it did occur are very serious. In times of high unemployment, and geographical and occupational immobility of labor, it would be difficult to argue that there is an efficient labor market which can reflect in "wage differentials" or "hazard pay" the societal value of risk-taking. Many hazardous jobs do not pay well. They are often held by unorganized workers who comprise 75 percent of the work force, and hardly have the same bargaining power as many unionized employees. Unskilled workers and members of certain minority groups have limited job options to begin with, even in good times.

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Since these are problems endemic to the labor market, combined with deficiencies in both information and organization, it would appear that if those who control technology and working conditions were made responsible for occupational disease and injury, the proper market response would ensue. This is what the Occupational Health and Safety Act essentially attempted to do. However, the economic environment of the firm and its management characteristics contain their own market imperfections. The firm that is first to market a product or technology enjoys a competitive advantage; if there is no requirement for premarket testing of new substances (under toxic substances legislation, for example) or no effective product safety commission, then the firm is driven to create new hazards, either unknown, or known initially only to the firm itself.

Improvement in working conditions often requires longer-term investment and engineering changes. Top management may voice concern about job disease and injury, but if middle managers are promoted or rewarded for shorter-term productivity increases, those improvements may never be instituted. Paradoxically, certain remedial suboptimal technological changes that are made in immediate response to job injuries or disease may be both less productive and more unsafe than those that could have been instituted if more time had been taken.

Even the economists' dream—an occupational disease and injury tax—is fraught with problems. Let us say that the tax were set at a level which would supposedly encourage firms to adopt less expensive remedial measures rather than pay more if occupational disease or injury were to occur. It would seem that the firm has just two options—"abate" or "pay." But in actual fact, the firm would probably ask whether the additional managerial effort might not more profitably be devoted to such activities as improving sales, which would more than offset the loss involved in paying the tax and thus make the whole tax system ineffective. Other problems related to the division of managerial manpower, economies of scale, and time horizon further complicate the view of the firm as a simple economic decision unit that can be manipulated by clear market signals.

The role of government regulation

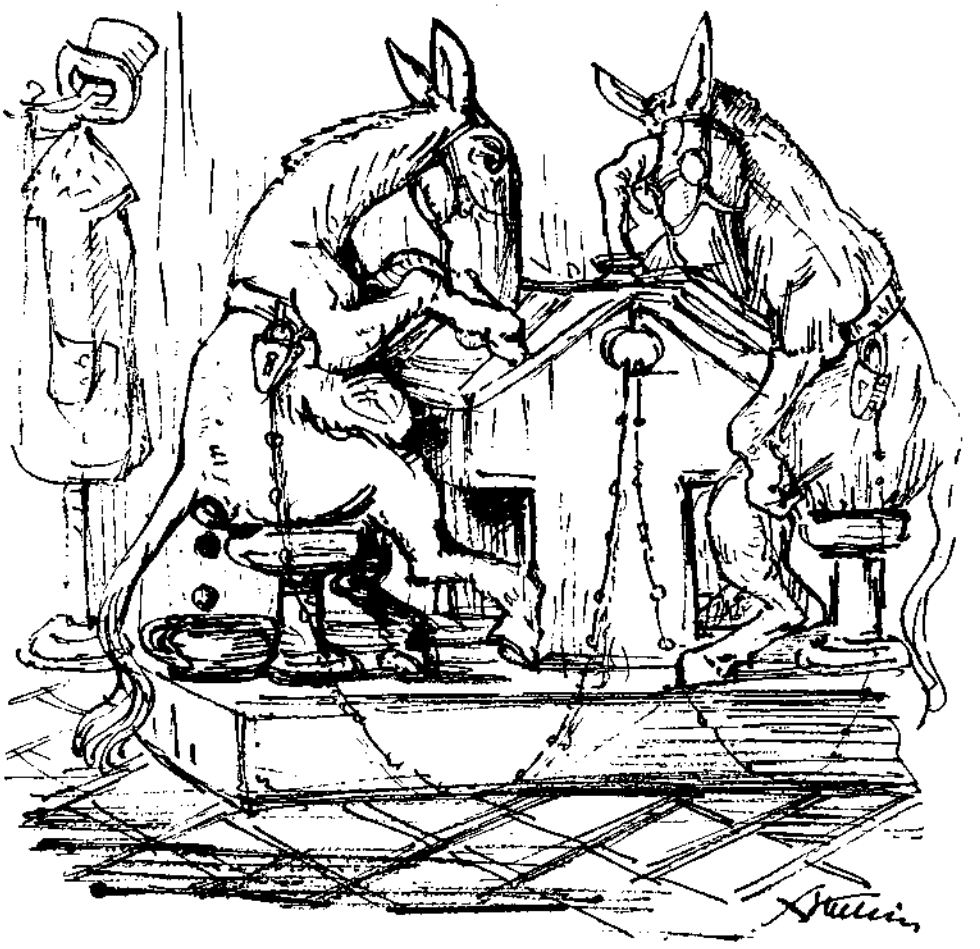
The principal enforcing agency created by the Occupational Safety and Health Act was OSHA. As has been pointed out, the extensive and pervasive market imperfections in regard to job health and safety that are endemic to both labor and management require that OSHA be more than a catalyst for encouraging management-labor cooperation. During its infancy, OSHA badly distorted its priorities in the direction of safety by inheriting and hiring a staff of inspectors who were inadequate to their task, even in the field of safety. The inspectors were the critical link between government and management or labor; in this case they were the weakest link. OSHA is now attempting to even the balance between safety and health, although most of its standards still deal with safety. However, the agency's tendency to set standards one by one may prove to be ineffective in the disease area, in view of the thousands of hazards which must be dealt with. In the field of chemicals, for example, OSHA might expand the policy it adopted for the coke ovens in the steel industry, where it set low exposure requirements for all chemicals in a particular process, rather than dealing with each chemical as a separate entity.

Ultimately, OSHA needs to concentrate on the redesign of technology and jobs, on intelligent use of the leverage provided by other environmental legislation, and on policies which take into account the market realities discussed above. To take another example, it may be more effective to limit the amount of benzene in the workplace by prohibiting the sale of commercial solvents containing benzene, rather than to try to enforce a standard for benzene which requires monitoring and inspection. In fact, OSHA could never police all the workplaces for even the clearly important hazards.

The political use of economic solutions

Leonard Silk has wisely counselled that before one listens to the solutions offered by an economist, one should ask what his or her political beliefs are. One solution, offered by an economist elsewhere in this issue of *Challenge*, is that "safety and health ought to be provided as long as the beneficiaries [workers] are willing to pay for it." Here is another view: perhaps the most serious impediment to improvement in the level of workplace health and safety is that employers at present are not held financially accountable for the human and social consequences of their failure to provide safe and healthful working conditions.

Ronald Coase would argue that the level of occupational disease and injury is independent of the party on whom the liability is placed, provided the



Alfred Kubin in *Simplicissimus*, Dover Publications, Inc., New York.

transaction cost is the same for both parties. Of course, while increased costs will be borne partly by the workers and partly by the firm, it must be remembered that they will also be borne by the consumer who is *not* employed in a hazardous occupation.

There are strong arguments against determining the optimal level of occupational disease and injury according to the criteria of market efficiency. Considerations of equity and concern for individual justice are of fundamental importance in making decisions about the socially acceptable level and distribution of workplace hazards. The people who are now subjected to job-related health risks are hardly a representative group, chosen at random from the total population. Occupational hazards are pervasive throughout American workplaces, but a disproportionate part of the risk burden is in fact shouldered by individuals employed in particularly hazardous occupations and industries.

It may be expedient for the rest of society to subject selected groups of workers to special occupational risks, but it can by no means be considered just. As John Rawls has put it, principles of equity and fairness "rule out justifying institutions on the grounds that the hardships of some are offset by the greater good in the aggregate. It may be expedient but it is not just that some should have less in order that others may prosper."

Of course, the pursuit of equity may be in conflict with the attainment of other social goals, such as economic efficiency. In economic terms, there may be a "tradeoff" between equity and efficiency implicit in decisions about the level of workplace health and safety. If so, and if society places a positive value on equity *per se*, it may be sound social policy to forego maximum economic efficiency in order to obtain increased equity. This procedure may involve a larger allocation of social resources to improved workplace health and safety than would be dictated by efficiency considerations alone. Failure to address the question of equity is a conscious choice and does not imply a "neutral" position. The Presidential directive that inflationary impact statements must be filed for government undertakings is likewise not a neutral requirement designed simply to encourage more responsible decision-making. Internalizing the social cost of job disease and injury might be expected to raise prices. However, *all* price rises are *not* inflation-

ary. It would have been more correct to require "economic" rather than "inflationary" impact statements.

The Occupational Safety and Health Act represents the recognition by society of the necessity to use law to internalize the social cost of occupational disease and injury by placing the responsibility for improving working conditions on the employer, and not on the employee. The Act allocates liability—but it does more. It represents a decision *not* to use economic efficiency as a criterion for deciding how much occupational disease and injury to maintain in the society. Or to put it another way, occupational health and safety are regarded as sufficiently valuable to justify devoting substantial economic resources to the development of new technologies in order to improve working conditions.

ECONOMIC REGULATIONS IN FIVE MAJOR INDUSTRIES

Recent Developments in the Regulation of Electric Utilities

ALFRED E. KAHN

Between 1944 and 1968 the average price of electricity in the United States declined by approximately 33 percent, while the general price level rose almost continuously. There were two main reasons for this record: economies of scale, which meant that rapidly growing demand made possible declining unit costs; and technological progress. The size of the biggest generating unit in the country increased five-fold; transmission voltages increased similarly, and increasing usage per customer did not require proportionate increases in distribution cost. Technological progress made its contribution not just in developing these larger and more efficient generating and transmission units, but also in so improving the methods of exploiting our limited fuel resources that, despite our constantly increasing draughts on that fixed resource base, the real prices of fossil fuels actually declined for most of this period.

Beginning in the late 1960s these trends were reversed radically. Just to provide one example close to home: Consolidated Edison's average rates per kilowatt hour, which hovered around 3.8 cents in the late 1960s, averaged 8.2 cents in 1975. What happened to Consolidated Edison also happened, in some degree, to electric companies all over the country. Economies of scale were suddenly exhausted: indeed, the industry was having trouble getting reliable service from its new, gigantic generating units. A massive inflation of construction costs and interest rates bore down especially heavily on these unusually capital-intensive industries. And then there was the whole complex of converging events that suddenly made us all aware of our energy problem, whose burden fell with unusual severity on companies heavily dependent upon foreign oil. In just a few months, Consolidated Edison's fuel costs doubled.

It should not be surprising that these painful developments have spurred regulators into undertaking a wide variety of new initiatives.

1. *An intensified attention to costs.* Confronted with the pressure to translate soaring costs into rates, we have been making strenuous efforts to bring those

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