Role of workers' compensation in developing safer workplaces

The higher costs of providing workers' compensation benefits in risky occupations may lead employers to improve safety in order to lower their insurance costs

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The 75th anniversary of the Federal Employees' Compensation Act (FECA) is an opportune time to reflect on broad policy issues of no-fault work injury liability statutes. Policy discussions regarding occupational safety and health usually are divided into two distinct parts with (1) government standards established under the Occupational Safety and Health Administration (OSHA) as the regulatory device for encouraging prevention and (2) workers' compensation considered as the program for providing benefits to disabled workers.[1] However, the much debated standards approach established under the Occupational Safety and Health Act draws attention to the role of workers' compensation as a part of the policy mix for improving the health and safety of employees.

General issues of safety and health and their effect on employers and employees are first considered in this article. Then the mechanics of determining workers' compensation benefits in the private sector and how this process relates to employer prevention incentives are briefly reviewed. Evidence on the effect of workers' compensation on safety and health is also discussed. Finally, the specific arrangements by which Federal agencies are charged for the work injury liabilities of their employees are compared with arrangements used in the private sector to determine whether the Federal arrangements are consistent with the objective of encouraging prevention of injury and illness.

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Safety and health

Although accidents and disease are probabilistic events, the frequency of occurrence and the seriousness of their outcome can, to a large extent, be controlled by the preventive efforts of both employers and employees. One widely-held view is that the unregulated economic relationship between employer and employee does not contain sufficient incentives for employer investments in prevention. This is seen as a classic externality—the employer bears the costs of prevention while employees enjoy greater safety. Therefore, the employer is presumed to spend less on prevention than is socially desirable because he or she does not receive the full benefits of prevention.

Another view is that an employer does profit through the use of preventive measures because employees will be inclined to work for less pay in safer work environments. Empirically, there do appear to be such "compensating differentials" for risk, although there is no standard to determine if these differentials fully reflect work hazards.[2] If workers are not fully informed about workplace hazards or if there are obstacles to a smoothly-functioning labor market such as immobile workers, the wage differentials based on risk will not reflect the full danger, and therefore not create a sufficient prevention incentive.[3]

The debate over the adequacy of market-based incentives need not be resolved to justify consideration of the role of workers' compensa-

tion in accident and disease prevention. With society's consensus that disabled workers should receive compensation, there will most likely be some sort of mechanism that pays injured workers. Given that such a program will exist, and that under any market or regulatory scheme—even if they are functioning perfectly—there will be some injuries or diseases, the issue is how the program's finances can be structured so as to optimize the amount of prevention.

The manner of financing compensation to disabled workers can be thought of as a continuum from general to specific. At one extreme are countries that do not differentiate between work- and nonwork-related disabilities, with compensation considered a part of the social welfare system. Other countries isolate work injuries, but charge all employers a flat percentage of payroll fee, while some base employer fees on the riskiness of industries. In the United States, as well as in many other countries, employer charges are based on industry classifications (with some attention to occupational mix) *and* the individual firm's experience with accident and disease claims.

The basic issue is whether one gets more prevention incentives from a system that finely tunes charges to the firm's individual experiences. While the more general systems may have lower administrative costs, there is no reason to anticipate that they will enhance safety incentives.[4] Systems that gear employer charges to industrywide experience could cause higher product prices in hazardous industries and result in less sales, therefore, providing a somewhat circuitous enhancement of market incentives.[5] Only the systems geared to specific firm experience hold out the possibility that employers will have a substantial incentive to invest in accident and disease prevention beyond that provided by the market.

Experience-rating system

All workers' compensation systems in the United States require employers to guarantee that compensation to injured workers will be paid. Some large employers may self-insure (with formal approval of the State) but most employers meet this obligation by purchasing insurance. Several States offer workers' compensation insurance in competition with commercial carriers, while other States have a monopoly insurance fund. The largest source of workers' compensation, however, is insurance purchased from private companies.

Workers' compensation insurance rates are based on the riskiness of the firm's industrial classification within each State. Approximately 600 groupings are used to determine the firm's "manual" rate, which is stated as a percent of payroll. If a firm is large enough (for a typical firm, approximately 10 employees), the manual rate will begin to be adjusted by the experience of the individual firm.[6] The larger the firm's payroll, the larger will be the degree of this experience rating. In a typically risky industry, firms with approximately 1,800 employees will have premiums based on their own experience. It is obvious from this cursory review of the rate-setting procedure, that the system is quite subtle in its attention to the accident and disease experience of the individual firm. Within the workers' compensation community, experience rating is often viewed as a matter of equity—firms with poor claims experience are charged a premium that reflects poor performance and firms with good experience are charged less. However, the potential for using this scheme to regulate behavior is also apparent.

Considering the significance of occupational safety and health as a regulatory concern, it is somewhat surprising that so few studies have examined experience rating. It is a complex area to study, largely because of the complicating factor of the employee's response to higher benefits. A straight-forward prediction about the effect of experience rating on employers is that higher statutory benefit levels should encourage more prevention. Benefit levels vary across States and are regularly increased within States. However, higher benefit levels are associated with higher reported levels of accidents. Higher levels of benefits apparently encourage employees to report accidents. It is very difficult to remove this employee effect from any effect higher benefits might have on the employer.

While studies I conducted with Robert S. Smith indicate no clear effect of experience rating on employer prevention, research by John W. Ruser as well as John Worrall and Richard Butler indicates some employer responsiveness.[7] Recent work by Michael J. Moore and W. Kip Viscusi concludes that there is a "dramatic safety effect" of workers' compensation.[8] Because of limited research and mixed results, it is inappropriate to draw firm conclusions. The most conservative position is that while these mechanisms are not solidly documented by evidence, they have great potential for enhancing health and safety.

Certainly, more attention should be paid to how liability arrangements can be improved to create a better workplace environment. Suggestions have been made to allow, or even require, all employers to self-insure deductibles for workers' compensation, and thus sharpen the immediate reward for reduced injuries and disease.[9]

Other possibilities for refining the incentives of the experience-rating system are to simplify the relationships between experience and premiums. The current formula is a complex array of actuarially important factors that are beyond the comprehension of most safety and health professionals. Perhaps some elements of the relationship between experience and premiums could be simplified so as to make the reward for improved safety and health more apparent to decisionmakers. The use of claims experience from the first 3 of the last 4 years is another reason that the linkage between experience and premiums is more obtuse than is desirable. It is, of course, paramount that the relationship between experience and premiums remain actuarially sound, but more explicit attention to the incentive role—and the role visible linkages have in that role—would improve the system immensely.

A final suggestion for improvement in the experience-rating scheme concerns the workers' compensation rate regulation system used in most States. Workers' compensation rates are still heavily regulated in most States, and although there are several mechanisms through which competition can manifest itself, pricing is not explicitly and visibly competitive in most States. This results in a marketplace that is not as effective as one would expect under open competition—and this lack of creative tension is manifested, in part, by producing few new ideas in experience rating. Regulated rates also often subvert the potential of experience rating by holding rates below the level established by the benefit levels and claims. In an effort to please worker groups, State legislators frequently set higher benefit levels, but then seek to appease employers by keeping rates below the level implied by those benefits. This eventually results in rates that make many employers unprofitable customers for insurers, which leads to employers being unable to obtain voluntary insurance. Because employers are legally obligated to have insurance, they are forced into assigned risk pools. Assigned risk pools, with rates that do not fully reflect benefit levels and claims experience, further diffuse the relationship between experience and premiums, and thus distort the incentives of workers' compensation. (An extreme case is Maine, where more than 90 percent of employers are in the assigned risk pool.)

Financing arrangements of FECA

Federal employee work injury and disease benefits are paid by the employing agency through regular payroll funding during the 45-day period of pay continuation and then through an annual bill that accounts for benefits paid to the agency's work-disabled employees. This is essentially self-insurance, with extended claims administered through the Office of Workers' Compensation Programs, the Department of Labor agency responsible for administering FECA. This arrangement avoids the imperfections of the experience-rating system, because employers are fully rewarded or penalized for their claims experience. Although employers pay the full amount due, there are some problems. For example, it is not clear that anyone at the "insurer's" level is inclined to encourage disabled employees to return to work. Another potential problem is that agencies must deal only with the one authorized "insurer." In most private insurance markets, the amount of prevention services is used as a device to attract and retain customers. It is not clear whether the Office of Workers' Compensation Programs has any incentive to offer these key services.

OCCUPATIONAL HEALTH AND SAFETY is as important a regulatory issue today as it was in the early 20th century, when it was at the vanguard of government intervention in the labor market. We should clearly be using all available devices for improving the operation of the labor market. Because employees will be compensated for their occupational injuries, it is necessary to take full advantage of the financing of that compensation system in order to create incentives for prevention. The financing arrangements now in use are quite strong, but reinforcing prevention incentives has never been viewed as their primary purpose. Recognition of this preventive incentive role and attention to its improvement will serve to improve the occupational health and safety of American workers. □

Footnotes

[1] For example, a recent General Accounting Office report on *Options for Improving Safety and Health in the Workplace* included a discussion of a series of legislative and administrative options such as reducing delays in standard setting, increasing the probability of inspection, stricter penalties, giving inspectors shutdown authority for imminent dangers, strengthening OSHA's education and training efforts, requiring worksite safety and health committees, and increasing worker involvement in inspections. Consideration of the workers' compensation system was dismissed as an option because it was not frequently identified by "safety and health experts or in the literature" and because of ". . . the extent of evidence we were able to obtain about [its] feasibility." See U.S. General Account-

ing Office, *Briefing Report to the Subcommittee on Health and Safety, Committee on Education, House of Representatives, Occupational Safety and Health: Options for Improving Safety and Health in the Workplace* (Washington, General Accounting Office, 1990), GAO/HRD-90-66BR.

[2] For a detailed discussion of these issues, see Michael J. Moore and W. Kip Viscusi, *Compensation Mechanisms for Job Risks: Wages, Workers' Compensation, and Product Liability* (Princeton, NJ, Princeton University Press, 1990).

[3] The imperfect manner in which the labor market handles the problem of prevention incentives should not lead one to dismiss its contribution. The labor market operates with a great degree of subtlety. For example, research has shown that there is greater turnover during the first year of employment in dangerous jobs. The substantial expenses of employee turnover in most organizations is another manifestation of the incentive to reduce on-the-job risks. In many cases, employees are not informed of the danger associated with a particular job prior to being hired. The worker soon learns of the danger and leaves.

[4] The lack of comparable industrial injury and disease data across countries leaves this as an assertion rather than an empirical conclusion.

[5] This is the scale effect in conventional economic theory.

[6] The experience-rating formula and the rate-setting procedure are examined in greater detail in James R. Chelius and Robert S. Smith, *Small Business and the Financing of Workers' Compensation Insurance: Issues, Evidence, and Options* (Washington, The NFIB Foundation, 1987).

[7] The research designs and a critique of these studies are contained in Chelius and Smith, *Small Business and the Financing of Workers' Compensation.*

[8] Moore and Viscusi, *Compensation Mechanisms for Job Risks*. p. 122.

[9] Robert S. Smith, "Protecting Workers' Health and Safety," in Robert W. Poole, ed., *Instead of Regulation* (Lexington, MA, Lexington Books, 1981).

What are the effects of job-related learning?

Job-related learning has two important economic uses: it leverages individual choices and earnings, and it improves institutional performance. The effect of job-related learning on opportunity, individual earnings, and choice is powerful. On average, about half of one's lifetime earnings are driven by learning in school and on the job. The other half is affected by career and locational choices and by dumb luck. A person with skill can trade earnings for a preferred occupation or employer. People with low skills have less to bargain with; thus their choices are limited and their earnings are low.

—Anthony Carnevale and Harold Goldstein
"Schooling and Training for Work in America: An Overview," in Louis A. Ferman and others, *eds, New Developments in Worker Training: A Legacy for the 1990s* (Madison, WI, Industrial Relations Research Association, 1990), p. 28.